

Remote Interfaces

Universal Controller 7.7.x

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2 RESTful Web Services API

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3.1 Introduction

The Universal Controller Command Line Interface (CLI) is implemented as a [set of functions](#) that perform specific actions in a Universal Controller. The results of the actions are written to the CLI standard output.

The CLI command, **uagcmd**, executes a [function](#) according to information specified in its required and optional [Global parameters](#) and [function-specific parameters](#).

3.2 CLI Functions

CLI functions perform specific actions in a Universal Controller.

The CLI command, **uagcmd**, can execute functions on any system that has TCP/IP connectivity to the Universal Message Service (OMS).

The [command line syntax](#) for each execution of **uagcmd** must specify a single CLI function, required / optional [Global parameters](#), and required / optional function-specific parameters. You must use the required Global parameters to connect to [OMS Servers](#) and to log on to a Controller ([User ID](#) and [Password](#)).

(See [Pre-6.2.0.0 CLI Functions](#) for a backward-compatible version of this syntax that can be used for pre-6.2.0.0 CLI functions.)

The following information is provided for each CLI Function:

- Description
- Command line syntax

- Function-specific parameters
- Example

Functions are listed alphabetically, by category, on the following pages:

Agent Functions	• Delete Agent • List Agents Status • Resume Agent • Resume Agent Cluster • Resume Agent Cluster Membership • Set Agent Cluster Task Execution Limit • Set Agent Task Execution Limit • Suspend Agent • Suspend Agent Cluster • Suspend Agent Cluster Membership
Bundle Functions	• Schedule Bundle Promotion
Import and Export Functions	• Export Bulk • Export Trigger • Import Bulk • Import Trigger
OMS Server Functions	• List OMS Servers
Password Functions	• Change User Password • Change Credentials Password
Resource Functions	• List Virtual Resources • Update Resource Limit
Task Functions	• Cancel Task • Clear All Dependencies • Clear Virtual Resource Dependencies • Clear Exclusive Dependencies • Clear Time Dependency • Display All Tasks • Display Task Instance Status • Force Finish a Task • Launch a Task • Put Task on Hold • Release a Task from Hold • Rerun a Task • Set Manual Task to Started • Set Manual Task to Success • Set or Modify Wait Time for a Task Instance • Set Task Priority • Skip a Task
Tasks in Workflow Functions	• Clear Predecessor Dependencies • Insert a Task into a Workflow Instance with Dependencies • List Predecessors / Successors of a Task Instance in a Workflow
Trigger Functions	• Disable a Trigger • Enable a Trigger • Launch Trigger Tasks Now • List Triggers Status • Modify Time of a Time Trigger
Variable Functions	• List Variables • Set Variables

3.3 Command Line Syntax

The following command line syntax is used for issuing the CLI command, **uagcmd**:

```
uagcmd function Global parameters function-specific parameter(s)
```

Command Line Entry	Description
uagcmd	CLI command that executes all CLI functions.
function	CLI function that performs a specific action in a Universal Controller.
Global parameters	CLI parameters (required and optional) available for all functions.
function-specific parameter(s)	CLI parameters (required and optional) specific to one or more functions.

For example:

```
uagcmd ops-task-launch -c config.cfg -x encryptedfile.txt task-type=unix task-name=task01
```

In this example, the required Global Parameters are contained in the `config.cfg` configuration file.

Note

For backward-compatibility, you can exclude **uagcmd** from the command line for [all pre-6.2.0.0 CLI functions](#).

3.4 Special Characters Restrictions

The following restrictions apply to the use of special characters in CLI function parameters.

Special Characters	Restrictions	Examples
	Can be used only if enclosed in double quotation marks.	C:\Program Files\Universal\OpsCli\bin>uagcmd.exe ops-task-launch -c c.cfg task-name=A B 'B' is not recognized as an internal or external command, operable program or batch file. C:\Program Files\Universal\OpsCli\bin>uagcmd.exe ops-task-launch -c c.cfg task-name="A B" Task Type parameter not specified, defaulting to ALL. Successfully launched the Manual task "A B" with task instance sys_id 14503847946836221302J1Y7WPIV75YF. opscmd-complete
~	Cannot be used, even if enclosed in double quotation marks.	C:\Program Files\Universal\OpsCli\bin>uagcmd.exe ops-task-launch -c c.cfg task-name="A~B" Parameter CMDVERB contains malformed name/value pair(s). opscmd-complete
=	Cannot be used, even if enclosed in double quotation marks; prevents a CLI function from running.	C:\Program Files\Universal\OpsCli\bin>uagcmd.exe ops-task-launch -c c.cfg task-name="A=B" uagcmd ops-task-launch usage: uagcmd ops-task-launch [options] [command_parameters]
+	Can be used with or without double quotation marks.	C:\Program Files\Universal\OpsCli\bin>uagcmd.exe ops-task-launch -c c.cfg task-name="A+B" Task Type parameter not specified, defaulting to ALL. Successfully launched the Manual task "A+B" with task instance sys_id 14503847946836441301OS0WDEQOH7Y1. opscmd-complete C:\Program Files\Universal\OpsCli\bin>uagcmd.exe ops-task-launch -c c.cfg task-name=A+B Task Type parameter not specified, defaulting to ALL. Successfully launched the Manual task "A+B" with task instance sys_id 14503847946836541302LCVCMLXWPS00. opscmd-complete

3.4.1 Restrictions for `task-variables=` Parameter

None of these special characters identified in [Special Characters Restrictions](#) - =, |, +, and ~ - can be use in a `task-variables=` parameter.

3.4.1.1 Examples

```
C:\Program Files\Universal\OpsCli\bin>uagcmd.exe ops-task-launch -c c.cfg task-name=AB task-variables={variable1="V=1" variable2=V2}
```

Valid format for variables: {variable=value}.
opscmd-complete

```
C:\Program Files\Universal\OpsCli\bin>uagcmd.exe ops-task-launch -c c.cfg task-name=AB task-variables={variable1="V|1" variable2=V2}
```

Valid format for variables: {variable=value}.
opscmd-complete

```
C:\Program Files\Universal\OpsCli\bin>uagcmd.exe ops-task-launch -c c.cfg task-name=AB task-variables={variable1="V+1" variable2=V2}
```

Valid format for variables: {variable=value}.

opscmd-complete

```
C:\Program Files\Universal\OpsCli\bin>uagcmd.exe ops-task-launch -c c.cfg task-name=AB task-variables={variable1="V~1"
variable2=V2}
```

Parameter CMDVERB contains malformed name/value pair(s).

opscmd-complete

3.5 Pre-6.2.0.0 CLI Functions

For backward-compatibility, you can exclude **uagcmd** from the command line for all pre-6.2.0.0 CLI functions:

Agent Functions	- List Agents Status - Resume Agent - Resume Agent Cluster - Resume Agent Cluster Membership - Set Agent Cluster Task Execution Limit - Set Agent Task Execution Limit - Suspend Agent - Suspend Agent Cluster - Suspend Agent Cluster Membership
Import and Export Functions	- Export Bulk - Export Trigger - Import Bulk - Import Trigger
Password Functions	- Change User Password - Change Credentials Password
Resource Functions	Update Resource Limit
Task Functions	- Cancel Task - Display All Tasks - Display Task Instance Status - Force Finish a Task - Launch a Task - Put Task on Hold - Release a Task from Hold - Rerun a Task - Set Manual Task to Started - Set Manual Task to Success - Set Task Priority - Skip a Task
Trigger Functions	- Disable a Trigger - Enable a Trigger - Launch Trigger Tasks Now - List Triggers Status
Variable Functions	- List Variables - Set Variables

3.6 Return Codes

The following table identifies all return codes that can be returned in response to a function:

Return Code	Description
0	Completed successfully.
1	Configuration error (incorrect command line or configuration file entries).
2	Error processing the request.

3.7 Supported Platforms

For all [supported platforms](#), the CLI is included in the Universal Agent 7.2.x package.

UNIX	The CLI functions are installed in the following directory: • <code>/CLI_HOME/bin</code> Replace <code>CLI_HOME</code> with the directory in which the Agent components are installed.
Windows	The CLI functions are installed in the following directory: • <code>DRIVE:\CLI_HOME\bin</code> Replace: • <code>DRIVE</code> with the drive they are installed on. Add the appropriate directory for your O/S to your PATH environment variable in order to execute the functions without specifying their full path name. • <code>CLI_HOME</code> with the directory in which the Agent components are installed. Note Do not use fully qualified file names (that is, with the .exe extension) in CLI for Windows parameters; an error will occur.
z/OS	The CLI is implemented with a single program, <code>UAGCMDZ</code>. <code>UAGCMDZ</code> (with alias <code>OPSCMDZ</code>) is installed in the SUNVLOAD library as part of the Universal Agent for z/OS Installation package. See Using the CLI for z/OS for detailed information on using the CLI in a z/OS environment.

3.8 CLI Login

3.8.1 User Restriction

You can be restricted from logging in to the CLI either of two ways:

1. The system level default for CLI access, specified by the [System Default Command Line Access](#) Universal Controller system property, has been set to **No**, and the [Command Line Access](#) field in the [User Details](#) for your user account is set to **-- System Default --**.

- The [Command Line Access](#) field in the [User Details](#) for your user account is set to **No**, which overrides the [System Default Command Line Access](#) value.

If either restriction is in place, the following error message will display when you issue a CLI command:

User <your user name> not permitted to use the command line interface. Please check with your administrator.

To remove the restriction, the system administrator must either:

- Set the System Default Command Line Access property to **Yes** and set the **Command Line access** field on the User Definition screen for your user account to **-- System Default --**.
- Set the **Command Line access** field on the User Definition screen for your user account to **Yes**.

3.8.2 Password Expiration

While a password is [expired](#), CLI access will be prohibited until the password has been changed.

Note

Password expiration is not applicable to LDAP authenticated users.

3.9 Global Parameters

The CLI provides the following Global parameters for use with any [CLI function](#):

Parameter	Required	Optional
CA Certificate List		✓
Configuration File		✓
CRL File		✓
Encrypted File		✓
Encrypted File Key		✓
Help		✓
Message Level		✓
OMS NFT		✓
OMS Servers	✓	
Password	✓	

Parameter	Required	Optional
Queue Name		✓
SSL/TLS		✓
SSL/TLS Cipher List		✓
SSL/TLS 1.3 Cipher Suites		✓
SSL/TLS Implementation		✓
SSL/TLS Minimum Protocol Version		✓
SSL/TLS Maximum Protocol Version		✓
Timeout		✓
User ID	✓	
Version		✓

The following information is provided below for each Global parameter:

- Description
- Syntax for [specifying the parameter](#).
- Requirement to use the parameter.
- Default value (if any).
- Example

3.9.1 Specifying Global Parameters

Three methods are available for specifying Global parameters:

1. Command line switches
2. [Configuration file](#) entries
3. Environment variables

Note

Each method is available only for some Global parameters; only a command line switch is available for each Global parameter.

3.9.1.1 CA Certificate List

Description	Trusted CA certificate list in PEM format. DD Name / Dataset Name / HFS File Name for z/OS; file path for other platforms.
Platforms	All
Configuration File Entry	ssl.certstore=
Command Line Switch	-a
Environment Variable	n/a
Required	No
Default	(none)
Example	• UNIX • <code>/opt/cert/ca.pem</code> • Windows • <code>c:\cert\ca.pem</code> • z/OS: • <code>-a dd:CACERTS</code> • <code>-a CACERTS</code> • <code>-a “/’CACERTS’”</code> • <code>-a “/’CACERTS(mbr)’”</code> • <code>-a “/path/to/file/CACERTS”</code>

3.9.1.2 Configuration File

Description	Configuration file containing one or more Global parameters. It can include the required User ID, Password, and OMS Servers Global parameters. Note The configuration file syntax is <i>cfggroup.cfgopt=cfgval</i>, where <i>cfggroup</i> is the group to which the option belongs, <i>cfgopt</i> is the option name, and <i>cfgval</i> is the option value. For example: <pre>security.userid=ops.admin security.password=abc123 network.omsservers=7878@dallas01.acme.com,7878@dallas02.acme.com network.omsnft=yes config.timeout=60</pre> You also can specify individual Global parameters (required and optional) on the command line. Note A sample CLI configuration file, cmdtools.props, is created during the installation of the CLI (an optionally installed component of Universal Agent). However, you can create a configuration file with any name; it must exist in the directory from where you are issuing the uagcmd command.
Platforms	All
Configuration File Entry	n/a
Command Line Switch	-c
Environment Variable	n/a
Required	No
Default	(none)

Example	• UNIX • <code>/opt/cfgopt/cfgval.pem</code> • Windows • <code>c:\cfgopt\cfgval.pem</code> • z/OS: • <code>-c dd:cfgval</code> • <code>-c cfgval</code> • <code>-c “/'cfgval'”</code> • <code>-c “/'cfgval(mbr)’”</code> • <code>-c “/path/to/file/cfgval”</code>

3.9.1.3 CRL File

Description	CRL file in PEM format. DD Name / Dataset Name / HFS File Name for z/OS; file path for other platforms.
Platforms	All
Configuration File Entry	ssl.crlfile=
Command Line Switch	-e
Environment Variable	n/a
Required	No
Default	(none)
Example	UNIX • <code>/opt/cert/crl.pem</code> Windows • <code>c:\cert\crl.pem</code> z/OS • <code>-e dd:CRL</code> • <code>-e CRL</code> • <code>-e “/'CRL'”</code> • <code>-e “/'CRL(mbr)’”</code> • <code>-e “/path/to/file/CRL”</code>

3.9.1.4 Encrypted File

Description	Complete path to a file encrypted with the Universal Encrypt utility that contains encrypted user credentials. This file can be used to store encrypted Controller credentials that would otherwise be specified using the User ID or Password parameters. One or both of these parameters can be encrypted and stored in this file. Any other parameters stored in the encrypted file are ignored. Any values specified by User ID or Password on the command line and/or in the Configuration File will override values stored in this file. Note Universal Encrypt is included in every Agent installation package.
Platforms	All
Configuration File Entry	n/a
Command Line Switch	-x
Environment Variable	n/a
Required	No
Default	(none)
Example	UNIX • <code>/opt/encfile/fname.enc</code> Windows • <code>c:\encfile\fname.enc</code> z/OS • <code>-x dd:fname</code> • <code>-x fname</code> • <code>-x “//’fname’”</code> • <code>-x “//’fname(mbr)’”</code> • <code>-x “/path/to/encfile/fname”</code>

3.9.1.5 Encrypted File Key

Description	Optional key that was passed to the Universal Encrypt utility when the encrypted file specified by <code>-x</code> was created.
Platforms	All
Configuration File Entry	n/a

Command Line Switch	-k
Environment Variable	n/a
Required	No
Default	(none)
Example	

3.9.1.6 Help

Description	Provides help information for any function.
Platforms	All
Configuration File Entry	n/a
Command Line Switch	-h -?
Environment Variable	n/a
Required	No
Default	(none)
Example	-h

Note

This parameter is exclusive; do not use it with any other parameter. If you do, only the Help information will be returned.

3.9.1.7 Message Level

Description	Message level to use. The only supported value is: • trace (which turns on debug messages)
Platforms	All
Configuration File Entry	-
Command Line Switch	-l <i>value</i>
Environment Variable	n/a

Required	No
Default	Do not use trace.
Example	-l trace

3.9.1.8 OMS NFT

Description	Specification (yes or no) for whether or not to use NFT (network fault tolerance) for OMS. If NFT is not used: A uagcmd command execution will attempt to connect to each specified OMS Server. If no connection can be made, uagcmd will fail with a non-zero exit code (2). If a network error occurs after a connection to an OMS server is made, the uagcmd will fail with a non-zero exit code (2).
Platforms	All
Configuration File Entry	network.omsnft=
Command Line Switch	-f
Environment Variable	OMSNFT
Required	No
Default	yes
Example	

3.9.1.9 OMS Servers

Description	Specifies one or more OMS server addresses used for network communication. The syntax of the value is PORT@HOST[,PORT@HOST...], where: - PORT is the TCP port on which the OMS server is listening. The OMS default port is 7878. - HOST is the host name or IP address of the OMS server. If multiple OMS servers are specified, they must be comma-separated.
Platforms	All
Configuration File Entry	network.omsservers=
Command Line Switch	-m
Environment Variable	OMSSERVERS
Required	Yes

Default	
Example	network.omsservers=7878@dallas01.acme.com,7878@dallas02.acme.com

3.9.1.10 Password

Description	Password that the CLI will use to log into the Controller. Must be a valid password for this user.
Platforms	All
Configuration File Entry	security.password=
Command Line Switch	-p
Environment Variable	n/a
Required	Yes
Default	(none)
Example	o

3.9.1.11 Queue Name

Description	Controller queue name. Must be default for normal set-up.
Platforms	All
Configuration File Entry	network.core=
Command Line Switch	-n
Environment Variable	HUBNAME
Required	No
Default	ops.controller.queue
Example	queue02

3.9.1.12 SSL/TLS

Description	Specification (by its inclusion on the command line) for whether or not to enable SSL/TLS. Valid values for the configuration file entry are: • yes • no
Platforms	All
Configuration File Entry	ssl.enable=
Command Line Switch	-s
Environment Variable	n/a
Required	No
Default	no
Example	-s

3.9.1.13 SSL/TLS Cipher List

Description	Colon-separated or comma-separated list of allowed SSL/TLS ciphers. The ciphers below are valid only for TLS 1.2 and earlier versions. See the <code>ssl.cipher_suites</code> option for configuring TLS 1.3 specific ciphers. The following ciphers are allowed: • AES256-GCM-SHA384 • AES256-SHA • AES128-GCM-SHA256 • AES128-SHA • RC4-SHA • RC4-MD5 • DES-CBC3-SHA • NULL-SHA • NULL-SHA256 • NULL-MD5
Platforms	All
Configuration File Entry	ssl.ciphers=
Command Line Switch	-g <i>value</i>
Environment Variable	n/a

Required	No
Default	no
Example	-g AES256-SHA,AES128-SHA

3.9.1.14 SSL/TLS 1.3 Cipher Suites

Description	Colon-separated or comma-separated list of allowed SSL/TLS 1.3 ciphers. The following ciphers are allowed: • TLS_AES_256_GCM_SHA384 • TLS_CHACHA20_POLY1305_SHA256 • TLS_AES_128_GCM_SHA256
Platforms	All
Configuration File Entry	ssl.cipher_suites=
Command Line Switch	-q <i>value</i>
Environment Variable	n/a
Required	No
Default	no
Example	-g TLS_AES_128_GCM_SHA256,TLS_CHACHA20_POLY1305_SHA256

3.9.1.15 SSL/TLS Implementation

Description	Specification for which SSL/TLS implementation to use on z/OS. Supported values are: • openssl • system
Platforms	z/OS
Configuration File Entry	ssl.implementation=
Command Line Switch	-i <i>value</i>
Environment Variable	n/a
Required	No
Default	(none)
Example	-i openssl

3.9.1.16 SSL/TLS Minimum Protocol Version

Description	Restricts the minimal SSL/TLS protocol version allowed in SSL/TLS session negotiation to the value specified. Supported values are : • tls1_0 • tls1_2 • tls1_3
Platforms	All
Configuration File Entry	ssl.min_protocol=
Command Line Switch	-d <i>value</i>
Environment Variable	n/a
Required	No
Default	tls1_2
Example	-d tls1_0

3.9.1.17 SSL/TLS Maximum Protocol Version

Description	Restricts the maximum SSL/TLS protocol version allowed in SSL/TLS session negotiation to the value specified. Supported values are : • tls1_2 • tls1_3
Platforms	All
Configuration File Entry	ssl.max_protocol=
Command Line Switch	-d <i>value</i>
Environment Variable	n/a
Required	No
Default	tls1_2
Example	-d tls1_3

3.9.1.18 Timeout

Description	Time (in seconds) that the CLI will wait before it reports an error.

Platforms	All
Configuration File Entry	config.timeout=
Command Line Switch	-o
Environment Variable	n/a
Required	No
Default	60
Example	10

3.9.1.19 User ID

Description	User ID that the CLI will use to log into the Controller. Must be a valid user with the appropriate permissions defined in the Controller database using the Controller Security module.
Platforms	All
Configuration File Entry	security.userid=
Command Line Switch	-u
Environment Variable	n/a
Required	Yes
Default	(none)
Example	ops.admin

3.9.1.20 Version

Description	Displays version information for the CLI.
Platforms	All
Configuration File Entry	n/a
Command Line Switch	-v
Environment Variable	n/a
Required	No
Default	(none)

Example

-v

Note

If this parameter is specified, all other parameters (except [Help](#)) are ignored.

3.10 Function-Specific Parameters

Most functions contain one or more required and/or optional parameters that are specific to one or more functions.

3.10.1 Modifying Variables

Some function-specific parameters let you modify variables.

Currently, the CLI only supports the modification of [User-Defined Variables](#): global variables, trigger variables, and task/workflow variables.

Modifying a task variable does not impact any existing task instances of that task. When the next task instance is created from the updated task, the new task instance will use the updated variable.

To modify a variable in a task or workflow, you can create a [Set Variable action](#).

3.11 Using the CLI for z/OS

All CLI functions are supported in the z/OS environment. They are managed and executed by the program UAGCMDZ (with alias OPSCMDZ), which may execute as either a command processor or a standard z/OS batch job. UAGCMDZ is installed with the z/OS agent in library SUNVLOAD.

3.11.1 z/OS-Specific Syntax Requirements

The functions and syntax requirements for the z/OS environment are very similar to the other [supported platforms](#) with a few exceptions described below.

IBM's z/OS Language Environment (LE) interprets the first forward slash (/) in a parameter string as a separator between parameters meant for LE and parameters meant for the program being executed. To avoid confusion, parameters which contain a forward slash should be enclosed in double quotes. For instance agent-type=z/OS should be agent-type="z/OS".

3.11.1.1 Command Line Options

When UAGCMDZ is executed as a batch program, command line parameters are specified with the step PARM keyword.

For example:

```
//STEP01 EXEC PGM=UAGCMDZ,
// PARM='ops-agent-status -c dd:CMDOPTS agent-type=windows'
```

3.11.1.2 Syntax for Options That Accept File Names: -a, -c, -e, and -x

If you use the -a, -c, -e, and -x command line switches for specifying a file on the command line, you must use one of the following formats for the file name.

For example, for the -c (Configuration File) command line switch:

Format	Syntax	Description
DD Name	<code>-c dd:ddname</code>	<i>ddname</i> references a DD statement that exists in your batch JCL.
Dataset Name	<code>-c '// 'dsname' "</code> <code>-c '// 'pdsname(mbr)' "</code>	<i>dsname</i> is a fully-qualified dataset name which may be a partitioned dataset with a member name.
HFS File Name	<code>-c "/path/to/file/fname"</code>	A fully-qualified path to a file located on the hierarchical z/OS Unix File System, where <i>/path/to/file</i> is the complete path to the file and <i>fname</i> is the name of the file.

3.11.1.3 Line Numbers in Configuration File

Do not place line numbers in columns 73-80. The entire 80-byte record is read and processed as input.

3.11.2 Methods for Issuing CLI Functions in z/OS

Three methods are available for running UAGCMDZ and executing CLI functions:

- [Using a batch job.](#)
- [Under a TSO session.](#)
- [Using a batch TSO Terminal Monitor Program \(TMP\).](#)

In each example where data sets are specified, we use:

UNV.SUNVLOAD	Library containing the CLI programs UAGCMDZ (and OPSCMDZ alias).
USER.PARM	Data set containing command options.
USER.REXX	Data set containing user REXX EXECs.

3.11.2.1 Running OCLI Functions in a Batch Job

The CLI program UAGCMDZ executes a single function as a JCL batch job step. If multiple functions are to be executed, run each one as an individual job step.

The following example illustrates running UAGCMDZ as a batch job to request the status of all Windows Agents.

```
//jobname JOB (acctg-info), 'your name', MSGCLASS=X, MSGLEVEL=(1,1),
//          CLASS=A, NOTIFY=&SYSUID
//*
//STEP01 EXEC PGM=UAGCMDZ,
// PARM='ops-agent-status -c dd:CMDOPTS agent-type=windows'
//STEPLIB DD DISP=SHR, DSN=UNV.SUNVLOAD
//SYSPRINT DD SYSOUT=*
//SYSOUT DD SYSOUT=*
//CMDOPTS DD DSN=USER.PARM(CMDOPTS), DISP=SHR
//CEEDUMP DD SYSOUT=*
```

In this example:

The step PARM value specifies the CLI function and its options.

The job step can include only one function.

The STEPLIB points to the z/OS Agent load library.

The output will be in SYSPRINT.

CMDOPTS is a DDNAME that references the location of the function parameters.

3.11.2.2 Issuing CLI Functions under TSO

You can also issue CLI functions under a TSO session.

The sample command string below shows a CLI function issued from an ISPF Command Shell prompt:

```
Enter TSO or Workstation functions below:
===> uagcmdz ops-agent-status -c "///'USER.PARM(CMDOPTS)'" agent-type=windows
```

This function will return data similar to the sample below:

Agentname	AgentType	Status
agent-sys00101	Windows	Active
agent-sys00201	Windows	Offline
opscmd-complete		

3.11.2.3 Issuing CLI Functions as a Batch TSO

The following two examples show how to issue a CLI function in a batch TSO.

3.11.2.3.1 Example One

```
//CMDZBAT JOB (acctg-info), 'your name', MSGCLASS=X, MSGLEVEL=(1,1),
//          CLASS=A, NOTIFY=&SYSUID, TIME=5
//*
//STEP01 EXEC PGM=IKJEFT01, DYNAMNBR=200, REGION=40M
```



```
//STEPLIB DD DISP=SHR,DSN=UNV.SUNVLOAD
//SYSPRINT DD SYSOUT=*
//SYSOUT DD SYSOUT=*
//SYSTSPRT DD SYSOUT=*
//CMDOPTS DD DSN=USER.PARM(CMDOPTS),DISP=SHR
//SYSTSIN DD *
uagcmdz ops-agent-status -c dd:CMDOPTS agent-type=windows
/*
```

Output will be in SYSTSPRT.

3.11.2.3.2 Example Two

```
//REXXAGNT JOB (acctg-info),'your name',MSGCLASS=X,MSGLEVEL=(1,1),
//          CLASS=A,NOTIFY=&SYSUID,TIME=5
//*
//STEP01 EXEC PGM=IKJEFT01,DYNAMNBR=200,REGION=40M
//STEPLIB DD DISP=SHR,DSN=UNV.SUNVLOAD
//SYSEXEC DD DSN=USER.REXX,DISP=SHR
//SYSPRINT DD SYSOUT=*
//SYSTSPRT DD SYSOUT=*
//CMDOPTS DD DSN=USER.PARM(CMDOPTS),DISP=SHR
//SYSTSIN DD *
%OUTTRAP1
/*
```

The following REXX EXEC must be located in USER.REXX(OUTTRAP1):

```
/***** REXX *****/
/* Using OUTTRAP to */
/* (1) Obtain z/OS agent status */
/* (2) Test status from the response */
/* (3) Launch a task if the agent status is Active */
/*****/
x = OUTTRAP('OPS.')
uagcmdz "ops-agent-status -c dd:CMDOPTS agent-type=""z/OS""
SAY 'RC is:' RC
SAY OPS.0 'records were read.'
launch = 'NO'
DO i = 1 to OPS.0 WHILE launch = 'NO'
  IF SUBSTR(OPS.i,61,6) = 'Active' THEN
    DO
      launch = 'YES'
      uagcmdz "ops-task-launch -c dd:CMDOPTS task-name=DUMPT"
    END
  END
DO i = 1 to OPS.0
  SAY OPS.i
```

```
END
y = OUTTRAP( 'OFF' )
```

3.12 Agent Functions

- [Overview](#)
- [Delete Agent](#)
- [List Agents Status](#)
- [Resume Agent](#)
- [Resume Agent Cluster](#)
- [Resume Agent Cluster Membership](#)
- [Set Agent Cluster Task Execution Limit](#)
- [Set Agent Task Execution Limit](#)
- [Suspend Agent](#)
- [Suspend Agent Cluster](#)
- [Suspend Agent Cluster Membership](#)

3.12.1 Overview

The [command line syntax](#) for each execution of the CLI command, **uagcmd**, must specify a single CLI function, required / optional [Global parameters](#), and required / optional function-specific parameters. You must use the required Global parameters to connect to [OMS Servers](#) and to log on to a Controller ([User ID](#) and [Password](#)).

Universal Controller supports the following CLI functions for Agents, which are listed alphabetically on this page.

- [Delete Agent](#)
- [List Agents Status](#)
- [Resume Agent](#)
- [Resume Agent Cluster](#)
- [Resume Agent Cluster Membership](#)
- [Set Agent Cluster Task Execution Limit](#)
- [Set Agent Task Execution Limit](#)
- [Suspend Agent](#)
- [Suspend Agent Cluster](#)
- [Suspend Agent Cluster Membership](#)

Syntax, parameters, and examples for each function are provided.

3.12.2 Delete Agent

Description	Deletes an Agent record.

Syntax	<pre>uagcmd ops-delete-agent global parameters {agent-name=<i>name</i> agent-id=<i>ID</i> }</pre>
Parameters	<code>agent-name =</code> Required if <code>agent-id =</code> is not specified; Agent name of the Agent to be deleted (<code>agent-name =</code> and <code>agent-id =</code> are mutually exclusive). <code>agent-id =</code> Required if <code>agent-name =</code> is not specified; Agent ID of the Agent to be deleted (<code>agent-id =</code> and <code>agent-name =</code> are mutually exclusive).
Example	<pre>uagcmd ops-delete-agent -c config.cfg agent-name=agent A</pre>

3.12.3 List Agents Status

Description	Lists the status of one or more Agents.
Syntax	<pre>uagcmd ops-agent-status global parameters [agent-name=<i>name</i>] agent- type=<i>type</i> [options=<i>v</i>]</pre> Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions.
Parameters	<code>agent-name =</code> Optional; Name or partial name of one or more Agents. Wildcards are supported. <code>agent-type =</code> Optional; One of the following (not case sensitive): windows, unix, linux, linux/unix, ibmi, zos, z/os. (If not specified, status of all Agents are listed.) <code>options =</code> Optional; v (Return verbose results.)
Example	<pre>uagcmd ops-agent-status -c config.cfg agent- type=windows</pre>

3.12.4 Resume Agent

Description	Resumes the ability of the identified Agent to run tasks.
Syntax	<pre>uagcmd ops-resume-agent global parameters {agent-name=name agent-id=id} d }</pre> Note For backward-compatibility, you can exclude uagcmd from the command line for this function and all pre-6.2.0.0 CLI functions.
Parameters	agent-name = Required if agent-id= is not specified; Agent name of the Agent whose ability to run tasks is to be resumed (agent-name= and agent-id= are mutually exclusive). agent-id = Required if agent-name= is not specified; Agent ID of the Agent whose ability to run tasks is to be resumed (agent-id= and agent-name= are mutually exclusive).
Example	<pre>uagcmd ops-resume-agent -c config.cfg agent-name=agent A</pre>

3.12.5 Resume Agent Cluster

Description	Resumes the ability of the identified Agent Cluster to run tasks.
Syntax	<pre>uagcmd ops-resume-agent-cluster global parameters agent-cluster-name=name</pre> Note For backward-compatibility, you can exclude uagcmd from the command line for this function and all pre-6.2.0.0 CLI functions.
Parameter	agent-cluster-name = Required; Agent cluster name of the Agent Cluster whose ability to run tasks is to be resumed.

Example	<pre>uagcmd ops-resume-agent-cluster -c config.cfg agent-cluster-name=cluster A</pre>

3.12.6 Resume Agent Cluster Membership

Description	Resumes the membership of the identified Agent in the identified Agent Cluster.
Syntax	<pre>uagcmd ops-resume-agent-cluster-membership global parameters {agent-name=name agent-id=ID} agent-cluster-name=name</pre> Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions.
Parameters	<code>agent-name =</code> Required if <code>agent-id=</code> is not specified; Agent name of the Agent whose membership in the Agent Cluster is to be resumed (<code>agent-name=</code> and <code>agent-id=</code> are mutually exclusive). <code>agent-id =</code> Required if <code>agent-name=</code> is not specified; Agent ID of the Agent whose membership in the Agent Cluster is to be resumed (<code>agent-id=</code> and <code>agent-name=</code> are mutually exclusive). <code>agent-cluster-name =</code> Required; Agent cluster name of the Agent Cluster in whose membership the identified Agent is to be resumed.
Example	<pre>uagcmd ops-resume-agent-cluster-membership -c config.cfg agent-name=agent A agent-cluster-name=cluster A</pre>

3.12.7 Set Agent Cluster Task Execution Limit

Description	Specifies whether or not an Agent Cluster has a task execution limit and, if so, sets the task execution limit.

Syntax	<pre>uagcmd ops-set-agent-cluster-task-execution-limit global parameters agent-cluster-name=name limit- type=type limit-amount=number</pre> Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions.
Parameters	- agent-cluster-name= Required; Name of the Agent Cluster. - limit-type= Required; Specification for whether or not there is a limit to the number of tasks that can be run at the same time by the Agent Cluster. Allowable values (not case sensitive) are: limited, unlimited. - limit-amount= Required if limit-type= limited; Maximum number of tasks that can be run at the same time by the Agent Cluster.
Example	<pre>uagcmd ops-set-agent-cluster-task-execution-limit -c config.cfg agent-cluster-name=cluster A limit-type=limit limit-amount=500</pre>

3.12.8 Set Agent Task Execution Limit

Description	Specifies whether or not an Agent has a task execution limit and, if so, sets the task execution limit.
Syntax	<pre>uagcmd ops-set-agent-task-execution-limit global parameters {agent-name=name agent-id=ID} limit-type=type limit-amount=number</pre> Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions.

Parameters	<code>agent-name=</code> Required if <code>agent-id=</code> is not specified; Name of the Agent (<code>agent-name=</code> and <code>agent-id=</code> are mutually exclusive). <code>agent-id=</code> Required if <code>agent-name=</code> is not specified; ID of the Agent (<code>agent-id=</code> and <code>agent-name=</code> are mutually exclusive). <code>limit-type=</code> Required; Specification for whether or not there is a limit to the number of tasks that can be run concurrently by the Agent. Allowable values (not case sensitive) are limited, unlimited. <code>limit-amount=</code> Required if <code>limit-type=limited</code>; Maximum number of tasks that can be run at the same time by the Agent.
Example	<pre>uagcmd ops-set-agent-task-execution-limit -c config.cfg agent-name=agent A limit-type=limit limit-amount=500</pre>

3.12.9 Suspend Agent

Description	Suspends the ability of the identified Agent to run tasks.
Syntax	<pre>uagcmd ops-suspend-agent global parameters {agent-name=name agent-id=ID }</pre> Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions.
Parameters	<code>agent-name =</code> Required if <code>agent-id=</code> is not specified; Agent name of the Agent whose ability to run tasks is to be suspended (<code>agent-name=</code> and <code>agent-id=</code> are mutually exclusive). <code>agent-id =</code> Required if <code>agent-name=</code> is not specified; Agent ID of the Agent whose ability to run tasks is to be suspended (<code>agent-id=</code> and <code>agent-name=</code> are mutually exclusive).
Example	<pre>uagcmd ops-suspend-agent -c config.cfg agent-name=agent A</pre>

3.12.10 Suspend Agent Cluster

Description	Suspends the ability of the identified Agent Cluster to run tasks.
Syntax	<pre>uagcmd ops-suspend-agent-cluster global parameters agent-cluster-name=<i>name</i></pre> Note For backward-compatibility, you can exclude uagcmd from the command line for this function and all pre-6.2.0.0 CLI functions.
Parameter	<code>agent-cluster-name =</code> Required; Agent cluster name of the Agent Cluster whose ability to run tasks is to be suspended.
Example	<pre>uagcmd ops-suspend-agent-cluster -c config.cfg agent- cluster-name=cluster A</pre>

3.12.11 Suspend Agent Cluster Membership

Description	Suspends the membership of the identified Agent in the identified Agent Cluster.
Syntax	<pre>uagcmd ops-suspend-agent-cluster-membership global parameters {agent-name=<i>name</i> agent-id=<i>ID</i>} agent-cluster-name=<i>name</i></pre> Note For backward-compatibility, you can exclude uagcmd from the command line for this function and all pre-6.2.0.0 CLI functions.

Parameters	<code>agent-name =</code> Required if <code>agent-id=</code> is not specified; Agent name of the Agent whose membership in the Agent Cluster is to be suspended (<code>agent-name=</code> and <code>agent-id=</code> are mutually exclusive). <code>agent-id =</code> Required if <code>agent-name=</code> is not specified; Agent ID of the Agent whose membership in the Agent Cluster is to be suspended (<code>agent-id=</code> and <code>agent-name=</code> are mutually exclusive). <code>agent-cluster-name =</code> Required; Agent cluster name of the Agent Cluster in whose membership the identified Agent is to be suspended.
Example	<pre>uagcmd ops-suspend-agent-cluster-membership -c config.cfg agent-name=agent A agent-cluster-name=cluster A</pre>

3.13 Bundle Functions

- [Overview](#)
- [Schedule Bundle Promotion](#)

3.13.1 Overview

The [command line syntax](#) for each execution of the CLI command, **uagcmd**, must specify a single CLI function, required / optional [Global parameters](#) , and required / optional function-specific parameters. You must use the required Global parameters to connect to [OMS Servers](#) and to log on to a Controller ([User ID](#) and [Password](#)).

Universal Controller supports the following CLI functions for Bundles, which are listed alphabetically on this page.

- [Schedule Bundle Promotion](#)

Syntax, parameters, and examples for each function are provided.

3.13.2 Schedule Bundle Promotion

Description	Schedules the promotion of a Bundle.
Syntax	<pre>uagcmd ops-promote-bundle global parameters {bundle-id=ID bundle-name=name} [promotion- target-id=ID promotion-target-name=name] {[override-user=user] override- password=password} schedule=option {date=date [time=time]} [create-snapshot=o ption] [notification-option=notification] [allow-unv-tmplt-changes=option]</pre>

Parameters	• <code>bundle-id=</code> Required if <code>bundle-name=</code> is not specified; <code>sys_id</code> of the bundle to be promoted. • <code>bundle-name=</code> Required if <code>bundle-id=</code> is not specified; Name of the bundle to be promoted. • <code>promotion-target-id=</code> <code>sys_id</code> of the promotion target; Optional if specified on the bundle and if <code>promotion-target-name=</code> is not specified. • <code>promotion-target-name=</code> Name of the promotion target; Optional if specified on the bundle and if <code>promotion-target-id=</code> is not specified. • <code>override-user=</code> Optional; User ID to override the user ID provided from the Promotion Target record. • <code>override-password=</code> Required if <code>override-user=</code> is specified; Password of the User ID being used to override the user ID provided from the Promotion Target record. • <code>schedule=</code> Required; Specification (not case sensitive) for whether to schedule the promotion (Yes/Y/true) or promote the Bundle immediately (No/N/false). • <code>date=</code> Required if <code>schedule= Yes/Y/true</code>; Promotion schedule date in format yyyy-MM-dd. • <code>time=</code> Optional if <code>schedule= Yes/Y/true</code>; Promotion schedule time in format HH-mm (default is 00:00). • <code>create-snapshot=</code> Optional if <code>schedule= Yes/Y/true</code>; Specification (Yes/Y/true or No/N/false; not case sensitive) for whether a Bundle snapshot should be taken and stored with the scheduled promotion. Default is No/N/false. • <code>notification-option=</code> Optional; Operation (if any) that will cause a System Notification to be sent when the promotion is done (not case sensitive): operation_failure (default), operation_success/failure, or operation_success. • <code>allow-unv-tmplt-changes=</code> Optional; Specification (not case sensitive) for whether to allow (Yes/Y/true) or not allow (No/N/false) the Bundle to contain new or changed Universal Templates.
Example	<pre>uagcmd ops-promote-bundle -c config.cfg bundle-name=Bundle A schedule=Yes date=2015-06-12 create-snapshot=Yes</pre>

3.14 Import and Export Functions

• Overview • Export Bulk • Export Trigger • Import Bulk • Import Trigger

3.14.1 Overview

The [command line syntax](#) for each execution of the CLI command, **uagcmd**, must specify a single CLI function, required / optional [Global parameters](#), and required / optional function-specific parameters. You must use the required Global parameters to connect to [OMS Servers](#) and to log on to a Controller ([User ID](#) and [Password](#)).

Universal Controller supports the following CLI functions for Imports and Exports, which are listed alphabetically on this page.

- [Export Bulk](#)
- [Export Trigger](#)
- [Import Bulk](#)
- [Import Trigger](#)

Syntax, parameters, and examples for each function are provided.

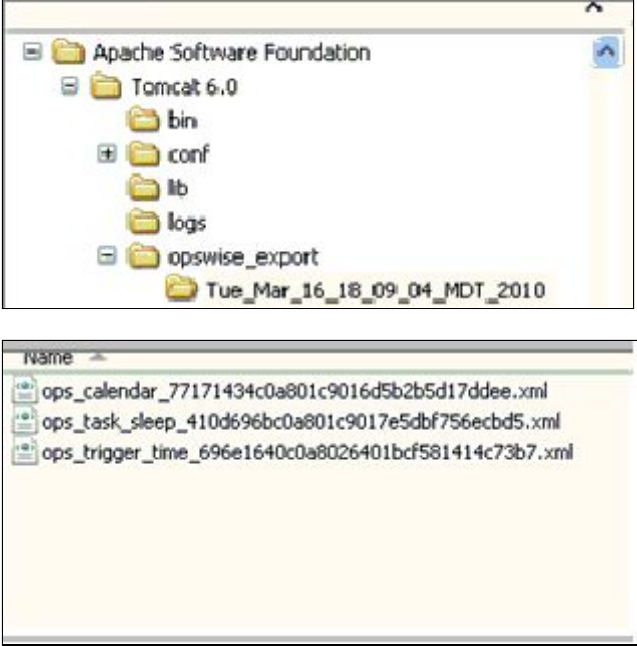
Important!

It is strongly recommended that you do NOT use the Import and Export functions for modification of Universal Controller records. API functions are available if you need to programmatically update, copy, insert, or otherwise manipulate Universal Controller records.

3.14.2 Export Bulk

Description	Performs a bulk export of all records in your Controller database. The location of the export is specified by the Export Path (<code>opswise.export.path</code>) Universal Controller system property. The default directory, where <code>\$CATALINA_HOME</code> is the base Tomcat installation directory, is either: • <code>\$CATALINA_HOME/opswise_export</code> • <code>\$CATALINA_HOME\opswise_export</code> Each export creates a sub-directory under the specified path in the following format: <code>WWW_MMM_DD_HH_MM_SS_TZ_YYYY-BULK_EXPORT</code> • <code>WWW</code> : 3-Letter Weekday • <code>MMM</code> : 3-Letter Month • <code>DD</code> : Day • <code>HH</code> : Hour • <code>MM</code> : Minute • <code>SS</code> : Second • <code>TZ</code> : Time Zone • <code>YYYY</code> : 4-Digit Year Note Export Bulk performs a similar function as the Bulk Export Server Operation, but not Bulk Export with Versions.
Syntax	<pre>uagcmd ops-export-bulk global parameters</pre> Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions.
Example	<pre>uagcmd ops-export-bulk -c config.cfg</pre>

3.14.3 Export Trigger

Description	Performs an export of the specified trigger(s) and all the associated record(s). For example, if you export one trigger, the CLI also exports the calendar used in the trigger and all tasks launched by the trigger. The CLI creates a separate XML file for each record type and generates the output directory and file names using a date and timestamp, plus an internal record identifier generated by the Controller. All exported XML definition files will be saved to a timestamped directory under the path defined by the Export Path Universal Controller system property. The following illustrates a sample output directory and exported data: 
Syntax	<pre>uagcmd ops-export-trigger <i>global parameters</i> trigger-name=<i>name</i> [trigger-type=<i>type</i>]</pre> Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions.
Parameters	<code>trigger-name=</code> Required; Name of one or more triggers. Wildcards are supported. <code>trigger-type=</code> Optional; If you used a wildcard in trigger-name, you can use trigger-type to narrow down the selection to a specific type of trigger. Allowable values are (not case sensitive): cron, time, file_trigger, temporary, task_monitor, manual, application_monitor.

Example	This example exports all triggers whose name begins with SF: <pre>uagcmd ops-export-trigger -c config.cfg trigger-name=SF*</pre>

3.14.4 Import Bulk

Description	Performs a bulk import of records into your Controller database. The location from where records are imported is specified by the System Default CLI Bulk Import Path (<code>opswise.bulk_import.path.default</code>) Universal Controller system property. The default directory, where <code>\$CATALINA_HOME</code> is the base Tomcat installation directory, is either: • <code>\$CATALINA_HOME/opswise_import</code> • <code>\$CATALINA_HOME\opswise_import</code> Note The data being imported must have been exported using the Export Bulk command.
Syntax	<pre>uagcmd ops-import-bulk</pre> <code>global parameters</code> Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions.
Example	<pre>uagcmd ops-import-bulk -c config.cfg</pre>

3.14.5 Import Trigger

Description	Imports into your Universal Controller database the trigger records in the path specified in the <code>import-file=</code> parameter.

Syntax	uagcmd ops-import-trigger global parameters import-file=file Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions.
Parameter	• import-file= Required; Path containing one or more XML files that were exported via Export Trigger or via the Universal Controller user interface using the Export -> XML feature. Note This is the path on the Controller server where the XML files are stored, not a local path to where the command is run.
Example	uagcmd ops-import-trigger --c config.cfg import-file=ops\import

3.15 OMS Server Functions

- Overview
 - List OMS Servers

3.15.1 Overview

The [command line syntax](#) for each execution of the CLI command, `uagcmd`, must specify a single CLI function, required / optional [Global parameters](#), and required / optional function-specific parameters. You must use the required Global parameters to connect to [OMS Servers](#) and to log on to a Controller ([User ID](#) and [Password](#)).

Universal Controller supports the following CLI functions for OMS Servers, which are listed alphabetically on this page.

- [OMS Server Functions#List OMS Servers](#)

Syntax, parameters, and examples for each function are provided.

3.15.2 List OMS Servers

Description	Lists OMS Servers and their status.
Syntax	<pre>uagcmd ops-oms-status global parameters server-address=address:[port] [options=v]</pre>
Parameter	- server-address= Required; Server address or partial server address of one or more OMS servers. Wildcards are supported. - options= Optional; Supports the v (verbose) option, which will toggle the SysId column in the response output.
Example	<pre>uagcmd ops-oms-status -c config.cfg server-address=1x12-x64:7878</pre>

Note

The CLI command response will contain the following information for each matching OMS Server:

- Name - OMS Server name
- Status - OMS Server status
- Session Status - OMS Server sessions status
- Sysid - OMS Server sys_id

3.16 Password Functions

- Overview
- Change User Password
- Change Credentials Password

3.16.1 Overview

The [command line syntax](#) for each execution of the CLI command, **uagcmd**, must specify a single CLI function, required / optional [Global parameters](#) , and required / optional function-specific parameters. You must use the required Global parameters to connect to [OMS Servers](#) and to log on to a Controller ([User ID](#) and [Password](#)).

Universal Controller supports the following CLI functions for Passwords, which are listed alphabetically on this page.

- [Change User Password](#)
- [Change Credentials Password](#)

Syntax, parameters, and examples for each function are provided.

3.16.2 Change User Password

Description	Changes the password for the specified Universal Controller User account. Note The authenticated user must have the ops_admin user role.
Syntax	<pre>uagcmd ops-change-user-password global parameters user-id=userid new-password=password</pre> Note For backward-compatibility, you can exclude uagcmd from the command line for this function and all pre-6.2.0.0 CLI functions .
Parameters	• user-id= Required; Universal Controller User ID whose password is to be changed. • new-password= Required; The new password that is to be assigned to the specified user.
Example	<pre>uagcmd ops-change-user-password -c config.cfg user-id=user A new-password=password A</pre>

3.16.3 Change Credentials Password

Description	Changes the runtime password for the specified Universal Controller credentials resource. Note The authenticated user must have the Update Credential permission .
Syntax	<pre>uagcmd ops-change-credentials-password global parameters credentials-name=name new-runtime- password=password</pre> Note For backward-compatibility, you can exclude uagcmd from the command line for this function and all pre-6.2.0.0 CLI functions .
Parameters	<code>credentials-name=</code> Required; Name of the Universal Controller credentials resource that is to have its password changed. <code>new-runtime-password=</code> Required; The new runtime password that is to be assigned to the specified credentials resource.
Example	<pre>uagcmd ops-change-credentials-password -c config.cfg credentials-name=Credential A new-runtime- password=password A</pre>

3.17 Resource Functions

Overview List Virtual Resources Update Resource Limit

3.17.1 Overview

The [command line syntax](#) for each execution of the CLI command, **uagcmd**, must specify a single CLI function, required / optional [Global parameters](#), and required / optional function-specific parameters. You must use the required Global parameters to connect to [OMS Servers](#) and to log on to a Controller ([User ID](#) and [Password](#)).

Universal Controller supports the following CLI functions for Resources, which are listed alphabetically on this page.

- [List Virtual Resources](#)
- [Update Resource Limit](#)

Syntax, parameters, and examples for each function are provided.

3.17.2 List Virtual Resources

Description	Lists all specified virtual resources.
Syntax	<pre>uagcmd ops-resource-list global parameters [resource-name=<i>name</i>] [resource- type=<i>type</i>] [options=<i>v</i>]</pre>
Parameters	• resource-name= Optional; Name of virtual resource(s) to be listed. Wildcards are supported. • resource-type= Optional; One of the following (not case sensitive): renewable, boundary, depletable. (If not specified, all types of virtual resources are listed.) • options= Optional; Supports the v (verbose) option, which will toggle the SysId and Used By columns in the response output.
Example	<pre>uagcmd ops-resource-list -c config.cfg resource- name=Resource A</pre>

Note

The CLI command response will contain the following information for each matching virtual resource:

- Name - Virtual Resource name
- Type - Virtual Resource type
- Limit - Virtual Resource limit
- Used - Amount of the virtual resource currently used; applicable only to renewable virtual resources
- SysId - Virtual Resource [sys_id](#)
- Used By - Task instances currently using the Virtual Resource in the format { (task-instance-name:resource-amount), (task-instance-name:resource-amount), ... }

3.17.3 Update Resource Limit

Description	Updates the resource limit for a resource.
Syntax	uagcmd ops-update-resource-limit <i>global parameters</i> resource-name=<i>name</i> resource-limit=<i>limit</i> Note For backward-compatibility, you can exclude uagcmd from the command line for this function and all pre-6.2.0.0 CLI functions.
Parameters	- resource-name= Required; Name of resource to update the limit on. - resource-limit= Required; Resource limit (any integer >= 0).
Example	uagcmd ops-update-resource-limit -c config.cfg resource-name=Resource A resource-limit=5

3.18 Task Functions

- Overview - Cancel Task - Clear All Dependencies - Clear Virtual Resource Dependencies - Clear Exclusive Dependencies - Clear Time Dependency - Display All Tasks - Display Task Instance Status - Force Finish a Task - Launch a Task - Put Task on Hold - Release a Task from Hold - Rerun a Task - Set Manual Task to Started - Set Manual Task to Success

- [Set or Modify Wait Time for a Task Instance](#)
- [Set Task Priority](#)
- [Skip a Task](#)

3.18.1 Overview

The [command line syntax](#) for each execution of the CLI command, **uagcmd**, must specify a single CLI function, required / optional [Global parameters](#), and required / optional function-specific parameters. You must use the required Global parameters to connect to [OMS Servers](#) and to log on to a Controller ([User ID](#) and [Password](#)).

Universal Controller supports the following CLI functions for Tasks, which are listed alphabetically on this page.

- [Cancel Task](#)
- [Clear All Dependencies](#)
- [Clear Virtual Resource Dependencies](#)
- [Clear Exclusive Dependencies](#)
- [Clear Time Dependency](#)
- [Display All Tasks](#)
- [Display Task Instance Status](#)
- [Force Finish a Task](#)
- [Launch a Task](#)
- [Put Task on Hold](#)
- [Release a Task from Hold](#)
- [Rerun a Task](#)
- [Set Manual Task to Started](#)
- [Set Manual Task to Success](#)
- [Set or Modify Wait Time for a Task Instance](#)
- [Set Task Priority](#)
- [Skip a Task](#)

Syntax, parameters, and examples for each function are provided.

3.18.2 Cancel Task

Description	Cancels the specified task instance . See Cancelling a Task Instance for a description of behavior and restrictions.

Syntax	uagcmd ops-task-cancel global parameters {task-instance-id=<i>ID</i> task-instance-name=<i>name</i>} [instance-criteria=<i>criteria</i>] [workflow-instance-name=<i>name</i>] Note For backward-compatibility, you can exclude uagcmd from the command line for this function and all pre-6.2.0.0 CLI functions.
Parameter	- task-instance= Required; An internal Universal Controller identifier. Deprecated Replaced by task-instance-id= parameter; the command first will check for task-instance= ; if it is not specified, the command will check for task-instance-id= . - task-instance-id= - task-instance-name= - instance-criteria= - workflow-instance-name= Required if task-instance-name= is not specified; sys_id of the task instance to run the command on. Required if task-instance-id= is not specified; Name of the task instance to run the command on. (If instance-criteria= is not specified, the oldest active task instance with the matching name will apply.) Optional if task-instance-name= is specified; One of the following (not case-sensitive): oldest_active_instance (default), oldest_instance, newest_active_instance, newest_instance For a task instance in a workflow, optional; Name of the workflow instance.
Example	uagcmd ops-task-cancel -c config.cfg task-instance-name=Task A

3.18.3 Clear All Dependencies

Description	Clears all dependencies of a task instance.

Syntax	<pre>uagcmd ops-task-clear-dependencies global parameters {task-instance-id=ID task- instance-name=name} [instance-criteria=criteria] [workflow-instance-name=na me]</pre>
Parameters	- task-instance-id= Required if task-instance-name= is not specified; sys_id of the task instance to run the command on. - task-instance-name= Required if task-instance-id= is not specified; Name of the task instance to run the command on. (If instance-criteria= is not specified, the oldest active task instance with the matching name will apply.) - instance-criteria= Optional, if task-instance-name= is specified; One of the following (not case-sensitive): oldest_active_instance (default), oldest_instance, newest_active_instance, newest_instance. - workflow-instance-name= For a task instance in a workflow, optional; Name of the workflow instance.
Example	<pre>uagcmd ops-task-clear-dependencies -c config.cfg task- instance-name=Task A</pre>

3.18.4 Clear Virtual Resource Dependencies

Description	Clears all virtual resource dependencies of a task instance.
Syntax	<pre>uagcmd ops-task-clear-resources global parameters {task-instance-id=ID task- instance-name=name} [instance-criteria=criteria] [workflow-instance-name=na me] resource-name=name</pre>

Parameters	<code>task-instance-id=</code> Required if <code>task-instance-name=</code> is not specified; sys_id of the task instance to run the command on. <code>task-instance-name=</code> Required if <code>task-instance-id=</code> is not specified; Name of the task instance to run the command on. (If <code>instance-criteria=</code> is not specified, the oldest active task instance with the matching name will apply.) <code>instance-criteria=</code> Optional, if <code>task-instance-name=</code> is specified; One of the following (not case-sensitive): oldest_active_instance (default), oldest_instance, newest_active_instance, newest_instance. <code>workflow-instance-name=</code> For a task instance in a workflow, optional; Name of the workflow instance. <code>resource-name=</code> Required; One of the following: - Name of the virtual resource dependency to clear. - An asterisk (<code>*</code>) to clear all virtual resource dependencies.
Example	<pre>uagcmd ops-task-clear-resources -c config.cfg task- instance-name=Task A resource-name=Resource A</pre>

3.18.5 Clear Exclusive Dependencies

Description	Clears all exclusive dependencies of a task instance.
Syntax	<pre>uagcmd ops-task-clear-exclusive global parameters {task-instance-id=<i>ID</i> task- instance-name=<i>name</i>} [instance-criteria=<i>criteria</i>] [workflow-instance-name=<i>na me</i>]</pre>
Parameters	<code>task-instance-id=</code> Required if <code>task-instance-name=</code> is not specified; sys_id of the task instance to run the command on. <code>task-instance-name=</code> Required if <code>task-instance-id=</code> is not specified; Name of the task instance to run the command on. (If <code>instance-criteria=</code> is not specified, the oldest active task instance with the matching name will apply.) <code>instance-criteria=</code> Optional, if <code>task-instance-name=</code> is specified; One of the following (not case-sensitive): oldest_active_instance (default), oldest_instance, newest_active_instance, newest_instance. <code>workflow-instance-name=</code> For a task instance in a workflow, optional; Name of the workflow instance.
Example	<pre>uagcmd ops-task-clear-exclusive -c config.cfg task- instance-name=Task A</pre>

3.18.6 Clear Time Dependency

Description	Clears the time dependency of a task instance.
Syntax	<pre>uagcmd ops-task-clear-timewait global parameters {task-instance-id=<i>ID</i> task- instance-name=<i>name</i>} [instance-criteria=<i>criteria</i>] [workflow-instance-name=<i>name</i>] </pre>
Parameters	<code>task-instance-id=</code> Required if <code>task-instance-name=</code> is not specified; sys_id of the task instance to run the command on. <code>task-instance-name=</code> Required if <code>task-instance-id=</code> is not specified; Name of the task instance to run the command on. (If <code>instance-criteria=</code> is not specified, the oldest active task instance with the matching name will apply.) <code>instance-criteria=</code> Optional, if <code>task-instance-name=</code> is specified; One of the following (not case-sensitive): oldest_active_instance (default), oldest_instance, newest_active_instance, newest_instance. <code>workflow-instance-name=</code> For a task instance in a workflow, optional; Name of the workflow instance.
Example	<pre>uagcmd ops-task-clear-timewait -c config.cfg task- instance-name=Task A</pre>

3.18.7 Display All Tasks

Description	Displays all specified tasks.
Syntax	<pre>uagcmd ops-task-list global parameters task-name=<i>name</i> [task- type=<i>type</i>] </pre> Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions.

Parameters	- task-name= Optional; Name or partial name of one or more tasks. Wildcards are supported. - task-type= Optional; One of the following (not case sensitive): application_control, email, email_monitor, agent_file_monitor, ftp, remote_file_monitor, indesca / universal_command / ucmd, manual, sap, peoplesoft, sql, stored_procedure, system_monitor, task_monitor, timer, unix, variable_monitor, web_service, windows, workflow, zos.
Example	<pre>uagcmd ops-task-list -c config.cfg task-name=Task A task-type=timer</pre>

3.18.8 Display Task Instance Status

Description	Displays the status of all task instance(s) associated with the specified task.
Syntax	<pre>uagcmd ops-task-status [global parameters] task-instance-name=<i>name</i> [agent-name=<i>name</i>] [task-type=<i>type</i>] [task-status=<i>status</i>] [{workflow- instance-id=<i>id</i>] [workflow-instance-name=<i>name</i>}] [workflow-instance- criteria=<i>criteria</i>] [options=<i>v</i>]</pre> Note For backward-compatibility, you can exclude uagcmd from the command line for this function and all pre-6.2.0.0 CLI functions.

Parameters	<code>task-name=</code> Required; Name or partial name of one or more tasks. Wildcards are supported. Deprecated Replaced by <code>task-instance-name=</code> parameter; the command first will check for <code>task-name=</code> ; if it is not specified, the command will check for <code>task-instance-name=</code> . <code>task-instance-name=</code> Optional; Name of the task instance(s) to be listed. Wildcards are supported. <code>agent-name=</code> Optional; Name of the agent the task instance(s) are running on. <code>task-type=</code> Optional; One of the following (not case sensitive): application_control, email, email_monitor, agent file_monitor, ftp, remote_file_monitor, indesca / universal_command / ucmd, manual, sap, peoplesoft, sql, stored_procedure, system_monitor, task_monitor, timer, unix, variable_monitor, web_service, windows, workflow, zos. <code>task-status=</code> Optional; List of comma-separated task status codes and/or names (not case sensitive): <i>status code or name,status code or name,...,status code or name</i>. An exclamation mark (!) preceding a task status code or name excludes task instances with that status. <code>workflow-instance-id=</code> For a task instance in a workflow, optional if <code>workflow-instance-name=</code> is not specified; <code>sys_id</code> of the workflow instance. <code>workflow-instance-name=</code> For a task instance in a workflow, optional if <code>workflow-instance-id=</code> is not specified; Name of the workflow instance. (If <code>workflow-instance-criteria=</code> is not specified, the oldest active Workflow instance with the matching name will apply.) <code>workflow-instance-criteria=</code> Optional, if <code>workflow-instance-name=</code> is specified; One of the following (not case-sensitive): oldest_active_instance (default), oldest_instance, newest_active_instance, newest_instance. <code>options=</code> Optional; v (Return verbose results.)
Example	<pre>uagcmd ops-task-status -c config.cfg task-instance-name=mantask agent-name=managent task-type>manual</pre>

3.18.8.1 Task Instance Status Types

The following table describes all possible task instance statuses for all task types.

Note

The format of multi-word task status names specified in the [Task Instance Status](#) CLI function differs from the format of task status names used in the Controller [user interface](#). In [Task Instance Status](#), the words are separated by an underscore character; in the user interface, they are separated by a space.

Status Name	Status Code	Task Type	Description
Action_Required	60	Manual	When a manual task launches, it goes into Action Required status, meaning a user must perform some manual activity. For details, see Manual task .
Cancel_Pending	99	Agent-based	A process running on the Agent needs to be terminated. When the Cancel command is issued, the task instance will go into a Cancel Pending status until the Agent reports back that the process has been cancelled. At that point, the task instance will transition into the Cancelled status.
Cancelled	130	All	The task was cancelled by a user.
Confirmation_Required	125	z/OS	If you make JCL changes and restart a z/OS task, Universal Controller will put the task into Confirmation Required status and prompt you for a confirmation. For detailed processing steps, see Rerunning a z/OS Task .
Defined	0	All	The new task instance has been created (the task has been launched).
Exclusive_Requested	22	All	All tasks with a mutually exclusive task defined go immediately to a status of Exclusive Requested. If the task is available to run exclusively, the task then moves to the next appropriate processing status.
Exclusive_Wait	23	All	The task is mutually exclusive with one or more other tasks, and it is waiting for those tasks to finish before it will run.
Execution_Wait	33	Agent-based	The task must wait to be completed; either the Agent/Agent Cluster running the task has reached its Task Execution Limit, or the ability of the Agent/Agent Cluster to run tasks has been suspended .
Failed	140	All*	The task ran to a failure status.
Finished	190	All	The task was forced by the user to finish. The user may do this in cases where the task had a Cancelled or Failed status, and the user needed to release other task instances depending on the successful completion of this task instance in a workflow. For more information, see Force Finishing a Task Instance .
Held	20	All	The task has been put on hold by a user.
In_Doubt	110	Agent-based	The Agent is "in doubt" about the current status of the task instance. This may occur if an Agent or Agent connection goes down. In this case, the Agent restarts and reviews its data about tasks in progress. If the Agent finds a task still running, it resumes normal monitoring. If the Agent cannot find the task, this usually indicates that the task completed, but the Agent considers the task status to be "in doubt."

Status Name	Status Code	Task Type	Description
Instance_Wait	17	All	The task instance has been loaded by a workflow and is waiting on a previous instance(s) of the same task based on the Instance Wait Resolved specification.
Queued	40	Agent-based	The task has been queued on a resource.
Resource_Requested	25	All	All tasks with a virtual resource defined go immediately to a status of Resource Requested. If the resource is available, the task then moves to the next appropriate processing status.
Resource_Wait	30	All	All tasks with a virtual resource defined go immediately to a status of Resource Requested. If the resource is not available, the task goes to a status of Resource Wait. When the resource becomes available, the task moves to the next appropriate processing status
Running	80	All	The task is running. For Agent-based tasks, the Agent has started running the program.
Running/Problems	81	Workflow	One or more tasks within the workflow has one of the following statuses: - Cancelled - Confirmation Required - Failure - In Doubt - Running/Problems (for sub-workflows) - Start Failure - Undeliverable
Skipped	180	All	The task was skipped by a user.
Start Failure	120	All	The task was unable to start.
Started	70	Agent-based, Manual	The task has started. For Agent-based tasks, this means the Agent has received the task.
Submitted	43	z/OS	The task has been submitted to the z/OS Job Entry subsystem and scheduled by the z/OS Job Scheduler.
Success	200	All	The task has completed successfully. Workflows will transition to Success status when all of its tasks have transitioned to Success, Finished, or Skipped status.
Time_Wait	15	All (except Timer)	The task is waiting to start based on a Wait To Start and/or Delay On Start specification.
Undeliverable	35	Agent-based	The Agent is unavailable.
Waiting	10	All	The task has been loaded by a workflow and is waiting on a predecessor.

* Workflows cannot go to Failed status.

3.18.9 Force Finish a Task

Description	Force finishes the specified task instance. See Force Finishing a Task Instance for a description of behavior and restrictions.

Syntax	uagcmd ops-task-forcefinish global parameters {task-instance-id=<i>ID</i> task-instance-name=<i>name</i>} [instance-criteria=<i>criteria</i>] [workflow-instance-name=<i>name</i>] Note For backward-compatibility, you can exclude uagcmd from the command line for this function and all pre-6.2.0.0 CLI functions.
Parameter	task-instance= Required; An internal Universal Controller Identifier Deprecated Replaced by <code>task-instance-id=</code> parameter; the command first will check for <code>task-instance=</code> ; if it is not specified, the command will check for <code>task-instance-id=</code> . <code>task-instance-id=</code> Required if <code>task-instance-name=</code> is not specified; sys_id of the task instance to run the command on. <code>task-instance-name=</code> Required if <code>task-instance-id=</code> is not specified; Name of the task instance to run the command on. (If <code>instance-criteria=</code> is not specified, the oldest active task instance with the matching name will apply.) <code>instance-criteria=</code> Optional, if <code>task-instance-name=</code> is specified; One of the following (not case-sensitive): oldest_active_instance (default), oldest_instance, newest_active_instance, newest_instance <code>workflow-instance-name=</code> For a task instance in a workflow, optional; Name of the workflow instance.
Example	uagcmd ops-task-forcefinish -c config.cfg task-instance-id=90079020d861e5e40128cbb3cdbe1cf3

3.18.10 Launch a Task

Description	Launches the specified task(s).

Syntax	<pre>uagcmd ops-task-launch</pre> <code>global parameters</code> [task-type=<i>type</i>] task-name=<i>name</i> {time-zone=<i>Australia/Sydney</i>] [hold=<i>option</i>] [task-variables=<i>variables</i>] [virtual-resource-priority=<i>priority</i>] [virtual-resources=<i>resources</i>] Note For backward-compatibility, you can exclude uagcmd from the command line for this function and all pre-6.2.0.0 CLI functions.
Parameters	- task-type = Optional; One of the following (not case sensitive): timer, windows, unix, zos, agent_file_monitor, manual, email, email_monitor, ftp, sql, remote_file_monitor, task_monitor, stored_procedure, workflow, sap, peoplesoft, system_monitor, indesca / universal_command / ucmd, web_service, application_control. - task-name= Required; Valid task name. Wildcards are supported. - time-zone= Optional; Time zone in which the task is launched. - hold= Optional; Specification for whether to place the task in Held status when it is launched. Valid values are (not case sensitive): yes/y/true. - task-variables= Optional; Any variables specified in the task that need a value to run properly. - virtual-resource-priority= Optional; Virtual resource priority of the task instance. Valid values are any integer between 1 and 20. Defaults to the virtual resource priority defined in the task Details. - virtual-resources= Optional; Comma-separated list of <resource-name>:<amount> pairs. For example, VR1:10,VR2:20,...,VRN:N. An amount of 0 indicates the virtual resource should be dropped. Defaults to virtual resources defined in the task Details. The virtual resource dependencies specified in <code>virtual-resources=</code> are merged with the default virtual resource dependencies. - If a default virtual resource dependency already exists for a specified virtual resource amount, the virtual resource dependency is updated. - Any virtual resource specified with an amount of 0 is dropped from the default virtual resource dependencies; if the virtual resource did not exist as a default dependency, the command will fail. - If a default virtual resource dependency does not already exist for a specified virtual resource amount, the virtual resource dependency is added.
Example	(All variable=value pairs must be specified within one set of braces.) <pre>uagcmd ops-task-launch -c config.cfg task-name=Windows Task A task-variables={variable1=first value variable2=second value}</pre>

3.18.11 Put Task on Hold

Description	Puts the specified task instance on hold. See Putting a Task Instance on Hold for a description of behavior and restrictions.
Syntax	<pre>uagcmd ops-task-hold global parameters {task-instance-id=<i>ID</i> task- instance-name=<i>name</i>} [instance-criteria=<i>criteria</i>] [workflow-instance-name=<i>name</i>] </pre> Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions.
Parameter	<code>task-instance=</code> Required; An internal Universal Controller identifier Deprecated Replaced by <code>task-instance-id=</code> parameter; the command first will check for <code>task-instance=</code> ; if it is not specified, the command will check for <code>task-instance-id=</code> . <code>task-instance-id=</code> Required if <code>task-instance-name=</code> is not specified; sys_id of the task instance to run the command on. <code>task-instance-name=</code> Required if <code>task-instance-id=</code> is not specified; Name of the task instance to run the command on. (If <code>instance-criteria=</code> is not specified, the oldest active task instance with the matching name will apply.) <code>instance-criteria=</code> Optional, if <code>task-instance-name=</code> is specified; One of the following (not case-sensitive): oldest_active_instance (default), oldest_instance, newest_active_instance, newest_instance <code>workflow-instance-name=</code> For a task instance in a workflow, optional; Name of the workflow instance.

Example	<pre>uagcmd ops-task-hold -c config.cfg task- instance=90079020d861e5e40128cbb3cdbe1cf3</pre>

3.18.12 Release a Task from Hold

Description	Releases the specified task instance from hold. See Releasing a Task Instance from Hold for a description of behavior and restrictions.
Syntax	<pre>uagcmd ops-task-release global parameters {task-instance-id=<i>ID</i> task-instance-id=<i>name</i>} [instance- criteria=<i>criteria</i>] [workflow-instance-name] [recursive=<i>option</i>]</pre> Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions.

Parameter	- task-instance= Required; An internal Universal Controller identifier Deprecated Replaced by task-instance-id= parameter; the command first will check for task-instance= ; if it is not specified, the command will check for task-instance-id= . - task-instance-id= - task-instance-name= - instance-criteria= - workflow-instance-name= - recursive=
Example	<pre>uagcmd ops-task-release -c config.cfg task-instance-id=90079020d861e5e40128cbb3cdbe1cf3</pre>

3.18.13 Rerun a Task

Description	Reruns the specified Task instance. See Re-running a Task Instance for a description of behavior and restrictions.

Syntax

```
uagcmd ops-task-rerun
    global parameters {task-instance-id=ID | task-
instance-name=name} [instance-criteria=criteria] [workflow-instance-name=name]
{[task-status=status [recursive=option]]
    }
```

Note

For backward-compatibility, you can exclude **uagcmd** from the command line for this function and [all pre-6.2.0.0 CLI functions](#).

Parameter	<code>task-instance=</code> Required; An internal Universal Controller identifier Deprecated Replaced by <code>task-instance-id=</code> parameter; the command first will check for <code>task-instance=</code> ; if it is not specified, the command will check for <code>task-instance-id=</code> . <code>task-instance-id=</code> Required if <code>task-instance-name=</code> is not specified; sys_id of the task instance to run the command on. <code>task-instance-name=</code> Required if <code>task-instance-id=</code> is not specified; Name of the task instance to run the command on. (If <code>instance-criteria=</code> is not specified, the oldest active task instance with the matching name will apply.) <code>instance-criteria=</code> Optional, if <code>task-instance-name=</code> is specified; One of the following (not case-sensitive): oldest_active_instance (default), oldest_instance, newest_active_instance, newest_instance <code>workflow-instance-name=</code> Optional; Name of the workflow instance. <code>task-status=</code> Optional; list of comma-separated status codes or case-insensitive status names (see below). Format: <:status-code-or-name>,<:status-code-or-name>,...,<:status-code-or-name>. Applicable only if matched task instance is workflow type; command will fail otherwise. All tasks within the matching workflow with a matching status will be queued for re-run. Sub-workflows do not support re-run directly; the <code>recursive=</code> parameter controls whether or not tasks within sub-workflows matching the status will be queued for re-run. - Start_Failure (120) - Cancelled (130) - Failed (140) - Finished (190) - Success (200) <code>recursive=</code> Optional if <code>task-status=</code> is specified; One of the following (not case-sensitive): Yes Y true or No N false (default). Indicates whether or not tasks within sub-workflows will qualify for re-run.
Example	<pre>uagcmd ops-task-rerun -c config.cfg task- instance=8fda93dcd861e5e4005bf48e2cad6206 task-status=140</pre>

3.18.14 Set Manual Task to Started

Description	For a Manual task, changes its status from Action Required to Started. This allows you to acknowledge the Manual task and indicate that the manual procedures have been started.
Syntax	uagcmd ops-manual-setstarted global parameters {task-instance-id=<i>ID</i> task-instance-name=<i>name</i>} [instance-criteria=<i>criteria</i>] [workflow-instance-name] Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions.
Parameter	task-instance= Required; An internal Universal Controller identifier Deprecated Replaced by <code>task-instance-id=</code> parameter; the command first will check for <code>task-instance=</code> ; if it is not specified, the command will check for <code>task-instance-id=</code> . task-instance-id= Required if <code>task-instance-name=</code> is not specified; sys_id of the task instance to run the command on. task-instance-name= Required if <code>task-instance-id=</code> is not specified; Name of the task instance to run the command on. (If <code>instance-criteria=</code> is not specified, the oldest active task instance with the matching name will apply.) instance-criteria= Optional, if <code>task-instance-name=</code> is specified; One of the following (not case-sensitive): oldest_active_instance (default), oldest_instance, newest_active_instance, newest_instance workflow-instance-name= For a task instance in a workflow, optional; Name of the workflow instance.
Example	uagcmd ops-manual-setstarted -c config.cfg task-instance=8fda93dcd861e5e4005bf48e2cad6206

3.18.15 Set Manual Task to Success

Description	For a Manual task, sets its status to Success.
Syntax	<code>uagcmd ops-manual-setcompleted</code> <code>global parameters {task-instance-id=<i>ID</i> task-instance-name=<i>name</i>} [instance-criteria=<i>criteria</i>] [workflow-instance-name]</code> Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions.
Parameter	<code>task-instance=</code> Required; An internal Universal Controller identifier Deprecated Replaced by <code>task-instance-id=</code> parameter; the command first will check for <code>task-instance=</code>; if it is not specified, the command will check for <code>task-instance-id=</code>. <code>task-instance-id=</code> Required if <code>task-instance-name=</code> is not specified; sys_id of the task instance to run the command on. <code>task-instance-name=</code> Required if <code>task-instance-id=</code> is not specified; Name of the task instance to run the command on. (If <code>instance-criteria=</code> is not specified, the oldest active task instance with the matching name will apply.) <code>instance-criteria=</code> Optional, if <code>task-instance-name=</code> is specified; One of the following (not case-sensitive): oldest_active_instance (default), oldest_instance, newest_active_instance, newest_instance <code>workflow-instance-name=</code> For a task instance in a workflow, optional; Name of the workflow instance.

Example	<pre>uagcmd ops-manual-setcompleted -c config.cfg task- instance=8fda93dcd861e5e4005bf48e2cad6206</pre>

3.18.16 Set or Modify Wait Time for a Task Instance

Description	Sets or modifies the Wait time for a task instance that specifies how long it will wait to run after it has become eligible to run.
Syntax	<pre>uagcmd ops-task-set-timewait global parameters {task-instance-id=<i>ID</i> task- instance-name=<i>name</i>} [instance-criteria=<i>criteria</i>] [workflow-instance-name=<i>name</i>] {wait-type=<i>type</i> [wait-day-constraint=<i>constraint</i>] {wait-time=<i>wait time</i> wait- duration=<i>duration</i> wait-seconds=<i>duration in seconds</i>} delay-type=<i>type</i> {delay-duration=<i>duration</i> delay-seconds=<i>duration in seconds</i> }}</pre>

Parameters	<code>task-instance-id=</code> Required if <code>task-instance-name=</code> is not specified; sys_id of the task instance. <code>task-instance-name=</code> Required if <code>task-instance-id=</code> is not specified; Name of the time task instance. (If <code>instance-criteria=</code> is not specified, the oldest active task instance with the matching name will apply.) <code>instance-criteria=</code> Optional, if <code>task-instance-name=</code> is specified; One of the following (not case-sensitive): oldest_active_instance (default), oldest_instance, newest_active_instance, newest_instance. <code>workflow-instance-name=</code> For a task instance in a workflow, optional; Name of the workflow instance. (The most recently created workflow instance with the matching name will apply.) <code>wait-type=</code> Required if <code>delay-type=</code> is not specified; one of the following (not case sensitive): none, time, relative_time, duration, seconds. <code>wait-time=</code> Required if <code>wait-type=</code> time or relative_time; Wait time in format HH:MM. Variables are supported. <code>wait-day-constraint=</code> Optional if <code>wait-type=</code> time or relative_time; One of the following (not case sensitive): none, same day/same_day, next day/next_day, next business day/next_business_day, sunday, monday, tuesday, wednesday, thursday, friday, saturday. <code>wait-duration=</code> Required if <code>wait-type=</code> duration; Wait duration in format DD:HH:MM:SS. <code>wait-seconds=</code> Required if <code>wait-type=</code> seconds; Wait duration in format SS. Variables are supported. <code>delay-type=</code> Required if <code>wait-type=</code> is not specified; One of the following (not case sensitive): none, duration, seconds. <code>delay-duration=</code> Required if <code>delay_type=</code> duration; Specific delay duration in format DD:HH:MM:SS. <code>delay-seconds=</code> Required if <code>delay_type=</code> seconds; Specific delay duration in format SS. Variables are supported.
Example	<pre>uagcmd ops-task-set-timewait -c config.cfg task-instance-name=Task 5A workflow-instance-name=Workflow A wait-type=time wait-time=18:00</pre>

3.18.17 Set Task Priority

Description	For Agent-based tasks (Linux/Unix, Universal, Windows, and z/OS), changes the priority on the specified task instance. See Changing the Priority of a Task Instance for a description of behavior and restrictions.

Syntax	<pre>uagcmd ops-task-setpriority global parameters {task-instance-id=ID task- instance-name=name} [instance-criteria=criteria] [workflow-instance-name] priority=priority</pre>
Parameters	- task-instance= Required; An internal Universal Controller identifier Deprecated Replaced by task-instance-id= parameter; the command first will check for task-instance= ; if it is not specified, the command will check for task-instance-id= . - task-instance-id= - task-instance-name= - instance-criteria= - workflow-instance-name= - priority=
Example	<pre>uagcmd ops-task-setpriority -c config.cfg task- instance=90079026d861e5e400bba81913a4fdd0 priority=high</pre>

3.18.18 Skip a Task

Description	Skips the specified task instance. See Skipping a Task Instance for a description of behavior and restrictions.

Syntax	<pre>uagcmd ops-task-skip global parameters {task-instance-id=ID task- instance-name=name} [instance-criteria=criteria] [workflow-instance-name]</pre>
Parameter	- task-instance= Required; An internal Universal Controller identifier Deprecated Replaced by task-instance-id= parameter; the command first will check for task-instance= ; if it is not specified, the command will check for task-instance-id= . - task-instance-id= - task-instance-name= - instance-criteria= - workflow-instance-name=
Example	<pre>uagcmd ops-task-skip -c config.cfg task- instance=90079026d861e5e400bba81913a4fdd0</pre>

3.19 Tasks in Workflow Functions

- Overview
- Clear Predecessor Dependencies
- Insert a Task into a Workflow Instance with Dependencies
- List Predecessors / Successors of a Task Instance in a Workflow

3.19.1 Overview

The [command line syntax](#) for each execution of the CLI command, **uagcmd**, must specify a single CLI function, required / optional [Global parameters](#), and required / optional function-specific parameters. You must use the required Global parameters to connect to [OMS Servers](#) and to log on to a Controller ([User ID](#) and [Password](#)).

Universal Controller supports the following CLI functions for Tasks in Workflows, which are listed alphabetically on this page.

- [Clear Predecessor Dependencies](#)
- [Insert a Task into a Workflow Instance with Dependencies](#)
- [List Predecessors / Successors of a Task Instance in a Workflow](#)

Syntax, parameters, and examples for each function are provided.

3.19.2 Clear Predecessor Dependencies

Description	Clears all predecessor dependencies of a task instance in a Workflow.
Syntax	<pre>uagcmd ops-task-clear-predecessors global parameters {task-instance-id=ID task- instance-name=name} [instance-criteria=criteria] [workflow-instance-name=na me] predecessor-name=name</pre>
Parameters	• <code>task-instance-id=</code> Required if <code>task-instance-name=</code> is not specified; <code>sys_id</code> of the task instance to run the command on. • <code>task-instance-name=</code> Required if <code>task-instance-id=</code> is not specified; Name of the task instance to run the command on. (If <code>instance-criteria=</code> is not specified, the oldest active task instance with the matching name will apply.) • <code>instance-criteria=</code> Optional if <code>task-instance-name=</code> is specified; One of the following (not case-sensitive): oldest_active_instance (default), oldest_instance, newest_active_instance, newest_instance. • <code>workflow-instance-name=</code> Optional; Name of the workflow instance. • <code>predecessor-name=</code> Required; One of the following: Name of the predecessor dependency to clear or an asterisk (<code>*</code>) to clear all predecessor dependencies.
Example	<pre>uagcmd ops-task-clear-predecessors -c config.cfg task- instance-name=Task A predecessor-name=Resource B</pre>

3.19.3 Insert a Task into a Workflow Instance with Dependencies

Description	Inserts a task into a Workflow instance with dependencies.

Syntax	<pre>uagcmd ops-task-insert global parameters {workflow-instance-id=<i>ID</i> workflow- instance-name=<i>name</i>} [workflow-instance-criteria=<i>criteria</i>] {task-id=<i>ID</i> task- name=<i>name</i>} [vertex-x=<i>x-coordinate</i>] [vertex-y=<i>y-coordinate</i>] [alias=<i>task alias</i>] [inherit-trigger-time=<i>option</i>] {predecessors=<i>predecessors list</i> successors=<i>succ essors list</i> }</pre>
Parameters	• workflow-instance-id= Required if workflow-instance-name is not specified; sys_id of the Workflow instance. • workflow-instance-name= Required if workflow-instance-id is not specified; Name of the workflow instance. (If workflow-instance-criteria= is not specified, the oldest active Workflow with the matching name will apply.) • workflow-instance-criteria= Optional, if workflow-instance-name= is specified; One of the following (not case-sensitive): oldest_active_instance (default), oldest_instance, newest_active_instance, newest_instance. • task-id= Required if task-name is not specified; sys_id of the task to be inserted. • task-name= Required if task-id is not specified; Name of the task to be inserted. • vertex-x Optional; x-coordinate of the task within the workflow. • vertex-y Optional; y-coordinate of the task within the workflow. • alias= Optional; Alias used for the task within the Workflow; specifically, the value of ops_exec_workflow_vertex.name. • inherit-trigger-time= Optional; Specification for whether or not the inserted task will inherit the Trigger Time of the Workflow task instance. One of the following (not case-sensitive): Yes Y true (default) or No N false. • predecessors= Optional; Comma-separated list of predecessor task instances within the workflow. • successors= Optional; Comma-separated list of successor task instances within the workflow. Note Valid values for <code>predecessors</code> and <code>successors</code> : • If both <code>predecessors</code> and <code>successors</code> lists are empty, task will be inserted without dependencies. • If there is a task name in one of the lists that does not exist, the operation will fail with error Cannot find vertex with the name ... • If a list contains the task name with multiple occurrences in the workflow, the operation will fail with error Multiple vertices found for the name... (For example, the workflow contains two tasks (Sleep 30, Sleep 30) and you are trying to insert Task ABC with predecessors = Sleep 30).

Example	<pre>uagcmd ops-task-insert -c config.cfg workflow-instance-name=Workflow A task-name=Task 5A successors=Task 5B,Task 5C</pre>

3.19.4 List Predecessors / Successors of a Task Instance in a Workflow

Description	Lists predecessors and/or successors of a task instance within a workflow.
Syntax	<pre>uagcmd ops-task-dependency-list global parameters workflow-instance-name=name [instance-criteria=criteria] {task-instance-id=ID task-instance-name=name} [dependency-type=type]</pre>
Parameters	- task-instance-id= Required if task-instance-name= is not specified; sys_id of the task instance whose predecessors and/or successors you want to list. - task-instance-name= Required if task-instance-id= is not specified; Name of the task instance whose predecessors and/or successors you want to list. - dependency-type= Optional; One of the following (not case sensitive): predecessors or successors. If dependency-type= is not specified, all predecessors and successors of the specified task instance are listed. - workflow-instance-name= Required; Name of the workflow instance. (If instance-criteria= is not specified, the oldest active Workflow instance with the matching name will apply.) - instance-criteria= Optional; One of the following (not case-sensitive): oldest_active_instance (default), oldest_instance, newest_active_instance, newest_instance. - options= Optional; v (Return verbose results.)
Example	<pre>uagcmd ops-task-dependency-list -c config.cfg task-instance-id=14714650784870352570T70R91KT5QSM</pre>

3.20 Trigger Functions

- Overview - Disable a Trigger

- [Enable a Trigger](#)
- [Launch Trigger Tasks Now](#)
- [List Triggers Status](#)
- [Modify Time of a Time Trigger](#)

3.20.1 Overview

The [command line syntax](#) for each execution of the CLI command, **uagcmd**, must specify a single CLI function, required / optional [Global parameters](#), and required / optional function-specific parameters. You must use the required Global parameters to connect to [OMS Servers](#) and to log on to a Controller ([User ID](#) and [Password](#)).

Universal Controller supports the following CLI functions for Triggers, which are listed alphabetically on this page.

- [Disable a Trigger](#)
- [Enable a Trigger](#)
- [Launch Trigger Tasks Now](#)
- [List Triggers Status](#)
- [Modify Time of a Time Trigger](#)

Syntax, parameters, and examples for each function are provided.

See [Import and Export Functions](#) for these trigger-related functions:

- [Export a Trigger](#)
- [Import a Trigger](#)

3.20.2 Disable a Trigger

Description	Disables the specified trigger(s).
Syntax	<pre>uagcmd ops-trigger-disable global parameters trigger-name=name [trigger- type=type]</pre> Note For backward-compatibility, you can exclude uagcmd from the command line for this function and all pre-6.2.0.0 CLI functions.
Parameters	• trigger-name= Name or partial name of one or more triggers. Wildcards are supported. • trigger-type= Optional; If you used a wildcard in trigger-name=, you can use trigger-type= to narrow down the selection to a specific type of trigger. One of the following (not case-sensitive): cron, time, manual, temporary, agent_file_monitor, task_monitor, variable_monitor, email_monitor, composite, application_monitor.

Example	<pre>uagcmd ops-trigger-disable -c config.cfg trigger-name=Trigger A</pre>

3.20.3 Enable a Trigger

Description	Enables the specified trigger(s).
Syntax	<pre>uagcmd ops-trigger-enable global parameters trigger-name=name [trigger- type=type]</pre> Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions.
Parameters	<code>trigger-name=</code> Name or partial name of one or more triggers. Wildcards are supported. <code>trigger-type=</code> Optional; If you used a wildcard in <code>trigger-name=</code>, you can use <code>trigger-type=</code> to narrow down the selection to a specific type of trigger. One of the following (not case-sensitive): cron, time, manual, temporary, agent_file_monitor, task_monitor, variable_monitor, email_monitor, composite, application_monitor.
Example	<pre>uagcmd ops-trigger-enable -c config.cfg trigger-name=Trigger A</pre>

3.20.4 Launch Trigger Tasks Now

Description	Marks all conditions as satisfied in the specified trigger(s) and launches its associated tasks.

Syntax	<pre>uagcmd ops-trigger-now global parameters trigger-name=<i>name</i> [time-zone=<i>US/Pacific</i>] [trigger-type=<i>type</i>] [hold=<i>option</i>] [virtual-resource-priority=<i>integer</i>] [virtual-resources=<i>list</i>] [trigger-variables=<i>variables</i>]</pre> Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions.
Parameters	<code>trigger-name=</code> Required; Name or partial name of one or more triggers. Wildcards are supported. <code>time-zone=</code> Time zone in which the trigger is run. <code>trigger-type=</code> Optional; If you used a wildcard in <code>trigger-name=</code>, you can use <code>trigger-type=</code> to narrow down the selection to a specific type of trigger. One of the following (not case-sensitive): cron, time, manual, temporary, agent_file_monitor, task_monitor, variable_monitor, email_monitor, composite, application_monitor. <code>hold=</code> Optional; Specification for whether to place the task(s) in Held status when it is triggered. Valid values are (not case sensitive): yes/y/true. <code>virtual-resource-priority=</code> Optional; Virtual resource priority of all task instances specified for the trigger. Valid values are any integer between 1 and 20. Defaults to the virtual resource priority defined in the task Details. <code>virtual-resources=</code> Optional; Comma-separated list of <resource-name>:<amount> pairs. For example, VR1:10,VR2:20,...,VRN:N. An amount of 0 indicates the virtual resource should be dropped. Defaults to virtual resources defined in the task Details. The virtual resource dependencies specified in <code>virtual-resources=</code> are merged with the default virtual resource dependencies. - If a default virtual resource dependency already exists for a specified virtual resource amount, the virtual resource dependency is updated. - Any virtual resource specified with an amount of 0 is dropped from the default virtual resource dependencies; if the virtual resource did not exist as a default dependency, the command will fail. - If a default virtual resource dependency does not already exist for a specified virtual resource amount, the virtual resource dependency is added. <code>trigger-variables=</code> Optional; Any variables specified in the task(s) being triggered that need a value to run properly.
Example	All variable=value pairs must be specified within one set of braces: <pre>uagcmd ops-trigger-now -c config.cfg trigger-name=Trigger A trigger-variables={variable1=first value variable2=second value}</pre>

3.20.5 List Triggers Status

Description	Lists the status of the specified trigger(s). Possible statuses are Enabled or Disabled .
Syntax	<pre>uagcmd ops-trigger-status global parameters trigger-name=name [trigger-type=type] [trigger-status=status] [options=v]</pre>
Parameters	• <code>trigger-name=</code> Name or partial name of one or more triggers. Wildcards are supported. • <code>trigger-type=</code> Optional; One of the following (not case-sensitive): cron, time, manual, temporary, agent_file_monitor, task_monitor, variable_monitor, email_monitor, composite, application_monitor. (If not specified, statuses for all Trigger types are listed.) • <code>trigger-status=</code> Optional; One of the following (not case sensitive): enabled, disabled. • <code>options=</code> Optional; v (Return verbose results.)
Example	<pre>uagcmd ops-trigger-status -c config.cfg trigger- name=Trigger A status=disabled</pre>

3.20.6 Modify Time of a Time Trigger

Description	Modifies the Time field of a Time Trigger with the Time Style field set to time .
Syntax	<pre>uagcmd ops-trigger-set-time global parameters {trigger-id=ID trigger-name=name} time=time</pre> Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions.
Parameters	• <code>trigger-id=</code> Required if <code>trigger-name=</code> is not specified; sys_id of the time trigger. • <code>trigger-name=</code> Required if <code>trigger-id=</code> is not specified; Name of the time trigger. • <code>time=</code> Required; New trigger time in format HH:MM.

Example	<pre>uagcmd ops-trigger-set-time -c config.cfg trigger- name=Trigger A time=15:00</pre>

3.21 Variable Functions

- Overview - List Variables - Set Variables

3.21.1 Overview

The [command line syntax](#) for each execution of the CLI command, **uagcmd**, must specify a single CLI function, required / optional [Global parameters](#), and required / optional function-specific parameters. You must use the required Global parameters to connect to [OMS Servers](#) and to log on to a Controller ([User ID](#) and [Password](#)).

Universal Controller supports the following CLI functions for Variables, which are listed alphabetically on this page.

- List Variables
- Set Variables

Syntax, parameters, and examples for each function are provided.

3.21.2 List Variables

Description	Lists the specified variable(s).
Syntax	<pre>uagcmd ops-variable-list global parameters variable-name=name variable- scope=scope [task-name=name] [trigger-name=name] [options=v]</pre> Note For backward-compatibility, you can exclude uagcmd from the command line for this function and all pre-6.2.0.0 CLI functions.

Parameters	<code>variable-name=</code> Optional; Name or partial name of one or more variables. Wildcards are supported. <code>variable-scope=</code> Optional; One of the following (not case sensitive): global (default), task, trigger, local (task or trigger). Defines the type of variable being listed. A global variable is created independently by selecting Variables from the Universal Controller user interface navigator. A trigger variable is attached to a trigger; a task variable is attached to a task. A local variable can be either a task or trigger variable. <code>task-name=</code> Required if <code>variable-scope= task</code>; A single task name. <code>trigger-name=</code> Required if <code>variable-scope= trigger</code>; A single trigger name. <code>options=</code> Optional; v (Return verbose results.)
Example	<pre>uagcmd ops-variable-list -c config.cfg variable-name=abc variable-scope=task task-name=Task A</pre>

3.21.3 Set Variables

Description	Sets the specified variable.
Syntax	<pre>uagcmd ops-variable-set global parameters variable-name=name variable-scope=s cope variable-value=string [variable-description=description] [task-name=name] [trigger-name=name] create=option</pre> Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function.

Parameters	<code>variable-name=</code> Required; Name of a specific variable. The name must begin with an alphabetic character and can consist of: alphabetic characters (a-z, A-Z), numbers (0-9), _ (underscore). White spaces are not permitted; names are not case-sensitive. <code>variable-scope=</code> Optional; One of the following (not case sensitive): global (default), task, trigger. In cases where there may be more than one occurrence of the specified variable, <code>variable-scope=</code> defines which one should be set. A global variable is created independently by selecting Variables from the Universal Controller user interface navigation pane. A trigger variable is attached to a trigger; a task variable is attached to a task. <code>variable-value=</code> Required; String that will become the value of the specified variable. UTF-8 character set is supported. <code>variable-description=</code> Optional; Description of the variable. <code>task-name=</code> Required if <code>variable-scope= task</code>; A single task name. <code>trigger-name=</code> Required if <code>variable-scope= trigger</code>; A single trigger name. <code>create=</code> Required; Specification (yes or no) for whether or not a new variable may be created for this request.
Example	<pre>uagcmd ops-variable-set -c config.cfg variable-name=myvar1 variable-value=mydata1 create=yes</pre> Warning CLI supports modifying only certain types of variables - see Modifying Variables.

4 RESTful Web Services API

- [Overview](#)
- [Swagger UI and OpenAPI](#)
- [Methods of API Operations](#)
- [Authentication](#)
- [Memory Utilization Threshold](#)
- [Returned Messages](#)
- [User Restriction](#)
- [Password Expiration](#)

4.1 Overview

Universal Controller supports a RESTful-based web services API that allows you to perform multiple operations, which are listed alphabetically on the following pages.

Formatting specifications for each web service, including details about field requirements, are provided.

Agents	• Delete an Agent • List Agents • List Agents - Advanced • Modify an Agent • Read an Agent • Resume an Agent • Set an Agent Task Execution Limit • Suspend an Agent
Agent Clusters	• Create an Agent Cluster • Delete an Agent Cluster • List Agent Clusters • Modify an Agent Cluster • Read an Agent Cluster • Resume an Agent Cluster • Resume an Agent Cluster Membership • Return an Agent from an Agent Cluster • Set an Agent Cluster Task Execution Limit • Suspend an Agent Cluster • Suspend an Agent Cluster Membership
Audits	• List Audit Records

Bundles and Promotion	Bundles • Bundle Report • Create a Bundle • Delete a Bundle • List Bundles • Modify a Bundle • Read a Bundle Promotion • Bundleless Promotion • Cancel a Scheduled Bundle Promotion • Delete a Scheduled Bundle Promotion • Promote a Bundle or Schedule a Bundle Promotion • Create a Promotion Target • Modify a Promotion Target • List Promotion Targets • Delete a Promotion Target • Read a Promotion Target • Refresh Target Agents
Business Services	• Create a Business Service • Delete a Business Service • List Business Services • Modify a Business Service • Read a Business Service
Calendars	• Add an Existing Custom Day to a Calendar • Create a Calendar • Delete a Calendar • List Calendars • List Local Custom Day Qualifying Dates • List Local Custom Day Qualifying Periods • Modify a Calendar • Read a Calendar • Read All Custom Days of a Calendar • Remove a Custom Day from a Calendar
Cluster Nodes	• List All Cluster Nodes • Read Current Cluster Node
Connections	• Database Connections • Email Connections • Email Templates • PeopleSoft Connections • SAP Connections • SNMP Managers
Credentials	• Create a Credential • Delete a Credential • List Credentials • Modify a Credential • Read a Credential
Custom Days	• Create a Custom Day • Delete a Custom Day • List Custom Day Qualifying Dates • List Custom Day Qualifying Periods • List Custom Days • Modify a Custom Day • Read a Custom Day
Groups	• Create a Group • Delete a Group • List Group • Modify a Group • Read a Group

LDAP	• Read LDAP Settings • Update LDAP Settings • Update LDAP Bind Password
Monitoring	• Universal Controller Metrics (Prometheus)
OAuth Single Sign-On	• Read OAuth Single Sign-On Settings • Update OAuth Single Sign-On Settings
OAuth Clients	• Create an OAuth Client • Modify an OAuth Client • Read an OAuth Client • Delete an OAuth Client • List OAuth Clients
OMS Servers	• Create an OMS Server • Delete an OMS Server • List OMS Servers • Modify an OMS Server • Read an OMS Server
Passwords	• Change a Universal Controller User Password • Change Runtime Password of Credentials
Properties	• List Properties • Modify a Property • Read a Property
Reports	• Run Report
Scripts	• Create a Script • Delete a Script • List Scripts • Modify a Script • Read a Script
Server Operations	• Export and Import • LDAP • List/Download Logs • Pause and Resume Cluster Node • Roll Log • Temporary Property Change
Simulation	• Create/Update a Simulation • Delete a Simulation • List Simulations • Read a Simulation
System	• Retrieve System Details

Task Instances	• Cancel a Task Instance • Clear All Dependencies • Clear Exclusive Dependencies • Clear Instance Wait Dependencies • Clear Predecessor Dependencies • Clear Time Dependency • Clear Virtual Resource Dependencies • Delete a Task Instance • Force Finish a Task Instance • Force Finish/Cancel a Task Instance • Hold a Task Instance • Issue Set Completed Command for a Manual Task Instance • Issue Set Started Command for a Manual Task Instance • List Task Instances • List Task Instances: Advanced • List Task Instance Variables (Show Variables) • Release a Task Instance from Hold • Rerun a Task Instance • Retrieve Task Instance Output • Set or Modify Wait Time/Duration for Task Instance • Set Priority for a Task Instance • Skip a Task Instance • Skip a Task Instance Path • Unskip a Task Instance
Tasks	• Create a Task • Delete a Task • Launch a Task • List Tasks • List Tasks - Advanced • Modify a Task • Read a Task
Triggers	• Assign an Execution User to a Trigger • Create a Trigger • Delete a Trigger • Enable/Disable a Trigger • List Trigger Qualifying Times • List Triggers • List Triggers - Advanced • Modify a Trigger • Modify Time of Time Trigger • Read a Trigger • Trigger Now • Unassign an Execution User from a Trigger
Universal Event	• Universal Event Publishing
Universal Event Templates	• Create a Universal Event Template • Delete a Universal Event Template • List Universal Event Templates • Modify a Universal Event Template • Read a Universal Event Template
Universal Templates	• Create a Universal Template • Delete a Universal Template • List Universal Templates • Modify a Universal Template • Read a Universal Template • Restore Default Universal Template Icon • Set Universal Template Icon • Universal Template - Delete Extension Archive • Universal Template - Download Extension Archive • Universal Template - Upload Extension Archive • Universal Template Export • Universal Template Import

Users	• Create a User • Create Personal Access Token • Delete a User • List Personal Access Tokens • List User Preferences • List Users • Modify a User • Read a User • Read a User Preference • Revoke Personal Access Token • Update a User Preference
Variables	• Create a Global Variable • Delete a Global Variable • List Variables • List Variables - Advanced • Modify a Global Variable • Read a Global Variable • Set Variables
Virtual Resources	• Create a Virtual Resource • Delete a Virtual Resource • List Virtual Resources • List Virtual Resources - Advanced • Modify a Virtual Resource • Read a Virtual Resource • Set Limit on a Virtual Resource
Webhooks	• Assign an Execution User to a Webhook • Disable a Webhook • Enable a Webhook • Enable/Disable Multiple Webhooks • List Webhooks • Modify Webhooks • Read a Webhook • Register a Webhook • Unassign an Execution User from a Webhook • Unregister a Webhook
Workflow Task Instances	• Insert a Task into a Workflow with Dependencies • List Predecessors / Successors of a Task Instance in a Workflow
Workflow Tasks	• Create a Workflow • List Workflow Forecast • Modify a Workflow • Read a Workflow • Workflow Tasks and Dependencies

4.2 Swagger UI and OpenAPI

Universal Controller offers an [OpenAPI](#) specification along with a [Swagger UI](#) page that provides an interactive interface for easily visualizing and interacting with Universal Controller RESTful API endpoints.

The Swagger UI page can be accessed from the Universal Controller user interface by clicking on the  icon in the toolbar.

The OpenAPI document can be accessed in either JSON or YAML formats by going to `<Controller URL>/resources/openapi.json` or `<Controller URL>/resources/openapi.yaml`.

4.3 Methods of API Operations

Every API operation is performed using one of the following methods.

Method	Description
GET	Retrieves records from the Controller database.
POST	Creates, or performs an action on, a record in the Controller database.
PUT	Modifies a record in the Controller database. Note PUT, by itself, actually <i>replaces</i> an existing record with whatever information you include in the PUT operation. If you include only partial record information in a PUT, the record in the database will then contain only that information. In order to <i>modify</i> information in a record and retain all of its unmodified information, you must first GET the record from the database, modify (add/delete/change) information in the record, and then PUT the record back in the database.
DELETE	Deletes a record in the Controller database.

4.4 Authentication

Universal Controller requires Web Service requests to be authenticated using one of **Basic Authentication** or **Personal Access Token Authentication**.

For **Basic Authentication**, use the following **Authorization** header, where the *username:password* is base64 encoded.

```
Authorization: Basic username:password
```

For **Personal Access Token Authentication**, use the following **Authorization** header.

```
Authorization: Bearer access-token
```

While it is recommended you use the Authorization header, if required, you can alternatively pass the [Personal Access Token](#) using the *access_token* query parameter.

```
http://hostname:port/uc/resources/task?access_token=access-token&taskname=MyTask
```

If you cannot use any of the above, you can configure an alternative authorization header. To configure an alternative authorization header, refer to the [Web Service Personal Access Token Auth Headers](#) system property.

```
X-Gitlab-Token: access-token
```

See [User Impersonation](#) for information on how to impersonate a user when invoking Universal Controller Web Service APIs.

Request Limits

You can implement application- and user-level concurrent request limits to control how many web service API requests can be in progress at the same time via the following Universal Controller system properties:

Web Service Application Concurrent Request Limit	Controls the number of concurrent requests for the application (that is, the Universal Controller server). This application-level concurrent request limit cannot be less than 1 or less than the user-level concurrent request limit (if specified).
Web Service User Concurrent Request Limit	Controls the number of concurrent requests per unique user ID. This user-level concurrent request limit cannot be less than 1 or more than the application-level concurrent request limit (if specified). If the application-level concurrent request limit is exceeded, an HTTP Status of 429 / Too Many Requests will be returned.

These properties are applied in the following order:

1. User-level Concurrent Request Limit
2. Application-level Concurrent Request Limit

4.5 Memory Utilization Threshold

You can specify a threshold for prohibiting access to the RESTful Web Service API based on a percentage of allocated memory in use.

Web Service Memory Utilization Threshold	Percentage of allocated memory in use that defines a threshold for prohibiting access to the RESTful Web Service API. The threshold must be a whole number (integer) and cannot be less than 1 or more than 99. If the threshold is exceeded, an HTTP Status of 503 /Service Unavailable will be returned.

4.6 Returned Messages

The following table identifies the status codes (part of the HTTP/1.1 standard) that can be returned.

Status Code	Description
200	Success
400	Bad request data.

Status Code	Description
401	User does not have authorization (password identification failure).
403	User does not have permission to access Web Services. Access options are set via: • System Default Web Service Access Universal Controller system property. • User Details (Web Service Access field)
404	Resource not found.
429	Too Many Requests.
500	All other errors. For List Variables , 500 is returned if the Web Service fails due to invalid parameters. (A status description also is returned.)
503	Service Unavailable.

Any other failure status codes may be returned by the underlying RESTful services. Most resources (Controller records) are returned as XML.

You can check status codes in the [Audits](#) and the [uc.log](#) file to determine the cause if their Web Service client is not displaying the error message that comes back with the response.

4.7 User Restriction

You can be restricted from logging in to the RESTful Web Services API either of two ways:

1. The system level default for RESTful Web Services API access, specified by the [System Default Web Service Access](#) Universal Controller system property, has been set to **No**, and the [Web Service Access](#) field in the [User Details](#) for your user account is set to -- **System Default** --.
2. The [Web Service Access](#) field is set to **No**, which overrides the [System Default Web Service Access](#) value.

If either restriction is in place, the following error message will be written to the [Audits](#) table and the [opswise.log](#) file when you attempt to access the RESTful Web Services API:

User <your user name> not permitted to use Web Services. Please check with your administrator.

To remove the restriction, the system administrator must either:

- Set the System Default Web Service Access property to **Yes** and set the **Web Service access** field on the User Definition screen for your user account to -- **System Default** --.
- Set the **Web Service access** field on the User Definition screen for your user account to **Yes**.

4.8 Password Expiration

While a password is [expired](#), RESTful Web Services API access will be prohibited until the password has been changed.

Note

Password expiration is not applicable to LDAP authenticated users.

4.9 Agent Web Services

- [Overview](#)
- [Delete an Agent](#)
- [List Agents](#)
- [List Agents - Advanced](#)
- [Modify an Agent](#)
- [Read an Agent](#)
- [Resume an Agent](#)
- [Set an Agent Task Execution Limit](#)
- [Suspend an Agent](#)

4.9.1 Overview

Universal Controller supports the following RESTful-based web services for [Agent](#) operations, which are listed alphabetically on this page.

- [Delete an Agent](#)
- [List Agents](#)
- [List Agents - Advanced](#)
- [Modify an Agent](#)
- [Read an Agent](#)
- [Resume an Agent](#)
- [Set an Agent Task Execution Limit](#)
- [Suspend an Agent](#)

Formatting specifications for each web service, including details about property requirements, are provided.

4.9.2 Delete an Agent

	Description
URI	http://host_name/uc/resources/agent
HTTP Method	DELETE
Description	Deletes an Agent .
URI Parameters	See Delete an Agent: URI Parameters , below.

	Description
Example URI	http://localhost:8080/uc/resources/agent?agentname=test-pc-SS0001 http://localhost:8080/uc/resources/agent?agentid=SS0001
Authentication	HTTP Basic
Example Response	- Success: Status 200 /OK Agent deleted successfully - Failure: Status 400 /Bad Request Mutual exclusion violation. Cannot specify agentname and agentid at the same time.

4.9.2.1 Delete an Agent: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
agentid	Unique ID for this Agent, created during installation.		Y (unless agentname is specified)	agentname
agentname	Name used within the Controller to identify this agent.	Maximum 40 alphanumeric.	Y (unless agentid is specified)	agentid

4.9.3 List Agents

	Description
URI	http://host_name/uc/resources/agent/list
HTTP Method	GET
Description	Retrieves information on all agents .
Example URI	http://localhost:8080/uc/resources/agent/list
Authentication	HTTP Basic
Produces Content-Type	application/xml, application/json
Example	See List Agents: XML and JSON Examples .
Properties	See List Agents: Properties .

4.9.3.1 List Agents: XML and JSON Examples

The following XML and JSON examples are for the List Agents web service.

XML	JSON
XML <pre> <? xml version="1.0" encoding="UTF-8" standalone ="yes"?> <agents> <agent> <credentialsRequired>false</ credentialsRequired> <extAccept>true</extAccept> <extAcceptList> <extension>*</extension> </extAcceptList> <extApiLevelMax>1.4.0</ extApiLevelMax> <extApiLevelMin>1.0.0</ extApiLevelMin> <extensions> <extension checksum="7C3BBD763658E528A4049E85 BEA206866A9C42530C56F9A852525CEC7944DB12">qae xtension</extension> </extensions> <hostName>SBUS30</hostName> <ipAddress>192.168.56.1</ipAddress> <name>SBUS30 - AGNT0003</name> <outputProhibited>false</ outputProhibited> <queueName>AGNT0003</queueName> <status>Active</status> <suspended>false</suspended> <sysID>8dc34ce553314894a5419d28a20b3579</ sysID> <transient>false</transient> <type>Windows</type> <version>7.4.0.0</version> </agent> </agents> </pre>	JSON <pre> [{ "credentialsRequired": false, "extAccept": true, "extAcceptList": ["*"], "extApiLevelMax": "1.4.0", "extApiLevelMin": "1.0.0", "extensions": [{ "name": "qaextension", "checksum": "7C3BBD763658E528A4049E85BEA20 6866A9C42530C56F9A852525CEC7944DB12" }], "hostName": "SBUS30", "ipAddress": "192.168.56.1", "name": "SBUS30 - AGNT0003", "outputProhibited": false, "queueName": "AGNT0003", "status": "Active", "suspended": false, "sysID": "8dc34ce553314894a5419d28a20b3579 ", "transient": false, "type": "Windows", "version": "7.4.0.0" }] </pre>

4.9.3.2 List Agents: Properties

Property	UI Field Name	Description
extAccept	Accept Extensions	Indication of whether or not the Agent will accept deployment of Universal Extensions.

Property	UI Field Name	Description
extAcceptList	Accept List	If <code>extAccept</code> is true; either: - List of specific Universal Extensions that are allowed to be deployed to the Agent. * for no deployment restrictions.
extApiLevelMin	API Level Minimum	Minimum extension API level supported.
extApiLevelMax	API Level Maximum	Maximum extension API level supported.
extensions	Extensions	List of deployed Universal Extensions and their corresponding checksums.
hostName	Host Name	IP address or domain/name of the host machine where the Agent resides.
ipAddress	IP Address	TCP/IP address of the machine where the Agent is running. If the currently logged in user is a non-Administrator (ops_admin) user, and the Agent Address Information Restricted Universal Controller system property is set to true, ipAddress will be set to <code><ipAddress /></code> (XML) and <code>"ipAddress": null</code> (JSON). Note This also applies to the ipAddress of z/OS secondary Agents.
name	Agent Name	Name used within the Controller to identify this Agent.
outputProhibited	Retrieve Output Prohibited	Specification (true or false) for whether or not Retrieve Output requests are disallowed from being performed for this Agent.
queueName	Agent Id	Unique ID for this Agent.
status	Status	Status of the Agent.
suspended	Suspended	Indication (true or false) of whether or not the Agent currently is suspended.
sysID	n/a	System ID field in the database for this Agent record.
transient	Transient	For Linux Unix Agents only; Specification (true or false) for whether or not the Agent is considered a Transient Agent.
type	Operating System	Operating system on which the Agent is running.
version	Version	Version number of the Agent program.

4.9.4 List Agents - Advanced

	Description
URI	http://host_name/uc/resources/agent/listadv http://host_name/uc/resources/agents/listadv
HTTP Method	GET
Description	Retrieves Agent details using specific query parameters.
Example URI	http://localhost:8080/uc/resources/agent/listadv http://localhost:8080/uc/resources/agent/listadv?agentname=SBUS30*&businessServices=A&type= http://localhost:8080/uc/resources/agent/listadv?agentname=SBUS30* http://localhost:8080/uc/resources/agent/listadv?type=windows
Authentication	HTTP Basic
Produces Content-Type	application/xml, application/json
URI Parameters	See List Agents - Advanced: URI Parameters .
Example Response	See List Agents - Advanced: XML and JSON Examples .

4.9.4.1 List Agents - Advanced: URI Parameters

Name	UI Field Name	Description	Specifications	Required
type	n/a	Type of Agent	Valid values (case insensitive): - As String = Windows, As Value = 1 - As String = Linux/Uni, As Value = 2 - As String = z/OS, As Value = 3 - As String = IBM i, As Value = 9	N
agentname	n/a	Name used within the Controller to identify this Agent.	Wildcards are supported.	N
businessServices	n/a	Business Services that this Agent belongs to.	String value of comma-separated business services.	N

4.9.4.2 List Agents - Advanced: XML and JSON Examples

The following XML and JSON examples are for the List Agents - Advanced web service.

XML	JSON
XML <pre> <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <agents> <windowsAgent> <authVersion>2</authVersion> <build>84</build> <buildDate>20200108073718</ buildDate> <cpu>AMD64 (12 CPU(s))</cpu> <cpuLoad>7</cpuLoad> <credentials /> <credentialsRequired>>false</ credentialsRequired> <currentCount>0</currentCount> <decommissioned>>false</ decommissioned> <decommissionedDate /> <extAccept>>false</extAccept> <extAcceptList/> <extApiLevelMax /> <extApiLevelMin /> <extensions/> <hbDate>2021-04-28 15:48:20 -0400</ hbDate> <hbGracePeriod /> <hbIntvl>120</hbIntvl> <hostName>SBUS30</hostName> <ipAddress>192.168.56.1</ipAddress> <jobs>3</jobs> <limitAmount>5</limitAmount> <limitType>Unlimited</limitType> <logLevel>Informational</logLevel> <name>SBUS30 - AGNT0005</name> <notifications/> <omsServer>localhost</omsServer> <opswiseGroups> <opswiseGroup>A</opswiseGroup> <opswiseGroup>B</opswiseGroup> </opswiseGroups> <os>Microsoft Windows</os> <osRelease>Professional (Build 9200)</osRelease> <outputProhibited>>false</ outputProhibited> <pid>8216</pid> <queueName>AGNT0005</queueName> <startDate>2021-04-28 13:37:15 -0400</startDate> <status>Active</status> </pre>	JSON <pre> [{ "type": "unixAgent", "authVersion": "2", "build": "86", "buildDate": "20200908093406", "cpu": "GenuineIntel Common KVM processor (1 CPU)", "cpuLoad": 1, "credentials": null, "credentialsRequired": false, "currentCount": 0, "decommissioned": false, "decommissionedDate": null, "extAccept": false, "extAcceptList": [], "extApiLevelMax": null, "extApiLevelMin": null, "extensions": [], "hbDate": null, "hbGracePeriod": null, "hbIntvl": 120, "hostName": "qa-lx4u18- x64.stone.branch", "ipAddress": "127.0.1.1", "jobs": 0, "limitAmount": 5, "limitType": "Unlimited", "logLevel": "Informational", "name": "qa-lx4u18-x64.stone.branch - AGNT-QA-LX4U18-X64-1AU", "notifications": { "emailNotifications": [], "snmpNotifications": [] }, "omsServer": null, "opswiseGroups": [], "os": "Linux", "osRelease": "x86_64 4.15.0-23- generic (#25-Ubuntu SMP Wed May 23 18:02:16 UTC 2018)", "outputProhibited": false, "pid": null, "queueName": "AGNT-QA-LX4U18- X64-1AU", "startDate": null, "status": "Offline", "suspended": false, "sysId": "064a4de67fb1457eba88c01a8d7e1a49", </pre>

XML	JSON
<pre> <suspended>>false</suspended> <sysId>1530cd78f6dd4c449820e84419bcfa46</sysId> <transient>>false</transient> <version>6.8.0.0</version> </windowsAgent> <unixAgent> <authVersion>2</authVersion> <build>86</build> <buildDate>20200908093406</buildDate> <cpu>GenuineIntel Common KVM processor (1 CPU)</cpu> <cpuLoad>1</cpuLoad> <credentials /> <currentCount>0</currentCount> <decommissioned>>false</decommissioned> <decommissionedDate /> <extAccept>>false</extAccept> <extAcceptList/> <extApiLevelMax /> <extApiLevelMin /> <extensions/> <hbDate /> <hbGracePeriod /> <hbIntvl>120</hbIntvl> <hostName>qa-lx4u18-x64.stone.branch</hostName> <ipAddress>127.0.1.1</ipAddress> <jobs>0</jobs> <limitAmount>5</limitAmount> <limitType>Unlimited</limitType> <logLevel>Informational</logLevel> <name>qa-lx4u18-x64.stone.branch - AGNT-QA-LX4U18-X64-1AU</name> <notifications/> <omsServer /> <opswiseGroups/> <os>Linux</os> <osRelease>x86_64 4.15.0-23-generic (#25-Ubuntu SMP Wed May 23 18:02:16 UTC 2018)</osRelease> <outputProhibited>>false</outputProhibited> <pid /> <queueName>AGNT-QA-LX4U18-X64-1AU</queueName> <startDate /> <status>Offline</status> <suspended>>false</suspended> </pre>	<pre> "transient": false, "version": "6.9.0.0" } { "authVersion": "2", "build": "84", "buildDate": "20200108073718", "cpu": "AMD64 (12 CPU(s))", "cpuLoad": 7, "credentials": null, "currentCount": 0, "decommissioned": false, "decommissionedDate": null, "extAccept": false, "extAcceptList": [], "extApiLevelMax": null, "extApiLevelMin": null, "extensions": [], "hbDate": "2021-04-28 15:48:20-0400", "hbGracePeriod": null, "hbIntvl": 120, "hostName": "SBUS30", "ipAddress": "192.168.56.1", "jobs": 3, "limitAmount": 5, "limitType": "Unlimited", "logLevel": "Informational", "name": "SBUS30 - AGNT0005", "notifications": { "emailNotifications": [], "snmpNotifications": [] }, "omsServer": "localhost", "opswiseGroups": ["A", "B"], "os": "Microsoft Windows", "osRelease": "Professional (Build 9200)", "outputProhibited": false, "pid": "8216", "queueName": "AGNT0005", "startDate": "2021-04-28 13:37:15-0400", "status": "Active", "suspended": false, "sysId": "1530cd78f6dd4c449820e84419bcfa46", "transient": false, "version": "6.8.0.0" } { </pre>

XML	JSON
<pre> <sysId>064a4de67fb1457eba88c01a8d7e1a49</sysId> <transient>false</transient> <version>6.9.0.0</version> </unixAgent> <zosAgent> <authVersion>2</authVersion> <build>41</build> <buildDate>20210318123354</buildDate> <cpu>3907</cpu> <cpuLoad>0</cpuLoad> <credentials /> <currentCount>0</currentCount> <decommissioned>false</decommissioned> <decommissionedDate /> <extAccept>false</extAccept> <extAcceptList /> <extApiLevelMax /> <extApiLevelMin /> <extensions /> <hbDate /> <hbGracePeriod /> <hbIntvl>120</hbIntvl> <hostName>DVZOS202</hostName> <ipAddress>192.168.30.84</ipAddress> <jobs>0</jobs> <limitAmount>5</limitAmount> <limitType>Unlimited</limitType> <logLevel>Informational</logLevel> <name>DVZOS202 - AGNT0014</name> <notifications /> <omsServer>localhost:7878</omsServer> <opswiseGroups /> <os>ZOS</os> <osRelease>020200</osRelease> <outputProhibited>false</outputProhibited> <pid /> <queueName>AGNT0014</queueName> <secondaryAgentCount>0</secondaryAgentCount> <secondaryAgents /> <startDate /> <status>Offline</status> <suspended>false</suspended> <sysId>11cc3d5269de40c3ae3b03d7b3c771e8</sysId> <systemName>DVZOS202</systemName> <transient>false</transient> </pre>	<pre> "type": "zosAgent", "authVersion": "2", "build": "41", "buildDate": "20210318123354", "cpu": "3907", "cpuLoad": 0, "credentials": null, "currentCount": 0, "decommissioned": false, "decommissionedDate": null, "extAccept": false, "extAcceptList": [], "extApiLevelMax": null, "extApiLevelMin": null, "extensions": [], "hbDate": null, "hbGracePeriod": null, "hbIntvl": 120, "hostName": "DVZOS202", "ipAddress": "192.168.30.84", "jobs": 0, "limitAmount": 5, "limitType": "Unlimited", "logLevel": "Informational", "name": "DVZOS202 - AGNT0014", "notifications": { "emailNotifications": [], "snmpNotifications": [] }, "omsServer": "localhost:7878", "opswiseGroups": [], "os": "ZOS", "osRelease": "020200", "outputProhibited": false, "pid": null, "queueName": "AGNT0014", "secondaryAgentCount": 0, "secondaryAgents": [], "startDate": null, "status": "Offline", "suspended": false, "sysId": "11cc3d5269de40c3ae3b03d7b3c771e8", "systemName": "DVZOS202", "transient": false, "version": "7.0.0.0" }] </pre>

XML	JSON
<pre> <version>7.0.0.0</version> </zosAgent> </agents> </pre>	

4.9.5 Modify an Agent

	Description
URI	http://host_name/uc/resources/agent
HTTP Method	PUT
Description	Modifies the Agent specified by the <code>sysId</code> . To modify Agent properties without modifying related records, see the excludeRelated property.
Example URI	http://localhost:8080/uc/resources/agent
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Agent: XML and JSON Examples .
Agent Properties	See Agent: Properties .
Email Notification Properties	See Agent: Email Notification Properties .
SNMP Notification Properties	See Agent: SNMP Notification Properties .
Example Response	- Status 200 /OK Successfully updated the Agent with sysId <sysId> to version <version>. - Status 400 /Bad Update Agent failed. A duplicate value has been detected. Agent name must be unique.

4.9.6 Read an Agent

	Description
URI	http://host_name/uc/resources/agent
HTTP Method	GET
Description	Retrieves information on a specific Agent.

	Description
URI Parameters	See Read an Agent: URI Parameters .
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example URI	http://localhost:8080/uc/resources/agent?agentid=SS0001
Example Response	See Agent: XML and JSON Examples .
Agent Properties	See Agent: Properties .
Email Notification Properties	See Agent: Email Notification Properties .
SNMP Notification Properties	See Agent: SNMP Notification Properties .

4.9.6.1 Read an Agent: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
agentid	ID used within the Controller to identify this Agent.	String; URI parameter.	Y (unless agentname is specified)	agentname
agentname	Name used within the Controller to identify this Agent.	String; URI parameter.	Y (unless agentid is specified)	agentid

4.9.6.2 Agent: XML and JSON Examples

XML	JSON
<pre> XML <windowsAgent> <authVersion>2</authVersion> <build>120</build> <buildDate>20210306121725</buildDate> <cpu>AMD64 (8 CPU(s))</cpu> <cpuLoad>10</cpuLoad> </credentials> <credentialsRequired>>false</ credentialsRequired> <currentCount>0</currentCount> <decommissioned>>true</decommissioned> <decommissionedDate /> <extAccept>>true</extAccept> <extAcceptList> <extension>extension1</extension> <extension>extension2</extension> </pre>	<pre> JSON { "type": "windowsAgent", "authVersion": 2, "build": "120", "buildDate": "20210324174216", "cpu": "AMD64 (8 CPU(s))", "cpuLoad": 5, "credentialsRequired": false, "credentials": null, "currentCount": 0, "decommissioned": false, "decommissionedDate": null, "extAccept": true, "extAcceptList": ["extension1", "extension2", </pre>

XML	JSON
<pre> <extension>extension3</extension> <extension>extension4</extension> </extAcceptList> <extApiLevelMax>1.0.0</extApiLevelMax> <extApiLevelMin>1.0.0</extApiLevelMin> <extensions> <extension checksum="E5A36DB088762D853C1088C3AD3B5C94D 3F7A363ED02BBC20BA360BAEAF7A513">extension1 </extension> <extension checksum="2C5BA72269E13EE87C3A6C2D79C5C2DAE C245D4646E958D01D1C080AAD4B91F8">extension2 </extension> </extensions> <hbDate>2021-03-19 08:55:45 -0700</hbDate> <hbGracePeriod>120</hbGracePeriod> <hbIntvl>120</hbIntvl> <hostName>test-pc</hostName> <ipAddress>10.253.1.77</ipAddress> <jobs>1</jobs> <limitAmount>10</limitAmount> <limitType>Limited</limitType> <logLevel>Errors</logLevel> <name>test-pc-SS0001</name> <notifications> <emailNotification> <status>Offline,Active</status> <sysId>2b7286b87a7048399fbd95c01a380002</ sysId> <bcc /> <body /> <cc /> <emailConnection>uc - Gmail Account</ emailConnection> <emailTemplate>uc - Template</emailTemplate> <replyTo /> <subject /> <to /> </emailNotification> <snmpNotification> <status>Offline</status> <sysId>21d992c72be44b159aac91c4ee9f40c6</ sysId> <severity>Minor</severity> <snmpManager>SNMP Manager</snmpManager> </pre>	<pre> "extension3", "extension4"], "extApiLevelMax": "1.0.0", "extApiLevelMin": "1.0.0", "extensions": [{ "name": "extension1", "checksum": "E5A36DB088762D853C1088C3AD3B5C94D3F7A363ED 02BBC20BA360BAEAF7A513" }, { "name": "extension2", "checksum": "2C5BA72269E13EE87C3A6C2D79C5C2DAEC245D4646 E958D01D1C080AAD4B91F8" }], "hbDate": null, "hbGracePeriod": 120, "hbIntvl": 120, "hostName": "Mark-4", "ipAddress": "192.168.1.21", "jobs": 1, "limitAmount": 5, "limitType": "Limited", "logLevel": "Informational", "name": "Mark-4 - AGNT001", "notifications": { "emailNotifications": [{ "bcc": null, "body": "\${ops_system_identifler}", "cc": null, "emailConnection": "ecu-office-365", "emailTemplate": "agent-built-variables", "replyTo": null, "status": "Offline,\nActive", "subject": null, "sysId": "e120f05abd104e2e952c6b9e693891ab", "to": "support@stonebranch.com" }], "snmpNotifications": [{ "severity": "Minor", </pre>

XML	JSON
<pre> </snmpNotification> </notifications> <omsServer>localhost:7878</omsServer> <opswiseGroups> <opswiseGroup>group1</opswiseGroup> </opswiseGroups> <os>Microsoft Windows</os> <osRelease>Home Edition (Build 9200)</osRelease> <outputProhibited>>false</outputProhibited> <pid>13356</pid> <queueName>SS0001</queueName> <startDate>2021-03-15 06:09:42 -0700</startDate> <status>Offline</status> <suspended>>false</suspended> <sysId>2f5885727ec947df9c03ed7d9ca6464d</sysId> <systemName>zos1213</systemName> <transient>>true</transient> <version>7.0.0.0</version> </windowsAgent> </pre>	<pre> "snmpManager": "test_manager", "status": "Offline", "sysId": "fc4f4e8b0dea4b51a77a3c20f7e62b2a" }] }, "omsServer": "localhost:7878", "opswiseGroups": ["Accounting"], "os": "Microsoft Windows", "osRelease": "Home Edition (Build 9200)", "outputProhibited": false, "pid": null, "queueName": "AGNT001", "startDate": null, "status": "Offline", "suspended": false, "sysId": "6a363c84d9bd4730bfd6cf43129b4984", "systemName": "zos123", "transient": true, "version": "7.0.0.0" } </pre>

4.9.6.3 Agent: Properties

Property	UI Field Name	Description	Specifications
authVersion	Authentication Version	Type of encryption in use for this Agent.	Read only.
build	Build Id	Build ID of the Agent.	Read only.
buildDate	Build Date	Date that the Agent program was last built.	Read only.
cpu	CPU	Information about the CPU on the Agent machine.	Read only.
cpuLoad	CPU Load	Current CPU load on the Agent machine.	Read only; Integer. Expressed as a percentage. For example, 1 means 1% currently utilized.
credentials	Credentials	Credentials under which this Agent runs tasks. These credentials are overridden by any credentials provided in the task definition for any tasks being run by this Agent.	
credentialsRequired	Credentials Required	Specifies if credentials are required to execute any task on the agent.	Valid Values: true/false (default is false).
currentCount	Current Task Count	If <code>limitType</code> is Limited; Current number of tasks currently being run by this Agent.	Read only.

Property	UI Field Name	Description	Specifications
<code>decommissioned</code>	Decommissioned	For Linux Unix Agents only; Specification (true or false) for whether or not the Agent is decommissioned.	Valid values: true/false (default is false).
<code>decommissionedDate</code>	Decommissioned Date	For Linux Unix Agents only; If <code>decommissioned</code> is true: Date when the Agent was decommissioned.	Read only.
<code>excludeRelated</code>	n/a	For the Modify Agent web service; specification for whether or not to exclude related records from the update, even if they are provided in the request. Note In XML, <code>excludeRelated</code> is specified as an attribute in the <code><agent></code> element.	Valid values: true/false (default is false).
<code>extAccept</code>	Accept Extensions	Indication of whether or not the Agent will accept deployment of Universal Extensions.	Read only.
<code>extAcceptList</code>	Accept List	If <code>extAccept</code> is true; either: - List of specific Universal Extensions that are allowed to be deployed to the Agent. * for no deployment restrictions.	Read only.
<code>extApiLevelMin</code>	API Level Minimum	Minimum extension API level supported.	Read only.
<code>extApiLevelMax</code>	API Level Maximum	Maximum extension API level supported.	Read only.
<code>extensions</code>	Extensions	List of deployed Universal Extensions and their corresponding checksums.	Read only.
<code>hbDate</code>	Last Heartbeat	Date and time that the most recent heartbeat was received from the Agent.	Read only.
<code>hbGracePeriod</code>	Heartbeat Grace Period	Grace period, in seconds, that the Controller will allow for a delayed heartbeat message	Integer.
<code>hbIntvl</code>	Heartbeat Interval	Heartbeat interval (in seconds). The heartbeat is a status message sent from the Agent to the Controller.	Integer.
<code>hostName</code>	Host Name	Read only; IP address or domain/name of the host machine where the resource resides.	Read only.

Property	UI Field Name	Description	Specifications
ipAddress	IP Address	Read only; TCP/IP address of the machine where the Agent is running. If the currently logged in user is a non-Administrator (ops_admin) user, and the Agent Address Information Restricted Universal Controller system property is set to true, ipAddress will be set to <ipAddress /> (XML) and "ipAddress": null (JSON). Note This also applies to the ipAddress of z/OS secondary Agents.	Read only.
jobs	Jobs Run	Read only; Total number of jobs that have been run through the Controller to this Agent.	Read only; Integer.
limitAmount	Limit Amount	If <code>limitType</code> is Limited; Number of tasks that can be running at the same time by the Agent.	Integer.
limitType	Task Execution Limit	Specification for whether a Limited or Unlimited number of task instances can be run concurrently on the Agent.	Valid values: - As String = Unlimited, As Value = 1 - As String = Limited, As Value = 2 Default is Unlimited (1).
outputProhibited	Retrieve Output Prohibited	Specification for whether or not Retrieve Output requests are disallowed from being performed for this Agent.	Read only; Boolean. Valid values: true/false.
logLevel	Log Level	Level of logging that the Agent can perform	Valid values: - Sever Error - Errors - Warnings - Informational - Debug - Trace Default is Informational.
name	Name	Name used within the Controller to identify this Agent.	
omsServer	OMS Server	Host name of the OMS Server.	Read only.
opswiseGroups	Member of Business Services	One or more Business Services that this Agent belongs to.	Read only.
os	Operating System	Operating system on which the Agent is running.	Read only.
osRelease	Operating System Release	Release information for the operating system on which the Agent is running.	Read only.
pid	PID	Process ID of the Agent.	Read only.

Property	UI Field Name	Description	Specifications
queueName	Agent ID	Unique ID for this Agent, created during installation.	Read only.
secondaryAgentCount	Secondary Agent Licenses	For z/OS Agents only; Number of secondary agent licenses.	Read only; Integer
secondaryAgents	Secondary Agent(s)	For z/OS Agents only; List of secondary agent information.	Read only. Format: <pre> <secondaryAgents> <secondaryAgent> <build>10</build> <buildDate>20200821154510</buildDate> <cpu>3900</cpu> <hostName>dvos200</hostName> <ipAddress>192.168.30.10</ipAddress> <mode>Active</mode> <os>zos</os> <osRelease>020200</osRelease> <pid>1000</pid> <startDate>09-04-2020 18:14:14 -07:00</startDate> <sysName>dvos200</sysName> <version>6.9.0.0</version> </secondaryAgent> <secondaryAgent> <build>11</build> <buildDate>20200821154511</buildDate> <cpu>3901</cpu> <hostName>dvos201</hostName> </pre>

Property	UI Field Name	Description	Specifications
			<pre> <ipAddress>192.168.30.11</ipAddress> <mode>Offline</mode> <os>zos</os> <osRelease>020200</osRelease> <pid>1001</pid> <startDate>09-05-2020 18:14:14 -07:00</startDate> <sysName>dvos201</sysName> <version>6.9.0.1</version> </secondaryAgent> </secondaryAgents> </pre>
startDate	Started Date	Date/timestamp when the Agent was last started.	Read only.
status	Status	Status of the Agent.	Read only. Valid values: - Offline - Active - Passive
suspended	Suspended	Indication that the Agent's ability to run tasks has been suspended.	Read only; Boolean. Valid values: true/false.
sysid	n/a	System ID field in the database for this Agent.	Read only.
systemName	System Name	For z/OS Agents only; System name.	Read only.
transient	Transient	For Linux Unix Agents only; Specification (true or false) for whether or not the Agent is considered a Transient Agent.	Valid values: true/false (default is false).
version	Version	Version number of the Agent program.	Read only.

4.9.6.4 Agent: Email Notification Properties

Property	UI Field Name	Description	Specifications
bcc	Bcc	Email address of the party being sent a blind (hidden) copy of the email, if any.	Use commas to separate multiple recipients. Variables and Functions are supported.
body	Body	Text of the email message.	Variables and Functions are supported. If the emailTemplate contains text in the body, this text is appended.
cc	Cc	Email address of the party being sent a copy of the email, if any.	Use commas to separate multiple recipients. Variables and Functions are supported.
emailConnection	Email Connection	Name of an Email Connection .	If you specify both an emailConnection and an emailTemplate, the Controller uses the emailConnection.
emailTemplate	Email Template	Name of an Email Template .	If you specify both an emailConnection and an emailTemplate, the Controller uses the emailConnection.
replyTo	Reply-To	Email address of the sender of the email.	Use commas to separate multiple recipients. Variables and Functions are supported.
status	Status Options	Comma-separated list of statuses	Valid values: • As String = Offline, As Value = 0 • As String = Active, As Value = 1
subject	Subject	Subject line of the email.	Variables and Functions are supported.
sysId	n/a	sys_id used within the Controller to identify this Email Notification.	
to	To	Email address of the recipient.	Use commas to separate multiple recipients. Variables and Functions are supported.

4.9.6.5 Agent: SNMP Notification Properties

Property	UI Field Name	Description	Specifications
severity	Notification Severity	Severity level of this notification.	Valid values: • As String = Normal, As Value = 1 • As String = Warning, As Value = 2 • As String = Minor, As Value = 3 • As String = Major, As Value = 4 • As String = Critical, As Value = 5 Default is Normal (1).

Property	UI Field Name	Description	Specifications
<code>snmpManager</code>	SNMP Manager	SNMP Manager that will receive this notification.	
<code>status</code>	Status Options	Comma-separated list of statuses	Valid values: - As String = Offline, As Value = 0 - As String = Active, As Value = 1
<code>sysId</code>	n/a	<code>sys_id</code> used within the Controller to identify this SNMP Notification.	

4.9.7 Resume an Agent

	Description
URI	http://host_name/uc/resources/agent/ops-resume-agent
HTTP Method	POST
Description	Resumes the specified agent .
Example URI	http://localhost:8080/uc/resources/agent/ops-resume-agent
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Resume an Agent: XML and JSON Examples .
Request Properties	See Resume an Agent: Request Properties .
Example Response	See Resume an Agent: XML and JSON Examples .

4.9.7.1 Resume an Agent: XML and JSON Examples

Example	XML	JSON
Example Request	XML By Agent Name <pre><resume-agent> <agentName>XPS-8300 - AGNT0001</agentName> </resume-agent></pre> By Agent ID <pre><resume-agent> <agentID>AGNT0001</agentID> </resume-agent></pre>	JSON <pre>{ "agentName": "Mark-4 - AGNT001" } or { "agentID": "AGNT001" }</pre>
Example Response	XML <pre><command-response> <type>resume_agent</type> <success>true</success> <info>Successfully resumed agent "XPS-8300 - AGNT0001".</info> <errors /> </command-response></pre>	JSON <pre>{ "type": "resume_agent", "success": true, "info": "Successfully resumed agent "Mark-4 - AGNT001".", "errors": "" }</pre>

4.9.7.2 Resume an Agent: Request Properties

Properties	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agentID	Agent ID	Unique ID for this Agent, created during installation.		Y (unless agentName is specified)	agentName
agentName	Agent Name	Name used within the Controller to identify this resource.	Maximum 40 alphanumerics.	Y (unless agentID is specified)	agentID

4.9.8 Set an Agent Task Execution Limit

	Description
URI	http://host_name/uc/resources/agent/ops-set-agent-task-execution-limit
HTTP Method	POST
Description	Sets the task execution limit for the specified agent.
Example URI	http://localhost:8080/uc/resources/agent/ops-set-agent-task-execution-limit
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Set an Agent Task Execution Limit: XML and JSON Examples .
Request Properties	See Set an Agent Task Execution Limit: Request Properties .
Example Response	See Set an Agent Task Execution Limit: XML and JSON Examples .

4.9.8.1 Set an Agent Task Execution Limit: XML and JSON Examples

Example	XML	JSON
Example Request	By Agent Name Limit Type: Limited <pre><set-agent-task-execution-limit> <agentName>XPS-8300 - AGNT0001</agentName> <limitAmount>10</limitAmount> <limitType>Limited</limitType> </set-agent-task-execution-limit></pre> By Agent ID Limit Type: Limited <pre><set-agent-task-execution-limit> <agentID>AGNT0001</agentID> <limitAmount>10</limitAmount> <limitType>Limited</limitType> </set-agent-task-execution-limit></pre> By Agent ID Limit Type: Unlimited <pre><set-agent-task-execution-limit> <agentID>AGNT0001</agentID> <limitType>Unlimited</limitType> </set-agent-task-execution-limit></pre>	By Agent Name Limit Type: Limited <pre>{ "agentName": "Mark-4 - AGNT001", "limitAmount": 10, "limitType": "Limited" }</pre> By Agent ID Limit Type: Limited <pre>{ "agentID": "AGNT001", "limitAmount": 10, "limitType": "Limited" }</pre> By Agent ID Limit Type: Unlimited <pre>{ "agentID": "AGNT001", "limitType": "Unlimited" }</pre>
Example Response	<pre><command-response> <type>set_agent_task_execution_limit</type> <success>true</success> <info>Successfully updated agent "XPS-8300 - AGNT0001" with task limit type: "Limited", amount: "10".</info> <errors /> </command-resp></pre>	<pre>{ "type": "set_agent_task_execution_limit", "success": true, "info": "Successfully updated agent "Mark-4 - AGNT001" with task limit type: "Unlimited".", "errors": "" }</pre>

4.9.8.2 Set an Agent Task Execution Limit: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agentID	Agent ID	Unique ID for this Agent, created during installation.		Y (unless agentName is specified)	agentName
agentName	Agent Name	Name used within the Controller to identify this resource.	Maximum 40 alphanumeric.	Y (unless agentID is specified)	agentID
limitAmount	Limit Amount	Number of tasks that can be running at the same time by the Agent.		Y (if limitType is Limited (2)).	
limitType	Task Execution Limit	Specification for whether a Limited or Unlimited number of task instances can be run concurrently on the Agent. For purposes of imposing this task execution limit, running task instances are those in any of these statuses: Cancel Pending, Queued, Received, Running, Submitted, and Started.	Valid values: - As String = Unlimited, As Value = 1 - As String = Limited, As Value = 2	Y	

4.9.9 Suspend an Agent

	Description
URI	http://host_name/uc/resources/agent/ops-suspend-agent
HTTP Method	POST
Description	Suspends the specified agent .
Example URI	http://localhost:8080/uc/resources/agent/ops-suspend-agent
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Suspend an Agent: XML and JSON Examples .
Request Properties	See Suspend an Agent: Request Properties , below.
Example Response	See Suspend an Agent: XML and JSON Examples .

4.9.9.1 Suspend an Agent: XML and JSON Examples

Example	XML	JSON
Example Request	XML By Agent Name <pre><suspend-agent> <agentName>XPS-8300 - AGNT0001</agentName> </suspend-agent></pre> By Agent ID <pre><suspend-agent> <agentID>AGNT0001</agentID> </suspend-agent></pre>	JSON By Agent Name <pre>{ "agentName": "Mark-4 - AGNT001" }</pre> By Agent ID <pre>{ "agentID": "AGNT001" }</pre>
Example Response	XML <pre><command-response> <type>suspend_agent</type> <success>true</success> <info>Successfully suspended agent "XPS-8300 - AGNT0001".</info> <errors /> </command-response></pre>	JSON <pre>{ "type": "suspend_agent", "success": true, "info": "Successfully suspended agent "Mark-4 - AGNT001".", "errors": "" }</pre>

4.9.9.2 Suspend an Agent: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agentID	Agent ID	Unique ID for this Agent, created during installation.		Y (unless agentName is specified)	agentName
agentName	Agent Name	Name used within the Controller to identify this resource.	Maximum 40 alphanumerics.	Y (unless agentID is specified)	agentID

4.10 Agent Cluster Web Services

- [Overview](#)
- [Create an Agent Cluster](#)
- [Delete an Agent Cluster](#)
- [List Agent Clusters](#)
- [List Agent Cluster - Advanced](#)
- [Modify an Agent Cluster](#)
- [Read an Agent Cluster](#)
- [Resolve an Agent Cluster](#)
- [Resume an Agent Cluster](#)
- [Resume an Agent Cluster Membership](#)
- [Return an Agent from an Agent Cluster](#)
- [Set an Agent Cluster Task Execution Limit](#)
- [Suspend an Agent Cluster](#)
- [Suspend an Agent Cluster Membership](#)

4.10.1 Overview

Universal Controller supports the following RESTful-based web services for [Agent Cluster](#) operations, which are listed alphabetically on this page.

- [Create an Agent Cluster](#)
- [Delete an Agent Cluster](#)
- [List Agent Clusters](#)
- [Modify an Agent Cluster](#)
- [Read an Agent Cluster](#)
- [Resolve an Agent Cluster](#)
- [Resume an Agent Cluster](#)
- [Resume an Agent Cluster Membership](#)
- [Return an Agent from an Agent Cluster](#)
- [Set an Agent Cluster Task Execution Limit](#)
- [Suspend an Agent Cluster](#)
- [Suspend an Agent Cluster Membership](#)

Formatting specifications for each web service, including details about property requirements, are provided.

4.10.2 Create an Agent Cluster

	Description
URI	http://host_name/uc/resources/agentcluster
HTTP Method	POST
Description	Creates a new Agent Cluster .

	Description
Example URI	http://localhost:8080/uc/resources/agentcluster
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Read an Agent Cluster: XML and JSON Examples .
Agent Cluster Properties	See Agent Cluster Properties .
Agent Properties	See Agent Properties .
Agent Cluster: Email Notification Properties	See Agent Cluster Email Notification Properties .
Agent Cluster: SNMP Notification Properties	See Agent Cluster SNMP Notification Properties .
Example Response	Status 200 /OK Successfully created the agent cluster with sysId {sysId}.

4.10.2.1 Agent Cluster Properties

Property	UI Field Name	Description	Specifications	Required
<code>agentLimitAmount</code>	Agent Limit Amount	If <code>agentLimitType</code> = Limited; Limit of number of agents in this agent cluster.	Default is 10.	N
<code>agentLimitType</code>	Agent Limit	Specification for whether the agent cluster has a Limited or Unlimited number of agents.	Valid Values: - As String = Unlimited, As Value = 1 - As String = Limited, As Value = 2 Default is Unlimited (1).	N
<code>currentCount</code>	Current Task Count	If <code>limitType</code> is Limited (2); Current number of tasks currently being run by the Agents in this agent cluster.	Integer; Read only.	N
<code>description</code>	Description	User-defined; description of this record.		N
<code>distribution</code>	Distribution	Method used to select an Agent in the Agent Cluster.	Valid Values: - As String = Any, As Value = 1 - As String = Round Robin, As Value = 2 - As String = Lowest CPU Utilization, As Value = 3 - As String = Network Alias, As Value = 4 Default is Any (1).	N
<code>exportReleaseLevel</code>	n/a	Universal Controller release that the record was exported from.	read only	N
<code>exportTable</code>	n/a	Record table information.	read only	N

Property	UI Field Name	Description	Specifications	Required
ignoreInactiveAgents	Ignore Inactive Agents	Specification for whether or not inactive (offline) Agents should be ignored when the agent cluster is used for broadcasting.	Optional; Valid values: true/false (default is false).	N
ignoreSuspendedAgents	Ignore Suspended Agents	Specification for whether or not suspended Agents should be ignored when the agent cluster is used for broadcasting.	Optional; Valid values: true/false (default is false).	N
lastAgentUsed	Last Agent Used	Agent that was selected the last time a task was sent to this Agent Cluster.	Read only.	N
lastResolution	Last Resolution	If <code>distribution</code> is Network Alias (4); Last attempted time of Network Alias resolution.	Read only.	N
limitAmount	Limit Amount	If <code>limitType</code> is Limited (2); Number of tasks that can be running at the same time by the Agents in this agent cluster.		N
limitType	Task Execution Limit	Specification for whether a Limited or Unlimited number of task instances can be run concurrently by the Agents in this Agent Cluster.	Valid Values: - As String = Unlimited, As Value = 1 - As String = Limited, As Value = 2 Default is Unlimited (1).	N
name	Cluster Name	Name of this Agent Cluster.		Y
networkAlias	Network Alias	If <code>distribution</code> is Network Alias (4); Network alias (or VIP).		N
networkAliasPort	Agent Port	If <code>distribution</code> is Network Alias (4); Network alias (or VIP) port that the Agent's Universal Broker is listening on.		N
opswiseGroups	Member of Business Services	List of Business Services that this Agent Cluster belongs to. Format: XML <pre><opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups></pre> JSON <pre>"opswiseGroups": ["test"]</pre>		N
resolutionDescription	Resolution Description	If <code>distribution</code> is Network Alias (4); Description of the last attempted resolution.	Read only.	N

Property	UI Field Name	Description	Specifications	Required
resolutionStatus	Resolution Status	If <code>distribution</code> is Network Alias (4); Status of the last resolution of the Network Alias.	Read only.	N
resumedOn	Resumed On	Date and time when a suspended Agent Cluster was resumed.	Read only.	N
retainSysIds	n/a	Specification for whether or not the Create an Agent Cluster web service will persist the <code>sysId</code> - CAC property. - If <code>retainSysIds</code>="true" and <code>sysId</code> is included in the request, <code>sysId</code> will be persisted to the database. - If <code>retainSysIds</code>="false" and <code>sysId</code> is included in the request, <code>sysId</code> will be ignored; it will be autogenerated by the Controller. Note In XML web services, <code>retainSysIds</code> is specified as an attribute in the <agentCluster> element.	Optional; Valid values: true/false (default is true).	N
strictBsrvMembership	Strict Business Services Membership	Specifies whether to only allow Agent to Cluster Associations where the Business Service matches. If true, only agents with matched Member of Business Services can be added to the cluster.	Boolean; Valid values: true/false. Default is false.	N
suspended	Suspended	Indication of whether or not the ability for this cluster of Agents to run tasks has been suspended.	Read only; Boolean; Valid Values: true/false.	N
suspendedOn	Suspended On	Date and time when the Agent Cluster was suspended.	Read only.	N
sysId	n/a	<code>sys_id</code> used within the Controller to identify this Agent Cluster.		N
type	n/a	Type of Agent Cluster.	For List Agent Clusters: Read only; Valid values: - Windows - Linux/Unix - IBM i For Create/Modify/Read Agent Clusters: Applicable to JSON only; Specifies agent cluster type to create/modify. Valid values: - windowsAgentCluster - unixAgentCluster - ibmiAgentCluster	N

4.10.2.2 Agent Properties

Property	UI Field Name	Description	Specifications	Required
agentName	Agent	Name of an Agent in the Agent Cluster.		Y
membershipDecommissioned	Membership Decommissioned	Indication of whether or not the Agent has been temporarily decommissioned from the Agent Cluster; the Agent will not be available as a selection from the Agent Cluster while it is decommissioned.		N
membershipResumedOn	Membership Resumed On	Date and time that an Agent temporarily suspended from the Agent Cluster has been resumed.	Read only; Boolean; Valid Values: true/false.	N
membershipSuspended	Membership Suspended	Indication of whether or not the Agent has been temporarily suspended from the Agent Cluster; the Agent will not be available as a selection from the Agent Cluster while it is suspended.	Read only; Boolean; Valid Values: true/false.	N
membershipSuspendedOn	Membership Suspended On	Date and time that the Agent has been temporarily suspended from the Agent Cluster.	Read only; Boolean; Valid Values: true/false.	N
type	n/a	Type of Agent	Read only; Valid values: - Windows - Linux/Unix - IBM i	N
sysId	n/a	sys_id used within the Controller to identify the Agent Cluster membership of this Agent.		N

4.10.2.3 Agent Cluster: Email Notification Properties

Property	UI Field Name	Description	Specifications
bcc	Bcc	Email address of the party being sent a blind (hidden) copy of the email, if any.	Use commas to separate multiple recipients. Variables and Functions are supported.
body	Body	Text of the email message.	Variables and Functions are supported. If the emailTemplate contains text in the body, this text is appended.
cc	Cc	Email address of the party being sent a copy of the email, if any.	Use commas to separate multiple recipients. Variables and Functions are supported.
emailConnection	Email Connection	Name of an Email Connection .	If you specify both an emailConnection and an emailTemplate, the Controller uses the emailConnection.

Property	UI Field Name	Description	Specifications
emailTemplate	Email Template	Name of an Email Template .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> .
replyTo	Reply-To	Email address of the sender of the email.	Use commas to separate multiple recipients. Variables and Functions are supported.
state	Notification State	Comma-separated list of Notification states	Valid values: • As String = Agents Unavailable, As Value = 1 • As String = Agent Available, As Value = 2 • As String = Suspended, As Value = 4 • As String = Resumed, As Value = 8
subject	Subject	Subject line of the email.	Variables and Functions are supported.
sysId	n/a	sys_id used within the Controller to identify this Email Notification.	
to	To	Email address of the recipient.	Use commas to separate multiple recipients Variables and Functions are supported.

4.10.2.4 Agent Cluster: SNMP Notification Properties

Property	UI Field Name	Description	Specifications
severity	Notification Severity	Severity level of this notification.	Valid values: • As String = Normal, As Value = 1 • As String = Warning, As Value = 2 • As String = Minor, As Value = 3 • As String = Major, As Value = 4 • As String = Critical, As Value = 5 Default is Normal (1).
snmpManager	SNMP Manager	SNMP Manager that will receive this notification.	
state	Notification State	Comma-separated list of Notification states	Valid values: • As String = Agents Unavailable, As Value = 1 • As String = Agent Available, As Value = 2 • As String = Suspended, As Value = 4 • As String = Resumed, As Value = 8
sysId	n/a	sys_id used within the Controller to identify this SNMP Notification.	

4.10.3 Delete an Agent Cluster

	Description
URI	http://host_name/uc/resources/agentcluster
HTTP Method	DELETE
Description	Deletes a specific Agent Cluster .
URI Parameters	See Delete an Agent Cluster: URI Parameters .
Example URI	http://localhost:8080/uc/resources/agentcluster?agentclusterid=35dc94a7a8834d28b51e03b5780cd90c
Authentication	HTTP Basic
Example Response	- Status 200 /OK Agent cluster deleted successfully. - Status 400 /Bad Request Mutual exclusion violation. Cannot specify agentclustername and agentclusterid at the same time. - Status 404 /Not Found A custom day with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

4.10.3.1 Delete an Agent Cluster: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
<code>agentclusterid</code>	Unique ID for this Agent Cluster.		Y (unless <code>agentclustername</code> is specified)	<code>agentclustername</code>
<code>agentclustername</code>	Name used within the Controller to identify this Agent Cluster.		Y (unless <code>agentclusterid</code> is specified)	<code>agentclusterid</code>

4.10.4 List Agent Clusters

	Description
URI	http://host_name/uc/resources/agentcluster/list
HTTP Method	GET
Description	Retrieves information on all Agent Clusters .
Example URI	http://localhost:8080/uc/resources/agentcluster/list

	Description
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Response Examples	See List Agent Clusters: XML and JSON Examples .
Agent Cluster Properties	See Agent Cluster Properties .
Agent Properties	See Agent Properties .
Agent Cluster: Email Notification Properties	See Agent Cluster Email Notification Properties .
Agent Cluster: SNMP Notification Properties	See Agent Cluster SNMP Notification Properties .

4.10.4.1 List Agent Clusters: XML and JSON Examples

XML	JSON
<pre> XML <agentClusters> <agentCluster version="1"> <agents> <agent> <Agent Cluster Web Services#agentName>pc - SS0001</agentName> <membershipDecommissioned>true</ membershipDecommissioned> <membershipResumedOn /> <membershipSuspended>true</ membershipSuspended> <membershipSuspendedOn>2021-06-29 19:18:30 -400</membershipSuspendedOn> <sysId>af1984d3481b 4bccb9bea0e4e1d6fbf2</sysId> <type>Linux/Unix</ type> </agent> </agents> <currentCount>0</currentCount> <description>Cluster of Linux Agents</description> <distribution>Network Alias</ distribution> <ignoreInactiveAgents>true</ ignoreInactiveAgents> <ignoreSuspendedAgents>true0</ </pre>	<pre> JSON [{ "agents": [{ "agentName": "Mark-4 - AGNT001", "membershipDecommissioned": true, "membershipResumedOn": null, "membershipSuspended": true, "membershipSuspendedOn": "2021-06-29 19:18:30 -400", "sysId": "941e558d6f2b4656bdb870e2551fa85e", "type": "Linux/Unix" }], "currentCount": 0, "description": "Cluster of Linux Agents", "distribution": "Network Alias", "ignoreInactiveAgents": true, "ignoreSuspendedAgents": true, "lastAgentUsed": "sb-qa-123", "lastResolution": "2018-09-12 09:52:03.410 -0500", "limitAmount": 5, "limitType": "Unlimited", "name": "Cluster 1", "networkAlias": "qa-123", "networkAliasPort": null, "notifications": { "emailNotifications": [{ "bcc": null, "body": "\${ops_system_identifler}", "cc": null, </pre>

XML	JSON
<pre> ignoreSuspendedAgents> <lastAgentUsed>sb-qa-123</lastAgentUsed> <lastResolution>2018-09-12 09:52:03.410 -0500</lastResolution> <limitAmount>5</limitAmount> <limitType>Unlimited</limitType> <name>Cluster 1</name> <networkAlias>qa-123</networkAlias> <networkAliasPort /> <notifications> <emailNotification> <sysId>2b7286b87a7048399fbd95c0 1a380002</sysId> <bcc /> <body /> <cc /> <emailConnection>uc - Gmail Account</emailConnection> <emailTemplate>uc - Template</emailTemplate> <replyTo /> <state>Agents Unavailable<[/state]> <subject /> <to /> </emailNotification> <snmpNotification> <state>Agents Unavailable</state> <sysId>21d992c72be44b159aac91c4 ee9f40c6</sysId> <severity>Minor</severity> <snmpManager>SNMP Manager</snmpManager> </snmpNotification> </notifications> <opswiseGroups /> <resolutionDescription>Agent in Use:'sb-qa-123'</resolutionDescription> <resolutionStatus>Success</resolutionStatus> <resumedOn>2021-06-29 19:18:30 -400</resumedOn> <strictBsrvMembership>>false</strictBsrvMembership> <suspended>>false</suspended> <suspendedOn /> <sysId>cb5b876aa9fec69f0032b55e 0391d693</sysId> <type>Windows</type> </agentCluster> <agentCluster version="1"> <agents> </pre>	<pre> "emailConnection": "ecu-office-365", "emailTemplate": "agent-built-variables", "replyTo": null, "state": "Agents Unavailable", "subject": null, "sysId": "e120f05abd104e2e952c6b9e693891ab", "to": "support@stonebranch.com" }], "snmpNotifications": [{ "severity": "Minor", "snmpManager": "test_manager", "state": "Agents Unavailable", "sysId": "fc4f4e8b0dea4b51a77a3c20f7e62b2a" }] }, "opswiseGroups": [], "resolutionDescription": "Agent in Use:'sb-qa-123'", "resolutionStatus": "Success", "resumedOn": "2021-06-29 19:18:30 -400", "strictBsrvMembership": false, "suspended": false, "suspendedOn": null, "sysId": "35dc94a7a8834d28b51e03b5780cd90c", "type": "Windows" "version": 1 }, { "agents": [{ "Agent Cluster Web Services#agentName": "Mark-4 - AGNT002", "membershipDecommissioned": false, "membershipResumedOn": null, "membershipSuspended": true, "membershipSuspendedOn": "2021-06-29 19:18:30 -400", "sysId": "941e558d6f2b4656bdb870e2551fa85f", "type": "Windows" }], "currentCount": 0, "description": "Cluster of Windows Agents", "distribution": "Network Alias", "ignoreInactiveAgents": true, "ignoreSuspendedAgents": true, "lastAgentUsed": "sb-qa-123", "lastResolution": "2018-09-13 10:52:03.410 -0500", "limitAmount": 5, </pre>

XML	JSON
<pre> <agent> <Agent Cluster Web Services#agentName>pc - SS0002</Agent Cluster Web Services#agentName> <membershipDecommissioned>>false</ membershipDecommissioned> <membershipResumedOn /> <membershipSuspended>>true</ membershipSuspended> <membershipSuspendedOn>2021-06-29 19:18:30 -400</membershipSuspendedOn> <sysId>af1984d3481b 4bccb9bea0e4e1d6fbf3</sysId> <type>Windows</type> </agent> </agents> <currentCount>0</currentCount> <description>Cluster of Windows Agents</description> <distribution>Network Alias</ distribution> <ignoreInactiveAgents>>true</ ignoreInactiveAgents> <ignoreSuspendedAgents>>true0</ ignoreSuspendedAgents> <lastAgentUsed>sb-qa-123</ lastAgentUsed> <lastResolution>2018-09-13 10:52:03.410 -0500</lastResolution> <limitAmount>5</limitAmount> <limitType>Unlimited</limitType> <name>Cluster 2</name> <networkAlias>qa-123</ networkAlias> <networkAliasPort /> <notifications> <emailNotification> <sysId>2b7286b87a7048399fbd95c0 1a380002</sysId> <bcc /> <body /> <cc /> <emailConnection>uc - Gmail Account</emailConnection> <emailTemplate>uc - Template</ emailTemplate> <replyTo /> <state>Agents Unavailable</ state> <subject /> </pre>	<pre> "limitType": "Unlimited", "name": "Cluster 2", "networkAlias": "qa-123", "networkAliasPort": null, "notifications": { "emailNotifications": [{ "bcc": null, "body": "\${ops_system_identifiler}", "cc": null, "emailConnection": "ecu-office-365", "emailTemplate": "agent-built- variables", "replyTo": null, "state": "Agents Unavailable", "subject": null, "sysId": "e120f05abd104e2e952c6b9e693891ab", "to": "support@stonebranch.com" }], "snmpNotifications": [{ "severity": "Minor", "snmpManager": "test_manager", "state": "Agents Unavailable", "sysId": "fc4f4e8b0dea4b51a77a3c20f7e62b2a" }] }, "opswiseGroups": [], "resolutionDescription": "Agent in Use:'sb-qa-123'", "resolutionStatus": "Success", "resumedOn": null, "strictBsrvMembership": false, "suspended": true, "suspendedOn": 2021-06-29 19:18:30 -400, "sysId": "35dc94a7a8834d28b51e03b5780cd90d", "type": "Windows" "version": 1 }] </pre>

XML	JSON
<pre> <to /> </emailNotification> <snmpNotification> <state>Agents Unavailable</ state> <sysId>21d992c72be44b159aac91c4 ee9f40c6</sysId> <severity>Minor</severity> <snmpManager>SNMP Manager</ snmpManager> </snmpNotification> </notifications> <opswiseGroups /> <resolutionDescription>Agent in Use: 'sb-qa-123'</resolutionDescription> <resolutionStatus>Success</ resolutionStatus> <resumedOn /> <strictBsrvcMembership>false</ strictBsrvcMembership> <suspended>true</suspended> <suspendedOn>2021-06-29 19:18:30 -400</suspendedOn> <sysId>cb5b876aa9fec69f0032b55e 0391d694</sysId> <type>Windows</type> </agentCluster> </agentClusters> </pre>	

4.10.5 List Agent Cluster - Advanced

	Description
URI	http://host_name/uc/resources/agentcluster/listadv
HTTP Method	GET
Description	Retrieves Agent Clusters details using specific query parameters.
Example URI	http://localhost:8080/uc/resources/agentcluster/listadv http://localhost:8080/uc/resources/agentcluster/listadv?agentclustername=*cluster* http://localhost:8080/uc/resources/agentcluster/listadv?businessServices=bs1 http://localhost:8080/uc/resources/agentcluster/listadv?type=Linux/Unix http://localhost:8080/uc/resources/agentcluster/listadv?agentclustername=*cluster*&businessServices=bs1,bs2&type=Windows
Authentication	HTTP Basic
Produces Content-Type	application/xml, application/json

	Description
Consumes Content-Type	n/a
Example Responses	See List Agent Cluster - Advanced: XML and JSON Examples
URI Properties	See List Agent Cluster - Advanced: URI Properties

4.10.5.1 List Agent Cluster - Advanced: URI Properties

Property	UI Field Name	Description	Specifications	Required
agentclustername	Name	Name or partial name of one or more agent clusters.	Wildcards are supported.	N
businessServices	Member of Business Services	Business Services that one or more agent clusters belong to.	String value of comma-separated Business Services.	N
type	n/a	Agent Cluster Type of agent clusters to list.	Valid values: One of the following (not case sensitive): • As String = Windows, As Value = 1 • As String = Linux/Unix, As Value = 2 • As String = IBM i, As Value = 9 If type is not specified, defaults to all types.	N

4.10.5.2 List Agent Cluster - Advanced: XML and JSON Examples

XML	JSON
XML <pre> <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <agentClusters> <unixAgentCluster exportReleaseLevel="7.3.0.0" exportTable="ops_unix_agent_cluster" retainSysIds="true" version="2"> <agents/> <currentCount>0</currentCount> <description /> <distribution>Any</distribution> <ignoreInactiveAgents>false</ ignoreInactiveAgents> <ignoreSuspendedAgents>false</ ignoreSuspendedAgents> <lastAgentUsed /> <lastResolution /> <limitAmount>5</limitAmount> <limitType>Unlimited</limitType> <name>linux_cluster_1</name> <networkAlias /> <networkAliasPort /> <notifications/> <opswiseGroups/> <resolutionDescription /> <resolutionStatus>None</ resolutionStatus> <resumedOn /> <strictBsrvMembership>false</ strictBsrvMembership> </pre>	JSON <pre> [{ "type": "unixAgentCluster", "agents": [], "currentCount": 0, "description": null, "distribution": "Any", "exportReleaseLevel": "7.3.0.0", "exportTable": "ops_unix_agent_cluster", "ignoreInactiveAgents": false, "ignoreSuspendedAgents": false, "lastAgentUsed": null, "lastResolution": null, "limitAmount": 5, "limitType": "Unlimited", "name": "linux_cluster_1", "networkAlias": null, "networkAliasPort": null, "notifications": { "emailNotifications": [], "snmpNotifications": [] }, "opswiseGroups": [], "resolutionDescription": null, "resolutionStatus": "None", "resumedOn": null, "retainSysIds": true, "strictBsrvMembership": false, "suspended": false, "suspendedOn": null, "sysId": "89ef2f9a35684825849881978b827ee7", "version": 2 }] </pre>

XML	JSON
<pre> <suspended>>false</suspended> <suspendedOn /> <sysId>89ef2f9a35684825849881978b827ee7</sysId> </unixAgentCluster> <unixAgentCluster exportReleaseLevel="7.3.0.0" exportTable="ops_unix_agent_cluster" retainSysIds="true" version="2"> <agents/> <currentCount>0</currentCount> <description /> <distribution>Any</distribution> <ignoreInactiveAgents>>false</ignoreInactiveAgents> <ignoreSuspendedAgents>>false</ignoreSuspendedAgents> <lastAgentUsed /> <lastResolution /> <limitAmount>5</limitAmount> <limitType>Unlimited</limitType> <name>linux_cluster_2</name> <networkAlias /> <networkAliasPort /> <notifications/> <opswiseGroups/> <resolutionDescription /> <resolutionStatus>None</resolutionStatus> <resumedOn /> <suspended>>false</suspended> <suspendedOn /> </pre>	<pre> }, { "type": "unixAgentCluster", "agents": [], "currentCount": 0, "description": null, "distribution": "Any", "exportReleaseLevel": "7.3.0.0", "exportTable": "ops_unix_agent_cluster", "ignoreInactiveAgents": false, "ignoreSuspendedAgents": false, "lastAgentUsed": null, "lastResolution": null, "limitAmount": 5, "limitType": "Unlimited", "name": "linux_cluster_2", "networkAlias": null, "networkAliasPort": null, "notifications": { "emailNotifications": [], "snmpNotifications": [] }, "opswiseGroups": [], "resolutionDescription": null, "resolutionStatus": "None", "resumedOn": null, "retainSysIds": true, "strictBsrvMembership": false, "suspended": false, "suspendedOn": null, "sysId": "a47c4a0e6c1d4da5896dd9c072bacb28", "version": 2 }, { "type": "windowsAgentCluster", </pre>

XML	JSON
<pre> <strictBsrvMembership>false</ strictBsrvMembership> <sysId>a47c4a0e6c1d4da5896dd9c072bacb28</ sysId> </unixAgentCluster> <windowsAgentCluster exportReleaseLevel="7.3.0.0" exportTable="ops_windows_agent_cluster" retainSysIds="true" version="1"> <agents/> <currentCount>0</currentCount> <description /> <distribution>Any</distribution> <ignoreInactiveAgents>false</ ignoreInactiveAgents> <ignoreSuspendedAgents>false</ ignoreSuspendedAgents> <lastAgentUsed /> <lastResolution /> <limitAmount>5</limitAmount> <limitType>Unlimited</limitType> <name>wins_cluster_1</name> <networkAlias /> <networkAliasPort /> <notifications/> <opswiseGroups/> <resolutionDescription /> <resolutionStatus>None</ resolutionStatus> <resumedOn /> <strictBsrvMembership>false</ strictBsrvMembership> </pre>	<pre> "agents": [], "currentCount": 0, "description": null, "distribution": "Any", "exportReleaseLevel": "7.3.0.0", "exportTable": "ops_windows_agent_cluster", "ignoreInactiveAgents": false, "ignoreSuspendedAgents": false, "lastAgentUsed": null, "lastResolution": null, "limitAmount": 5, "limitType": "Unlimited", "name": "wins_cluster_1", "networkAlias": null, "networkAliasPort": null, "notifications": { "emailNotifications": [], "snmpNotifications": [] }, "opswiseGroups": [], "resolutionDescription": null, "resolutionStatus": "None", "resumedOn": null, "retainSysIds": true, "strictBsrvMembership": false, "suspended": false, "suspendedOn": null, "sysId": "3f5c2bb17d2d43149eb70da856c51fe2", "version": 1 }, { "type": "windowsAgentCluster", "agents": [], "currentCount": 0, "description": null, </pre>

XML	JSON
<pre> <suspended>>false</suspended> <suspendedOn /> <sysId>3f5c2bb17d2d43149eb70da856c51fe2</sysId> </windowsAgentCluster> <windowsAgentCluster exportReleaseLevel="7.3.0.0" exportTable="ops_windows_agent_cluster" retainSysIds="true" version="1"> <agents/> <currentCount>0</currentCount> <description /> <distribution>Any</distribution> <ignoreInactiveAgents>>false</ignoreInactiveAgents> <ignoreSuspendedAgents>>false</ignoreSuspendedAgents> <lastAgentUsed /> <lastResolution /> <limitAmount>5</limitAmount> <limitType>Unlimited</limitType> <name>wins_cluster_2</name> <networkAlias /> <networkAliasPort /> <notifications/> <opswiseGroups/> <resolutionDescription /> <resolutionStatus>None</resolutionStatus> <resumedOn /> <strictBsrvcMembership>>false</strictBsrvcMembership> <suspended>>false</suspended> <suspendedOn /> <sysId>3dc7749381ab461883f6a1807c7c3c7d</sysId> </windowsAgentCluster> </agentClusters> </pre>	<pre> "distribution": "Any", "exportReleaseLevel": "7.3.0.0", "exportTable": "ops_windows_agent_cluster", "ignoreInactiveAgents": false, "ignoreSuspendedAgents": false, "lastAgentUsed": null, "lastResolution": null, "limitAmount": 5, "limitType": "Unlimited", "name": "wins_cluster_2", "networkAlias": null, "networkAliasPort": null, "notifications": { "emailNotifications": [], "snmpNotifications": [] }, "opswiseGroups": [], "resolutionDescription": null, "resolutionStatus": "None", "resumedOn": null, "retainSysIds": true, "strictBsrvcMembership": false, "suspended": false, "suspendedOn": null, "sysId": "3dc7749381ab461883f6a1807c7c3c7d", "version": 1 }] </pre>

4.10.6 Modify an Agent Cluster

	Description
URI	http://host_name/uc/resources/agentcluster
HTTP Method	PUT
Description	Modifies the Agent Cluster specified by the <code>sysId</code> .
Example URI	http://localhost:8080/uc/resources/agentcluster
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Modify an Agent Cluster: XML and JSON Examples .
Agent Cluster Properties	See Agent Cluster Properties .
Agent Properties	See Agent Properties .
Agent Cluster: Email Notification Properties	See Agent Cluster Email Notification Properties .
Agent Cluster: SNMP Notification Properties	See Agent Cluster SNMP Notification Properties .
Example Response	Status 200 /OK Successfully updated the agent cluster with sysId {sysId}.

4.10.6.1 Modify an Agent Cluster: XML and JSON Examples

XML	JSON
<pre>XML <windowsAgentCluster> <description>Cluster of Windows Agents</description> <distribution>Any</distribution> <ignoreInactiveAgents>true</ ignoreInactiveAgents> <ignoreSuspendedAgents>true0</ ignoreSuspendedAgents> <limitAmount>5</limitAmount> <limitType>Limited</limitType> <name>cluster1</name> <networkAlias /> <networkAliasPort /> <notifications> <emailNotification> <sysId>2b7286b87a7048399fbd95 c01a380002</sysId> <bcc /> <body /> <cc /> <emailConnection>uc - Gmail Account</emailConnection> <emailTemplate>uc - Template< /emailTemplate> <replyTo /> <state>Agents Unavailable</ state> <subject /> <to /> </emailNotification> <snmpNotification> <state>Agents Unavailable</ state> <sysId>21d992c72be44b159aac91 c4ee9f40c6</sysId> <severity>Minor</severity> <snmpManager>SNMP Manager</ snmpManager> </snmpNotification> </notifications> <sysId>35dc94a7a8834d28b51e03b5780c d90c</sysId> </windowsAgentCluster></pre>	<pre>JSON { "type": "windowsAgentCluster", "description": "Cluster of Windows Agents", "distribution": "Any", "ignoreInactiveAgents": true, "ignoreSuspendedAgents": true, "limitAmount": 5, "limitType": "Unlimited", "name": "cluster1", "networkAlias": null, "networkAliasPort": null, "notifications": { "emailNotifications": [{ "bcc": null, "body": "\${ops_system_identifier}", "cc": null, "emailConnection": "ecu-office-365", "emailTemplate": "agent-built- variables", "replyTo": null, "state": "Agents Unavailable", "subject": null, "sysId": "e120f05abd104e2e952c6b9e693891ab", "to": "support@stonebranch.com" }], "snmpNotifications": [{ "severity": "Minor", "snmpManager": "test_manager", "state": "Agents Unavailable", "sysId": "fc4f4e8b0dea4b51a77a3c20f7e62b2a" }] }, "sysId": "35dc94a7a8834d28b51e03b5780cd90c", }</pre>

4.10.7 Read an Agent Cluster

	Description
URI	http://host_name/uc/resources/agentcluster
HTTP Method	GET
Description	Retrieves information on a specific Agent cluster.
URI Parameters	See Read an Agent Cluster URI Parameters .
Example URI	http://localhost:8080/uc/resources/agentcluster?agentclustername=cluster1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See Read an Agent Cluster: XML and JSON Examples .
Agent Cluster Properties	See Agent Cluster Properties .
Agent Properties	See Agent Properties .
Agent Cluster: Email Notification Properties	See Agent Cluster Email Notification Properties .
Agent Cluster: SNMP Notification Properties	See Agent Cluster SNMP Notification Properties .

4.10.7.1 Read an Agent Cluster: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
<code>agentclusterid</code>	ID used within the Controller to identify this Agent cluster.	String; URI parameter.	Y (unless <code>agentclustername</code> is specified)	<code>agentclustername</code>
<code>agentclustername</code>	Name used within the Controller to identify this Agent cluster.	String; URI parameter.	Y (unless <code>agentclusterid</code> is specified)	<code>agentclusterid</code>

4.10.7.2 Read an Agent Cluster: XML and JSON Examples

The `retainSysIds` and `version` properties are specified as attributes in XML.

The

`exportReleaseLevel`and `exportTable` properties are specified as attributes in XML.

XML	JSON
<pre> XML <windowsAgentCluster exportReleaseLevel=" 7.2.0.0" exportTable="ops_windows_agent_c luster" retainsSysIds="true" version="1"> <agents> <agent> <Agent Cluster Web Services#agentName>pc - SS0001</Agent Cluster Web Services#agentName> <membershipResumedOn /> <membershipSuspended>tr ue</membershipSuspended> <membershipSuspendedOn> 2021-06-29 19:18:30 -400</ membershipSuspendedOn> <sysId>af1984d3481b4bcc b9bea0e4e1d6fbf2</sysId> <type>Windows</type> </agent> </agents> <currentCount>0</currentCount> <description>Cluster of Windows Agents</description> <distribution>Network Alias</ distribution> <ignoreInactiveAgents>true</ ignoreInactiveAgents> <ignoreSuspendedAgents>true0</ ignoreSuspendedAgents> <lastAgentUsed>sb-qa-123</ lastAgentUsed> <lastResolution>2018-09-12 09:52:03.410 -0500</lastResolution> <limitAmount>5</limitAmount> <limitType>Unlimited</limitType> <name>Cluster 1</name> <networkAlias>qa-123</networkAlias> <networkAliasPort /> <notifications> <emailNotification> <sysId>2b7286b87a7048399fbd95 c01a380002</sysId> <bcc /> <body /> <cc /> <emailConnection>uc - Gmail Account</emailConnection> <emailTemplate>uc - Template< </pre>	<pre> JSON { "type": "windowsAgentCluster", "agents": [{ "Agent Cluster Web Services#agentName": "Mark-4 - AGNT001", "membershipResumedOn": null, "membershipSuspended": true, "membershipSuspendedOn": "2021-06-29 19:18:30 -400", "sysId": "941e558d6f2b4656bdb870e2551fa85e", "type": "Windows" }], "currentCount": 0, "description": "Cluster of Windows Agents", "distribution": "Network Alias", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_windows_agent_cluster", "ignoreInactiveAgents": true, "ignoreSuspendedAgents": true, "lastAgentUsed": "sb-qa-123", "lastResolution": "2018-09-12 09:52:03.410 -0500", "limitAmount": 5, "limitType": "Unlimited", "name": "Cluster 1", "networkAlias": "qa-123", "networkAliasPort": null, "notifications": { "emailNotifications": [{ "bcc": null, "body": "\${ops_system_identifier}", "cc": null, "emailConnection": "ecu-office-365", "emailTemplate": "agent-built- variables", "replyTo": null, "state": "Agents Unavailable", "subject": null, "sysId": "e120f05abd104e2e952c6b9e693891ab", "to": "support@stonebranch.com" }], "snmpNotifications": [{ "severity": "Minor", "snmpManager": "test_manager", "state": "Agents Unavailable", </pre>

XML	JSON
<pre> /emailTemplate> <replyTo /> <state>Agents Unavailable</ state> <subject /> <to /> </emailNotification> <snmpNotification> <state>Agents Unavailable</ state> <sysId>21d992c72be44b159aac91 c4ee9f40c6</sysId> <severity>Minor</severity> <snmpManager>SNMP Manager</ snmpManager> </snmpNotification> </notifications> <opswiseGroups /> <resolutionDescription>Agent in Use:'sb-qa-123'</resolutionDescription> <resolutionStatus>Success</ resolutionStatus> <resumedOn>2021-06-29 19:18:30 -400</resumedOn> <strictBsrvMembership>>false</ strictBsrvMembership> <suspended>>false</suspended> <suspendedOn /> <sysId>35dc94a7a8834d28b51e03b5780c d90c</sysId> </windowsAgentCluster> </pre>	<pre> "sysId": "fc4f4e8b0dea4b51a77a3c20f7e62b2a" }] }, "opswiseGroups": [], "resolutionDescription": "Agent in Use:'sb- qa-123'", "resolutionStatus": "Success", "retainSysIds": true, "resumedOn": "2021-06-29 19:18:30 -400", "strictBsrvMembership": false, "suspended": false, "suspendedOn": null, "sysId": "35dc94a7a8834d28b51e03b5780cd90c", "version": 1 } </pre>

4.10.8 Resolve an Agent Cluster

	Description
URI	http://host_name/uc/resources/agentcluster/resolve
HTTP Method	POST
Description	Resolves the Network Alias for the specified agent cluster .
Example URI	http://localhost:8080/uc/resources/agentcluster/resolve
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Resolve an Agent Cluster: XML and JSON Examples .

	Description
Request Properties	See Resolve an Agent Cluster: Request Properties .
Example Response	See Resolve an Agent Cluster: XML and JSON Examples .

4.10.8.1 Resolve an Agent Cluster: XML and JSON Examples

Example	XML	JSON
Example Request	<pre>XML <resolve-agent-cluster> <agentClusterName>Agent_Cluster_Alias_Production</agentClusterName> </resolve-agent-cluster></pre>	<pre>JSON { "agentClusterName": "Agent_Cluster_Alias_Production" }</pre>
Example Response	<pre>XML <command-response> <type>resolve_agent_cluster</type> <success>true</success> <info>Successfully resolved network alias for agent cluster "Agent_Cluster_Alias_Production".</info> <errors></errors> </command-response></pre>	<pre>JSON { "type": "resolve_agent_cluster", "success": true, "info": "Successfully resolved agent cluster \"Agent_Cluster_Alias_Production\".", "errors": "" }</pre>

4.10.8.2 Resolve an Agent Cluster: Request Properties

Property	UI Field Name	Description	Specifications	Required
agentClusterName	Cluster Name	Name used within the Controller to identify this agent cluster.		Y

4.10.9 Resume an Agent Cluster

	Description
URI	http://host_name/uc/resources/agentcluster/resume
HTTP Method	POST
Description	Resumes the specified agent cluster .

	Description
Example URI	http://localhost:8080/uc/resources/agentcluster/resume
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Resume an Agent Cluster: XML and JSON Examples .
Request Properties	See Resume an Agent Cluster: Request Properties .
Example Response	See Resume an Agent Cluster: XML and JSON Examples .

4.10.9.1 Resume an Agent Cluster: XML and JSON Examples

Example	XML	JSON
Example Request	XML <pre><resume-agent-cluster> <agentClusterName>uc - Default Windows Cluster</agentClusterName> </resume-agent-cluster></pre>	JSON <pre>{ "agentClusterNameagentClusterN ame": "uc - Default Windows Cluster" }</pre>
Example Response	XML <pre><command-response> <type>resume_agent_cluster</ type> <success>true</success> <info>Successfully resumed agent cluster "uc - Default Windows Cluster".</info> <errors /> </command-response></pre>	JSON <pre>{ "type": "resume_agent_cluster", "success": true, "info": " Successfully resumed agent cluster "uc - Default Windows Cluster".", "errors": "" }</pre>

4.10.9.2 Resume an Agent Cluster: Request Properties

Property	UI Field Name	Description	Specifications	Required
<code>agentClusterName</code>	Cluster Name	Name used within the Controller to identify this agent cluster.		Y

4.10.10 Resume an Agent Cluster Membership

	Description
URI	http://host_name/uc/resources/agent/ops-resume-agent-cluster-membership
HTTP Method	POST
Description	Resumes the specified agent cluster membership .
Example URI	http://localhost:8080/uc/resources/agent/ops-resume-agent-cluster-membership
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Resume an Agent Cluster Membership: XML and JSON Examples .
Request Properties	See Resume an Agent Cluster Membership: Request Properties .
Example Response	See Resume an Agent Cluster Membership: XML and JSON Examples .

4.10.10.1 Resume an Agent Cluster Membership: XML and JSON Examples

Example	XML	JSON
Example Request	XML By Agent Name <pre><resume-agent-cluster-membership> <agentClusterName>uc - Default Windows Cluster</agentClusterName> <agentName>XPS-8300 - AGNT0001</ agentName> </resume-agent-cluster-membership></pre> By Agent ID <pre><resume-agent-cluster-membership> <agentClusterName>uc - Default Windows Cluster</agentClusterName> <agentID>AGNT0001</agentID> </resume-agent-cluster-membership></pre>	JSON By Agent Name <pre>{ "agentClusterName": "uc - Default Windows Cluster", "agentName": "XPS-8300 - AGNT0001" }</pre> By Agent ID <pre>{ "agentClusterName": "uc - Default Windows Cluster", "agentID": "AGNT0001" }</pre>

Example	XML	JSON
Example Response	<pre> XML <command-response> <type>resume_agent_cluster_members hip</type> <success>true</success> <info>Successfully resumed agent cluster membership.</info> <errors /> </command-response> </pre>	<pre> JSON { "type": "resume_agent_cluster_membership ", "success": true, "info": " Successfully resumed agent cluster membership.", "errors": "" } </pre>

4.10.10.2 Resume an Agent Cluster Membership: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agentClusterName	Cluster Name	Name used within the Controller to identify this agent cluster.		Y	
agentID	Agent ID	Defined by the user when installing the Agent; name used within the Controller to identify this resource.		Y (unless agentName is specified)	agentName
agentName	Agent Name	Unique ID for this Agent, created during installation. The name of the communications server message queue. The Controller uses the communications server for communications between the Controller scheduler and Agents.		Y (unless agentID is specified)	agentId

4.10.11 Return an Agent from an Agent Cluster

	Description
URI	http://hostName:port/uc/resources/agentcluster/agent
HTTP Method	GET
Description	Retrieves information on a specific Agent from an Agent Cluster for which a Distribution method of Any or Lowest CPU Utilization is specified.
URI Parameters	See Return an Agent from an Agent Cluster: URI Parameters .
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json

	Description
Example Request URI	http://localhost:8080/uc/resources/agentcluster/agent?agentclustername=testCluster&ignoreexecutionlimit=true
Example Response	See Return an Agent from an Agent Cluster: Example Response .

4.10.11.1 Return an Agent from an Agent Cluster: URI Parameters

Parameter	Description	Specifications	Required
agentclustername	Name used within the Controller to identify this agent cluster.	Type = String; URI property.	Y
ignoreexecutionlimit	Specification to use or ignore the task execution limit.	Type = Boolean (true/false), Default is false; URI property.	N

4.10.11.2 Return an Agent from an Agent Cluster: Example Response

XML Response	JSON Response
XML Response <pre><agent> <hostName>Mark-4</hostName> <ipAddress>192.168.1.21</ipAddress> <name>Mark-4 - AGNT0002</name> <outputProhibited>false</outputProhibited> <queueName>AGNT0002</queueName> <status>Active</status> <suspended>false</suspended> <sysID>4425b28449574bb181d78e47c02867ac</sysID> <type>Windows</type> <version>6.4.1.0</version> </agent></pre>	JSON Response <pre>{ "hostName": "Mark-4", "ipAddress": "192.168.1.21", "name": "Mark-4 - AGNT0002", "outputProhibited": false, "queueName": "AGNT0002", "status": "Active", "suspended": false, "sysID": "b4784b52bf0e453db37dc0c5e9bd441a", "type": "Windows", "version": "6.4.1.0" }</pre>

4.10.12 Set an Agent Cluster Task Execution Limit

	Description
URI	http://host_name/uc/resources/agentcluster/taskexecutionlimit
HTTP Method	POST
Description	Sets the task execution limit for the specified agent cluster.

	Description
Example URI	http://localhost:8080/uc/resources/agentcluster/taskexecutionlimit
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Set an Agent Cluster Task Execution Limit: XML and JSON Examples .
Request Properties	See Set an Agent Cluster Task Execution Limit: Request Properties .
Example Response	See Set an Agent Cluster Task Execution Limit: XML and JSON Examples .

4.10.12.1 Set an Agent Cluster Task Execution Limit: XML and JSON Examples

Example	XML	JSON
Example Request	XML Limit Type: Limited <pre><set-agent-cluster-task-execution-limit> <agentClusterName>uc - Default Windows Cluster</agentClusterName> <limitAmount>15</limitAmount> <limitType>Limited</limitType> </set-agent-cluster-task-execution-limit></pre> Limit Type: Unlimited <pre><set-agent-cluster-task-execution-limit> <agentClusterName>uc - Default Windows Cluster</agentClusterName> <limitType>Unlimited</limitType> </set-agent-cluster-tas</pre>	JSON Limit Type: Limited <pre>{ "agentClusterName": "uc - Default Windows Cluster", "limitAmount": 15, "limitType": "Limited" }</pre> Limit Type: Unlimited <pre>{ "agentClusterName": "uc - Default Windows Cluster", "limitType": "Unlimited" }</pre>

Example	XML	JSON
Example Response	<pre> XML <command-response> <type>set_agent_cluster_task_execution_limit</type> <success>true</success> <info>Successfully updated agent cluster"uc - Default Windows Cluster" with task limit type: "Limited", amount: "15".</info> <errors /> </command-response> </pre>	<pre> JSON { "type": "set_agent_cluster_task_execution_limit", "success": true, "info": " Successfully updated agent cluster"uc - Default Windows Cluster" with task limit type: "Limited", amount: "15".", "errors": "" } </pre>

4.10.12.2 Set an Agent Cluster Task Execution Limit: Request Properties

Property	UI Field Name	Description	Specifications	Required
<code>agentClusterName</code>	Cluster Name	Name used within the Controller to identify this agent cluster.		Y
<code>limitAmount</code>	Limit Amount	Number of tasks that can be running at the same time by the Agents in this agent cluster.	Set only if <code>limitType</code> is Limited (2).	N
<code>limitType</code>	Task Execution Limit	Specification for whether a Limited or Unlimited number of task instances can be run concurrently by the Agents in this agent cluster. For purposes of imposing this task execution limit, running task instances are those in any of these statuses: Cancel Pending, Queued, Received, Running, Submitted, and Started.	Valid values: - As String = Unlimited, As Value = 1 - As String = Limited, As Value = 2	Y

4.10.13 Suspend an Agent Cluster

	Description
URI	http://host_name/uc/resources/agentcluster/suspend
HTTP Method	POST
Description	Suspends the specified agent cluster .
Example URI	http://localhost:8080/uc/resources/agentcluster/suspend
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json

	Description
Produces Content-Type	application/xml, application/json
Example Request	See Suspend an Agent Cluster: XML and JSON Examples .
Request Properties	See Suspend an Agent Cluster: Request Properties .
Example Response	See Suspend an Agent Cluster: XML and JSON Examples .

4.10.13.1 Suspend an Agent Cluster: XML and JSON Examples

Example	XML	JSON
Example Request	<pre>XML <suspend-agent-cluster> <agentClusterName>uc - Default Windows Cluster</agentClusterName> </suspend-agent-cluster></pre>	<pre>JSON { "agentClusterName": "uc - Default Windows Cluster" }</pre>
Example Response	<pre>XML <command-response> <type>suspend_agent_cluster</ type> <success>>true</success> <info>Successfully suspended agent cluster "uc - Default Windows Cluster".</info> <errors /> </command-response></pre>	<pre>JSON { "type": "suspend_agent_cluster", "success": true, "info": " Successfully suspended agent cluster "uc - Default Windows Cluster".", "errors": "" }</pre>

4.10.13.2 Suspend an Agent Cluster: Request Properties

Property	UI Field Name	Description	Specifications	Required
agentClusterName	Cluster Name	Name used within the Controller to identify this agent cluster.		Y

4.10.14 Suspend an Agent Cluster Membership

	Description
URI	http://host_name/uc/resources/agent/ops-suspend-agent-cluster-membership
HTTP Method	POST

	Description
Description	Suspends the specified agent cluster membership .
Example URI	http://localhost:8080/uc/resources/agent/ops-suspend-agent-cluster-membership
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Suspend an Agent Cluster Membership: XML and JSON Examples .
Request Properties	See Suspend an Agent Cluster Membership: Request Properties .
Example Response	See Suspend an Agent Cluster Membership: XML and JSON Examples .

4.10.14.1 Suspend an Agent Cluster Membership: XML and JSON Examples

Example	XML	JSON
Example Request	XML By Agent Name <pre><suspend-agent-cluster-membership> <agentClusterName>uc - Default Windows Cluster</agentClusterName> <agentName>XPS-8300 - AGNT0001</ agentName> </suspend-agent-cluster- membership></pre> By Agent ID <pre><suspend-agent-cluster-membership> <agentClusterName>uc - Default Windows Cluster</agentClusterName> <agentID>AGNT0001</agentID> </suspend-a</pre>	JSON By Agent Name <pre>{ "agentClusterName": "uc - Default Windows Cluster", "agentName": "XPS-8300 - AGNT0001" }</pre> By Agent ID <pre>{ "agentClusterName": "uc - Default Windows Cluster", "agentID": "AGNT0001" }</pre>

Example	XML	JSON
Example Response	<pre> XML <command-response> <type>suspend_agent_cluster_member ship</type> <success>true</success> <info>Successfully suspended agent cluster membership.</info> <errors /> </command-response> </pre>	<pre> JSON { "type": "suspend_agent_cluster_membershi p", "success": true, "info": " Successfully suspended agent cluster membership.", "errors": "" } </pre>

4.10.14.2 Suspend an Agent Cluster Membership: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agentClusterName	Cluster Name	Name used within the Controller to identify this agent cluster.		Y	
agentID	Agent ID	Unique ID for this Agent, created during installation.		Y (unless agentName is specified)	agentName
agentName	Agent Name	Name used within the Controller to identify this resource.		Y (unless agentId is specified)	agentId

4.11 Audit Web Services

- [Overview](#)
- [List Audit Records](#)
- [List Audit Records: XML and JSON Examples](#)

4.11.1 Overview

Universal Controller supports the following RESTful-based web service for [Audits](#).

- [List Audit Records](#)

Users with the [ops_admin role](#) or [ops_audit_view role](#) can use Audit Web Services for all Audit records.

If [Audit Owner Read Permitted](#) system property = true, users without either the [ops_admin role](#) or the [ops_audit_view role](#) can use Audit Web Services to view their own audits.

Formatting specifications for the web service, including details about parameter requirements, are provided.

4.11.2 List Audit Records

	Description
URI	http://host_name/uc/resources/audit/list
Description	Retrieve the audit details using a specific filter.
HTTP Method	POST
Example URI	http://localhost:8080/uc/resources/audit/list
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json

4.11.3 List Audit Records: XML and JSON Examples

4.11.3.1 List Audit Records: Example Request

XML Request	JSON Request
XML <pre><audit-filter> < auditType>create</ auditType> < updateTimeType >offset</ updateTimeType > < updateTime>-10d</ updateTime> < status>*</ status> < createdBy >ops.system</ createdBy > < tableRecordName>Administrator</ tableRecordName> < tableName>ops_user</ tableName> < source >Web Service</ source > < tableKey >51b13fca5b8541418cd17cdd97c95b87</ tableKey > < includeChildAudits>>false</ includeChildAudits> </audit-filter></pre>	JSON <pre>{ "auditType" : "9", " updateTimeType " : "offset", "updateTime" : "-10d", "status" : "*", " createdBy " : "ops.system", "tableRecordName" : "Administrator", "tableName" : "ops_user", " source " : "Web Service", " tableKey " : "51b13fca5b8541418cd17cdd97c95b87", "includeChildAudits" : "false" }</pre>

4.11.3.2 List Audit Records: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
auditType	Audit Type	Audit type to filter the data.	Valid values: One of the following (not case sensitive): - As String = Create, As Value = 1 - As String = Update, As Value = 2 - As String = Delete, As Value = 3 - As String = Command, As Value = 4 - As String = Server Operation, As Value = 5 - As String = CLI, As Value = 6 - As String = Restore Version, As Value = 7 - As String = Delete Version, As Value = 8 - As String = User Login, As Value = 9 - As String = z/OS Auto-Restart, As Value = 10 - As String = Delete Override File, As Value = 11 - As String = Import, As Value = 12 - As String = Export, As Value = 13 - As String = Email, As Value = 14	N	
source	Source	Audit source type	Valid values: One of the following (not case sensitive): - As String = User Interface, As Value = 1 - As String = Command Line, As Value = 2 - As String = Web Service, As Value = 3 - As String = System Operation, As Value = 4 - As String = Set Variable Action, As Value = 5 - As String = Task Instance, As Value = 6 - As String = Agent Message, As Value = 7 - As String = Scheduled, As Value = 8 - As String = Stored Procedure, As Value = 9 - As String = System Processing, As Value = 10 - As String = Email Notification, As Value = 11	N	
updatedAt	n/a	If <code>updatedAtType</code> = Offset; -offset period.	Valid values: - mn (minutes) - h (hours) - d (days) Default is d. Examples: -5d (last 5 days), -30mn (last 30 minutes), -6h (last 6 hours), -7 (last 7 days). If <code>updatedAtType</code> is Since; date/time value (yyyy-MM-dd [HH:mm:ss]) If <code>updatedAtType</code> is Today; <code>updatedAt</code> is ignored.	Y (if <code>updatedAtType</code> is Offset, Since, or Older Than.)	
<code>updatedAtType</code>	n/a	Type of <code>updatedAt</code> .	Valid values: - As String = Today, As Value = 1 - As String = Offset, As Value = 2 - As String = Since, As Value = 3 - As String = Older Than, As Value = 4	N	
createdBy	Created By	Name of the person created the record.		N	
status	Status	Status of the record		N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
tableRecordName	Table Record Name	table record name		N	
tableName	Table Name	table name		N	
tableKey	Table Key	table key		N	
includeChildAudits	n/a	include child audits	boolean property Valid values: true, false, 1, 0	N	

4.11.3.3 List Audit Records: Example Response

XML Response	JSON Response
XML <pre><?xml version="1.0" encoding="UTF-8" standalone="yes"?> <audits> <audit> <childAudits/> <additionalInfo>Web Service '/audit/list' invoked from IP address 192.168.31.236.</ additionalInfo> <auditType>User Login</auditType> <created>2022-02-16 11:36:54 -0500</created> <createdBy>ops.system</createdBy> <description>LOGIN &lt;user=ops.admin, ipaddr=192.168.31.236&gt;</description> <nodeId>qa-cntlr-mssql:8080-qa_cntlr_mssql</ nodeId> <nodeMode>Active</nodeMode> <source>Web Service</source> <status>Login OK</status> <sysId>16449566651382121473A4USED0CVK0C</sysId> <tableKey>e0bde364c0a802ba0092e79554132023</ tableKey> <tableName>ops_user</tableName> <tableRecordName>Administrator</ tableRecordName> <updated>2022-02-16 11:36:54 -0500</updated> <updatedBy>ops.system</updatedBy> <uuid>16449566651382121473A4USED0CVK0C</uuid> </audit> <audit> <childAudits/> <additionalInfo>Web Service '/audit/list' invoked from IP address 192.168.31.236.</ additionalInfo></pre>	JSON <pre>[{ "additionalInfo": "Web Service '/audit/list' invoked from IP address 192.168.31.236.", "after": null, "auditType": "User Login", "before": null, "childAudits": [], "created": "2022-02-16 11:40:02 -0500", "createdBy": "ops.system", "description": "LOGIN <user=ops.admin, ipaddr=192.168.31.236>", "difference": null, "nodeId": "qa-cntlr-mssql:8080- qa_cntlr_mssql", "nodeMode": "Active", "parentAudit": null, "routedFrom": null, "source": "Web Service", "status": "Login OK", "sysId": "1644956665138213147585IXHF9ZIY0B", "tableKey": "e0bde364c0a802ba0092e79554132023", "tableName": "ops_user", "tableRecordName": "Administrator", "universalTemplate": null, "updated": "2022-02-16 11:40:02 -0500", "updatedBy": "ops.system", "uuid": "1644956665138213147585IXHF9ZIY0B" }, {</pre>

XML Response	JSON Response
<pre> <auditType>User Login</auditType> <created>2022-02-16 11:36:25 -0500</created> <createdBy>ops.system</createdBy> <description>LOGIN &lt;user=ops.admin, ipaddr=192.168.31.236&gt;</description> <nodeId>qa-cntlr-mssql:8080-qa_cntlr_mssql</ nodeId> <nodeMode>Active</nodeMode> <source>Web Service</source> <status>Login OK</status> <sysId>16449566651382111478QX9WBBDP6LS</sysId> <tableKey>e0bde364c0a802ba0092e79554132023</ tableKey> <tableName>ops_user</tableName> <tableRecordName>Administrator</ tableRecordName> <updated>2022-02-16 11:36:25 -0500</updated> <updatedBy>ops.system</updatedBy> <uuid>16449566651382111478QX9WBBDP6LS</uuid> </audit> <audit> <childAudits/> <additionalInfo>Web Service '/audit/list' invoked from IP address 192.168.31.236.</ additionalInfo> <auditType>User Login</auditType> <created>2022-02-16 11:35:55 -0500</created> <createdBy>ops.system</createdBy> <description>LOGIN &lt;user=ops.admin, ipaddr=192.168.31.236&gt;</description> <nodeId>qa-cntlr-mssql:8080-qa_cntlr_mssql</ nodeId> <nodeMode>Active</nodeMode> <source>Web Service</source> <status>Login OK</status> <sysId>1644956665138210147LAP266ZGL20T2</sysId> <tableKey>e0bde364c0a802ba0092e79554132023</ tableKey> <tableName>ops_user</tableName> <tableRecordName>Administrator</ tableRecordName> <updated>2022-02-16 11:35:55 -0500</updated> <updatedBy>ops.system</updatedBy> <uuid>1644956665138210147LAP266ZGL20T2</uuid> </audit> </audits> </pre>	<pre> "additionalInfo": "Web Service '/audit/list' invoked from IP address 192.168.31.236.", "after": null, "auditType": "User Login", "before": null, "childAudits": [], "created": "2022-02-16 11:36:54 -0500", "createdBy": "ops.system", "description": "LOGIN <user=ops.admin, ipaddr=192.168.31.236>", "difference": null, "nodeId": "qa-cntlr-mssql:8080- qa_cntlr_mssql", "nodeMode": "Active", "parentAudit": null, "routedFrom": null, "source": "Web Service", "status": "Login OK", "sysId": "16449566651382121473A4USED0CVKOC", "tableKey": "e0bde364c0a802ba0092e79554132023", "tableName": "ops_user", "tableRecordName": "Administrator", "universalTemplate": null, "updated": "2022-02-16 11:36:54 -0500", "updatedBy": "ops.system", "uuid": "16449566651382121473A4USED0CVKOC" }, { "additionalInfo": "Web Service '/audit/list' invoked from IP address 192.168.31.236.", "after": null, "auditType": "User Login", "before": null, "childAudits": [], "created": "2022-02-16 11:36:25 -0500", "createdBy": "ops.system", "description": "LOGIN <user=ops.admin, ipaddr=192.168.31.236>", "difference": null, "nodeId": "qa-cntlr-mssql:8080- qa_cntlr_mssql", "nodeMode": "Active", "parentAudit": null, "routedFrom": null, "source": "Web Service", "status": "Login OK", "sysId": "16449566651382111478QX9WBBDP6LS", </pre>

XML Response	JSON Response
	<pre> "tableKey": "e0bde364c0a802ba0092e79554132023", "tableName": "ops_user", "tableRecordName": "Administrator", "universalTemplate": null, "updated": "2022-02-16 11:36:25 -0500", "updatedBy": "ops.system", "uuid": "16449566651382111478QX9WBBDP6LS" },] </pre>

4.11.3.4 List Audit Records: Example Response with Child Audits

XML Response with Child Audits	JSON Response with Child Audits
XML <pre> <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <audit> <childAudits> <childAudit> <childAudits/> <after>TaskWindowsBean [{agent=094e2a6b2da747d09f4882cdc136dc49 {agent_cluster=null} {agent_cluster_var=null} {agent_cluster_var_check=false} {agent_var=null} {agent_var_check=false} {avg_run_time=null} {broadcast_cluster=null} {broadcast_cluster_var=null} {broadcast_cluster_var_check=false} {checksum=null} {command=echo \$} {command_or_script=Command} {cp_duration=null} {cp_duration_unit=Minutes} {create_console=false} {credentials=null} {credentials_var=null} {credentials_var_check=false} {custom_field1=null} {custom_field2=null} {desktop_interact=false} {ef_day_constraint=None} {ef_duration=00:00:00:00} {ef_enabled=false} {ef_nth_amount=5} {ef_offset_duration=null} {ef_offset_duration_unit=Minutes} {ef_offset_percentage=0} {ef_offset_type=Percentage} {ef_time=00:00} {ef_type=Time} {elevate_user=false} {environment=null} {exec_counter=0} {execution_restriction=None} {exit_code_output=null} {exit_code_processing=Success Exitcode Range} {exit_code_text=null} {exit_codes=0} {first_run=null} {hold_resources=false} {last_run=null} {last_run_time=null} {lf_day_constraint=None} {lf_duration=00:00:00:00} {lf_enabled=false} {lf_nth_amount=5} {lf_offset_duration=null} {lf_offset_duration_unit=Minutes} {lf_offset_percentage=0} {lf_offset_type=Percentage} {lf_time=00:00} {lf_type=Time} {ls_day_constraint=None} {ls_duration=00:00:00:00} {ls_enabled=false} {ls_nth_amount=5} {ls_time=00:00} {ls_type=Time} {max_run_time=null} {min_run_time=null} {name=test-1} {opwise_groups=null} {output_failure_only=false} {output_return_file=null} {output_return_nline=100}] }] </pre>	JSON <pre> [{ "additionalInfo": "Ids: [f900ebd674674dbdb3f5499ed20cfeeb, e9845ee24f804dffb95bdec7bd91888f]\n\nChanges:\n {command=echo \$}\n\nMulti-Update: Successfully updated all 2 items\n", "after": null, "auditType": "Update", "before": null, "childAudits": [{ "additionalInfo": null, "after": "TaskWindowsBean [{agent=094e2a6b2da747d09f4882cdc136dc49} {agent_cluster=null} {agent_cluster_var=null} {agent_cluster_var_check=false} {agent_var=null} {agent_var_check=false} {avg_run_time=null} {broadcast_cluster=null} {broadcast_cluster_var=null} {broadcast_cluster_var_check=false} {checksum=null} {command=echo \$} {command_or_script=Command} {cp_duration=null} {cp_duration_unit=Minutes} {create_console=false} {credentials=null} {credentials_var=null} {credentials_var_check=false} {custom_field1=null} {custom_field2=null} {desktop_interact=false} {ef_day_constraint=None} {ef_duration=00:00:00:00} {ef_enabled=false} {ef_nth_amount=5} {ef_offset_duration=null} {ef_offset_duration_unit=Minutes} {ef_offset_percentage=0} {ef_offset_type=Percentage} {ef_time=00:00} {ef_type=Time} {elevate_user=false} {environment=null} {exec_counter=0} {execution_restriction=None} {exit_code_output=null} {exit_code_processing=Success Exitcode Range} {exit_code_text=null} {exit_codes=0} {first_run=null} {hold_resources=false} {last_run=null} {last_run_time=null} {lf_day_constraint=None} {lf_duration=00:00:00:00} {lf_enabled=false} {lf_nth_amount=5} {lf_offset_duration=null} {lf_offset_duration_unit=Minutes} {lf_offset_percentage=0} {lf_offset_type=Percentage} {lf_time=00:00} {lf_type=Time} {ls_day_constraint=None} </pre>

XML Response with Child Audits	JSON Response with Child Audits
<pre> {output_return_sline=1} {output_return_text=null} {output_return_type=NONE} {output_type=STDOUT} {parameters=null} {res_priority=10} {resolve_name_immediately=false} {restriction_period=None} {retry_exit_codes=null} {retry_indefinitely=false} {retry_interval=60} {retry_maximum=0} {retry_suppress_failure=false} {rp_after_date=null} {rp_after_time=null} {rp_before_date=null} {rp_before_time=null} {rp_date_list=null} {run_as_sudo=false} {run_count=0} {run_time=0} {runtime_dir=null} {script=null} {start_held=false} {start_held_reason=null} {summary=test1} {sys_class_name=ops_task_windows} {sys_created_by=ops.admin} {sys_created_on=2020-04-24 15:42:07 -0400} {sys_id=f900ebd674674dbdb3f5499ed20cfeeb} {sys_updated_by=ops.admin} {sys_updated_on=2020-04-24 15:44:26 -0400} {time_zone_pref=-- System Default --} {tw_delay_amount=null} {tw_delay_duration=00:00:00:00} {tw_delay_type=None} {tw_wait_amount=null} {tw_wait_day_constraint=None} {tw_wait_duration=00:00:00:00} {tw_wait_time=00:00} {tw_wait_type=None} {tw_workflow_only=-- System Default --} {type=Windows} {universal_template_id=null} {user_duration=null} {version=4} {wait_for_output=false}]</after> <auditType>Update</auditType> <before>TaskWindowsBean [{agent=094e2a6b2da747d09f4882cdc136dc49} {agent_cluster=null} {agent_cluster_var=null} {agent_cluster_var_check=false} {agent_var=null} {agent_var_check=false} {avg_run_time=null} {broadcast_cluster=null} {broadcast_cluster_var=null} {broadcast_cluster_var_check=false} {checksum=null} {command=echo} {command_or_script=Command} {cp_duration=null} {cp_duration_unit=Minutes} {create_console=false} {credentials=null} {credentials_var=null} {credentials_var_check=false} {custom_field1=null} {custom_field2=null} {desktop_interact=false} {ef_day_constraint=None} {ef_duration=00:00:00:00} {ef_enabled=false} {ef_nth_amount=5} {ef_offset_duration=null} {ef_offset_duration_unit=Minutes} {ef_offset_percentage=0} {ef_offset_type=Percentage} {ef_time=00:00} {ef_type=Time} {elevate_user=false} {environment=null} {exec_counter=0} {execution_restriction=None} {exit_code_output=null} {exit_code_processing=Success Exitcode Range} {exit_code_text=null} {exit_codes=0} {first_run=null} {hold_resources=false} {last_run=null} {last_run_time=null} {lf_day_constraint=None} {lf_duration=00:00:00:00} {lf_enabled=false} {lf_nth_amount=5} {lf_offset_duration=null} {lf_offset_duration_unit=Minutes} {lf_offset_percentage=0} {lf_offset_type=Percentage} {lf_time=00:00} {lf_type=Time} {ls_day_constraint=None} {ls_duration=00:00:00:00} {ls_enabled=false} {ls_nth_amount=5} {ls_time=00:00} {ls_type=Time} {max_run_time=null} {min_run_time=null} {name=test-1} {opswise_groups=null} {output_failure_only=false} {output_return_file=null} {output_return_nline=100} {output_return_sline=1} {output_return_text=null} {output_return_type=NONE} {output_type=STDOUT} {parameters=null} {res_priority=10} {resolve_name_immediately=false} {restriction_period=None} {retry_exit_codes=null} {retry_indefinitely=false} {retry_interval=60} {retry_maximum=0} {retry_suppress_failure=false} {rp_after_date=null} {rp_after_time=null} {rp_before_date=null} {rp_before_time=null} {rp_date_list=null} {run_as_sudo=false} {run_count=0} {run_time=0} {runtime_dir=null} {script=null} {start_held=false} </pre>	<pre> {ls_duration=00:00:00:00} {ls_enabled=false} {ls_nth_amount=5} {ls_time=00:00} {ls_type=Time} {max_run_time=null} {min_run_time=null} {name=test-1} {opswise_groups=null} {output_failure_only=false} {output_return_file=null} {output_return_nline=100} {output_return_sline=1} {output_return_text=null} {output_return_type=NONE} {output_type=STDOUT} {parameters=null} {res_priority=10} {resolve_name_immediately=false} {restriction_period=None} {retry_exit_codes=null} {retry_indefinitely=false} {retry_interval=60} {retry_maximum=0} {retry_suppress_failure=false} {rp_after_date=null} {rp_after_time=null} {rp_before_date=null} {rp_before_time=null} {rp_date_list=null} {run_as_sudo=false} {run_count=0} {run_time=0} {runtime_dir=null} {script=null} {start_held=false} {start_held_reason=null} {summary=test1} {sys_class_name=ops_task_windows} {sys_created_by=ops.admin} {sys_created_on=2020-04-24 15:42:07 -0400} {sys_id=f900ebd674674dbdb3f5499ed20cfeeb} {sys_updated_by=ops.admin} {sys_updated_on=2020-04-24 15:44:26 -0400} {time_zone_pref=-- System Default --} {tw_delay_amount=null} {tw_delay_duration=00:00:00:00} {tw_delay_type=None} {tw_wait_amount=null} {tw_wait_day_constraint=None} {tw_wait_duration=00:00:00:00} {tw_wait_time=00:00} {tw_wait_type=None} {tw_workflow_only=-- System Default --} {type=Windows} {universal_template_id=null} {user_duration=null} {version=4} {wait_for_output=false}]", "auditType": "Update", "before": "TaskWindowsBean [{agent=094e2a6b2da747d09f4882cdc136dc49} {agent_cluster=null} {agent_cluster_var=null} {agent_cluster_var_check=false} {agent_var=null} {agent_var_check=false} {avg_run_time=null} {broadcast_cluster=null} {broadcast_cluster_var=null} {broadcast_cluster_var_check=false} {checksum=null} {command=echo} {command_or_script=Command} {cp_duration=null} {cp_duration_unit=Minutes} {create_console=false} {credentials=null} {credentials_var=null} {credentials_var_check=false} {custom_field1=null} {custom_field2=null} {desktop_interact=false} {ef_day_constraint=None} {ef_duration=00:00:00:00} {ef_enabled=false} {ef_nth_amount=5} {ef_offset_duration=null} {ef_offset_duration_unit=Minutes} {ef_offset_percentage=0} {ef_offset_type=Percentage} {ef_time=00:00} {ef_type=Time} {elevate_user=false} {environment=null} {exec_counter=0} {execution_restriction=None} {exit_code_output=null} {exit_code_processing=Success Exitcode Range} {exit_code_text=null} {exit_codes=0} {first_run=null} {hold_resources=false} {last_run=null} {last_run_time=null} {lf_day_constraint=None} {lf_duration=00:00:00:00} {lf_enabled=false} {lf_nth_amount=5} {lf_offset_duration=null} {lf_offset_duration_unit=Minutes} {lf_offset_percentage=0} {lf_offset_type=Percentage} {lf_time=00:00} {lf_type=Time} {ls_day_constraint=None} {ls_duration=00:00:00:00} {ls_enabled=false} {ls_nth_amount=5} {ls_time=00:00} {ls_type=Time} {max_run_time=null} {min_run_time=null} {name=test-1} {opswise_groups=null} {output_failure_only=false} {output_return_file=null} {output_return_nline=100} {output_return_sline=1} {output_return_text=null} {output_return_type=NONE} {output_type=STDOUT} {parameters=null} {res_priority=10} {resolve_name_immediately=false} {restriction_period=None} {retry_exit_codes=null} {retry_indefinitely=false} {retry_interval=60} {retry_maximum=0} </pre>

XML Response with Child Audits	JSON Response with Child Audits
<pre> {start_held_reason=null} {summary=test1} {sys_class_name=ops_task_windows} {sys_created_by=ops.admin} {sys_created_on=2020-04-24 15:42:07 -0400} {sys_id=f900ebd674674dbdb3f5499ed20cfebc} {sys_updated_by=ops.admin} {sys_updated_on=2020-04-24 15:42:31 -0400} {time_zone_pref=-- System Default --} {tw_delay_amount=null} {tw_delay_duration=00:00:00:00} {tw_delay_type=None} {tw_wait_amount=null} {tw_wait_day_constraint=None} {tw_wait_duration=00:00:00:00} {tw_wait_time=00:00} {tw_wait_type=None} {tw_workflow_only=-- System Default --} {type=Windows} {universal_template_id=null} {user_duration=null} {version=3} {wait_for_output=false}]</before> <created>2020-04-24 15:44:26 -0400</created> <createdBy>ops.admin</createdBy> <description>Update: TaskWindowsBean test-1, sys_id: f900ebd674674dbdb3f5499ed20cfebc</description> <difference>[Changed command: echo -> echo \$] [Changed version: 3 -> 4] </difference> <nodeId>SBUS30:8080-opswise1</nodeId> <nodeMode>Active</nodeMode> <parentAudit>1587757138913023804F2ZFW5HUJ3UQ 4</parentAudit> <source>User Interface</source> <status>Success</status> <sysId>1587757138913024804605455IHPYBF9</ sysId> <tableKey>f900ebd674674dbdb3f5499ed20cfebc</ tableKey> <tableName>ops_task_windows</tableName> <tableRecordName>test-1</tableRecordName> <updated>2020-04-24 15:44:26 -0400</updated> <updatedBy>ops.admin</updatedBy> <uuid>1587757138913024804605455IHPYBF9</uuid> </childAudit> <childAudits> <after>TaskWindowsBean [{agent=094e2a6b2da747d09f4882cdc136dc49} {agent_cluster=null} {agent_cluster_var=null} {agent_cluster_var_check=false} {agent_var=null} {agent_var_check=false} {avg_run_time=null} {broadcast_cluster=null} {broadcast_cluster_var=null} {broadcast_cluster_var_check=false} {checksum=null} {command=echo \$} {command_or_script=Command} {cp_duration=null} {cp_duration_unit=Minutes} {create_console=false} {credentials=null} {credentials_var=null} {credentials_var_check=false} {custom_field1=null} {custom_field2=null} {desktop_interact=false} {ef_day_constraint=None} {ef_duration=00:00:00:00} {ef_enabled=false} {ef_nth_amount=5} {ef_offset_duration=null} {ef_offset_duration_unit=Minutes} {ef_offset_percentage=0} {ef_offset_type=Percentage} {ef_time=00:00} {ef_type=Time} {elevate_user=false} {environment=null} {exec_counter=0} {execution_restriction=None} {exit_code_output=null} {exit_code_processing=Success Exitcode Range} {exit_code_text=null} {exit_codes=0} {first_run=null} {hold_resources=false} {last_run=null} {last_run_time=null} {lf_day_constraint=None} {lf_duration=00:00:00:00} {lf_enabled=false} {lf_nth_amount=5} {lf_offset_duration=null} {lf_offset_duration_unit=Minutes} {lf_offset_percentage=0} {lf_offset_type=Percentage} {lf_time=00:00} {lf_type=Time} {ls_day_constraint=None} {ls_duration=00:00:00:00} {ls_enabled=false} {ls_nth_amount=5} {ls_time=00:00} {ls_type=Time} {max_run_time=null} {min_run_time=null} {name=test-2} {opswise_groups=null} {output_failure_only=false} </pre>	<pre> {retry_suppress_failure=false} {rp_after_date=null} {rp_after_time=null} {rp_before_date=null} {rp_before_time=null} {rp_date_list=null} {run_as_sudo=false} {run_count=0} {run_time=0} {runtime_dir=null} {script=null} {start_held=false} {start_held_reason=null} {summary=test1} {sys_class_name=ops_task_windows} {sys_created_by=ops.admin} {sys_created_on=2020-04-24 15:42:07 -0400} {sys_id=f900ebd674674dbdb3f5499ed20cfebc} {sys_updated_by=ops.admin} {sys_updated_on=2020-04-24 15:42:31 -0400} {time_zone_pref=-- System Default --} {tw_delay_amount=null} {tw_delay_duration=00:00:00:00} {tw_delay_type=None} {tw_wait_amount=null} {tw_wait_day_constraint=None} {tw_wait_duration=00:00:00:00} {tw_wait_time=00:00} {tw_wait_type=None} {tw_workflow_only=-- System Default --} {type=Windows} {universal_template_id=null} {user_duration=null} {version=3} {wait_for_output=false}]", "childAudits": [], "created": "2020-04-24 15:44:26 -0400", "createdBy": "ops.admin", "description": "Update: TaskWindowsBean test-1, sys_id: f900ebd674674dbdb3f5499ed20cfebc", "difference": "[Changed command: echo -> echo \$] [Changed version: 3 -> 4] ", "nodeId": "SBUS30:8080-opswise1", "nodeMode": "Active", "parentAudit": "1587757138913023804F2ZFW5HUJ3UQ4", "routedFrom": null, "source": "User Interface", "status": "Success", "sysId": "1587757138913024804605455IHPYBF9", "tableKey": "f900ebd674674dbdb3f5499ed20cfebc", "tableName": "ops_task_windows", "tableRecordName": "test-1", "universalTemplate": null, "updated": "2020-04-24 15:44:26 -0400", "updatedBy": "ops.admin", "uuid": "1587757138913024804605455IHPYBF9" }, { "additionalInfo": null, "after": "TaskWindowsBean [{agent=094e2a6b2da747d09f4882cdc136dc49} {agent_cluster=null} {agent_cluster_var=null} {agent_cluster_var_check=false} {agent_var=null} {agent_var_check=false} {avg_run_time=null} {broadcast_cluster=null} {broadcast_cluster_var=null} {broadcast_cluster_var_check=false} {checksum=null} {command=echo \$} {command_or_script=Command} {cp_duration=null} {cp_duration_unit=Minutes} {create_console=false} {credentials=null} {credentials_var=null} {credentials_var_check=false} {custom_field1=null} {custom_field2=null} {desktop_interact=false} {ef_day_constraint=None} {ef_duration=00:00:00:00} {ef_enabled=false} {ef_nth_amount=5} {ef_offset_duration=null} {ef_offset_duration_unit=Minutes} {ef_offset_percentage=0} {ef_offset_type=Percentage} {ef_time=00:00} {ef_type=Time} {elevate_user=false} {environment=null} {exec_counter=0} {execution_restriction=None} {exit_code_output=null} {exit_code_processing=Success Exitcode Range} {exit_code_text=null} {exit_codes=0} {first_run=null} {hold_resources=false} {last_run=null} {last_run_time=null} {lf_day_constraint=None} {lf_duration=00:00:00:00} {lf_enabled=false} {lf_nth_amount=5} {lf_offset_duration=null} {lf_offset_duration_unit=Minutes} {lf_offset_percentage=0} {lf_offset_type=Percentage} </pre>

XML Response with Child Audits	JSON Response with Child Audits
<pre> {output_return_file=null} {output_return_nline=100} {output_return_sline=1} {output_return_text=null} {output_return_type=NONE} {output_type=STDOUT} {parameters=null} {res_priority=10} {resolve_name_immediately=false} {restriction_period=None} {retry_exit_codes=null} {retry_indefinitely=false} {retry_interval=60} {retry_maximum=0} {retry_suppress_failure=false} {rp_after_date=null} {rp_after_time=null} {rp_before_date=null} {rp_before_time=null} {rp_date_list=null} {run_as_sudo=false} {run_count=0} {run_time=0} {runtime_dir=null} {script=null} {start_held=false} {start_held_reason=null} {summary=null} {sys_class_name=ops_task_windows} {sys_created_by=ops.admin} {sys_created_on=2020-04-24 15:43:37 -0400} {sys_id=e9845ee24f804dff95bdec7bd91888f} {sys_updated_by=ops.admin} {sys_updated_on=2020-04-24 15:44:26 -0400} {time_zone_pref=-- System Default --} {tw_delay_amount=null} {tw_delay_duration=00:00:00:00} {tw_delay_type=None} {tw_wait_amount=null} {tw_wait_day_constraint=None} {tw_wait_duration=00:00:00:00} {tw_wait_time=00:00} {tw_wait_type=None} {tw_workflow_only=-- System Default --} {type=Windows} {universal_template_id=null} {user_duration=null} {version=2} {wait_for_output=false}]</after> <auditType>Update</auditType> <before>TaskWindowsBean [{agent=094e2a6b2da747d09f4882cdc136dc49} {agent_cluster=null} {agent_cluster_var=null} {agent_cluster_var_check=false} {agent_var=null} {agent_var_check=false} {avg_run_time=null} {broadcast_cluster=null} {broadcast_cluster_var=null} {broadcast_cluster_var_check=false} {checksum=null} {command=echo} {command_or_script=Command} {cp_duration=null} {cp_duration_unit=Minutes} {create_console=false} {credentials=null} {credentials_var=null} {credentials_var_check=false} {custom_field1=null} {custom_field2=null} {desktop_interact=false} {ef_day_constraint=None} {ef_duration=00:00:00:00} {ef_enabled=false} {ef_nth_amount=5} {ef_offset_duration=null} {ef_offset_duration_unit=Minutes} {ef_offset_percentage=0} {ef_offset_type=Percentage} {ef_time=00:00} {ef_type=Time} {elevate_user=false} {environment=null} {exec_counter=0} {execution_restriction=None} {exit_code_output=null} {exit_code_processing=Success Exitcode Range} {exit_code_text=null} {exit_codes=0} {first_run=null} {hold_resources=false} {last_run=null} {last_run_time=null} {lf_day_constraint=None} {lf_duration=00:00:00:00} {lf_enabled=false} {lf_nth_amount=5} {lf_offset_duration=null} {lf_offset_duration_unit=Minutes} {lf_offset_percentage=0} {lf_offset_type=Percentage} {lf_time=00:00} {lf_type=Time} {ls_day_constraint=None} {ls_duration=00:00:00:00} {ls_enabled=false} {ls_nth_amount=5} {ls_time=00:00} {ls_type=Time} {max_run_time=null} {min_run_time=null} {name=test-2} {opswise_groups=null} {output_failure_only=false} {output_return_file=null} {output_return_nline=100} {output_return_sline=1} {output_return_text=null} {output_return_type=NONE} {output_type=STDOUT} {parameters=null} {res_priority=10} {resolve_name_immediately=false} {restriction_period=None} {retry_exit_codes=null} {retry_indefinitely=false} {retry_interval=60} {retry_maximum=0} {retry_suppress_failure=false} {rp_after_date=null} {rp_after_time=null} {rp_before_date=null} {rp_before_time=null} {rp_date_list=null} {run_as_sudo=false} {run_count=0} {run_time=0} </pre>	<pre> {lf_time=00:00} {lf_type=Time} {ls_day_constraint=None} {ls_duration=00:00:00:00} {ls_enabled=false} {ls_nth_amount=5} {ls_time=00:00} {ls_type=Time} {max_run_time=null} {min_run_time=null} {name=test-2} {opswise_groups=null} {output_failure_only=false} {output_return_file=null} {output_return_nline=100} {output_return_sline=1} {output_return_text=null} {output_return_type=NONE} {output_type=STDOUT} {parameters=null} {res_priority=10} {resolve_name_immediately=false} {restriction_period=None} {retry_exit_codes=null} {retry_indefinitely=false} {retry_interval=60} {retry_maximum=0} {retry_suppress_failure=false} {rp_after_date=null} {rp_after_time=null} {rp_before_date=null} {rp_before_time=null} {rp_date_list=null} {run_as_sudo=false} {run_count=0} {run_time=0} {runtime_dir=null} {script=null} {start_held=false} {start_held_reason=null} {summary=null} {sys_class_name=ops_task_windows} {sys_created_by=ops.admin} {sys_created_on=2020-04-24 15:43:37 -0400} {sys_id=e9845ee24f804dff95bdec7bd91888f} {sys_updated_by=ops.admin} {sys_updated_on=2020-04-24 15:44:26 -0400} {time_zone_pref=-- System Default --} {tw_delay_amount=null} {tw_delay_duration=00:00:00:00} {tw_delay_type=None} {tw_wait_amount=null} {tw_wait_day_constraint=None} {tw_wait_duration=00:00:00:00} {tw_wait_time=00:00} {tw_wait_type=None} {tw_workflow_only=-- System Default --} {type=Windows} {universal_template_id=null} {user_duration=null} {version=2} {wait_for_output=false}]", "auditType": "Update", "before": "TaskWindowsBean [{agent=094e2a6b2da747d09f4882cdc136dc49} {agent_cluster=null} {agent_cluster_var=null} {agent_cluster_var_check=false} {agent_var=null} {agent_var_check=false} {avg_run_time=null} {broadcast_cluster=null} {broadcast_cluster_var=null} {broadcast_cluster_var_check=false} {checksum=null} {command=echo} {command_or_script=Command} {cp_duration=null} {cp_duration_unit=Minutes} {create_console=false} {credentials=null} {credentials_var=null} {credentials_var_check=false} {custom_field1=null} {custom_field2=null} {desktop_interact=false} {ef_day_constraint=None} {ef_duration=00:00:00:00} {ef_enabled=false} {ef_nth_amount=5} {ef_offset_duration=null} {ef_offset_duration_unit=Minutes} {ef_offset_percentage=0} {ef_offset_type=Percentage} {ef_time=00:00} {ef_type=Time} {elevate_user=false} {environment=null} {exec_counter=0} {execution_restriction=None} {exit_code_output=null} {exit_code_processing=Success Exitcode Range} {exit_code_text=null} {exit_codes=0} {first_run=null} {hold_resources=false} {last_run=null} {last_run_time=null} {lf_day_constraint=None} {lf_duration=00:00:00:00} {lf_enabled=false} {lf_nth_amount=5} {lf_offset_duration=null} {lf_offset_duration_unit=Minutes} {lf_offset_percentage=0} {lf_offset_type=Percentage} {lf_time=00:00} {lf_type=Time} {ls_day_constraint=None} {ls_duration=00:00:00:00} {ls_enabled=false} {ls_nth_amount=5} {ls_time=00:00} {ls_type=Time} {max_run_time=null} {min_run_time=null} {name=test-2} {opswise_groups=null} {output_failure_only=false} {output_return_file=null} {output_return_nline=100} {output_return_sline=1} {output_return_text=null} {output_return_type=NONE} {output_type=STDOUT} {parameters=null} {res_priority=10} {resolve_name_immediately=false} {restriction_period=None} {retry_exit_codes=null} {retry_indefinitely=false} </pre>

XML Response with Child Audits	JSON Response with Child Audits
<pre> {runtime_dir=null} {script=null} {start_held=false} {start_held_reason=null} {summary=null} {sys_class_name=ops_task_windows} {sys_created_by=ops.admin} {sys_created_on=2020-04-24 15:43:37 -0400} {sys_id=e9845ee24f804dfffb95bdec7bd91888f} {sys_updated_by=ops.admin} {sys_updated_on=2020-04-24 15:43:37 -0400} {time_zone_pref=-- System Default --} {tw_delay_amount=null} {tw_delay_duration=00:00:00:00} {tw_delay_type=None} {tw_wait_amount=null} {tw_wait_day_constraint=None} {tw_wait_duration=00:00:00:00} {tw_wait_time=00:00} {tw_wait_type=None} {tw_workflow_only=-- System Default --} {type=Windows} {universal_template_id=null} {user_duration=null} {version=1} {wait_for_output=false}]</before> <created>2020-04-24 15:44:26 -0400</created> <createdBy>ops.admin</createdBy> <description>Update: TaskWindowsBean test-2, sys_id: e9845ee24f804dfffb95bdec7bd91888f</description> <difference>[Changed command: echo -> echo \$] [Changed version: 1 -> 2] </difference> <nodeId>SBUS30:8080-opswise1</nodeId> <nodeMode>Active</nodeMode> <parentAudit>1587757138913023804F2ZFW5HUJ3UQ 4</parentAudit> <source>User Interface</source> <status>Success</status> <sysId>1587757138913023804IFKIQTGM93GHB</ sysId> <tableKey>e9845ee24f804dfffb95bdec7bd91888f</ tableKey> <tableName>ops_task_windows</tableName> <tableRecordName>test-2</tableRecordName> <updated>2020-04-24 15:44:26 -0400</updated> <updatedBy>ops.admin</updatedBy> <uuid>1587757138913023804IFKIQTGM93GHB</uuid> </childAudit> </childAudits> <additionalInfo>Ids: [f900ebd674674dbdb3f5499ed20cfecb, e9845ee24f804dfffb95bdec7bd91888f] Changes: {command=echo \$} Multi-Update: Successfully updated all 2 items </additionalInfo> <auditType>Update</auditType> <created>2020-04-24 15:44:26 -0400</created> <createdBy>ops.admin</createdBy> <description>Multiple-Update by Selection of TaskWindowsBean</description> <nodeId>SBUS30:8080-opswise1</nodeId> <nodeMode>Active</nodeMode> <source>User Interface</source> <status>Success</status> <sysId>1587757138913023804F2ZFW5HUJ3UQ4</sysId> <tableName>ops_task_windows</tableName> <updated>2020-04-24 15:44:26 -0400</updated> <updatedBy>ops.admin</updatedBy> <uuid>1587757138913023804F2ZFW5HUJ3UQ4</uuid> </audit> </pre>	<pre> {retry_interval=60} {retry_maximum=0} {retry_suppress_failure=false} {rp_after_date=null} {rp_after_time=null} {rp_before_date=null} {rp_before_time=null} {rp_date_list=null} {run_as_sudo=false} {run_count=0} {run_time=0} {runtime_dir=null} {script=null} {start_held=false} {start_held_reason=null} {summary=null} {sys_class_name=ops_task_windows} {sys_created_by=ops.admin} {sys_created_on=2020-04-24 15:43:37 -0400} {sys_id=e9845ee24f804dfffb95bdec7bd91888f} {sys_updated_by=ops.admin} {sys_updated_on=2020-04-24 15:43:37 -0400} {time_zone_pref=-- System Default --} {tw_delay_amount=null} {tw_delay_duration=00:00:00:00} {tw_delay_type=None} {tw_wait_amount=null} {tw_wait_day_constraint=None} {tw_wait_duration=00:00:00:00} {tw_wait_time=00:00} {tw_wait_type=None} {tw_workflow_only=-- System Default --} {type=Windows} {universal_template_id=null} {user_duration=null} {version=1} {wait_for_output=false}]", "childAudits": [], "created": "2020-04-24 15:44:26 -0400", "createdBy": "ops.admin", "description": "Update: TaskWindowsBean test-2, sys_id: e9845ee24f804dfffb95bdec7bd91888f", "difference": "[Changed command: echo -> echo \$] [Changed version: 1 -> 2] ", "nodeId": "SBUS30:8080-opswise1", "nodeMode": "Active", "parentAudit": "1587757138913023804F2ZFW5HUJ3UQ4", "routedFrom": null, "source": "User Interface", "status": "Success", "sysId": "1587757138913023804IFKIQTGM93GHB", "tableKey": "e9845ee24f804dfffb95bdec7bd91888f", "tableName": "ops_task_windows", "tableRecordName": "test-2", "universalTemplate": null, "updated": "2020-04-24 15:44:26 -0400", "updatedBy": "ops.admin", "uuid": "1587757138913023804IFKIQTGM93GHB" }], "created": "2020-04-24 15:44:26 -0400", "createdBy": "ops.admin", "description": "Multiple-Update by Selection of TaskWindowsBean", "difference": null, "nodeId": "SBUS30:8080-opswise1", "nodeMode": "Active", "parentAudit": null, "routedFrom": null, "source": "User Interface", "status": "Success", "sysId": "1587757138913023804F2ZFW5HUJ3UQ4", "tableKey": null, "tableName": "ops_task_windows", "tableRecordName": null, "universalTemplate": null, "updated": "2020-04-24 15:44:26 -0400", "updatedBy": "ops.admin", "uuid": "1587757138913023804F2ZFW5HUJ3UQ4" }] </pre>

4.12 Bundles and Promotion Web Services

- [Overview](#)
- [Bundles](#)
- [Bundle Report](#)
- [Create a Bundle](#)
- [Create a Bundle By Business Services](#)
- [Create a Bundle By Date](#)
- [Delete a Bundle](#)
- [List Bundles](#)
- [Modify a Bundle](#)
- [Read a Bundle](#)
- [Promotion](#)
- [Bundleless Promotion](#)
- [Cancel a Scheduled Bundle Promotion](#)
- [Delete a Scheduled Bundle Promotion](#)
- [Promote a Bundle or Schedule a Bundle Promotion](#)
- [Create a Promotion Target](#)
- [Modify a Promotion Target](#)
- [List Promotion Targets](#)
- [Delete a Promotion Target](#)
- [Delete Promotion Target: URI Parameters](#)
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- [Refresh Target Agents](#)

4.12.1 Overview

Universal Controller supports the following RESTful-based web services for Bundles and Promotion operations, which are listed alphabetically on this page under two categories:

4.12.1.1 Bundles

- [Bundle Report](#)
- [Create a Bundle](#)
- [Delete a Bundle](#)
- [List Bundles](#)
- [Modify a Bundle](#)
- [Read a Bundle](#)

4.12.1.2 Promotion

- [Bundleless Promotion](#)
- [Cancel a Scheduled Bundle Promotion](#)
- [Delete a Scheduled Bundle Promotion](#)

- [Promote a Bundle or Schedule a Bundle Promotion](#)
- [Create a Promotion Target](#)
- [Modify a Promotion Target](#)
- [List Promotion Targets](#)
- [Delete a Promotion Target](#)
- [Read a Promotion Target](#)
- [Refresh Target Agents](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

4.12.2 Bundles

4.12.3 Bundle Report

	Description
URI	http://host_name/uc/resources/bundle/report
HTTP Method	GET
Description	Retrieve Bundle Report details using specific query parameters.
Example URI	• http://localhost:8080/uc/resources/bundle/report?bundlename=test-bundle • http://localhost:8080/uc/resources/bundle/report?bundleid=12345
URI Parameters	See Bundle Report: URI Parameters , below.
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See Bundle Report: Example Response , below.
Properties	See Bundle Properties .

4.12.3.1 Bundle Report: URI Parameters

Parameter	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>bundleid</code>	UUID	ID used within the Controller to identify this Bundle.	String value of the bundle sysId.	Y (unless <code>bundlename</code> is specified)	<code>bundlename</code>
<code>bundlename</code>	Bundle Name	Name used within the Controller to identify this Bundle.	String value of the bundle name.	Y (unless <code>bundleid</code> is specified)	<code>bundleid</code>

4.12.3.2 Bundle Report: Example Response

XML Response	JSON Response
XML Response <pre> <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <bundle retainSysIds="true"> <name>bundle-test</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> <description>bundle test</description> <defaultPromotionTarget>local</ defaultPromotionTarget> <followReferences>true</followReferences> <excludeOnExistence> Triggers, Tasks, Calendars, Custom Days, Variables, Credentials, Agent Clusters, Virtual Resources, Scripts, Email Templates, Email Connections, Database Connections, SAP Connections, PeopleSoft Connections, SNMP Managers</excludeOnExistence> <opswiseGroups> <opswiseGroup>bus-1</opswiseGroup> <opswiseGroup>bus-2</opswiseGroup> </opswiseGroups> <promoteBundleDefinition> true</ promoteBundleDefinition> <promoteByBusinessServices> <businessService>bus-1</businessService> <businessService>bus-2</businessService> </promoteByBusinessServices> <visibleTo> ops.admin</visibleTo> <bundleTasks> <bundleTask> <name>win-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundleTask> <bundleTask> <name>abc</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundleTask> </bundleTasks> <bundleApplications> <bundleApplication> <name>App-test-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundleApplication> </bundleApplications> <bundleTriggers> <bundleTrigger> <name>manual-trigger-1</name> </pre>	JSON Response <pre> { "retainSysIds": true, "name": "bundle-1", "sysId": "b52335345df646e5b597dc26df 599344", "description": "bundle test 1", "opswiseGroups": ["bus-1", "bus-2"], "defaultPromotionTarget": "local", "excludeOnExistence": "Triggers, Tasks, Calendars, Custom Days, Variables, Credentials, Agent Clusters, Virtual Resources, Scripts, Email Templates, Email Connections, Database Connections, SAP Connections, PeopleSoft Connections, SNMP Managers, Applications", "followReferences": true, "promoteBundleDefinition": true, "promoteByBusinessServices" : ["bus-1", "bus-2"], "visibleTo": "ops.admin", "bundleAgentClusters": [{ "name": "Opswise - Default Linux/Unix Cluster", </pre>

XML Response	JSON Response
<pre> sysId> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ </bundleTrigger> <bundleTrigger> <name>time-trigger-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundleTrigger> </bundleTriggers> <bundleCalendars> <bundleCalendar> <name>cal-test-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundleCalendar> </bundleCalendars> <bundleCustomDays> <bundleCustomDay> <name>custome-test-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundleCustomDay> </bundleCustomDays> <bundleVariables> <bundleVariable> <name>var1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundleVariable> </bundleVariables> <bundleBusinessServices> <bundleBusinessService> <name>bus-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundleBusinessService> </bundleBusinessServices> <bundleCredentials> <bundleCredential> <name>sap-cred</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundleCredential> </bundleCredentials> <bundleAgentClusters> <bundleAgentCluster> <name>Opswise - Default Windows Cluster</ name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundleAgentCluster> </bundleAgentClusters> <bundleVirtualResources> <bundleVirtualResource> </pre>	<pre> "sysId": "0d7f03026a96451fbc3d7a8eecd641d5" }, { "name": "Opswise - Default Windows Cluster", "sysId": "d3f8282f702544d69500928afb cc00f0" }], "bundleApplications": [{ "name": "app-1", "sysId": "e12830a711c849388819230203 e601d3" }], "bundleBusinessServices": [{ "name": "bus-1", "sysId": "b939eedb63544517accd905cfd d13b22" }], "bundleCalendars": [{ "name": "cal-1", "sysId": "655b9c498e574ace886b114f79 d5933a" }], "bundleCredentials": [{ "name": "cred-1", "sysId": "d04886ac74be43a0aa3faa8042 f82cca" }], "bundleCustomDays": [{ "name": "cust-1", "sysId": "1b0e9acedb98439a8319ac3cd5 1c21ba" }], </pre>

XML Response	JSON Response
<pre> <name>VR-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundleVirtualResource> </bundleVirtualResources> <bundleScripts> <bundleScript> <name>script-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundleScript> </bundleScripts> <bundleEmailTemplates> <bundleEmailTemplate> <name>email-temp-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundleEmailTemplate> </bundleEmailTemplates> <bundleEmailConnections> <bundleEmailConnection> <name>Email-con-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundleEmailConnection> </bundleEmailConnections> <bundleDatabaseConnections> <bundleDatabaseConnection> <name>DB-conn-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundleDatabaseConnection> </bundleDatabaseConnections> <bundleSapConnections> <bundleSapConnection> <name>SAP-conn-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundleSapConnection> </bundleSapConnections> <bundlePeoplesoftConnections> <bundlePeoplesoftConnection> <name>People-test-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundlePeoplesoftConnection> </bundlePeoplesoftConnections> <bundleSnmpManagers> <bundleSnmpManager> <name>snmp-test-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundleSnmpManager> </bundleSnmpManagers> </pre>	<pre> "bundleDatabaseConnections" : [{ "name": "db-con-1", "sysId": "fc8223ece09f407bb9b5bb8655 74cb49" }], "bundleEmailConnections": [{ "name": "email- conn", "sysId": "bd54eae4221a4f909454f7fa04 c75efb" }], "bundleEmailTemplates": [{ "name": "email- temp-1", "sysId": "5dce586a419448ee83fa121589 d60a75" }], "bundlePeoplesoftConnection s": [{ "name": "ps-con-1", "sysId": "aac40dfd5c3242ae9bcaaf169a 5468b9" }], "bundleSapConnections": [{ "name": "sap-1", "sysId": "a4b0544fb668404ba10b2826b2 e6db81" }], "bundleScripts": [{ "name": "script-1", </pre>

XML Response	JSON Response
<bundleUniversalTemplates> <bundleUniversalTemplate> <name>univ-test-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleUniversalTemplate> </bundleUniversalTemplates> </bundle> sysId>	"sysId": "01e90371bed4473d87dad00148512f35" },], "bundleSnmpManagers": [{ "name": "snmp-1", "sysId": "4bfa01f747ca4ad5b4ee9e073d643604" }], "bundleTasks": [{ "name": "win-1", "sysId": "3b50f8c015d6494288328cfdb35d9ea7" }], "bundleTriggers": [{ "name": "cron-trig-1", "sysId": "d2869f93a68547beb8e5b156d4fac99e" }], "bundleUniversalTemplates": [{ "name": "uni-1", "sysId": "0ff4abb1d80c4f95b517dc073c9abd0c" }], "bundleVariables": [{ "name": "var1", "sysId": "9988d78bf82e44dbae66cf0e8ec4b820" }], "bundleVirtualResources": [{ "name": "VR-1",

XML Response	JSON Response
	<pre>"sysId": "deef3e516ce485fac5fc22830 22d904" }]</pre>

4.12.4 Create a Bundle

	Description
URI	http://host_name/uc/resources/bundle
HTTP Method	POST
Description	Creates a Bundle .
Example URI	http://localhost:8080/uc/resources/bundle
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Create a Bundle: Example Request , below.
Properties	See Bundle Properties .
Example Response	Status 200 /OK Successfully created the Bundle with sysId 0b6e87e4aa4a410eb1b5875d8fe40985.

4.12.4.1 Create a Bundle: Example Request

XML Request	JSON Request
XML Request <pre><?xml version="1.0" encoding="UTF-8" standalone="yes"?> <bundle retainSysIds="true"> <name>bundle-test</name> <sysId> 0d7f03026a96451fbc3d7a8eecd641d5</ sysId > <description>bundle test< /description></pre>	JSON Request <pre>{ "retainSysIds": true, "name": "bundle-1", "sysId": "b52335345df646e5b597dc26df5 99344", "description": "bundle test 1",</pre>

XML Request	JSON Request
<pre> <defaultPromotionTarget> local</defaultPromotionTarget> <followReferences>true</followReferences> <excludeOnExistence> Triggers, Tasks, Calendars, Custom Days, Variables, Credentials, Agent Clusters, Virtual Resources, Scripts, Email Templates, Email Connections, Database Connections, SAP Connections, PeopleSoft Connections, SNMP Managers</excludeOnExistence> <opswiseGroups> <opswiseGroup>bus-1</opswiseGroup> <opswiseGroup>bus-2</opswiseGroup> </opswiseGroups> <promoteBundleDefinition> true</promoteBundleDefinition> <promoteByBusinessServices> <businessService>bus-1</businessService> <businessService>bus-2</businessService> </promoteByBusinessServices> <visibleTo>ops.admin</visibleTo> <bundleTasks> <bundleTask> <name>win-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleTask> <bundleTask> <name>abc</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleTask> </bundleTasks> <bundleApplications> <bundleApplication> <name>App-test-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleApplication> </bundleApplications> <bundleTriggers> <bundleTrigger> <name>manual-trigger-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleTrigger> <bundleTrigger> </pre>	<pre> "opswiseGroups": ["bus-1", "bus-2"], "defaultPromotionTarget" : "local", "excludeOnExistence": "Triggers, Tasks, Calendars, Custom Days, Variables, Credentials, Agent Clusters, Virtual Resources, Scripts, Email Templates, Email Connections, Database Connections, SAP Connections, PeopleSoft Connections, PeopleSoft Connections, SNMP Managers, Applications", "followReferences": true, "promoteBundleDefinition" : true, "promoteByBusinessServices": ["bus-1", "bus-2"], "visibleTo": "ops.admin", "bundleAgentClusters": [{ "name": "Opswise - Default Linux/Unix Cluster", "sysId": "0d7f03026a96451fbc3d7a8eecd 641d5" }, </pre>

XML Request	JSON Request
<pre> <name>time-trigger-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleTrigger> </bundleTriggers> <bundleCalendars> <bundleCalendar> <name>cal-test-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleCalendar> </bundleCalendars> <bundleCustomDays> <bundleCustomDay> <name>custome-test-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleCustomDay> </bundleCustomDays> <bundleVariables> <bundleVariable> <name>var1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleVariable> </bundleVariables> <bundleBusinessServices> <bundleBusinessService> <name>bus-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleBusinessService> </bundleBusinessServices> <bundleCredentials> <bundleCredential> <name>sap-cred</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleCredential> </bundleCredentials> <bundleAgentClusters> <bundleAgentCluster> <name>Opswise - Default Windows Cluster</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleAgentCluster> </bundleAgentClusters> <bundleVirtualResources> </pre>	<pre> { "name": "Opswise - Default Windows Cluster", "sysId": "d3f8282f702544d69500928afbc c00f0" }, "bundleApplications": [{ "name": "app-1", "sysId": "e12830a711c849388819230203e 601d3" }], "bundleBusinessServices" : [{ "name": "bus-1", "sysId": "b939eedb63544517accd905cfdd 13b22" }], "bundleCalendars": [{ "name": "cal-1", "sysId": "655b9c498e574ace886b114f79d 5933a" }], "bundleCredentials": [{ "name": "cred-1", "sysId": </pre>

XML Request	JSON Request
<pre> <bundleVirtualResource> <name>VR-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleVirtualResource> </bundleVirtualResources> <bundleScripts> <bundleScript> <name>script-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleScript> </bundleScripts> <bundleEmailTemplates> <bundleEmailTemplate> <name>email-temp-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleEmailTemplate> </bundleEmailTemplates> <bundleEmailConnections> <bundleEmailConnection> <name>Email-con-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleEmailConnection> </bundleEmailConnections> <bundleDatabaseConnections> <bundleDatabaseConnection> <name>DB-conn-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleDatabaseConnection> </bundleDatabaseConnections> <bundleSapConnections> <bundleSapConnection> <name>SAP-conn-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleSapConnection> </bundleSapConnections> <bundlePeoplesoftConnections> <bundlePeoplesoftConnection> <name>People-test-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundlePeoplesoftConnection> </bundlePeoplesoftConnections> <bundleSnmpManagers> </pre>	<pre> "d04886ac74be43a0aa3faa8042f82cca" },], "bundleCustomDays": [{ "name": "cust-1", "sysId": "1b0e9acedb98439a8319ac3cd51c21ba" }], "bundleDatabaseConnections": [{ "name": "db-con-1", "sysId": "fc8223ece09f407bb9b5bb865574cb49" }], "bundleEmailConnections": [{ "name": "email-conn", "sysId": "bd54eae4221a4f909454f7fa04c75efb" }], "bundleEmailTemplates": [{ "name": "email-temp-1", "sysId": </pre>

XML Request	JSON Request
<pre><bundleSnmManager> <name>snmp-test-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleSnmManager> </bundleSnmManagers> <bundleUniversalTemplates> <bundleUniversalTemplate> <name>univ-test-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleUniversalTemplate> </bundleUniversalTemplates> </bundle></pre>	<pre>"5dce586a419448ee83fa121589d 60a75" }], "bundlePeoplesoftConnections": [{ "name": "ps-con-1", "sysId": "aac40dfd5c3242ae9bcaaf169a5 468b9" }, "bundleSapConnections": [{ "name": "sap-1", "sysId": "a4b0544fb668404ba10b2826b2e 6db81" }, "bundleScripts": [{ "name": "script-1", "sysId": "01e90371bed4473d87dad001485 12f35" }, "bundleSnmManagers": [{ "name": "snmp-1", "sysId": "4bfa01f747ca4ad5b4ee9e073d6 43604" }</pre>

XML Request	JSON Request
	<pre>[], "bundleTasks": [{ "name": "win-1", "sysId": "3b50f8c015d6494288328cfdb35 d9ea7" }], "bundleTriggers": [{ "name": "cron- trig-1", "sysId": "d2869f93a68547beb8e5b156d4f ac99e" }], "bundleUniversalTemplates": [{ "name": "uni-1", "sysId": "0ff4abb1d80c4f95b517dc073c9 abd0c" }], "bundleVariables": [{ "name": "var1", "sysId": "9988d78bf82e44dbae66cf0e8ec 4b820" }], "bundleVirtualResources"</pre>

XML Request	JSON Request
	<pre> : [{ "name": "VR-1", "sysId": "deef3e516ce485fac5fc228302 2d904" }] </pre>

4.12.4.2 Bundle Properties

Property	UI Field Name	Description	Specifications	Required
bundleAgentClusters	Agent Clusters	Task Items to include	String value of task	N
bundleApplications	Applications	Applications to include	String value of Applications	N
bundleBusinessServices	Business Services	Business Services Items to include	String value of Business Services	N
bundleCalendars	Calendars	Calendars Items to include	String value of Calendars	N
bundleCredentials	Credentials	Agent Clusters Items to include	String value of Agent Clusters	N
bundleCustomDays	Custom Days	Custom Days Items to include	String value of Custom Days	N
bundleDatabaseConnections	Database Connections	Database Connections Items to include	String value of Database Connections	N
bundleEmailConnections	Email Connections	Email Connections Items to include	String value of Email Connections	N
bundleEmailTemplates	Email Templates	Email Templates Items to include	String value of Email Templates	N
bundleOAuthClients	OAuth Clients	OAuth Client Items to include	String value of OAuth Clients	N
bundlePeoplesoftConnections	PeopleSoft Connections	PeopleSoft Connections Items to include	String value of PeopleSoft Connections	N
bundleSapConnections	Sap Connections	Sap Connections Items to include	String value of Sap Connections	N

Property	UI Field Name	Description	Specifications	Required
bundleScripts	Scripts	Scripts Items to include	String value of Scripts	N
bundleSnmpManagers	SNMP Managers	SNMP Managers Items to include	String value of SNMP Managers	N
bundleTasks	Tasks	Task Items to include	String value of task	N
bundleTriggers	Triggers	Triggers Items to include	String value of Triggers	N
bundleUniversalTemplates	Universal Templates	Universal Templates Items to include	String value of Universal Templates	N
bundleVariables	Variables	Variables Items to include	String value of Variables	N
bundleVirtualResources	Virtual Resources	Virtual Resources Items to include	String value of Virtual Resources	N
defaultPromotionTarget	Default Promotion Target	Promotion Target server name	String value of target	N
description	Description	Bundle description	String value of description	N
excludeOnExistence	Exclude On Existence	Exclude Items on existence	String value	N
exportReleaseLevel	n/a	Universal Controller release that the record was exported from.	read only	N
exportTable	n/a	Record table information.	read only	N
followReferences	Follow References	Follow references items	Boolean value	N
name	Bundle Name	Bundle name	String value of the bundle name	Y
opwiseGroups	Member Of Business Services	List of Business Services that this task belongs to	String value	N
promoteBundleDefinition	Promote Bundle Definition	Promote Bundle Definition	Boolean value	N
promoteByBusinessServices	Promote Member of Business Service	Promote List of Business Services that this task belongs to	String value	N
sysId	n/a	System ID field in the database for this Bundles record.	Persisted only if retainSysIds is set to true.	N
visibleTo	Visible To	Visible to user	String value of user name	N (Required if promoteByBusinessServices is specified)

4.12.5 Create a Bundle By Business Services

	Description
URI	http://host_name/uc/resources/bundle/bybusinessservices
HTTP Method	POST
Description	Creates a Bundle .
Example URI	http://localhost:8080/uc/resources/bundle/bybusinessservices
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Create a Bundle By Business Services: Example Request , below.
Properties	See Create a Bundle By Business Services Properties .
Example Response	Status 200 Successfully created bundle "bundle-by-service2" with 1 item(s).

4.12.5.1 Create a Bundle By Business Services: Example Request

XML Request	JSON Request
XML Request <pre> <bundle> <name>bundle-by-service2</name> <businessServices> <businessService>bus-1</businessService> <businessService>bus-2</businessService> </businessServices> <typesToInclude> Triggers, Tasks, Calendars, Variables, Credentials</ typesToInclude> <businessServicesToInclude> <businessService>bus-1</businessService> <businessService>bus-2</businessService> </businessServicesToInclude> </bundle> </pre>	JSON Request <pre> { "name": "bundle-service4", "typesToInclude": "Triggers, Tasks, Calendars, Variables, Credentials", "businessServices": ["bus-1", "bus-2"], "businessServicesToInclude": ["bus-1", "bus-2"] } </pre>

4.12.5.2 Create a Bundle By Business Services Properties

Property	UI Field Name	Description	Specifications	Required
name	Bundle Name	Bundle name	String value of the bundle name.	Y
typesToInclude	Types To Include	Include item types	String value.	Y
businessServices	Member Of Business Services	List of Business Services that this bundle belongs to	String value of the list.	N
businessServicesToInclude	Business Services To Include	Include List of Business Services for this bundle creation	String value of the list.	Y

4.12.6 Create a Bundle By Date

	Description
URI	http://host_name/uc/resources/bundle/bydate
HTTP Method	POST
Description	Creates a Bundle .
Example URI	http://localhost:8080/uc/resources/bundle/bydate
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Create a Bundle By Date: Example Request , below.
Properties	See Create a Bundle By Date Properties .
Example Response	Status 200 Successfully created bundle "bundle-by-service2" with 1 item(s).

4.12.6.1 Create a Bundle By Date: Example Request

XML Request	JSON Request
XML Request <pre> <bundle> <name>bundle-by-service2</name> <businessServices> <businessService>bus-1</businessService> <businessService>bus-2</businessService> </businessServices> <typesToInclude> Triggers, Tasks, Calendars, Variables, Credentials</ typesToInclude> <updatedOnOrAfter> 2020-07-01 00:00:00 -0400</updatedOnOrAfter> </bundle> </pre>	JSON Request <pre> { " name ": "bundle- service4", " typesToInclude ": "Triggers, Tasks, Calendars, Variables, Credentials", " businessServices ": ["bus-1", "bus-2"], " updatedOnOrAfter ": "2020-07-0 1 00:00:00 -0400" } </pre>

4.12.6.2 Create a Bundle By Date Properties

Property	UI Field Name	Description	Specifications	Required
name	Bundle Name	Bundle name	String value of the bundle name.	Y
typesToInclude	Types To Include	Include item types	String value.	Y
businessServices	Member Of Business Services	List of Business Services that this bundle belongs to	String value of the list.	N
updatedOnOrAfter	Business Services To Include	Include List of items created On/After the dae	String value of the date.	Y

4.12.7 Delete a Bundle

	Description
URI	http://host_name/uc/resources/bundle
HTTP Method	DELETE
Description	Deletes a Bundle .
URI Parameters	See Delete a Bundle: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/bundle?bundleid=f87848b00a0001037f43e7c81c8ec969 http://localhost:8080/uc/resources/bundle?bundleid=f87848b00a0001037f43e7c81c8ec969&bundleid=testbundle
Example Response	Status 200 /OK Bundle deleted successfully.

4.12.7.1 Delete a Bundle: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
<code>bundleid</code>	ID used within the Controller to identify this Bundle.	String value of the bundle sysId.	Y (unless <code>bundleid</code> is specified)	<code>bundleid</code>
<code>bundleid</code>	Name used within the Controller to identify this Bundle.	String value of the bundle name.	Y (unless <code>bundleid</code> is specified)	<code>bundleid</code>

4.12.8 List Bundles

	Description
URI	http://host_name/uc/resources/bundle/list
HTTP Method	GET
Description	Retrieves information on all Bundles.
Example URI	http://localhost:8080/uc/resources/bundle/list?bundleid=abcd&businessServices=A&defaultPromotionTarget=local http://localhost:8080/uc/resources/bundle/list?bundleid=*
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json

	Description
Example Response	See List Bundles: Example Response , below.
Properties	See Bundle Properties .

4.12.8.1 List Bundles Request Parameters

Property	UI Field Name	Description	Specifications	Required
bundleName	n/a	Request parameter bundleName.	String value of the bundle name. Wildcards are supported.	N
businessServices	n/a	Request parameter businessServices.	String value of the bundle business service.	N
defaultPromotionTarget	n/a	Request parameter defaultPromotionTarget.	String value of the promotion target. Wildcards are supported.	N

4.12.8.2 List Bundles: Example Response

XML Response	JSON Response
XML Response <pre> <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <bundles> <bundle exportReleaseLevel="7.2.0.0" exportTable="ops_bundle" retainSysIds=true> <name> bundle-test</name> <sysId >b52335345 df646e5b597dc26df599344</ <sysId > <description> bundle test</description> <defaultPromotionTarget> local</defaultPromotionTarget> <followReferences> true</followReferences> <excludeOnExistence> Triggers, Tasks, Calendars, Custom Days, Variables, Credentials, Agent Clusters, Virtual Resources, Scripts, Email Templates, Email Connections, Database Connections, SAP Connections, PeopleSoft Connections, SNMP Managers</ excludeOnExistence> <opswiseGroups> <opswiseGroup>bus-1</opswiseGroup> <opswiseGroup>bus-2</opswiseGroup> </opswiseGroups> <promoteBundleDefinition> true</promoteBundleDefinition> <promoteByBusinessServices> <businessService>bus-1</ businessService> <businessService>bus-2</ businessService> </promoteByBusinessServices> <visibleTo> ops.admin</visibleTo> </pre>	JSON Response <pre> [{ "retainSysIds": true, "name": "bundle-1", "sysId": "b52335345df646e5b597dc26df599344", "description": "bundle test 1", "opswiseGroups": ["bus-1", "bus-2"], "defaultPromotionTarget": "local", "excludeOnExistence": "Triggers, Tasks, Calendars, Custom Days, Variables, Credentials, Agent Clusters, Virtual Resources, Scripts, Email Templates, Email Connections, Database Connections, SAP Connections, PeopleSoft Connections, SNMP Managers, Applications", "followReferences": true, "promoteBundleDefinition": true, "promoteByBusinessServices": ["bus-1", "bus-2"], "visibleTo": "ops.admin", "bundleAgentClusters": [{ "addedBy": "ops.admin", "name": "Opswise - Default Linux/Unix Cluster", "sysId": "0d7f03026a96451fbc3d7a8eecd641d5", "type": "Windows" }] }] </pre>

XML Response	JSON Response
<pre> <bundleTasks> <bundleTask addedBy="ops.admin" type="Workflow"> <name>win-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleTask> </bundleTasks> <bundleApplications> <bundleApplication addedBy="ops.admin" type="Windows Service"> <name>App-test-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleApplication> </bundleApplications> <bundleTriggers> <bundleTrigger addedBy="ops.admin" type="Cron"> <name>manual-trigger-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleTrigger> </bundleTriggers> <bundleCalendars> <bundleCalendar addedBy="ops.admin" type="calendar 1"> <name>cal-test-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleCalendar> </bundleCalendars> <bundleCustomDays> <bundleCustomDay addedBy="ops.admin" description="custom day test" type="Single Date"> <name>custome-test-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleCustomDay> </bundleCustomDays> <bundleVariables> </pre>	<pre> }], "bundleApplications": [{ "addedBy": "ops.admin", "name": "app-1", "sysId": "e12830a711c849388819230203e601d3", "type": "Windows Service" }], "bundleBusinessServices": [{ "addedBy": "ops.admin", "name": "bus-1", "sysId": "b939eedb63544517accd905cfdd13b22" }], "bundleCalendars": [{ "addedBy": "ops.admin", "description": "calendar 1", "name": "cal-1", "sysId": "655b9c498e574ace886b114f79d5933a" }], "bundleCredentials": [{ "addedBy": "ops.admin", </pre>

XML Response	JSON Response
<pre> <bundleVariable addedBy="ops.admin" description="variable 1" > <name>var1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleVariable> </bundleVariables> <bundleBusinessServices> <bundleBusinessService addedBy="ops.a dmin"> <name>bus-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleBusinessService> </bundleBusinessServices> <bundleCredentials> <bundleCredential addedBy="ops.admin"> <name>sap-cred</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleCredential> </bundleCredentials> <bundleAgentClusters> <bundleAgentCluster addedBy="ops.admi n" type="Linux/Unix"> <name>Opswise - Default Windows Cluster</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleAgentCluster> </bundleAgentClusters> <bundleVirtualResources> <bundleVirtualResource addedBy="ops.a dmin" type="Renewable"> <name>VR-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleVirtualResource> </bundleVirtualResources> <bundleScripts> <bundleScript addedBy="ops.admin" description="script 1" </pre>	<pre> "name": "cred-1", "sysId": "d04886ac74be43a0aa3faa8042f82cca" }, "bundleCustomDays": [{ "addedBy": "ops.admin", "description": "custom day test", "name": "cust-1", "sysId": "1b0e9acedb98439a8319ac3cd51c21ba", "type": "Single Date" }], "bundleDatabaseConnections": [{ "addedBy": "ops.admin", "name": "db-con-1", "sysId": "fc8223ece09f407bb9b5bb865574cb49" }], "bundleEmailConnections": [{ "addedBy": "ops.admin", "name": "email-conn", "sysId": "bd54eae4221a4f909454f7fa04c75efb", "type": "Outgoing" }], "bundleEmailTemplates": [{ </pre>

XML Response	JSON Response
<pre> type="Script"> <name>script-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleScript> </bundleScripts> <bundleEmailTemplates> <bundleEmailTemplate addedBy="ops.adm in"> <name>email-temp-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleEmailTemplate> </bundleEmailTemplates> <bundleEmailConnections> <bundleEmailConnection addedBy="ops.a dmin" type="Outgoing"> <name>Email-con-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleEmailConnection> </bundleEmailConnections> <bundleDatabaseConnections> <bundleDatabaseConnection addedBy="op s.admin"> <name>DB-conn-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleDatabaseConnection> </bundleDatabaseConnections> <bundleSapConnections> <bundleSapConnection addedBy="ops.adm in"> <name>SAP-conn-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleSapConnection> </bundleSapConnections> <bundlePeoplesoftConnections> <bundlePeoplesoftConnection addedBy=" ops.admin"> <name>People-test-1</name> </pre>	<pre> "addedBy": "ops.admin", "name": "email-temp-1", "sysId": "5dce586a419448ee83fa121589d60a75" }, "bundlePeoplesoftConnections": [{ "addedBy": "ops.admin", "name": "ps-con-1", "sysId": "aac40dfd5c3242ae9bcaaf169a5468b9" }], "bundleSapConnections": [{ "addedBy": "ops.admin", "name": "sap-1", "sysId": "a4b0544fb668404ba10b2826b2e6db81" }], "bundleScripts": [{ "addedBy": "ops.admin", "description": "script 1", "name": "script-1", "sysId": "01e90371bed4473d87dad00148512f35", "type": "Script" }], "bundleSnmpManagers": [{ </pre>

XML Response	JSON Response
<pre> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundlePeoplesoftConnection> </bundlePeoplesoftConnections> <bundleSnmpManagers> <bundleSnmpManager addedBy="ops.admin "> <name>snmp-test-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleSnmpManager> </bundleSnmpManagers> <bundleUniversalTemplates> <bundleUniversalTemplate addedBy="ops .admin"> <name>univ-test-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleUniversalTemplate> </bundleUniversalTemplates> </bundle> </bundles> </pre>	<pre> "addedBy": "ops.admin", "name": "snmp-1", "sysId": "4bfa01f747ca4ad5b4ee9e073d643604" }], "bundleTasks": [{ "addedBy": "ops.admin", "name": "win-1", "sysId": "3b50f8c015d6494288328cfdb35d9ea7", "type": "Workflow" }], "bundleTriggers": [{ "addedBy": "ops.admin", "name": "cron-trig-1", "sysId": "d2869f93a68547beb8e5b156d4fac99e", "type": "Cron" }], "bundleUniversalTemplates": [{ "addedBy": "ops.admin", "name": "uni-1", "sysId": "0ff4abb1d80c4f95b517dc073c9abd0c" }], "bundleVariables": [{ </pre>

XML Response	JSON Response
	<pre> "addedBy": "ops.admin", "description": "variable 1", "name": "var1", "sysId": "9988d78bf82e44dbae66cf0e8ec4b820" }], "bundleVirtualResources": [{ "addedBy": "ops.admin", "name": "VR-1", "sysId": "deef3e516ce485fac5fc2283022d904", "type": "Renewable" }] "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_bundle", }] </pre>

4.12.9 Modify a Bundle

	Description
URI	http://host_name/uc/resources/bundle
HTTP Method	PUT
Description	Modifies the Bundle specified by the <code>sysId</code> .
Example URI	http://localhost:8080/uc/resources/bundle
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Modify a Bundle: Example Request , below.
Properties	See Bundle Properties .

	Description
Example Response	Status 200 /OK Successfully updated the Bundle with sysId <sysId> to version <version>.

4.12.9.1 Modify a Bundle: Example Request

XML Request	JSON Request
XML Request <pre><?xml version="1.0" encoding="UTF-8" standalone="yes"?> <bundle retainSysIds=true> <name> bundle-test</name> <sysId> 0d7f03026a96451fbc3d7a8eecd641d5</ sysId > <description> bundle test</description> <defaultPromotionTarget> local</defaultPromotionTarget> <followReferences> true</followReferences> <excludeOnExistence> Triggers, Tasks, Calendars, Custom Days, Variables, Credentials, Agent Clusters, Virtual Resources, Scripts, Email Templates, Email Connections, Database Connections, SAP Connections, PeopleSoft Connections, SNMP Managers</ excludeOnExistence> <opswiseGroups> <opswiseGroup>bus-1</opswiseGroup> <opswiseGroup>bus-2</opswiseGroup> </opswiseGroups> <promoteBundleDefinition> true</promoteBundleDefinition> <promoteByBusinessServices> <businessService>bus-1</businessService> <businessService>bus-2</businessService> </promoteByBusinessServices> <visibleTo></pre>	JSON Request <pre>{ "retainSysIds": true, "name": "bundle-1", "sysId": "b52335345df646e5b597dc26df599344", "description": "bundle test 1", "opswiseGroups": ["bus-1", "bus-2"], "defaultPromotionTarget": "local", "excludeOnExistence": "Triggers, Tasks, Calendars, Custom Days, Variables, Credentials, Agent Clusters, Virtual Resources, Scripts, Email Templates, Email Connections, Database Connections, SAP Connections, PeopleSoft Connections, SNMP Managers, Applications", "followReferences": true, "promoteBundleDefinition": true, "promoteByBusinessServices": ["bus-1", "bus-2"], "visibleTo": "ops.admin", "bundleAgentClusters": [{ "name": "Opswise - Default Linux/ Unix Cluster",</pre>

XML Request	JSON Request
<pre> ops.admin</visibleTo> <bundleTasks> <bundleTask> <name>win-1</name> </bundleTask> </bundleTasks> <bundleApplications> <bundleApplication> <name>App-test-1</name> </bundleApplication> </bundleApplications> <bundleTriggers> <bundleTrigger> <name>manual-trigger-1</name> </bundleTrigger> <bundleTrigger> <name>time-trigger-1</name> </bundleTrigger> </bundleTriggers> <bundleCalendars> <bundleCalendar> <name>cal-test-1</name> </bundleCalendar> </bundleCalendars> <bundleCustomDays> <bundleCustomDay> <name>custome-test-1</name> </bundleCustomDay> </bundleCustomDays> </pre>	<pre> { "sysId": "0d7f03026a96451fbc3d7a8eecd641d5", "name": "Opwise - Default Windows Cluster", "sysId": "d3f8282f702544d69500928afbcc00f0", "bundleApplications": [{ "name": "app-1", "sysId": "e12830a711c849388819230203e601d3", }], "bundleBusinessServices": [{ "name": "bus-1", "sysId": "b939eedb63544517accd905cfdd13b22" }], "bundleCalendars": [{ "name": "cal-1", "sysId": "655b9c498e574ace886b114f79d5933a" }], "bundleCredentials": [{ "name": "cred-1", "sysId": "d04886ac74be43a0aa3faa8042f82cca" }] } </pre>

XML Request	JSON Request
<pre> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleCustomDay> </bundleCustomDays> <bundleVariables> <bundleVariable> <name>var1</name> </bundleVariable> </bundleVariables> <bundleBusinessServices> <bundleBusinessService> <name>bus-1</name> </bundleBusinessService> </bundleBusinessServices> <bundleCredentials> <bundleCredential> <name>sap-cred</name> </bundleCredential> </bundleCredentials> <bundleAgentClusters> <bundleAgentCluster> <name>Opswise - Default Windows Cluster< / name> </bundleAgentCluster> </bundleAgentClusters> <bundleVirtualResources> <bundleVirtualResource> <name>VR-1</name> </bundleVirtualResource> </bundleVirtualResources> <bundleScripts> <bundleScript> <name>script-1</name> </pre>	<pre>], "bundleCustomDays": [{ "name": "cust-1", "sysId": "1b0e9acedb98439a8319ac3cd51c21ba", }], "bundleDatabaseConnections": [{ "name": "db-con-1", "sysId": "fc8223ece09f407bb9b5bb865574cb49" }], "bundleEmailConnections": [{ "name": "email-conn", "sysId": "bd54eae4221a4f909454f7fa04c75efb", }], "bundleEmailTemplates": [{ "name": "email-temp-1", "sysId": "5dce586a419448ee83fa121589d60a75" }], "bundlePeoplesoftConnections": [{ "name": "ps-con-1", "sysId": "aac40dfd5c3242ae9bcaaf169a5468b9" }], "bundleSapConnections": [</pre>

XML Request	JSON Request
<pre> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleScript> </bundleScripts> <bundleEmailTemplates> <bundleEmailTemplate> <name>email-temp-1</name> </bundleEmailTemplate> </bundleEmailTemplates> <bundleEmailConnections> <bundleEmailConnection> <name>Email-con-1</name> </bundleEmailConnection> </bundleEmailConnections> <bundleDatabaseConnections> <bundleDatabaseConnection> <name>DB-conn-1</name> </bundleDatabaseConnection> </bundleDatabaseConnections> <bundleSapConnections> <bundleSapConnection> <name>SAP-conn-1</name> </bundleSapConnection> </bundleSapConnections> <bundlePeoplesoftConnections> <bundlePeoplesoftConnection> <name>People-test-1</name> </bundlePeoplesoftConnection> </bundlePeoplesoftConnections> <bundleSnmpManagers> <bundleSnmpManager> <name>snmp-test-1</name> </bundleSnmpManager> </bundleSnmpManagers> </pre>	<pre> { "name": "sap-1", "sysId": "a4b0544fb668404ba10b2826b2e6db81" }, "bundleScripts": [{ "name": "script-1", "sysId": "01e90371bed4473d87dad00148512f35", }], "bundleSnmpManagers": [{ "name": "snmp-1", "sysId": "4bfa01f747ca4ad5b4ee9e073d643604" }], "bundleTasks": [{ "name": "win-1", "sysId": "3b50f8c015d6494288328cfdb35d9ea7", }], "bundleTriggers": [{ "name": "cron-trig-1", "sysId": "d2869f93a68547beb8e5b156d4fac99e", }], "bundleUniversalTemplates": [{ "name": "uni-1", </pre>

XML Request	JSON Request
<pre> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleSnmpManager> </bundleSnmpManagers> <bundleUniversalTemplates> <bundleUniversalTemplate> <name>univ-test-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> </bundleUniversalTemplate> </bundleUniversalTemplates> </bundle> </pre>	<pre> { "sysId": "0ff4abb1d80c4f95b517dc073c9abd0c", "bundleVariables": [{ "name": "var1", "sysId": "9988d78bf82e44dbae66cf0e8ec4b820" }], "bundleVirtualResources": [{ "name": "VR-1", "sysId": "deef3e516ce485fac5fc2283022d904" }] } </pre>

4.12.10 Read a Bundle

URI	http://host_name/uc/resources/bundle
HTTP Method	GET
Description	Retrieve Bundle details using a specific query parameters.
URI Parameters	See Read a Bundle: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/bundle?bundlename=test-bundle http://localhost:8080/uc/resources/bundle?bundleid=12345
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See Read a Bundle: Example Response , below.
Properties	See Bundle Properties .

4.12.10.1 Read a Bundle: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
bundleid	ID used within the Controller to identify this Bundle.	String value of the bundle sysId.	Y (unless bundleName is specified)	bundleName
bundleName	Name used within the Controller to identify this Bundle.	String value of the bundle name.	Y (unless bundleid is specified)	bundleid

4.12.10.2 Read a Bundle: Example Response

The `exportReleaseLevel` and `exportTable` properties are specified as attributes in XML.

XML Response	JSON Response
XML Response <pre><?xml version="1.0" encoding="UTF-8" standalone="yes"?> <bundle exportReleaseLevel="7.2.0.0" exportTable="ops_bundle" retainSysIds=true> <name>bundle-test</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</sysId> <description>bundle test</description> <defaultPromotionTarget>local</defaultPromotionTarget> <followReferences>true</followReferences> <excludeOnExistence>Triggers, Tasks, Calendars, Custom Days, Variables, Credentials, Agent Clusters, Virtual Resources, Scripts, Email Templates, Email Connections, Database Connections, SAP Connections, PeopleSoft Connections, SNMP Managers</excludeOnExistence> <opswiseGroups></pre>	JSON Response <pre>{ "retainSysIds": true, "name": "bundle-1", "sysId": "b52335345df646e5b597dc26df599344", "description": "bundle test 1", "opswiseGroups": ["bus-1", "bus-2"], "defaultPromotionTarget": "local", "excludeOnExistence": "Triggers, Tasks, Calendars, Custom Days, Variables, Credentials, Agent Clusters, Virtual Resources, Scripts, Email Templates, Email Connections, Database Connections, SAP Connections, PeopleSoft Connections, SNMP Managers, Applications",</pre>

XML Response	JSON Response
<pre> <opswiseGroup>bus-1</opswiseGroup> <opswiseGroup>bus-2</opswiseGroup> </opswiseGroups> <promoteBundleDefinition> true</promoteBundleDefinition> <promoteByBusinessServices> <businessService>bus-1</businessService> <businessService>bus-2</businessService> </promoteByBusinessServices> <visibleTo> ops.admin</visibleTo> <bundleTasks> <bundleTask> <name>win-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundleTask> </bundleTasks> <bundleApplications> <bundleApplication> <name>App-test-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundleApplication> </bundleApplications> <bundleTriggers> <bundleTrigger> <name>manual-trigger-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundleTrigger> <bundleTrigger> <name>time-trigger-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundleTrigger> </bundleTriggers> <bundleCalendars> <bundleCalendar> <name>cal-test-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ </pre>	<pre> "followReferences": true, "promoteBundleDefinition": true, "promoteByBusinessServices": ["bus-1", "bus-2"], "visibleTo": "ops.admin", "bundleAgentClusters": [{ "name": "Opswise - Default Linux/Unix Cluster", "sysId": "0d7f03026a96451fbc3d7a8eecd641d5", }, { "name": "Opswise - Default Windows Cluster", "sysId": "d3f8282f702544d69500928afbcc00f0", }], "bundleApplications": [{ "name": "app-1", "sysId": "e12830a711c849388819230203e601d3", }], "bundleBusinessServices": [{ "name": "bus-1", "sysId": "b939eedb63544517accd905cfdd13b22" }], "bundleCalendars": [{ </pre>

XML Response	JSON Response
<pre> sysId> </bundleCalendar> </bundleCalendars> <bundleCustomDays> <bundleCustomDay> <name>custome-test-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundleCustomDay> </bundleCustomDays> <bundleVariables> <bundleVariable> <name>var1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundleVariable> </bundleVariables> <bundleBusinessServices> <bundleBusinessService> <name>bus-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundleBusinessService> </bundleBusinessServices> <bundleCredentials> <bundleCredential> <name>sap-cred</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundleCredential> </bundleCredentials> <bundleAgentClusters> <bundleAgentCluster> <name>Opswise - Default Windows Cluster</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundleAgentCluster> </bundleAgentClusters> <bundleVirtualResources> <bundleVirtualResource> <name>VR-1</name> </pre>	<pre> "name": "cal-1", "sysId": "655b9c498e574ace886b114f79d5933a" }, "bundleCredentials": [{ "name": "cred-1", "sysId": "d04886ac74be43a0aa3faa8042f82cca" }], "bundleCustomDays": [{ "name": "cust-1", "sysId": "1b0e9acedb98439a8319ac3cd51c21ba", }], "bundleDatabaseConnections": [{ "name": "db-con-1", "sysId": "fc8223ece09f407bb9b5bb865574cb49" }], "bundleEmailConnections": [{ "name": "email-conn", "sysId": "bd54eae4221a4f909454f7fa04c75efb", }], "bundleEmailTemplates": [{ "name": "email-temp-1", "sysId": </pre>

XML Response	JSON Response
<pre> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundleVirtualResource> </bundleVirtualResources> <bundleScripts> <bundleScript> <name>script-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundleScript> </bundleScripts> <bundleEmailTemplates> <bundleEmailTemplate> <name>email-temp-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundleEmailTemplate> </bundleEmailTemplates> <bundleEmailConnections> <bundleEmailConnection> <name>Email-con-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundleEmailConnection> </bundleEmailConnections> <bundleDatabaseConnections> <bundleDatabaseConnection> <name>DB-conn-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundleDatabaseConnection> </bundleDatabaseConnections> <bundleSapConnections> <bundleSapConnection> <name>SAP-conn-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundleSapConnection> </bundleSapConnections> <bundlePeoplesoftConnections> <bundlePeoplesoftConnection> <name>People-test-1</name> </pre>	<pre> "5dce586a419448ee83fa121589d60a75" }], "bundlePeoplesoftConnections": [{ "name": "ps-con-1", "sysId": "aac40dfd5c3242ae9bcaaf169a5468b9" }], "bundleSapConnections": [{ "name": "sap-1", "sysId": "a4b0544fb668404ba10b2826b2e6db81" }], "bundleScripts": [{ "name": "script-1", "sysId": "01e90371bed4473d87dad00148512f35", }], "bundleSnmpManagers": [{ "name": "snmp-1", "sysId": "4bfa01f747ca4ad5b4ee9e073d643604" }], "bundleTasks": [{ "name": "win-1", "sysId": "3b50f8c015d6494288328cfdb35d9ea7", }], </pre>

XML Response	JSON Response
<pre> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundlePeoplesoftConnection> </bundlePeoplesoftConnections> <bundleSnmpManagers> <bundleSnmpManager> <name>snmp-test-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundleSnmpManager> </bundleSnmpManagers> <bundleUniversalTemplates> <bundleUniversalTemplate> <name>univ-test-1</name> <sysId>0d7f03026a96451fbc3d7a8eecd641d5</ sysId> </bundleUniversalTemplate> </bundleUniversalTemplates> </bundle> </pre>	<pre> "bundleTriggers": [{ "name": "cron-trig-1", "sysId": "d2869f93a68547beb8e5b156d4fac99e", }], "bundleUniversalTemplates": [{ "name": "uni-1", "sysId": "0ff4abb1d80c4f95b517dc073c9abd0c" }], "bundleVariables": [{ "name": "var1", "sysId": "9988d78bf82e44dbae66cf0e8ec4b820" }], "bundleVirtualResources": [{ "name": "VR-1", "sysId": "deea3e516ce485fac5fc2283022d904", }], "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_bundle" } </pre>

4.12.11 Promotion

4.12.12 Bundleless Promotion

	Description
URI	http://host_name/uc/resources/promote
HTTP Method	POST
Description	Promotes, without a bundle, one or more items of a specific type.
Example URI	http://localhost:8080/uc/resources/promote
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Promote: XML and JSON Examples .
Request Properties	See Promote: Properties .
Example Response	See Promote: XML and JSON Examples .

4.12.12.1 Bundleless Promotion: XML and JSON Examples

Examples	XML	JSON
Example Request	XML <pre> <promote> <itemType>Calendar</itemType> <itemNames>CAL_US,CAL_CAN</itemNames> <promotionTargetName>PT1</promotionTargetName> <excludeOnExistence>Custom Days</excludeOnExistence> <followReferences>false</followReferences> <allowUnvTpltChanges>false</allowUnvTpltChanges> </promote> </pre>	JSON <pre> { "itemType": "Universal Template", "itemIds": "4e656d398d5f4ebd8d7df3210147c488", "promotionTargetId": "6330f82afab54273b9167a2b434a2424", "overrideUser": "testUser", "overridePassword": "testPassword1", "followReferences": true, "allowUnvTpltChanges": true } </pre>
Example Response	XML <pre> <command-response> <type>promote</type> <success>true</success> <info>Successfully promoted 2 calendars and 1 referenced item to promotion target "PT1".</info> <errors></errors> </command-response> </pre>	JSON <pre> { "type": "promote", "success": true, "info": "Successfully promoted 1 universal template to promotion target \"PT1\".", "errors": "" } </pre>

4.12.12.2 Bundleless Promotion: Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>itemType</code>	n/a	Item type for promotion item(s).	Valid Values: One of the following (not case sensitive): • Trigger • Task • Calendar • Custom Day • Variable • Business Service • Credential • Agent Cluster • Virtual Resource • Script • Email Template • Email Connection • Database Connection • SAP Connection • PeopleSoft Connection • SNMP Manager • Application • Universal Template • Report • Widget • Dashboard	Y	
<code>itemIds</code>	n/a	IDs for promotion items.	Comma-separated list of promotion item IDs.	Y (unless <code>itemNames</code> or <code>items</code> is specified)	<code>itemNames</code> <code>items</code>
<code>itemNames</code>	n/a	Names for promotion items.	Comma-separated list of promotion item names.	Y (unless <code>itemIds</code> or <code>items</code> is specified)	<code>itemIds</code> <code>items</code>

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
items	n/a	List of promotion items.	XML: <pre><items> <item> <name>reportTitle1</name> </item> <item> <name>reportTitle2</name> <user>userName</user> </item> <item> <name>reportTitle3</name> <group>groupName</group> </item> </items></pre> JSON: <pre>"items": [{ "name": "reportTitle1" }, { "name": "reportTitle1", "user": "username", "group": "" }, { "name": "reportTitle2", "user": null, "group": "group2" }]</pre>	Y (unless itemIds or itemNames is specified)	itemIds itemNames

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
promotionTargetId	n/a	ID of the Promotion Target.		Y (unless promotionTargetName is specified)	promotionTargetName
promotionTargetName	Promotion Target	Name of the Promotion Target.		Y (unless promotionTargetId is specified)	promotionTargetId
overrideUser	User	User name to use instead of the default User name for the Promotion Target.		Y (if overridePassword is specified)	
overridePassword	Password	User password to use instead of the default User password for the Promotion Target.		Y (if overrideUser is specified)	
overrideToken	Personal Access Token	Personal Access Token to use instead of the default personal access token for the Promotion Target.	If both overrideToken and overrideUser+overridePassword are specified, overrideToken takes precedence and overrideUser+overridePassword will be ignored.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
excludeOnExistence	Exclude On Existence	Item types that will not be updated if they exist on the target server.	Comma-separated list of excluded types. Valid Values: • As String = Triggers, As Value = 1 • As String = Tasks, As Value = 2 • As String = Calendars, As Value = 4 • As String = Custom Days, As Value = 8 • As String = Variables As Value = 16 • As String = Credentials, As Value = 64 • As String = Agent Clusters, As Value = 128 • As String = Virtual Resources, As Value = 256 • As String = Scripts, As Value = 512 • As String = Email Templates, As Value = 1024 • As String = Email Connections As Value = 2048 • As String = Database Connections, As Value = 4096 • As String = SAP Connections, As Value = 8192 • As String = SNMP Managers, As Value = 16384 • As String = Applications, As Value = 32768 • As String = PeopleSoft Connections, As Value = 65536 • As String = Reports, As Value = 262144 • As String = Widgets, As Value = 524288	N	
followReferences	Follow References	Dynamically include items in the promotion that are referenced by promotion items.	Valid values: • Yes,Y,true • No,N,false (default)	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
allUnvTpltChanges	Allow Universal Template Changes	Allow the promotion to contain new or changed Universal Templates.	Valid values: • Yes,Y,true • No,N,false (default) Note In order to promote Universal Template changes, the user must have the ops_universal_template_admin role or the ops_admin role.	N	

4.12.12.3 Bundleless Promotion: Items Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
name	n/a	Name for a promotion item.		Y	
user	n/a	User Id (Username) of a user.		N	group
group	n/a	Name of a user group.	For a dashboard or report visible to multiple groups, you can specify any one of the visibility groups.	N	user

4.12.13 Cancel a Scheduled Bundle Promotion

	Description
URI	http://host_name/uc/resources/promotion/schedule/cancel
HTTP Method	POST
Description	Cancels the scheduled promotion of a Bundle.
URI Parameters	See Cancel a Scheduled Bundle Promotion: URI Parameters , below.
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json

	Description	
Example URI	http://localhost:8080/uc/resources/promotion/schedule/cancel?bundlename=BundleA&date=2018-12-10&time=10:00 http://localhost:8080/uc/resources/promotion/schedule/cancel?bundleid=8fc4fd900804418b84af7b33eb55eb09&date=2019-11-15&time=12:00 http://localhost:8080/uc/resources/promotion/schedule/cancel?scheduleid=1899e60df0db4152a4eefa46cf29e7d3	
Example Response	See Cancel a Scheduled Bundle Promotion: XML and JSON Examples .	

4.12.13.1 Cancel a Scheduled Bundle Promotion: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
<code>scheduleid</code>	UUID of the promotion schedule.		N	<code>bundleid</code> and <code>bundleid</code>
<code>bundleid</code>	Name of the bundle.		N	<code>scheduleid</code> and <code>bundleid</code>
<code>bundleid</code>	UUID of the bundle.		N	<code>scheduleid</code> and <code>bundleid</code>
<code>date</code>	Date when the promotion was scheduled. Corresponds to the year, month, and day of the Scheduled Time field in a promotion schedule.	Format: yyyy-MM-dd (For example: 2018-11-14).	Y (If <code>bundleid</code> or <code>bundleid</code> is specified)	
<code>time</code>	Time when the promotion was scheduled. Corresponds to the hour and minutes of the Scheduled Time field in a promotion schedule.	Format: HH:mm (For example: 22:00).	Y (If <code>bundleid</code> or <code>bundleid</code> is specified)	

4.12.13.2 Cancel a Scheduled Bundle Promotion: XML and JSON Examples

Examples	XML	JSON
Example Response	XML <pre> <command-response> <type>schedule_promotion</type> <success>true</success> <info></info> <errors></errors> </command-response> OR <command-response> <type>schedule_promotion</type> <success>false</success> <info></info> <errors>The promotion schedule can only be cancelled while in a Scheduled status.</errors> </command-response> </pre>	JSON <pre> { "type": "schedule_promotion", "success": true, "info": "", "errors": "" } OR { "type": "schedule_promotion", "success": false, "info": "", "errors": "The promotion schedule can only be cancelled while in a Scheduled status." } </pre>

4.12.14 Delete a Scheduled Bundle Promotion

	Description
URI	http://host_name/uc/resources/promotion/schedule
HTTP Method	DELETE
Description	Deleted the scheduled promotion of a Bundle.
URI Parameters	See Delete a Scheduled Bundle Promotion: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/promotion/schedule?bundlename=BundleA&date=2018-12-15&time=14:30 http://localhost:8080/uc/resources/promotion/schedule?bundleid=8fc4fd900804418b84af7b33eb55eb09&date=2018-12-15&time=17:00 http://localhost:8080/uc/resources/promotion/schedule?scheduleid=dd1de1b27848435cb852fb8807af6a30

	Description
Example Response	• Status 200 Promotion schedule deleted successfully. • Status 400 One of parameters scheduleid, bundleid, or bundlename required. • Status 400 Both date, and time parameters required when bundleid, or bundlename specified. • Status 400 Unable to parse at least one of the date (yyyy-MM-dd) and time (HH:mm) parameters. • Status 403 Operation prohibited due to security constraints. • Status 403 Promotion Schedule cannot be deleted while Running. • Status 404 Unable to find bundle by the bundlename specified. • Status 404 More than one qualifying promotion schedule found. • Status 404 Unable to find qualifying promotion schedule.

4.12.14.1 Delete a Scheduled Bundle Promotion: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
scheduleid	UUID of the promotion schedule.		N	bundlename and bundleid
bundlename	Name of the bundle.		N	scheduleid and bundleid
bundleid	UUID of the bundle.		N	scheduleid and bundlename
date	Date when the promotion was scheduled. Corresponds to the year, month, and day of the Scheduled Time field in a promotion schedule.	Format: yyyy-MM-dd (For example: 2018-11-14).	Y (If bundlename or bundleid is specified)	
time	Time when the promotion was scheduled. Corresponds to the hour and minutes of the Scheduled Time field in a promotion schedule.	Format: HH:mm (For example: 22:00).	Y (If bundlename or bundleid is specified)	

4.12.15 Promote a Bundle or Schedule a Bundle Promotion

	Description
URI	http://host_name/uc/resources/bundle/promote

	Description
HTTP Method	POST
Description	Promote a Bundle or schedule the promotion of a Bundle.
Example URI	http://localhost:8080/uc/resources/bundle/promote
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Schedule Bundle Promotion: XML and JSON Examples .
Request Properties	See Schedule Bundle Promotion: Properties .
Example Response	See Schedule Bundle Promotion: XML and JSON Examples .

4.12.15.1 Promote a Bundle or Schedule a Bundle Promotion: XML and JSON Examples

Examples	XML	JSON
Example Request	<pre> XML <bundle-promote> <id>a17c53a4975d4df59ddf4e6f1fb0b111</id> <promotionTargetName>testTarget</promotionTargetName> <overrideUser>testUser</overrideUser> <overridePassword>testPassword</overridePassword> <allowUnvTpltChanges>true</allowUnvTpltChanges> <schedule>true</schedule> <createSnapshot>true</createSnapshot> <date>2015-10-31</date> <time>22:00</time> <notificationOption>operation success</notificationOption> </bundle-promote> </pre>	<pre> JSON { "id": "1bd5a9ae80714523a858633df3c515bf", "promotionTargetName": "testTarget", "overrideUser": "testUser", "overridePassword": "testPassword1", "allowUnvTpltChanges": true, "schedule": true, "createSnapshot": true, "date": "2018-01-04", "time": "23:00", "notificationOption": "operation success" } </pre>

Examples	XML	JSON
Example Response	<pre> XML <command-response> <type>schedule_promotion</type> <success>true</success> <info>Successfully scheduled the promotion of bundle "test" to promotion target "testTarget" for 2015-10-31 22:00:00 -0600.</info> <errors /> </command-response> </pre>	<pre> JSON { "type": "schedule_promotion", "success": true, "info": "Successfully scheduled the promotion of bundle "abc" to promotion target "testTarget" for 2018-01-04 23:00:00 -0600.", "errors": "" } </pre>

4.12.15.2 Promote a Bundle or Schedule a Bundle Promotion: Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>allowUnvTpltChanges</code>	Allow Universal Template Changes	Allow the promotion to contain new or changed Universal Templates.	Valid values: • Yes,Y,true • No,N,false Note In order to promote Universal Template changes, the user must have the ops_universal_template_admin role or the ops_admin role.	N	
<code>createSnapshot</code>	Create Snapshot	Schedule the Bundle promotion using the current Bundle records.	Valid values: • Yes,Y,true • No,N,false	N	
<code>date</code>	Date	Date on which to promote the Bundle.		Y (if <code>schedule</code> is Yes,Y,true); format is yyyy-MM-dd.	
<code>id</code>	n/a	32-character sysid of the Bundle to be promoted.		Y (unless <code>name</code> is specified)	<code>name</code>
<code>name</code>	Bundle Name	Name of the Bundle to be promoted.		Y (unless <code>id</code> is specified)	<code>id</code>

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
notificationOption	System Notification	System Notification to send on success and/or failure of the promotion.	Valid values (not case sensitive): - operation Failure (default) - operation success/failure - operation success	N	
overridePassword	Password	User password to use instead of the default User password for the promotion target.		Y (if overrideUser is specified)	
overrideToken	Personal Access Token	Personal Access Token to use instead of the default personal access token for the Promotion Target.	If both overrideToken and overrideUser + overridePassword are specified, overrideToken takes precedence and overrideUser + overridePassword will be ignored.	N	
overrideUser	User	User name to use instead of the default User name for the promotion target.		Y (if overridePassword is specified)	
promotionTargetId	n/a	ID of the Controller cluster node on which to promote the Bundle.	Default is the Default Promotion Target of the specified Bundle.	N	promotionTargetName
promotionTargetName	Promotion Target	Name of the Controller cluster node on which to promote the Bundle.	Default is the Default Promotion Target of the specified Bundle.	N	promotionTargetId
schedule	Schedule	Indication of whether or not to schedule a Bundle promotion.	Valid values - Yes,Y,true - No,N,false.	Y	
time	Time	Time on which to promote the Bundle.	Default is 00:00.	N	

4.12.16 Create a Promotion Target

	Description
URI	http://host_name/uc/resources/promotiontarget
HTTP Method	POST
Description	Creates a Promotion Target .

	Description
Example URI	http://localhost:8080/uc/resources/promotiontarget
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Create a Promotion Target: Example Request , below.
Properties	See Promotion Target Properties .
Example Response	Status 200 /OK Successfully created the promotion target with sysId 0b6e87e4aa4a410eb1b5875d8fe40985.

4.12.16.1 Create a Promotion Target: Example Request

Note

All of the mapping agents will be automatically mapped when you execute the Refresh Target Agent command, so the mapping agents included in the request will be ignored.

Examples	XML	JSON
Example Request	<pre> XML <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <promotionTarget retainSysIds="true"> <agentMappings/> <authenticationMethod>Basic</ authenticationMethod> <name>test</ name> <description/> <opswiseGroups> <opswiseGroup>bus-1</opswiseGroup> <opswiseGroup>bus-2</opswiseGroup> </ opswiseGroups> <password>*****</ password> <sysId>ed76d6c78f06402d882e155bfd42b98f< / sysId> <uri>http://localhost:7070/uc</ uri> <user>ops.admin</ user> </promotionTarget> </pre>	<pre> JSON { "agentMappings": [], "authenticationMethod": "Basic", "description": null, "name": "test", "opswiseGroups": ["bus-1", "bus-2"], "password": "*****", "retainSysIds": true, "sysId": "ed76d6c78f06402d882e155bfd42b98f", "uri": "http://localhost:7070/uc", "user": "ops.admin" } </pre>

4.12.16.2 Promotion Target Properties

Property	UI Field Name	Description	Specifications	Required
agentMappings	n/a	List of agentMapping details associated with the Controller	agentMapping details	N
authenticationMethod	Authentication Method	Authentication method to use on the target cluster node of the universal controller.	Valid Values: - As String = Basic, As Value = 1 - As String = Access Token, As Value = 2 Default is Basic (1).	N
description	Description	Promotion Target description	String value of description	N
exportReleaseLevel	n/a	Universal Controller release that the record was exported from.	read only	N
exportTable	n/a	Record table information.	read only	N
name	Name	Name for this Promotion Target.	String value of the promotion target name	Y
opwiseGroups	Member Of Business Services	List of Business Services that this task belongs to	String value	N
password	Password	Login password on the target cluster node of Universal Controller.	String value of password	N
retainSysIds	n/a	Specification for whether or not the Create a Promotion Target web service will persist the <code>sysId</code> property. - If <code>retainSysIds</code>="true" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database. - If <code>retainSysIds</code>="false" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller. Note In XML web services, <code>retainSysIds</code> is specified as an attribute in the <code><script></code> element.	Valid values: true/false (default is true).	N
sourceAgents	Source Agent	List of source agent names.	List of source agent names.	N

Property	UI Field Name	Description	Specifications	Required
sysId	n/a	System ID field in the database for this Promotion Target record.	Persisted only if retainSysIds is set to true.	N
targetAgent	Target Agent	Target agent name.	String value of the target agent name.	Y
token	Personal Access Token	if authenticationMethod = Access Token; the personal access token to use for authentication.	String value	N
type	Type	Agent type.	String value of agent type. (For example, Windows)	Y
uri	URI	Uniform Resource Identifier (URI) used to locate the Promotion Target cluster node.	String value uri.	Y
user	User	Login ID on the target cluster node of Universal Controller.	String value of user.	N

4.12.17 Modify a Promotion Target

Modify a Promotion Target is used for updating the promotion target details and source agent details of the mapping agent details.

You can map multiple source agents to a specific target agent, but you cannot add the same source agents for more than one target agent.

	Description
URI	http://host_name/uc/resources/promotiontarget
HTTP Method	PUT
Description	Updates a Promotion Target .
Example URI	http://localhost:8080/uc/resources/promotiontarget
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Modify a Promotion Target: Example Request , below.
Properties	See Promotion Target Properties .
Example Response	Status 200 /OK Successfully updated the promotion target with sysId 0b6e87e4aa4a410eb1b5875d8fe40985.

4.12.17.1 Modify a Promotion Target: Example Request

Examples	XML	JSON
Example Request	<pre> XML <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <promotionTarget retainSysIds="true"> <agentMappings> <agentMapping> <sourceAgents> <sourceAgent>SBUS30 - AGNT0005</sourceAgent> </sourceAgents> <targetAgent>SBUS30 - AGNT0005</targetAgent> <type>Windows</type> </agentMapping> <authenticationMethod>Basic</ authenticationMethod> <agentMappings> <name>test</name> <description/> <opswiseGroups> <opswiseGroup>bus-1</ opswiseGroup> <opswiseGroup>bus-2</ opswiseGroup> </opswiseGroups> <password>*****</password> <sysId>ed76d6c78f06402d882e155b fd42b98f</sysId> <uri>http://localhost:7070/uc</ uri> <user>ops.admin</user> </promotionTarget> </pre>	<pre> JSON { "agentMappings": [{ "sourceAgents": ["SBUS30 - AGNT0005"], "targetAgent": "SBUS30 - AGNT0005", "type": "Windows" }, { "authenticationMethod": "Basic", "description": null, "name": "test", "opswiseGroups": ["bus-1", "bus-2"], "password": "*****", "retainSysIds": true, "sysId": "ed76d6c78f06402d882e155bfd 42b98f", "uri": "http:// localhost:7070/uc", "user": "ops.admin" }] } </pre>

4.12.18 List Promotion Targets

List Promotion Targets allows the retrieval of promotion target details based on provided search criteria.

	Description
URI	http://host_name/uc/resources/promotiontarget/list
HTTP Method	GET
Description	Retrieve Promotion Target details.
URI Parameters	See List Promotion Targets: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/promotiontarget/list?targetname=test http://localhost:8080/uc/resources/promotiontarget/list?targetname=* http://localhost:8080/uc/resources/promotiontarget/list?targetname=local&businessServices=bus-1,bus-2
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See List Promotion Targets: Example Response , below.
Response Properties	See Promotion Target Properties .

4.12.18.1 List Promotion Targets: URI Parameters

Property	UI Field Name	Description	Specifications	Required
<code>targetname</code>	N/A	Request parameter targetname	String value of the target name. Wildcards are supported.	N
<code>businessServices</code>	N/A	Request parameter businessServices.	String value of the business service	N

4.12.18.2 List Promotion Targets: Example Response

The `exportReleaseLevel` and `exportTable` properties are specified as attributes in XML.

Examples	XML	JSON
Example Response	<pre><?xml version="1.0" encoding="UTF-8" standalone="yes"?> <promotionTargets> <promotionTarget exportReleaseLevel="7.2.0.0" exportTable="ops_promotion_target" retainSysIds="true"> <agentMappings> <agentMapping> <sourceAgents> <sourceAgent>SBUS30 - AGNT0005</sourceAgent> </sourceAgents> <targetAgent>SBUS30 - AGNT0005</targetAgent> <type>Windows</type> </agentMapping> </agentMappings> <authenticationMethod>Basic</authenticationMethod></pre>	<pre>{ "agentMappings": [{ "sourceAgents": ["SBUS30 - AGNT0005"], "targetAgent": "SBUS30 - AGNT0005", "type": "Windows" }], "authenticationMethod": "Basic", "description": null, "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_promotion_target" "name": "test", "opswiseGroups": ["bus-1", "bus-2"], "retainSysIds": true, "sysId": "ed76d6c78f06402d882e155bfd42 b98f", "uri": "http:// localhost:7070/uc", "user": "ops.admin" }, {</pre>

Examples	XML	JSON
	<pre> <name>test</name> <description/> <opswiseGroups> <opswiseGroup>bus-1</opswiseGroup> <opswiseGroup>bus-2</opswiseGroup> </opswiseGroups> <sysId>ed76d6c78f06402d882e155bfd42b98f</sysId> <uri>http://localhost:7070/uc</uri> <user>ops.admin</user> </promotionTarget> <promotionTarget exportReleaseLevel="7.2.0.0" exportTable="ops_promotion_target" retainSysIds="true"> <agentMappings /> <authenticationMethod>Basic</authenticationMethod> <name>test</name> <description/> <opswiseGroups> <opswiseGroup>bus-1</opswiseGroup> <opswiseGroup>bus-2</opswiseGroup> </opswiseGroups> <sysId>ed76d6c78f06402d882e155bfd42b98f</sysId> <uri>http://localhost:7070/uc</uri> <user>ops.admin</user> </promotionTarget> </promotionTargets> </pre>	<pre> "agentMappings": [], "authenticationMethod": "Basic", "description": null, "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_promotion_target" "ops_promotion_target" "name": "test", "opswiseGroups": ["bus-2"], "retainSysIds": true, "sysId": "ed76d6c78f06402d882e155bfd42b98f", "uri": "http://localhost:7070/uc", "user": "ops.admin" </pre>

4.12.19 Delete a Promotion Target

Delete a Promotion Target allows the deletion of a specified promotion target.

	Description
URI	http://host_name/uc/resources/promotiontarget/
HTTP Method	DELETE
Description	Delete a specified Promotion Target .
URI Parameters	See Delete a Promotion Target: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/promotiontarget?targetname=test http://localhost:8080/uc/resources/promotiontarget?targetid=ed76d6c78f06402d882e155bfd42b98f
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	text/plain
Properties	See Promotion Target Properties .
Example Response	Status 200 /OK Promotion target deleted successfully.

4.12.20 Delete Promotion Target: URI Parameters

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive
targetname	n/a	Request parameter targetname.	String value of the promotion target name	Y (unless targetid is specified)	targetid
targetid	n/a	Request parameter targetid.	String value of the promotion target sysId	Y (unless targetname is specified)	targetname

4.12.21 Read a Promotion Target

Read a Promotion Target allows the reading of promotion target details based on a specified targetid or targetname.

	Description
URI	http://host_name/uc/resources/promotiontarget/

	Description
HTTP Method	GET
Description	Retrieve a specified Promotion Target details.
URI Parameters	See Read a Promotion Target: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/promotiontarget?targetname=test http://localhost:8080/uc/resources/promotiontarget?targetid=ed76d6c78f06402d882e155bfd42b98f
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See Read a Promotion Target: Example Response , below.
Response Properties	See Promotion Target Properties .

4.12.21.1 Read a Promotion Target: URI Parameters

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive
targetname	n/a	Request parameter targetname.	String value of the promotion target name	Y (unless targetid is specified)	targetid
targetid	n/a	Request parameter targetid.	String value of the promotion target sysId	Y (unless targetname is specified)	targetname

4.12.21.2 Read a Promotion Target: Example Response

The `exportReleaseLevel` and `exportTable` properties are specified as attributes in XML.

Examples	XML	JSON
Example Request	<pre> XML <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <promotionTarget exportReleaseLevel="7.2.0.0" exportTable="ops_promotion_target" retainSysIds="true"> <agentMappings> <agentMapping> <sourceAgents> <sourceAgent>SBUS30 - AGNT0005</sourceAgent> </sourceAgents> <targetAgent>SBUS30 - AGNT0005</ targetAgent> <type>Windows</type> </agentMapping> </agentMappings> <authenticationMethod>Basic</ authenticationMethod> <name>test</name> <description/> <opswiseGroups> <opswiseGroup>bus-1</opswiseGroup> <opswiseGroup>bus-2</opswiseGroup> </opswiseGroups> <sysId>ed76d6c78f06402d882e155bfd42b98f</ sysId> <uri>http://localhost:7070/uc</uri> <user>ops.admin</user> </promotionTarget> </pre>	<pre> JSON { "agentMappings": [{ "sourceAgents": ["SBUS30 - AGNT0005"], "targetAgent": "SBUS30 - AGNT0005", "type": "Windows" }], "authenticationMethod": "B asic", "description": null, "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_promotion_target" "name": "test", "opswiseGroups": ["bus-1", "bus-2"], "retainSysIds": true, "sysId": "ed76d6c78f06402d882e155bfd42b 98f", "uri": "http:// localhost:7070/uc", "user": "ops.admin" } </pre>

4.12.22 Refresh Target Agents

Refresh Promotion Target Agents allows the refreshing of the target Controller agents mapped to the promotion target.

	Description
URI	http://host_name/uc/resources/promotiontarget/refreshagents
HTTP Method	POST
Description	Refresh the target agents for a specified Promotion Target .
URI Parameters	See Refresh Target Agents: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/promotionTarget/refreshagents?targetname=test http://localhost:8080/uc/resources/promotionTarget/refreshagents?targetid=ed76d6c78f06402d882e155bfd42b98f
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	Successfully refreshed target agents for test-1

4.12.22.1 Refresh Target Agents: URI Parameters

Property	Description	Specifications	Required	Mutually Exclusive
<code>targetname</code>	Name for this Promotion Target.	String value of the promotion target name passed as query parameter.	Y (unless <code>targetid</code> is specified)	<code>targetid</code>
<code>targetid</code>	Promotion Target sysId.	String value of the promotion target sysId passed as query parameter.	Y (unless <code>targetname</code> is specified)	<code>targetname</code>
<code>token</code>	Override Personal Access Token on the target cluster node of Universal Controller.	String value of personal access token, passed as request body. If both <code>token</code> and <code>username + password</code> are specified, <code>token</code> takes precedence and <code>username + password</code> will be ignored.	N	
<code>username</code>	Override Login ID on the target cluster node of Universal Controller.	String value of user, passed as request body.	Y (if <code>password</code> is specified)	
<code>password</code>	Override Login password on the target cluster node of Universal Controller.	String value of password, passed as request body.	Y (if <code>username</code> is specified)	

4.12.22.2 Refresh Target Agents: Example Request

Examples	XML	JSON
Example Request	XML <pre><overrideUser> <username>test-1</username> <password>test</password> </overrideUser></pre>	JSON <pre>{ "password": "1234", "username": "ops.admin" }</pre>

4.13 Business Service Web Services

- [Overview](#)
 - [Create a Business Service](#)
 - [Delete a Business Service](#)
 - [List Business Services](#)
 - [Modify a Business Service](#)
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4.13.1 Overview

Universal Controller supports the following RESTful-based web services for [Business Service](#) operations, which are listed alphabetically on this page.

- [Create a Business Service](#)
- [Delete a Business Service](#)
- [List Business Services](#)
- [Modify a Business Service](#)
- [Read a Business Service](#)

Formatting specifications for each web service, including details about property requirements, are provided.

4.13.2 Create a Business Service

	Description
URI	http://host_name/uc/resources/businessservice
HTTP Method	POST

	Description
Description	Creates a Business Service .
Example URI	http://localhost:8080/uc/resources/businessservice
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Create a Business Service: Example Request , below.
Business Service Properties	See Business Service Properties , below.
Example Response	Status 200 /OK Successfully created the Business Service with sysId {sysId}.

4.13.2.1 Create a Business Service: Example Request

XML Request	JSON Request
XML Request <pre><businessService retainSysIds="true"> <description>1</description> <name>test</name> <sysId>e3a0d7b81f904c8fa4ae55cde6d58665 </sysId> </businessService></pre>	JSON Request <pre>{ "description": 1, "name": "test", "retainSysIds": true, "sysId": "e3a0d7b81f904c8fa4ae55cde6d58665" }</pre>

4.13.2.2 Business Service: Properties

Property	UI Field Name	Description	Specifications	Required
description	Description	User-defined; description of this record.		N
exportReleaseLevel	n/a	Universal Controller release that the record was exported from.	read only	N
exportTable	n/a	Record table information.	read only	N
name	Name	Name used within the Controller to identify this Business Service.	Maximum 40 alphanumerics.	Y

Property	UI Field Name	Description	Specifications	Required
<code>retainSysIds</code>	n/a	Specification for whether or not the Create a Business Service web service will persist the <code>sysId</code> property. - If <code>retainSysIds="true"</code> and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database. - If <code>retainSysIds="false"</code> and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller. Note In XML web services, <code>retainSysIds</code> is specified as an attribute in the <code><businessService></code> element.	Valid values: true/false (default is true).	N
<code>sysId</code>	n/a	System ID field in the database for this Business Service record.	Persisted only if <code>retainSysIds</code> is set to true.	N

4.13.3 Delete a Business Service

	Description
URI	http://host_name/uc/resources/businessservice
HTTP Method	DELETE
Description	Deletes a Business Service.
URI Parameters	See Delete a Business Service: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/businessservice?buserviceid=77171434c0a801c9016d5b2b5d17ddee
Example Response	- Status 200 /OK Business Service deleted successfully. - Status 400 /Bad Request Mutual exclusion violation. Cannot specify <code>buservicename</code> and <code>buserviceid</code> at the same time. - Status 404 /Not Found A business service with {name/id} "test" does not exist.

4.13.3.1 Delete a Business Service: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
busserviceid	ID used within the Controller to identify this Business Service.	String; URI parameter.	Y (unless busservicename is specified)	busservicename
busservicename	Name used within the Controller to identify this Business Service.	String; URI parameter.	Y (unless busserviceid is specified)	busserviceid

4.13.4 List Business Services

	Description
URI	http://host_name/uc/resources/businessservice/list
HTTP Method	GET
Description	Retrieves information on all Business Services.
Example URI	http://localhost:8080/uc/resources/businessservice/list
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See List Business Services: Example Response , below.
Response Properties	See Business Service Properties .

4.13.4.1 List Business Services: Example Response

XML Request	JSON Request
XML Request <pre> <businessServices> <businessService exportReleaseLevel = "7.2.0.0" exportTable="ops_generic group" version="1"> <description /> <nam e>bus service 1</name> <sysId>639d90bf8b 61479191f46b1e524ac916</sysId> </ businessService> <businessService exportReleaseLevel ="7.2.0.0" exportTable ="ops_generic group" version="4"> <description/> <name>bus service 2</name> <sysId>0ff4a7bafa0441a9 b1a57b6451344ab6</sysId> </ businessService> <businessService exportReleaseLevel ="7.2.0.0" exportTable ="ops_generic group" version="1"> <description/> <name>bus service 3</name> <sysId>2822fa2848de438c 97167bfa1d7a633c</sysId> </ businessService> <businessService exportReleaseLevel ="7.2.0.0" exportTable ="ops_generic group" version="1"> <description/> <name>bus service 4</name> <sysId>ff4b77d628ae4bc7 8c78f383bf1265b0</sysId> </ businessService> </businessServices> </pre>	JSON Request <pre> [{ "description": null, "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_generic_group", "name": "bus service 1", "sysId": "639d90bf8b61479191f46b1e524ac916", "version": 1 }, { "description": null, "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_generic_group", "name": "bus service 2", "sysId": "0ff4a7bafa0441a9b1a57b6451344ab6", "version": 4 }, { "description": null, "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_generic_group", "name": "bus service 3", "sysId": "2822fa2848de438c97167bfa1d7a633c", "version": 1 }, { "description": null, "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_generic_group", "name": "bus service 4", "sysId": "ff4b77d628ae4bc78c78f383bf1265b0", "version": 1 }] </pre>

4.13.5 Modify a Business Service

	Description
URI	http://host_name/uc/resources/businessservice
HTTP Method	PUT
Description	Modifies the Business Service specified by the sysId .
Example URI	http://localhost:8080/uc/resources/businessservice
Consumes Content-Type	application/xml, application/json

	Description
Produces Content-Type	n/a
Example Request	See Modify a Business Service: Example Request , below.
Business Service Properties	See Business Service Properties .
Example Response	- Status 200 /OK - Successfully updated the business service with sysId <sysId> to version <version>.

4.13.5.1 Modify a Business Service: Example Request

XML Request	JSON Request
XML Request <pre><businessService> <description>1</description> <name>test</name> <sysId>e3a0d7b81f904c8fa4ae55cde6d58665</sysId> </businessService></pre>	JSON Request <pre>{ "description": 1, "name": "test", "sysId": "e3a0d7b81f904c8fa4ae55cde6d58665" }</pre>

4.13.6 Read a Business Service

URI	http://host_name/uc/resources/businessservice
HTTP Method	GET
Description	Retrieves information on a specific Business Service.
URI Parameters	See Read a Business Service: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/businessservice?busservicename=test http://localhost:8080/uc/resources/businessservice?buserviceid=f87848b00a0001037f43e7c81c8ec969
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See Read a Business Service: Example Response , below.
Business Service Properties	See Business Service Properties .

4.13.6.1 Read a Business Service: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
busserviceid	ID used within the Controller to identify this Business Service.	String; URI parameter.	Y (unless busservicename is specified)	busservicename
busservicename	Name used within the Controller to identify this Business Service.	String; URI parameter.	Y (unless busserviceid is specified)	busserviceid

4.13.6.2 Read a Business Service: Example Response

The `retainSysIds` and `version` properties are specified as attributes in XML.

The `exportReleaseLevel` and `exportTable` properties are specified as attributes in XML.

XML Response	JSON Response
XML Response <pre><businessService exportReleaseLevel="7.2.0.0" exportTable="ops_generic_group" retainSysIds="true" version="1"> <description>1</description> <name>test</name> <sysId>e3a0d7b81f904c8fa4ae55cde6d58665</sysId> </businessService></pre>	JSON Response <pre>{ "description": 1, "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_generic_group", "name": "test", "retainSysIds": true, "sysId": "e3a0d7b81f904c8fa4ae55cde6d58665", "version": 1 }</pre>

4.14 Calendar Web Services

- [Overview](#)
- [Add an Existing Custom Day to a Calendar](#)
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- [Create a Calendar](#)
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- [List Calendars](#)
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 - [Read All Custom Days of a Calendar: Properties](#)
- [Remove a Custom Day from a Calendar](#)
 - [Remove a Custom Day from a Calendar: URI Parameters](#)

4.14.1 Overview

Universal Controller supports the following RESTful-based web services for Calendar operations, which are listed alphabetically on this page.

- [Add an Existing Custom Day to a Calendar](#)
- [Create a Calendar](#)
- [Delete a Calendar](#)
- [List Calendars](#)
- [List Local Custom Day Qualifying Dates](#)
- [List Local Custom Day Qualifying Periods](#)
- [Modify a Calendar](#)
- [Read a Calendar](#)
- [Read All Custom Days of a Calendar](#)
- [Remove a Custom Day from a Calendar](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Note

You can create and modify a Calendar that contains one or more global [Custom Days](#) only if the [Custom Day Global Permitted](#) Universal Controller system property is set to **true**.

4.14.2 Add an Existing Custom Day to a Calendar

	Description
URI	http://host_name/uc/resources/calendar/customdays
HTTP Method	POST
Description	Adds the specified Custom Day to the specified Calendar .
URI Parameters	See Add an Existing Custom Day to a Calendar: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/calendar/customdays?calendarname=test&customdayid=sfsdffsf123456dfhkjhk
Example Response	- Status 200 /OK Custom day <customDay> successfully added to the calendar <calendar>. - Status 400 /Bad Request Calendar <calendarName> doesn't exist. - Status 400 /Bad Request Custom Day <customDay> is already in the Calendar <calendarName>.

4.14.2.1 Add an Existing Custom Day to a Calendar: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
calendarid	Unique ID for the Calendar.		Y (unless <code>calendarname</code> is specified)	calendarname
calendarname	Name used within the Controller to identify the Calendar.	Maximum 40 alphanumerics.	Y (unless <code>calendarid</code> is specified)	calendarid
customdayid	Unique ID for the Custom Day.		Y (unless <code>customdayname</code> is specified)	customdayname
customdayname	Name used within the Controller to identify the Custom Day.	Maximum 40 alphanumerics.	Y (unless <code>customdayid</code> is specified)	customdayid

4.14.3 Create a Calendar

	Description
URI	http://host_name/uc/resources/calendar
HTTP Method	POST
Description	Creates a new Calendar .
Example URI	http://localhost:8080/uc/resources/calendar
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Create a Calendar: Example Request , below.
Calendar Properties	See Create a Calendar: Calendar Properties .
Custom Day Properties	See Create a Calendar: Custom Day Properties .
Local Custom Day Properties	See Create a Calendar: Local Custom Day Properties .
Example Response	Status 200 /OK Successfully created the calendar with sysId <sysId>.

4.14.3.1 Create a Calendar: Example Request

XML Request	JSON Request
XML Request	JSON Request <pre>{ "businessDays": { "value": "Monday,Tuesday,Wednesday,Thursday,Friday" }, "comments": "American Calendar", "customDays": [{ "name": "uc - Christmas", "sysId": "daf16d70c0a801650040c4d58a3feebd" }, { "name": "uc - Flag Day", "sysId": "daf16d8fc0a801650040c4d54b2432fb" }], "firstDayOfWeek": "Sunday", "localCustomDays": [{ "adjustment": "None", "adjustmentAmount": 1, "adjustmentType": "Day", "category": "Holiday", "comments": null, "ctype": "Single Date", "date": "2017-08-23", "dateList": [], "day": 1, "dayofweek": "Sun", "month": "Jan", "name": "local custom day", "observedRules": [], "relfreq": "1st", "sysId": "616ec15e7a5e40dbaae421e3688a25e5" }], "name": "uc - American Calendar", "opswiseGroups": [], "retainSysIds": true, "sysId": "da24b953c0a8016501fbcb18464d8328" }</pre>

XML Request	JSON Request
<pre> <calendar retainSysIds="true"> <businessDays>Monday,Tuesday,Wednesda y,Thursday,Friday</businessDays> <customDays> <customDay> <name>uc - Christmas</ name> <sysId>daf16d70c0a80165 0040c4d58a3feebd</sysId> </customDay> <customDay> <name>uc - Flag Day</ name> <sysId>daf16d8fc0a801650040c4d54b2432fb</ sysId> </customDay> </customDays> <comments>American Calendar</comments> <firstDayOfWeek>Sunday</ firstDayOfWeek> <localCustomDays> <localCustomDay> <adjustment>None</ adjustment> <adjustmentAmount>1</ adjustmentAmount> <adjustmentType>Day</ adjustmentType> <category>Holiday</ category> <comments /> <ctype>Single Date</ ctype> <date>2017-08-23</date> <dateList /> <day>1</day> <dayofweek>Sun</ dayofweek> <month>Jan</month> <name>local custom day< /name> <observedRules /> <relfreq>1st</relfreq> <sysId>616ec15e7a5e40db aae421e3688a25e5</sysId> </localCustomDay> </localCustomDays> <name>uc - American Calendar</name> <opswiseGroups /> <sysId>da24b953c0a8016501fbc18464d83 28</sysId> </calendar> </pre>	

4.14.3.2 Create a Calendar: Calendar Properties

Property	UI Field Name	Description	Specifications	Required
businessDays	Business Days	Comma-separated list of days.	Valid values: • Sunday • Monday • Tuesday • Wednesday • Thursday • Friday • Saturday Optional: useDefaultIfBlank attribute. Boolean; Valid values: true/false. • If businessDays is blank or is not specified in the Request, businessDays defaults to Monday,Tuesday,Wednesday,Thursday,Friday. To disable this behavior, set useDefaultIfBlank to false. That is, to set businessDays to blank when a calendar contains "Business Day" Custom Day(s), specify: <code><businessDays useDefaultIfBlank="false"></businessDays></code>. • If businessDays is blank and the useDefaultIfBlank attribute is not included in the Request <code>(<businessDays />)</code>, businessDays defaults to Monday,Tuesday,Wednesday,Thursday,Friday. • If businessDays is not blank, useDefaultIfBlank is ignored. • If useDefaultIfBlank is set to true (<code><businessDays useDefaultIfBlank="true"></businessDays></code>), businessDays defaults to Monday,Tuesday,Wednesday,Thursday,Friday.	N

Property	UI Field Name	Description	Specifications	Required
			If useDefaultIfBlank is set to false (<code><businessDays useDefaultIfBlank="false"></businessDays></code>), business days are not set. The Read a Calendar web service will return useDefaultIfBlank only if <code>businessDays</code> is empty; useDefaultIfBlank will be set to false.	
comments	Description	User-defined; description for the calendar.		N
excludeRelated	n/a	Specification for whether or not to exclude related records (Custom Days, Local Custom Days) from an update, even if they are provided in the request.	Valid values: true/false (default is false).	N
exportReleaseLevel	n/a	Universal Controller release that the record was exported from.	read only	N
exportTable	n/a	Record table information.	read only	N
firstDayOfWeek	First Day Of Week	Day that is considered the start of the week.	Valid values: - Sunday - Monday - Tuesday - Wednesday - Thursday - Friday - Saturday	N
name	Name	Name used within the Controller to identify this calendar.	Maximum 40 alphanumerics.	Y

Property	UI Field Name	Description	Specifications	Required
opswiseGroups	Member of Business Services	List of Business Services: XML <pre><opswiseGroups> <opswiseGroup>test< /opswiseGroup> </opswiseGroups></pre> JSON <pre>"opswiseGroups": ["test"]</pre>		N
retainSysIds	n/a	Specification for whether or not the Create a Calendar web service will persist the sysId property. - If retainSysIds="true" and sysId is included in the request/response, sysId will be persisted to the database. - If retainSysIds="false" and sysId is included in the request/response, sysId will be ignored; it will be autogenerated by the Controller. Note In XML web services, retainSysIds is specified as an attribute in the <calendar> element.	Valid values: true/false (default is true).	N
sysId	n/a	System ID field in the database for this Calendar record.	Persisted only if retainSysIds is set to true .	N

Property	UI Field Name	Description	Specifications	Required
firstQuarterStart	1st Quarter Start	To specify the start of the 1st Quarter, a day and month must be specified as shown below. XML <pre><firstQuarterStart> <day>15</day> <month>01</ month> </ firstQuarterStart></pre> JSON <pre>{ "firstQuarterStart": { "day": "15", "month": "Jan" } }</pre>	Valid values: - month: - integer value between 1-12 - string value 3 letter month - Jan - Feb - Mar - Apr - May - Jun - Jul - Aug - Sep - Oct - Nov - Dec - The day must also be valid for the given month. For example, Feb 30 is not allowed.	If any other Quarter is specified then this property is also required.
secondQuarterStart	2nd Quarter Start	To specify the start of the 1st Quarter, a day and month must be specified as shown below. XML <pre><secondQuarterStart> <day>14</day> <month>Apr</ month> </ secondQuarterStart></pre> JSON <pre>{ "secondQuarterStart": { "day": "14", "month": "Apr" } }</pre>	Valid values: - month: - integer value between 1-12 - string value 3 letter month - Jan - Feb - Mar - Apr - May - Jun - Jul - Aug - Sep - Oct - Nov - Dec - The day must also be valid for the given month. For example, Feb 30 is not allowed.	If any other Quarter is specified then this property is also required.

Property	UI Field Name	Description	Specifications	Required
thirdQuarterStart	3rd Quarter Start	To specify the start of the 1st Quarter, a day and month must be specified as shown below. XML <pre><thirdQuarterStart> <day>16</day> <month>Jul</ month> </ thirdQuarterStart></pre> JSON <pre>"thirdQuarterStart": { "day": "16", "month": "Jul" }</pre>	Valid values: - month: - integer value between 1-12 - string value 3 letter month - Jan - Feb - Mar - Apr - May - Jun - Jul - Aug - Sep - Oct - Nov - Dec - The day must also be valid for the given month. For example, Feb 30 is not allowed.	If any other Quarter is specified then this property is also required.
fourthQuarterStart	4th Quarter Start	To specify the start of the 1st Quarter, a day and month must be specified as shown below. XML <pre><fourthQuarterStart> <day>13</day> <month>10</ month> </ fourthQuarterStart></pre> JSON <pre>"fourthQuarterStart": { "day": "13", "month": "Oct" }</pre>	Valid values: - month: - integer value between 1-12 - string value 3 letter month - Jan - Feb - Mar - Apr - May - Jun - Jul - Aug - Sep - Oct - Nov - Dec - The day must also be valid for the given month. For example, Feb 30 is not allowed.	If any other Quarter is specified then this property is also required.

4.14.3.3 Create a Calendar: Custom Day Properties

Property	UI Field Name	Description	Specifications	Required
name	Name	Name used within the Controller to identify this Custom Day.	Maximum 40 alphanumerics.	Y
sysId	n/a	sysId of the Calendar-to-Custom Day relationship.		N

4.14.3.4 Create a Calendar: Local Custom Day Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
adjustment	Adjustment	If ctype is Relative Repeating Date (1); Adjustment for the repeating date.	Valid values: - As String = None, As Value = 0 - As String = Less, As Value = 1 - As String = Plus, As Value = 2 Default is None (0).	N	
adjustmentAmount	Adjustment Amount	If adjustment is Less (1) or Plus (2); Amount (number of days) of the adjustment to be made.	Default is 1.	N	
adjustmentType	Adjustment Type	If adjustment is Less (1) or Plus (2); Type of day on which to make the adjustment.	Valid values: - As String = Day, As Value = 1 - As String = Business Day, As Value = 2 Default is Day (1).	N	
category	Category	Category of this Local Custom Day.	Valid values: - As String = Day, As Value = 1 - As String = Business Day, As Value = 2 - As String = Holiday, As Value = 3 - As String = Period, As Value = 4 Default is Day (1).	N	
comments	Description	Description of this Local Custom Day.		N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
ctype	Type	Type of this Local Custom Day.	Valid values: - As String = Single Date, As Value = 0 - As String = Relative Repeating Date, As Value = 1 - As String = Absolute Repeating Date, As Value = 2 - As String = List of Dates, As Value = 3 Default is Single Date (0).	N	
date	Date	Specific date for this Local Custom Day	Format: yyyy-mm-dd.	Y (if ctype = Single Date.)	dateList
dateList	Dates	Multiple specific dates for this Local Custom Day.	XML <pre><dateList> <date>2017-12-13 </date> <date>2017-12-14 </date> </dateList></pre> JSON <pre>"dateList": ["2017-12-13", "2017-12-14"],</pre>	Y (if ctype is List of Dates.)	date

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
day	Day	Day of the month.	Integer; Valid values: 1-31.	Y (if ctype is Absolute Repeating Date)	
dayofweek	Day Of Week	Day of the week.	Valid values: • As String = Sun, As Value = 1 • As String = Mon, As Value = 2 • As String = Tue, As Value = 3 • As String = Wed, As Value = 4 • As String = Thu, As Value = 5 • As String = Fri, As Value = 6 • As String = Sat, As Value = 7 Default is Mon (2).	Y (if ctype is Relative Repeating Date)	
month	Month	Month of the year.	Valid values: • As String = Jan, As Value = 0 • As String = Feb, As Value = 1 • As String = Mar, As Value = 2 • As String = Apr, As Value = 3 • As String = May, As Value = 4 • As String = Jun, As Value = 5 • As String = Jul, As Value = 6 • As String = Aug, As Value = 7 • As String = Sep, As Value = 8 • As String = Oct, As Value = 9 • As String = Nov, As Value = 10 • As String = Dec, As Value = 11 • As String = ALL, As Value = 12 Default is Jan (0).	Y (if ctype is Relative Repeating Date or Absolute Repeating Date)	
name	Name	Name of this Local Custom Day.		Y	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
observedRules	Observed Rules	If <code>category</code> is Holiday (3) and <code>ctype</code> is Relative Repeating Date (1) or Absolute Repeating Date (2); Rules for when the holiday will be observed. XML <pre> <observedRules> <observedRule> <actualDayOfWeek>Sat</actualDayOfWeek> <observedDayOfWeek>Fri</observedDayOfWeek> </observedRule> </observedRule> <actualDayOfWeek>Sun</actualDayOfWeek> <observedDayOfWeek>Mon</observedDayOfWeek> </observedRule> </observedRules> </pre> JSON <pre> "observedRules" : [{ "actualDayOfWeek" : "Sat", "observedDayOfWeek" : "Fri" }, { "actualDayOfWeek" : "Sun", "observedDayOfWeek" : "Mon" }] </pre>	Valid day of week values: Sun, Mon, Tue, Wed, Thu, Fri, Sat	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
relfreq	When	Occurrence of this day in the month.	Valid values: - As String = 1st, As Value = 1 - As String = 2nd, As Value = 2 - As String = 3rd, As Value = 3 - As String = 4th, As Value = 4 - As String = Last, As Value = 5 - As String = Every, As Value = 6 Default is 1st (1).	Y (if ctype is Relative Repeating Date)	
sysId	n/a	System ID in the database for this Local Custom Day.	Persisted only if retainSysIds is set to true.	Y (if retainSysIds is true.)	

4.14.4 Delete a Calendar

	Description
URI	http://host_name/uc/resources/calendar
HTTP Method	DELETE
Description	Deletes the specified Calendar .
URI Parameters	See Delete a Calendar: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/calendar?calendarname=testCalendar http://localhost:8080/uc/resources/calendar?calendarid=f87848b00a0001037f43e7c81c8ec969
Authentication	HTTP Basic
Example Response	- Status 200 /OK Calendar deleted successfully. - Status 404 /Not Found A calendar with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

4.14.4.1 Delete a Calendar: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
calendarid	Unique ID for this Calendar.		Y (unless calendarname is specified)	calendarname

Name	Description	Specifications	Required	Mutually Exclusive With
calendarname	Name used within the Controller to identify this Calendar.	Maximum 40 alphanumerics.	Y (unless calendarid is specified)	calendarid

4.14.5 List Calendars

	Description
URI	http://host_name/uc/resources/calendar/list
HTTP Method	GET
Description	Retrieves information on all Calendar .
Example URI	http://localhost:8080/uc/resources/calendar/list
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See List Calendars: Example Response , below.
Calendar Properties	See Create a Calendar: Calendar Properties .
Custom Day Properties	See Create a Calendar: Custom Day Properties .
Local Custom Day Properties	See Create a Calendar: Local Custom Day Properties .

4.14.5.1 List Calendars: Example Response

XML Response	JSON Response
XML Response <pre><?xml version="1.0" encoding="UTF-8" standalone="yes"?> <calendar retainSysIds="true" version="2"> <businessDays>Monday,Tuesday,Wednesday,Thurs day,Friday</businessDays> <customDays/> <comments /> <firstDayOfWeek>Monday</firstDayOfWeek> <firstQuarterStart> <day>15</day> <month>Jan</month> </firstQuarterStart> <fourthQuarterStart> <day>15</day> <month>Oct</month> </fourthQuarterStart> <localCustomDays/> <name>Q15</name> <opswiseGroups/> <secondQuarterStart> <day>15</day> <month>Apr</month> </secondQuarterStart> <sysId>8aad692481794d928161539552cb61c1</ sysId> <thirdQuarterStart> <day>15</day> <month>Jul</month> </thirdQuarterStart> </calendar></pre>	JSON Response <pre>{ "businessDays": { "value": "Monday,Tuesday,Wednesday,Thursday,Friday" }, "comments": null, "customDays": [], "firstDayOfWeek": "Monday", "firstQuarterStart": { "day": "15", "month": "Jan" }, "fourthQuarterStart": { "day": "15", "month": "Oct" }, "localCustomDays": [], "name": "Q15", "opswiseGroups": [], "retainSysIds": true, "secondQuarterStart": { "day": "15", "month": "Apr" }, "sysId": "8aad692481794d928161539552cb61c1", "thirdQuarterStart": { "day": "15", "month": "Jul" }, "version": 2 }</pre>

4.14.6 List Local Custom Day Qualifying Dates

	Description
URI	http://host_name/uc/resources/calendar/localcustomdays/qualifyingdates
HTTP Method	GET
Description	Retrieves information on Qualifying Dates for a specific Local Custom Day .
URI Parameters	See List Local Custom Day Qualifying Dates URI Parameters: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/calendar/localcustomdays/qualifyingdates?customdayname=testLocalCustomDay&calendarname=testCalendar
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See List Local Custom Day Qualifying Dates: Example Response , below.

4.14.6.1 List Local Custom Day Qualifying Dates: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
<code>customdayname</code>	Name used within the Controller to identify this Local Custom Day.	Maximum 40 alphanumerics.	Y	
<code>calendarid</code>	Unique ID for this calendar.		Y (unless <code>calendarname</code> is specified)	<code>calendarname</code>
<code>calendarname</code>	Name used within the Controller to identify this calendar.	Maximum 40 alphanumerics.	Y (unless <code>calendarid</code> is specified)	<code>calendarid</code>

4.14.6.2 List Local Custom Day Qualifying Dates: Example Response

XML Response	JSON Response
XML Response <pre> <qualifyingDates> <qualifyingDate>Mon, Jan 1, 2018</qualifyingDate> <qualifyingDate>Tue, Jan 1, 2019</qualifyingDate> <qualifyingDate>Wed, Jan 1, 2020</qualifyingDate> <qualifyingDate>Fri, Jan 1, 2021</qualifyingDate> <qualifyingDate>Sat, Jan 1, 2022</qualifyingDate> <qualifyingDate>Sun, Jan 1, 2023</qualifyingDate> <qualifyingDate>Mon, Jan 1, 2024</qualifyingDate> <qualifyingDate>Wed, Jan 1, 2025</qualifyingDate> <qualifyingDate>Thu, Jan 1, 2026</qualifyingDate> <qualifyingDate>Fri, Jan 1, 2027</qualifyingDate> <qualifyingDate>Sat, Jan 1, 2028</qualifyingDate> <qualifyingDate>Mon, Jan 1, 2029</qualifyingDate> <qualifyingDate>Tue, Jan 1, 2030</qualifyingDate> <qualifyingDate>Wed, Jan 1, 2031</qualifyingDate> <qualifyingDate>Thu, Jan 1, 2032</qualifyingDate> <qualifyingDate>Sat, Jan 1, 2033</qualifyingDate> <qualifyingDate>Sun, Jan 1, 2034</qualifyingDate> <qualifyingDate>Mon, Jan 1, 2035</qualifyingDate> <qualifyingDate>Tue, Jan 1, 2036</qualifyingDate> <qualifyingDate>Thu, Jan 1, 2037</qualifyingDate> <qualifyingDate>Fri, Jan 1, 2038</qualifyingDate> <qualifyingDate>Sat, Jan 1, 2039</qualifyingDate> <qualifyingDate>Sun, Jan 1, 2040</qualifyingDate> <qualifyingDate>Tue, Jan 1, 2041</qualifyingDate> <qualifyingDate>Wed, Jan 1, 2042</qualifyingDate> <qualifyingDate>Thu, Jan 1, 2043</qualifyingDate> <qualifyingDate>Fri, Jan 1, 2044</qualifyingDate> <qualifyingDate>Sun, Jan 1, 2045</qualifyingDate> <qualifyingDate>Mon, Jan 1, 2046</qualifyingDate> <qualifyingDate>Tue, Jan 1, 2047</qualifyingDate> </qualifyingDates> </pre>	JSON Response <pre> ["Mon, Jan 1, 2018", "Tue, Jan 2, 2019", "Wed, Jan 1, 2020", "Fri, Jan 1, 2021"] </pre>

4.14.7 List Local Custom Day Qualifying Periods

	Description
URI	http://host_name/uc/resources/calendar/localcustomdays/qualifyingperiods
HTTP Method	GET
Description	Retrieves information on Qualifying Periods for a specific Local Custom Day .
URI Parameters	See List Local Custom Day Qualifying Periods URI Parameters: URI Parameters , below.

	Description
Example URI	http://localhost:8080/uc/resources/calendar/localcustomdays/qualifyingperiods?customdayname=testLocalCustomDay&calendarname=testCalendar
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See List Local Custom Day Qualifying Periods: Example Response , below.

4.14.7.1 List Local Custom Day Qualifying Periods: Example Response

XML Response	JSON Response
XML Response <pre> <qualifyingPeriods> <qualifyingPeriod> <startDate>Sun, Jan 1, 2017</startDate> <endDate>Sat, Jan 6, 2018</endDate> </qualifyingPeriod> <qualifyingPeriod> <startDate>Sun, Jan 7, 2018</startDate> <endDate>Sat, Jan 5, 2019</endDate> </qualifyingPeriod> <qualifyingPeriod> <startDate>Sun, Jan 6, 2019</startDate> <endDate>Sat, Jan 4, 2020</endDate> </qualifyingPeriod> <qualifyingPeriod> <startDate>Sun, Jan 5, 2020</startDate> <endDate>Sat, Jan 2, 2021</endDate> </qualifyingPeriod> <qualifyingPeriod> <startDate>Sun, Jan 3, 2021</startDate> <endDate>Sat, Jan 1, 2022</endDate> </qualifyingPeriod> <qualifyingPeriod> <startDate>Sun, Jan 2, 2022</startDate> <endDate>Sat, Dec 31, 2022</endDate> </qualifyingPeriod> </qualifyingPeriods> </pre>	JSON Response <pre> [{ "startDate": "Sun, Jan 1, 2017", "endDate": "Sat, Jan 6, 2018" }, { "startDate": "Sun, Jan 7, 2018", "endDate": "Sat, Jan 5, 2019" }] </pre>

4.14.7.2 List Custom Day Qualifying Periods: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
customdayname	Name used within the Controller to identify this Local Custom Day.	Maximum 40 alphanumerics.	Y	
calendarid	Unique ID for this calendar.		Y (unless <code>calendarname</code> is specified)	calendarname
calendarname	Name used within the Controller to identify this calendar.	Maximum 40 alphanumerics.	Y (unless <code>calendarid</code> is specified)	calendarid

4.14.8 Modify a Calendar

	Description
URI	http://host_name/uc/resources/calendar
HTTP Method	PUT
Description	Modifies the Calendar specified by the <code>sysId</code> . To modify Calendar properties without modifying related records, see the excludeRelated property.
Example URI	http://localhost:8080/uc/resources/calendar
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Modify a Calendar: Example Request , below.
Calendar Properties	See Create a Calendar: Calendar Properties .
Custom Day Properties	See Create a Calendar: Custom Day Properties .
Local Custom Day Properties	See Create a Calendar: Local Custom Day Properties .
Example Response	Status 200 /OK Successfully updated the calendar with sysId <sysId> to version <version>.

4.14.8.1 Modify a Calendar: Example Request

The [excludeRelated](#) property is included in the XML as an attribute.

XML Request	JSON Request
<pre> XML Request <calendar> <businessDays>Monday,Tuesday,Wednesday,Thursday,Friday</businessDays> <customDays> <customDay> <name>uc - Christmas</name> <sysId>daf16d70c0a801650040c4d58a3feebd</sysId> </customDay> <customDay> <name>uc - Flag Day</name> <sysId>daf16d8fc0a801650040c4d54b2432fb</sysId> </customDay> </customDays> <comments>American Calendar</comments> <firstDayOfWeek>Sunday</firstDayOfWeek> <localCustomDays> <localCustomDay> <adjustment>None</adjustment> <adjustmentAmount>1</adjustmentAmount> <adjustmentType>Day</adjustmentType> <category>Holiday</category> <ctype>Single Date</ctype> <date>2017-08-23</date> <dateList/> <day>1</day> <dayofweek>Sun</dayofweek> <month>Jan</month> <name>local custom day</name> <relfreq>1st</relfreq> <sysId>616ec15e7a5e40dbaae421e3688a25e5</sysId> </localCustomDay> </localCustomDays> <name>uc - American Calendar</name> <opswiseGroups /> <sysId>da24b953c0a8016501fbc18464d8328</sysId> </calendar> </pre>	<pre> JSON Request { "businessDays": { "value": "Monday,Tuesday,Wednesday,Thursday,Friday" }, "comments": "American Calendar", "customDays": [{ "name": "uc - Christmas", "sysId": "daf16d70c0a801650040c4d58a3feebd" }, { "name": "uc - Flag Day", "sysId": "daf16d8fc0a801650040c4d54b2432fb" }], "firstDayOfWeek": "Sunday", "localCustomDays": [{ "adjustment": "None", "adjustmentAmount": 1, "adjustmentType": "Day", "category": "Holiday", "comments": null, "ctype": "Single Date", "date": "2017-08-23", "dateList": [], "day": 1, "dayofweek": "Sun", "month": "Jan", "name": "local custom day", "relfreq": "1st", "sysId": "616ec15e7a5e40dbaae421e3688a25e5" }], "name": "uc - American Calendar", "opswiseGroups": [], "sysId": "da24b953c0a8016501fbc18464d8328" } </pre>

4.14.9 Read a Calendar

	Description
URI	http://host_name/uc/resources/calendar
HTTP Method	GET
Description	Retrieves information on a specific Calendar .
URI Parameters	See Read a Calendar: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/calendar?calendarname=testCalendar http://localhost:8080/uc/resources/calendar?calendarid=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	- Status 200 /OK (See Read a Calendar: Example Response, below.) - Status 404 /Not Found A calendar with id "d26265a2c4f345359d9b356f18a462c1" does not exist.
Calendar Properties	See Create a Calendar: Calendar Properties .
Custom Day Properties	See Create a Calendar: Custom Day Properties .
Local Custom Day Properties	See Create a Calendar: Local Custom Day Properties .

4.14.9.1 Read a Calendar: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
<code>calendarid</code>	Unique ID for this Calendar.		Y (unless <code>calendarname</code> is specified)	<code>calendarname</code>
<code>calendarname</code>	Name used within the Controller to identify this Calendar.	Maximum 40 alphanumerics.	Y (unless <code>calendarid</code> is specified)	<code>calendarid</code>

4.14.9.2 Read a Calendar: Example Response

The `retainSysIds` and

`version`

properties are specified as attributes in XML.

The

`exportReleaseLevel`

and `exportTable` properties are specified as attributes in XML.

XML Response	JSON Response
XML Response <pre> <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <calendar retainSysIds="true" version="2"> <businessDays>Monday,Tuesday,Wednesday,Thurs day,Friday</businessDays> <customDays/> <comments /> <firstDayOfWeek>Monday</firstDayOfWeek> <firstQuarterStart> <day>15</day> <month>Jan</month> </firstQuarterStart> <fourthQuarterStart> <day>15</day> <month>Oct</month> </fourthQuarterStart> <localCustomDays/> <name>Q15</name> <opswiseGroups/> <secondQuarterStart> <day>15</day> <month>Apr</month> </secondQuarterStart> <sysId>8aad692481794d928161539552cb61c1</ sysId> <thirdQuarterStart> <day>15</day> <month>Jul</month> </thirdQuarterStart> </calendar> </pre>	JSON Response <pre> { "businessDays": { "value": "Monday,Tuesday,Wednesday,Thursday,Friday" }, "comments": null, "customDays": [], "firstDayOfWeek": "Monday", "firstQuarterStart": { "day": "15", "month": "Jan" }, "fourthQuarterStart": { "day": "15", "month": "Oct" }, "localCustomDays": [], "name": "Q15", "opswiseGroups": [], "retainSysIds": true, "secondQuarterStart": { "day": "15", "month": "Apr" }, "sysId": "8aad692481794d928161539552cb61c1", "thirdQuarterStart": { "day": "15", "month": "Jul" }, "version": 2 } </pre>

4.14.10 Read All Custom Days of a Calendar

	Description
URI	http://host_name/uc/resources/calendar/customdays
HTTP Method	GET
Description	Retrieves information on all Custom Days of a specific Calendar .
URI Parameters	See Read All Custom Days of a Calendar: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/calendar/customdays?calendarname=test
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Response	- Status 200 /OK (See Read All Custom Days of a Calendar: Example Response, below.) - Status 404 /Not Found A calendar with id "d26265a2c4f345359d9b356f18a462c1" does not exist.
Response Properties	See Read All Custom Days of a Calendar: Response Properties , below.

4.14.10.1 Read All Custom Days of a Calendar: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
<code>calendarid</code>	Unique ID for this Calendar.		Y (unless <code>calendarname</code> is specified)	<code>calendarname</code>
<code>calendarname</code>	Name used within the Controller to identify this Calendar.	Maximum 40 alphanumerics.	Y (unless <code>calendarid</code> is specified)	<code>calendarid</code>

4.14.10.2 Read All Custom Days of a Calendar: Example Response

The `exportReleaseLevel` and `exportTable` properties are specified as attributes in XML.

XML Response	JSON Response
<pre> XML Response <customDays> <customDay> exportReleaseLevel="7.2.0.0 " exportTable="ops_customdays" <adjustment>None</adjustment> <adjustmentAmount>1</ adjustmentAmount> <adjustmentType>Day</ adjustmentType> <category>Holiday</category> <comments>New Year's Day - Jan 1st</comments> <ctype>Absolute Repeating Date</ ctype> <date /> <dateList /> <day>1</day> <dayofweek>Sun</dayofweek> <holiday>true</holiday> <month>Jan</month> <name>uc - New Year's Day</name> <period>false</period> <relfreq>1st</relfreq> <sysId>dae77560c0a80165006d8051753b806c</sysId> </customDay> <customDay> exportReleaseLevel="7.2.0.0 " exportTable="ops_customdays" <adjustment>None</adjustment> <adjustmentAmount>1</ adjustmentAmount> <adjustmentType>Day</ adjustmentType> <category>Holiday</category> <comments>New Year's Day - Jan 1st</comments> <ctype>Absolute Repeating Date</ ctype> <date /> <dateList /> <day>1</day> <dayofweek>Sun</dayofweek> <holiday>true</holiday> <month>Jan</month> <name>uc - New Year's Day</name> <period>false</period> <relfreq>1st</relfreq> <sysId>dae77560c0a80165006d8051753b806c</ sysId> </customDay> </customDays> </pre>	<pre> JSON Response [{ "adjustment": "None", "adjustmentAmount": 1, "adjustmentType": "Day", "category": "Holiday", "comments": "New Year's Day - Jan 1st", "ctype": "Absolute Repeating Date", "date": null, "dateList": [], "day": 1, "dayofweek": "Sun", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_customdays", "holiday": true, "month": "Jan", "name": "uc - New Year's Day", "period": false, "relfreq": "1st", "sysId": "dae77560c0a80165006d8051753b806c" }, { "adjustment": "None", "adjustmentAmount": 1, "adjustmentType": "Day", "category": "Holiday", "comments": "New Year's Day - Jan 1st", "ctype": "Absolute Repeating Date", "date": null, "dateList": [], "day": 1, "dayofweek": "Sun", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_customdays", "holiday": true, "month": "Jan", "name": "uc - New Year's Day", "period": false, "relfreq": "1st", "sysId": "dae77560c0a80165006d8051753b806c" }] </pre>

4.14.10.3 Read All Custom Days of a Calendar: Properties

Property	UI Field Name	Description
adjustment	Adjustment	Adjustment for the repeating date.
adjustmentAmount	Adjustment Amount	Amount (number of days) of the adjustment to be made.
adjustmentType	Adjustment Type	Type of day on which to make the adjustment.
category	Category	Category of this Local Custom Day.
comments	Description	Description of this Custom Day.
ctype	Type	Type of this Custom Day.
date	Date	Specific date for this Custom Day
dateList	Dates	Multiple specific dates for this Custom Day.
day	Day	Day of the month.
dayofweek	Day Of Week	Day of the week.
exportReleaseLevel	n/a	Universal Controller release that the record was exported from.
exportTable	n/a	Record table information.
holiday	Holiday	Deprecated. Indication of whether or not this Custom Day is a holiday.
month	Month	Month of the year.
name	Name	Name of this Custom Day.
period	Period	Deprecated. Indication of whether or not this Custom Day defines a custom period of days.
relfreq	When	Occurrence of this day in the month.
sysId	n/a	System ID in the database for this Custom Day.

4.14.11 Remove a Custom Day from a Calendar

	Description
URI	http://host_name/uc/resources/calendar/customdays

	Description
HTTP Method	DELETE
Description	Removes the specified Custom Day from a specific Calendar .
URI Parameters	See Remove a Custom Day from a Calendar: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/calendar/customdays?calendarname=ExampleCalendar&customdayid=977e7539af6e450d924a92e1ad39a256
Authentication	HTTP Basic
Example Response	- Status 200 /OK Successfully removed custom day <customDay> from calendar <calendar>. - Status 400 /Bad Request Calendar <calendarName> doesn't exist.

4.14.11.1 Remove a Custom Day from a Calendar: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
<code>calendarid</code>	Unique ID for the Calendar.		Y (unless <code>calendarname</code> is specified)	<code>calendarname</code>
<code>calendarname</code>	Name used within the Controller to identify the Calendar.	Maximum 40 alphanumerics.	Y (unless <code>calendarid</code> is specified)	<code>calendarid</code>
<code>customdayid</code>	Unique ID for the Custom Day.		Y (unless <code>customdayname</code> is specified)	<code>customdayname</code>
<code>customdayname</code>	Name used within the Controller to identify the Custom Day.	Maximum 40 alphanumerics.	Y (unless <code>customdayid</code> is specified)	<code>customdayid</code>

4.15 Cluster Node Web Services

- [Overview](#)
- [List All Cluster Nodes](#)
- [Read Current Cluster Node](#)

4.15.1 Overview

Universal Controller supports the following RESTful-based web services for [Cluster Nodes](#), which are listed alphabetically on this page.

- [List All Cluster Nodes](#)
- [Read Current Cluster Node](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

4.15.2 List All Cluster Nodes

	Description
URI	http://host_name/uc/resources/clusternode/list
HTTP Method	GET
Description	Retrieves information on all Cluster Nodes .
Example URI	http://localhost:8080/uc/resources/clusternode/list
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See List All Cluster Nodes: XML and JSON Examples .
Properties	See List All Cluster Nodes: Properties .

4.15.2.1 List All Cluster Nodes: XML and JSON Examples

XML	JSON
XML <pre> <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <clusterNodes> <clusterNode> <buildDate>11-23-2023_1245</ buildDate> <buildId>build.development</ buildId> <hostName>MAC-LAP</hostName> <ipAddress>10.0.0.53</ipAddress> <nodeId>vvv:7080-ops</nodeId> <nodeMode>Passive</nodeMode> <nodeStart>2023-11-23 12:45:19</ nodeStart> <nodeTs>2023-12-23 13:02:20</ nodeTs> <nodeUptime>1020</nodeUptime> <nodeUptimeDisplay>17 Minutes 0 Seconds</nodeUptimeDisplay> <paused>false</paused> <pausedForMaintenance /> <preferred>false</preferred> <relId>7.7.0.0</relId> <sysId>e49ff9705da6407caaa15de9c13ae9e6</ sysId> <transitory>false</transitory> </clusterNode> <clusterNode> <buildDate>11-24-2023_1238</ buildDate> <buildId>build.development</ buildId> <hostName>MAC-LAP</hostName> <ipAddress>10.0.0.53</ipAddress> <nodeId>MAC-LAP:7080-ops</nodeId> <nodeMode>Active</nodeMode> <nodeStart>2023-11-24 12:38:06</ nodeStart> <nodeTs>2023-11-27 09:23:33</ nodeTs> <nodeUptime>247526</nodeUptime> <nodeUptimeDisplay>2 Days 20 Hours 45 Minutes 26 Seconds</nodeUptimeDisplay> <paused>false</paused> <pausedForMaintenance /> </pre>	JSON <pre> [{ "buildDate": "11-23-2023_1058", "buildId": "build.development", "hostName": "MAC-LAP", "ipAddress": "10.0.0.53", "nodeId": "zzz:7080-ops", "nodeMode": "Passive", "nodeStart": "2023-11-23 10:58:44", "nodeTs": "2023-12-23 12:37:55", "nodeUptime": 5950, "nodeUptimeDisplay": "1 Hour 39 Minutes 10 Seconds", "paused": false, "pausedForMaintenance": null, "preferred": false, "relId": "7.7.0.0", "sysId": "e2738159924c4ce7b867b585027e9dfc", "transitory": true }, { "buildDate": "11-23-2023_1245", "buildId": "build.development", "hostName": "MAC-LAP", "ipAddress": "10.0.0.53", "nodeId": "vvv:7080-ops", "nodeMode": "Passive", "nodeStart": "2023-11-23 12:45:19", "nodeTs": "2023-12-23 13:02:20", "nodeUptime": 1020, "nodeUptimeDisplay": "17 Minutes 0 Seconds", "paused": false, "pausedForMaintenance": null, "preferred": false, "relId": "7.7.0.0", "sysId": "e49ff9705da6407caaa15de9c13ae9e6", "transitory": true }, { "buildDate": "11-23-2023_0132", "buildId": "build.development", "hostName": "MAC-LAP", "ipAddress": "10.0.0.53", </pre>

XML	JSON
<pre> <preferred>false</preferred> <relId>7.7.0.0</relId> <sysId>1cac01428a5a489aade6048ecd13771c</sysId> <transitory>true</transitory> </clusterNode> </clusterNodes> </pre>	<pre> "nodeId": "MAC-LAP:7080-ops", "nodeMode": "Active", "nodeStart": "2023-11-23 13:32:54", "nodeTs": "2023-11-24 08:47:02", "nodeUptime": 69247, "nodeUptimeDisplay": "19 Hours 14 Minutes 7 Seconds", "paused": false, "pausedForMaintenance": null, "preferred": false, "relId": "7.7.0.0", "sysId": "8152d5e530134bb8a7b03567480aadb", "transitory": false }] </pre>

4.15.2.2 List All Cluster Nodes: Properties

Property	UI Field Name	Description
buildDate	Build Date	Build date for this cluster node.
buildId	Build Id	Build ID for this cluster node.
hostName	Host Name	IP address or domain/name of the host machine where the cluster node resides.
ipAddress	IP Address	IP address of this cluster node.
nodeId	Node Id	URL of the cluster node.
nodeMode	Mode	Current mode of the cluster node.
nodeStart	Start Time	Date and time this cluster node was last started.
nodeTs	Timestamp	Date and time of the last heartbeat of this cluster node.
nodeUptime	n/a	nodeUptimeDisplay (in seconds).
nodeUptimeDisplay	Uptime	Amount of time this cluster node has been running.
paused	Paused	Indication that the Controller has been paused .
pausedForMaintenance	n/a	Deprecated. Indication that the Controller has been paused for maintenance.
relId	Release	Release number for this cluster node.

Property	UI Field Name	Description
sysId	n/a	System ID field in the database for this cluster node record.
transitory	Transient	Specifies if this node is a transient Cluster Node.

4.15.3 Read Current Cluster Node

	Description
URI	http://host_name/uc/resources/clusternode/info
HTTP Method	GET
Description	Retrieves information on the current Cluster Node .
Example URI	http://localhost:8080/uc/resources/clusternode/info
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Response Example	See Read Current Cluster Node: XML and JSON Examples .
Properties	See List All Cluster Nodes: Properties .

4.15.3.1 Read Current Cluster Node: XML and JSON Examples

XML	JSON
XML <pre><?xml version="1.0" encoding="UTF-8" standalone="yes"?> <clusterNode> <buildDate>11-24-2023_1238</buildDate> <buildId>build.development</buildId> <hostName>MAC-LAP</hostName> <ipAddress>10.0.0.53</ipAddress> <nodeId>MAC-LAP:7080-ops</nodeId> <nodeMode>Active</nodeMode> <nodeStart>2023-11-24 12:38:06</ nodeStart> <nodeTs>2023-11-27 09:39:14</nodeTs> <nodeUptime>248467</nodeUptime> <nodeUptimeDisplay>2 Days 21 Hours 1 Minute 7 Seconds</nodeUptimeDisplay> <paused>>false</paused> <pausedForMaintenance /> <preferred>>false</preferred> <relId>7.7.0.0</relId> <sysId>1cac01428a5a489aade6048ecd13771c</ sysId> <transitory>>true</transitory> </clusterNode></pre>	JSON <pre>{ "buildDate": "11-24-2023_1238", "buildId": "build.development", "hostName": "MAC-LAP", "ipAddress": "10.0.0.53", "nodeId": "MAC-LAP:7080-ops", "nodeMode": "Active", "nodeStart": "2023-11-24 12:38:06", "nodeTs": "2023-11-27 09:37:14", "nodeUptime": 248347, "nodeUptimeDisplay": "2 Days 20 Hours 59 Minutes 7 Seconds", "paused": false, "pausedForMaintenance": null, "preferred": false, "relId": "7.7.0.0", "sysId": "1cac01428a5a489aade6048ecd13771c", "transitory": true }</pre>

4.16 Connections Web Services

4.16.1 Overview

Universal Controller supports RESTful-based web services for the following types of Connections:

- [Database Connections](#)
- [Email Templates](#)
- [Email Connections](#)
- [SAP Connections](#)
- [PeopleSoft Connections](#)
- [SNMP Managers](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

4.16.2 Database Connection Web Services

- [Overview](#)
- [Create a Database Connection](#)
- [Delete a Database Connection](#)
- [List Database Connections](#)
- [Modify a Database Connection](#)
- [Read a Database Connection](#)

4.16.2.1 Overview

Universal Controller supports the following RESTful-based web services for [Database Connection](#) operations, which are listed alphabetically on this page.

- [Create a Database Connection](#)
- [Delete a Database Connection](#)
- [List Database Connections](#)
- [Modify a Database Connection](#)
- [Read a Database Connection](#)

Formatting specifications for each web service, including details about property requirements, are provided.

4.16.2.2 Create a Database Connection

	Description
URI	http://host_name/uc/resources/databaseconnection
HTTP Method	POST
Description	Creates a Database Connection .
Example URI	http://localhost:8080/uc/resources/databaseconnection
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Create a Database Connection: Example Request , below.
Example Response	• Status 200 /OK Successfully created the Database Connection with sysId {sysId}. • Status 400 /Bad Request Create Database Connection failed. A duplicate value has been detected. Name must be unique.
Database Connection Properties	See Database Connection Properties , below.

4.16.2.2.1 Create a Database Connection: Example Request

XML Request	JSON Request
XML Request <pre> <databaseConnection retainSysIds="true"> <credentials /> <dbDescription /> <dbDriver>com.mysql.jdbc.Driver</dbDriver> <dbMaxRows /> <dbType>My SQL</dbType> <dbUrl>jdbc:mysql://localhost:3306/uc</dbUrl> <name>Database Connection 1</name> <opswiseGroups /> <sysId>62701879a6264107bb757a952bcc65cc</sysId> </databaseConnection> </pre>	JSON Request <pre> { "credentials": null, "dbDescription": null, "dbDriver": "com.mysql.jdbc.Driver", "dbMaxRows": null, "dbType": "My SQL", "dbUrl": "jdbc:mysql://localhost:3306/uc", "name": "Database Connection 1", "opswiseGroups": null, "retainSysIds": true, "sysId": "62701879a6264107bb757a952bcc65cc" } </pre>

4.16.2.2.2 Database Connection Properties

Property	UI Field Name	Description	Specifications	Required
credentials	Credentials	Credentials for this Database Connection.		N
dbDescription	Description	Description of this record.		N
dbDriver	Driver	Name of the JDBC driver.		Y
dbMaxRows	Maximum Rows	If necessary, specifies a limit to the number of rows you want returned by the SQL statement.		N

Property	UI Field Name	Description	Specifications	Required
dbType	Database Type	Type of Database.	Valid Values: - As String = MySQL (or My SQL), As Value = 1 - As String = MS SQL Server, As Value = 2 - As String = Oracle, As Value = 3 - As String = DB2, As Value = 4 - As String = Sybase SQL Anywhere, As Value = 5 - As String = Other, As Value = 6 Default is MySQL (1).	Y
dbUrl	Connection URL	URL of the database.		Y
exportReleaseLevel	n/a	Universal Controller release that the record was exported from.	read only	N
exportTable	n/a	Record table information.	read only	N
name	Connection Name	Name used within the Controller to identify this Database Connection.		Y

Property	UI Field Name	Description	Specifications	Required
opswiseGroups	Member of Business Services	Business Services that this record belongs to. XML <pre><opswiseGroups> <opswiseGroup>group1< /opswiseGroup> <opswiseGroup>group2< /opswiseGroup> </opswiseGroups></pre> JSON <pre>"opswiseGroups": ["group1", "group2"]</pre>		N
retainSysIds	n/a	Specification for whether or not the Create a Database Connection web service will persist the <code>sysId</code> property. - If retainSysIds="true" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database. - If retainSysIds="false" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller. Note In XML web services, <code>retainSysIds</code> is specified as an attribute in the <code><databaseConnection></code> element.	Valid values: true/false (default is true).	N
sysId	n/a	System ID field in the database for this Database Connection record.	Persisted only if retainSysIds is set to true.	N

4.16.2.3 Delete a Database Connection

	Description
URI	http://host_name/uc/resources/databaseconnection
HTTP Method	DELETE
Description	Deletes a Database Connection .
URI Parameters	See Delete a Database Connection: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/databaseconnection?connectionname=Test4
Example Response	• Status 200 /OK Database Connection deleted successfully. • Status 400 /Bad Request Mutual exclusion violation. Cannot specify <code>connectionname</code> and <code>connectionid</code> at the same time. • Status 404 /Not Found a Database Connection with {name/id} "test" does not exist.

4.16.2.3.1 Delete a Database Connection: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
<code>connectionid</code>	ID used within the Controller to identify this Database Connection.	String; URI parameter.	Y (unless <code>connectionname</code> is specified)	<code>connectionname</code>
<code>connectionname</code>	Name used within the Controller to identify this Database Connection.	String; URI parameter.	Y (unless <code>connectionid</code> is specified)	<code>connectionid</code>

4.16.2.4 List Database Connections

	Description
URI	http://host_name/uc/resources/databaseconnection/list
HTTP Method	GET
Description	Retrieves information on all Database Connections.
Example URI	http://localhost:8080/uc/resources/databaseconnection/list
Authentication	HTTP Basic
Consumes Content-Type	n/a

	Description
Produces Content-Type	application/xml, application/json
Example Response	See List Database Connections: Example Response , below.
Database Connection Properties	See Database Connection Properties .

4.16.2.4.1 List Database Connections: Example Response

XML Response	JSON Response
XML Response <pre> <databaseConnections> <databaseConnection exportReleaseLevel="7.2.0.0" exportTable= "ops_database_connection" version="3"> <credentials /> <dbDescription /> <dbDriver>com.mysql.jdbc.Driver</ dbDriver> <dbMaxRows /> <dbType>My SQL</dbType> <dbUrl>jdbc:mysql:// localhost:3306/uc</dbUrl> <name>Database Connection 1</name> <opswiseGroups /> <sysId>62701879a6264107bb757a952b cc65cc</sysId> </databaseConnection> <databaseConnection exportReleaseLevel="7.2.0.0" exportTable= "ops_database_connection" version="6"> <credentials /> <dbDescription /> <dbDriver>com.mysql.jdbc.Driver</ dbDriver> <dbMaxRows /> <dbType>My SQL</dbType> <dbUrl>jdbc:mysql:// localhost:3306/uc</dbUrl> <name>Database Connection 2</name> <opswiseGroups /> <sysId>3d7a03053ad64de1b21b6849e6 deafd9</sysId> </databaseConnection> </databaseConnections> </pre>	JSON Response <pre> [{ "credentials": null, "dbDriver": "com.mysql.jdbc.Driver", "dbMaxRows": null, "dbType": "My SQL", "dbUrl": "jdbc:mysql://localhost:3306/ uc", "dbDescription": null, "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_database_connection", "name": "Database Connection 1", "opswiseGroups": null, "sysId": "62701879a6264107bb757a952bcc65cc", "version": 3 }, { "credentials": null, "dbDescription": null, "dbDriver": "com.mysql.jdbc.Driver", "dbMaxRows": null, "dbType": "My SQL", "dbUrl": "jdbc:mysql://localhost:3306/ uc", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_database_connection", "name": "Database Connection 2", "opswiseGroups": null, "sysId": "3d7a03053ad64de1b21b6849e6deafd9", "version": 6 }] </pre>

4.16.2.5 Modify a Database Connection

	Description
URI	http://host_name/uc/resources/databaseconnection
HTTP Method	PUT
Description	Modifies the Database Connection specified by the <code>sysId</code> .
Example URI	http://localhost:8080/uc/resources/databaseconnection
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Modify a Database Connection: Example Request , below.
Database Connection Properties	See Database Connection Properties .
Example Response	- Status 200 /OK - Successfully updated the Database Connection with sysId <sysId> to version <version>.

4.16.2.5.1 Modify a Database Connection: Example Request

XML Request	JSON Request
XML Request <pre> <databaseConnection> <credentials /> <dbDescription /> <dbDriver>com.mysql.jdbc.Driver</dbDriver> <dbMaxRows /> <dbType>My SQL</dbType> <dbUrl>jdbc:mysql://localhost:3306/uc</dbUrl> <name>Database Connection 1</name> <opswiseGroups> <opswiseGroup>Accounting</opswiseGroup> </opswiseGroups> <sysId>62701879a6264107bb757a952bcc65cc</sysId> </databaseConnection> </pre>	JSON Request <pre> { "credentials": null, "dbDescription": null, "dbDriver": "com.mysql.jdbc.Driver", "dbMaxRows": null, "dbType": "My SQL", "dbUrl": "jdbc:mysql://localhost:3306/uc", "name": "Database Connection 1", "opswiseGroups": ["Accounting"], "sysId": "62701879a6264107bb757a952bcc65cc" } </pre>

4.16.2.6 Read a Database Connection

URI	http://host_name/uc/resources/databaseconnection
HTTP Method	GET
Description	Retrieves information on a specific Database Connection.
URI Parameters	See Read a Database Connection: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/databaseconnection?connectionname=Test4
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See Read a Database Connection: Example Response , below.
Database Connection Properties	See Database Connection Properties .

4.16.2.6.1 Read a Database Connection: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
<code>connectionid</code>	ID used within the Controller to identify this Database Connection.	String; URI parameter.	Y (unless <code>connectionname</code> is specified)	<code>connectionname</code>
<code>connectionname</code>	Name used within the Controller to identify this Database Connection.	String; URI parameter.	Y (unless <code>connectionid</code> is specified)	<code>connectionid</code>

4.16.2.6.2 Read a Database Connection: Example Response

XML Response	JSON Response
XML Response <pre><databaseConnection exportReleaseLevel="7.2.0.0" exportTable="ops_database_connection" retainSysIds="true" version="1"> <credentials /> <dbDescription /> <dbDriver>com.mysql.jdbc.Driver</dbDriver> <dbMaxRows /> <dbType>My SQL</dbType> <dbUrl>jdbc:mysql://localhost:3306/uc</dbUrl> <name>Database Connection 1</name> <opswiseGroups /> <sysId>62701879a6264107bb757a952bcc65cc</sysId> </databaseConnection></pre>	JSON Response <pre>{ "credentials": null, "dbDescription": null, "dbDriver": "com.mysql.jdbc.Driver", "dbMaxRows": null, "dbType": "My SQL", "dbUrl": "jdbc:mysql://localhost:3306/uc", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_database_connection", "name": "Database Connection 1", "opswiseGroups": null, "retainSysIds": true, "sysId": "62701879a6264107bb757a952bcc65cc", "version": 1 }</pre>

4.16.3 Email Connection Web Services

- [Overview](#)
 - [Create an Email Connection](#)
 - [Delete an Email Connection](#)
 - [List Email Connections](#)
 - [Modify an Email Connection](#)
 - [Read an Email Connection](#)

4.16.3.1 Overview

Universal Controller supports the following RESTful-based web services for [Email Connection](#) operations, which are listed alphabetically on this page.

- [Create an Email Connection](#)
- [Delete an Email Connection](#)
- [List Email Connections](#)
- [Modify an Email Connection](#)
- [Read an Email Connection](#)

Formatting specifications for each web service, including details about property requirements, are provided.

4.16.3.2 Create an Email Connection

	Description
URI	http://host_name/uc/resources/emailconnection
HTTP Method	POST
Description	Creates an Email Connection .
Example URI	http://localhost:8080/uc/resources/emailconnection
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Create an Email Connection: Example Request , below.
Example Response	• Status 200 /OK Successfully created the Email Connection with sysId {sysId}. • Status 400 /Bad Request Create Email Connection failed. A duplicate value has been detected. Name must be unique.
Email Connection Properties	See Email Connection Properties , below.

4.16.3.2.1 Create an Email Connection: Example Request

XML Request	JSON Request
XML Request <pre> <emailConnection exportReleaseLevel="7.3.0.0" exportTable="ops_email_connection" retainSysIds="true" version="3"> <authentication>true</authentication> <authenticationType>Password</ authenticationType> <defaultUser>jane.doe@stonebranch.com</ defaultUser> <description /> <emailAddr>jane.doe@stonebranch.com</ emailAddr> <imap /> <imapPort>143</imapPort> <imapSsl>>false</imapSsl> <imapStarttls>>false</imapStarttls> <name>Email Connection 1</name> <oauthClient /> <opswiseGroups/> <smtp>smtp.gmail.com</smtp> <smtpPort>465</smtpPort> <smtpSsl>true</smtpSsl> <smtpStarttls>>false</smtpStarttls> <sysId>3b2c5049632841189888c921f9584edf< /sysId> <systemConnection>>false</ systemConnection> <trashFolder /> <type>Outgoing</type> </emailConnection> </pre>	JSON Request <pre> { "authentication" : true, "authenticationType" : "Password", "defaultUser" : "jane.doe@stonebranch.com", "description" : null, "emailAddr" : "jane.doe@stonebranch.com", "exportReleaseLevel" : "7.3.0.0", "exportTable" : "ops_email_connection", "imap" : null, "imapPort" : 143, "imapSsl" : false, "imapStarttls" : false, "name" : "Email Connection 1", "oauthClient" : null, "opswiseGroups" : [], "retainSysIds" : true, "smtp" : "smtp.gmail.com", "smtpPort" : 465, "smtpSsl" : true, "smtpStarttls" : false, "sysId" : "3b2c5049632841189888c921f9584edf", "systemConnection" : false, "trashFolder" : null, "type" : "Outgoing", "version" : 3 } </pre>

4.16.3.2.2 Email Connection Properties

Property	UI Field Name	Description	Specifications	Required
authentication	Authentication Required	Deprecated. If <code>type</code> = Outgoing; Specification for whether or not <code>defaultUser</code> and <code>password</code> are required.	Boolean; Valid values: true/false. Default is false.	N
authenticationType	Authentication	Method of authentication.	Valid values (case-insensitive): - As String = None, As Value = 0 - As String = Password, As Value = 1 - As String = OAuth 2.0, As Value = 2	N
authorized	Is Authorized	If <code>authenticationType</code> = OAuth 2.0; Specification for whether or not the email connection is authorized.	Boolean; read only	N
defaultPwd	Password	If <code>type</code> = Outgoing and <code>authenticationType</code> = Password; Password that the Controller will use to connect to the server.		Y (if <code>type</code> is Outgoing and <code>authenticationType</code> is Password)
defaultUser	User Name	If <code>type</code> = Outgoing and <code>authenticationType</code> = Password or OAuth 2.0 or if <code>type</code> = Incoming and <code>authenticationType</code> = OAuth 2.0; User Name that the Controller will use to connect to the server.		Y (if <code>type</code> is Outgoing and <code>authenticationType</code> is Password or OAuth 2.0 or if <code>type</code> is Incoming and <code>authenticationType</code> is OAuth 2.0)
description	Description	Description of this record.		N
emailAddr	Email Address	If <code>type</code> = Outgoing; Email address of the sender.		Y
exportReleaseLevel	n/a	Universal Controller release that the record was exported from.	read only	N
exportTable	n/a	Record table information.	read only	N
imap	Incoming Mail Server (IMAP)	If <code>type</code> = Incoming; Name or IP address of the incoming email server.		Y

Property	UI Field Name	Description	Specifications	Required
imapPort	IMAP Port	If type = Incoming; Port on the machine where the incoming email server resides.		Y
imapSsl	Enable SSL	If type = Incoming; Specification for whether or not SSL/TLS connectivity is enabled for your server.	Boolean; Valid values: true/false. Default is false.	N
imapStarttls	Enable STARTTLS	If type = Incoming; Specification for whether or not the use of the STARTTLS command (if supported by the server) is enabled to switch the connection to a TLS-protected connection before issuing any login commands. (An appropriate trust store must be configured so that the client will trust the server's certificate.)		N
name	Connection Name	Name used within the Controller to identify this Email Connection.		Y
oauthClient	OAuth Client	The OAuth client used to authorize the email connection.		Y (if authenticationType is OAuth 2.0)
opswiseGroups	Member of Business Services	Business Services that this record belongs to. XML <pre><opswiseGroups> <opswiseGroup>group1</opswiseGroup> <opswiseGroup>group2</opswiseGroup> </opswiseGroups></pre> JSON <pre>"opswiseGroups": ["group1", "group2"]</pre>		N
smtp	Outgoing Mail Server (SMTP)	If type = Outgoing; Name or IP address of the outgoing email server.		Y
smtpPort	SMTP Port	If type = Outgoing; Port on the machine where the outgoing email server resides.		Y
smtpSsl	Enable SSL	If type = Outgoing; Specification for whether or not SSL/TLS connectivity is enabled for your server.	Boolean; Valid values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
smtpStarttls	Enable STARTTLS	If <code>type</code> = Outgoing; Specification for whether or not the use of the STARTTLS command (if supported by the server) is enabled to switch the connection to a TLS-protected connection before issuing any login commands. (An appropriate trust store must be configured so that the client will trust the server's certificate.)		N
sysId	n/a	System ID field in the database for this Email Connection record.	Persisted only if retainSysIds is set to true.	N
systemConnection	Use for System Notifications	If <code>type</code> = Outgoing; Specification for whether or not this Email Connection is to be used for system notifications.	Boolean; Valid values: true/false. Default is false.	Y
trashFolder	Trash Folder	If <code>type</code> = Incoming; Folder to use for deleted emails.		N
type	Connection Type	Type of Email Connection. Note: You cannot modify the type after the Email Connection has been created.	Valid Values: - As String = Outgoing, As Value = 1 - As String = Incoming, As Value = 2 Default is Outgoing (1)	Y

4.16.3.3 Delete an Email Connection

	Description
URI	http://host_name/uc/resources/emailconnection
HTTP Method	DELETE
Description	Deletes an Email Connection.
URI Parameters	See Delete an Email Connection: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/emailconnection?connectionname=Test4
Example Response	- Status 200 /OK Email Connection deleted successfully. - Status 400 /Bad Request Mutual exclusion violation. Cannot specify <code>connectionname</code> and <code>connectionid</code> at the same time. - Status 404 /Not Found An Email Connection with {name/id} "test" does not exist.

4.16.3.3.1 Delete an Email Connection: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
connectionid	ID used within the Controller to identify this Email Connection.	String; URI parameter.	Y (unless connectionname is specified)	connectionname
connectionname	Name used within the Controller to identify this Email Connection.	String; URI parameter.	Y (unless connectionid is specified)	connectionid

4.16.3.4 List Email Connections

	Description
URI	http://host_name/uc/resources/emailconnection/list
HTTP Method	GET
Description	Retrieves information on all Email Connections.
Example URI	http://localhost:8080/uc/resources/emailconnection/list
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See List Email Connections: Example Response , below.
Email Connection Properties	See Email Connection Properties .

4.16.3.4.1 List Email Connections: Example Response

XML Response	JSON Response
XML Request <pre> <emailConnection exportReleaseLevel="7.3.0.0" exportTable="ops_email_connection" retainSysIds="true" version="3"> <authentication>true</authentication> <authenticationType>Password</ authenticationType> <authorized>>false</authorized> <defaultUser>jane.doe@stonebranch.com</ defaultUser> <description /> <emailAddr>jane.doe@stonebranch.com</ emailAddr> <imap /> <imapPort>143</imapPort> <imapSsl>>false</imapSsl> <imapStarttls>>false</imapStarttls> <name>Email Connection 1</name> <oauthClient /> <opswiseGroups/> <smtp>smtp.gmail.com</smtp> <smtpPort>465</smtpPort> <smtpSsl>>true</smtpSsl> <smtpStarttls>>false</smtpStarttls> <sysId>3b2c5049632841189888c921f9584edf< /sysId> <systemConnection>>false</ systemConnection> <trashFolder /> <type>Outgoing</type> </emailConnection> </pre>	JSON Request <pre> JSON Request { "authentication" : true, "authenticationType" : "Password", "authorized" : false, "defaultUser" : "jane.doe@stonebranch.com", "description" : null, "emailAddr" : "jane.doe@stonebranch.com", "exportReleaseLevel" : "7.3.0.0", "exportTable" : "ops_email_connection", "imap" : null, "imapPort" : 143, "imapSsl" : false, "imapStarttls" : false, "name" : "Email Connection 1", "oauthClient" : null, "opswiseGroups" : [], "retainSysIds" : true, "smtp" : "smtp.gmail.com", "smtpPort" : 465, "smtpSsl" : true, "smtpStarttls" : false, "sysId" : "3b2c5049632841189888c921f9584edf", "systemConnection" : false, "trashFolder" : null, "type" : "Outgoing", "version" : 3 } </pre>

4.16.3.5 Modify an Email Connection

	Description
URI	http://host_name/uc/resources/emailconnection
HTTP Method	PUT
Description	Modifies the Email Connection specified by the <code>sysId</code> .
Example URI	http://localhost:8080/uc/resources/emailconnection
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Modify an Email Connection: Example Request , below.
Email Connection Properties	See Email Connection Properties .
Example Response	Status 200 /OK Successfully updated the Email Connection with sysId <sysId> to version <version>.

4.16.3.5.1 Modify an Email Connection: Example Request

XML Request	JSON Request
XML Request <pre> <emailConnection> <authentication>true</authentication> <defaultPwd>abc1</defaultPwd> <defaultUser>user1</defaultUser> <description>description</description> <emailAddr>jane.doe@stonebranch.com</emailAddr> <imap /> <imapPort /> <imapSsl>true</imapSsl> <imapStarttls>false</imapStarttls> <name>Email Connection 1</name> <opswiseGroups /> <smtp>server1</smtp> <smtpPort>4567</smtpPort> <smtpSsl>true</smtpSsl> <smtpStarttls>false</smtpStarttls> <sysId>62701879a6264107bb757a952bcc65cc</sysId> <systemConnection>true</systemConnection> <trashFolder /> <type>Outgoing</type> </emailConnection> </pre>	JSON Request <pre> { "authentication": true, "defaultPwd": "abc1", "defaultUser": "user1", "description": "description", "emailAddr": "jane.doe@stonebranch.com", "imap": null, "imapPort": null, "imapSsl": true, "imapStarttls": null, "name": "Email Connection 1", "opswiseGroups": null, "smtp": "server1", "smtpPort": 4567, "smtpSsl": true, "smtpStarttls": false, "systemConnection": true, "sysId": "62701879a6264107bb757a952bcc65cc", "trashFolder": null, "type": "Outgoing" } </pre>

4.16.3.6 Read an Email Connection

URI	http://host_name/uc/resources/emailconnection
HTTP Method	GET
Description	Retrieves information on a specific Email Connection.
URI Parameters	See Read an Email Connection: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/emailconnection?connectionname=Test4
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See Read an Email Connection: Example Response , below.
Email Connection Properties	See Email Connection Properties .

4.16.3.6.1 Read an Email Connection: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
connectionid	ID used within the Controller to identify this Email Connection.	String; URI parameter.	Y (unless connectionname is specified)	connectionname
connectionname	Name used within the Controller to identify this Email Connection.	String; URI parameter.	Y (unless connectionid is specified)	connectionid

4.16.3.6.2 Read an Email Connection: Example Response

XML Response	JSON Response
XML Request <pre> <emailConnection exportReleaseLevel="7.3.0.0" exportTable="ops_email_connection" retainSysIds="true" version="3"> <authentication>true</authentication> <authenticationType>Password</ authenticationType> <authorized>>false</authorized> <defaultUser>jane.doe@stonebranch.com</ defaultUser> <description /> <emailAddr>jane.doe@stonebranch.com</ emailAddr> <imap /> <imapPort>143</imapPort> <imapSsl>>false</imapSsl> <imapStarttls>>false</imapStarttls> <name>Email Connection 1</name> <oauthClient /> <opswiseGroups/> <smtp>smtp.gmail.com</smtp> <smtpPort>465</smtpPort> <smtpSsl>true</smtpSsl> <smtpStarttls>>false</smtpStarttls> <sysId>3b2c5049632841189888c921f9584edf< /sysId> <systemConnection>>false</ systemConnection> <trashFolder /> <type>Outgoing</type> </emailConnection> </pre>	JSON Request <pre> { "authentication" : true, "authenticationType" : "Password", "authorized" : false, "defaultUser" : "jane.doe@stonebranch.com", "description" : null, "emailAddr" : "jane.doe@stonebranch.com", "exportReleaseLevel" : "7.3.0.0", "exportTable" : "ops_email_connection", "imap" : null, "imapPort" : 143, "imapSsl" : false, "imapStarttls" : false, "name" : "Email Connection 1", "oauthClient" : null, "opswiseGroups" : [], "retainSysIds" : true, "smtp" : "smtp.gmail.com", "smtpPort" : 465, "smtpSsl" : true, "smtpStarttls" : false, "sysId" : "3b2c5049632841189888c921f9584edf", "systemConnection" : false, "trashFolder" : null, "type" : "Outgoing", "version" : 3 } </pre>

4.16.4 Email Template Web Services

- [Overview](#)
- [Create an Email Template](#)
- [Delete an Email Template](#)
- [List Email Templates](#)
- [Modify an Email Template](#)
- [Read an Email Template](#)

4.16.4.1 Overview

Universal Controller supports the following RESTful-based web services for [Email Template](#) operations, which are listed alphabetically on this page.

- [Create an Email Template](#)
- [Delete an Email Template](#)
- [List Email Templates](#)
- [Modify an Email Template](#)
- [Read an Email Template](#)

Formatting specifications for each web service, including details about property requirements, are provided.

4.16.4.2 Create an Email Template

	Description
URI	http://host_name/uc/resources/emailtemplate
HTTP Method	POST
Description	Creates an Email Template .
Example URI	http://localhost:8080/uc/resources/emailtemplate
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Create an Email Template Example Request , below.
Example Response	• Status 200 /OK Successfully created the Email Template with sysId {sysId}. • Status 400 /Bad Request Create Email Template failed. A duplicate value has been detected. Name must be unique.
Email Template Properties	See Email Template Properties , below.

4.16.4.2.1 Create an Email Template: Example Request

XML Request	JSON Request
XML Request <pre> <emailTemplate retainSysIds="true"> <bcc /> <body>This is the body text.</body> <cc /> <connection>QA #1</connection> <description /> <opswiseGroups /> <replyTo /> <subject>SAP Task email</subject> <sysId>55b5d2a6176e4c499cbd43b0d4cc6515 </sysId> <templateName>SAP Task email template</ templateName> <to>doc@stonebranch.com</to> </emailTemplate> </pre>	JSON Request <pre> { "bcc": null, "body": "This is the body text.", "cc": null, "connection": "QA #1", "description": null, "opswiseGroups": null, "replyTo": null, "subject": "SAP Task email", "sysId": "55b5d2a6176e4c499cbd43b0d4cc6515", "templateName": "SAP Task email template", "to": "doc@stonebranch.com" } </pre>

4.16.4.2.2 Email Template Properties

Property	UI Field Name	Description	Specifications	Required
bcc	BCC	Email address of the party being sent a blind (hidden) copy of the email, if any.	Use commas to separate multiple recipients.	Y (unless cc or to is specified)
body	Body	Text of the email message.		Y
cc	CC	Email address of the party being sent a copy of the email, if any.	Use commas to separate multiple recipients.	Y (unless bcc or to is specified)
connection	Email Connection	Connection used for the Email Template.		Y
description	Description	Description of this record.		N
exportReleaseLevel	n/a	Universal Controller release that the record was exported from.	read only	N
exportTable	n/a	Record table information.	read only	N
opswiseGroups	Member of Business Services	Business Services that this record belongs to.		N
replyTo	Reply-To	Email address of the sender.	Use commas to separate multiple recipients.	N

Property	UI Field Name	Description	Specifications	Required
subject	Subject	Subject line of the email.		N
sysId	n/a	System ID field in the database for this Email Template record.	Persisted only if retainSysIds is set to true.	N
templateName	Template Name	Name used within the Controller to identify this resource.	Maximum = 40 alphanumerics.	Y
to	To	Email address of the recipient.	Use commas to separate multiple recipients.	Y (unless cc or bcc is specified)

4.16.4.3 Delete an Email Template

	Description
URI	http://host_name/uc/resources/emailtemplate
HTTP Method	DELETE
Description	Deletes an Email Template.
URI Parameters	See Delete an Email Template URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/emailtemplate?templatename=Test4
Example Response	- Status 200 /OK Email Template deleted successfully. - Status 400 /Bad Request Mutual exclusion violation. Cannot specify templatename and templateid at the same time. - Status 404 /Not Found An Email Template with {name/id} "test" does not exist.

4.16.4.3.1 Delete an Email Template: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
templateid	ID used within the Controller to identify this Email Template.	String; URI parameter.	Y (unless templatename is specified)	templatename
templatename	Name used within the Controller to identify this Email Template.	String; URI parameter.	Y (unless templateid is specified)	templateid

4.16.4.4 List Email Templates

	Description
URI	http://host_name/uc/resources/emailtemplate/list
HTTP Method	GET
Description	Retrieves information on all Email Templates.
Example URI	http://localhost:8080/uc/resources/emailtemplate/list
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See List Email Templates Example Response , below.
Email Template Properties	See Email Template Properties .

4.16.4.4.1 List Email Templates: Example Response

XML Response	JSON Response
XML Response <pre> <emailTemplates> <emailTemplate exportReleaseLevel="7.2 .0.0" exportTable="ops_email_template" version="7"> <bcc /> <body>This is the body text.</ body> <cc /> <connection>QA #1</connection> <description /> <opswiseGroups /> <replyTo /> <subject>SAP Task email</subject> <sysId>55b5d2a6176e4c499cbd43b0d4 cc6515</sysId> <templateName>SAP Task email template</templateName> <to>doc@stonebranch.com</to> </emailTemplate> <emailTemplate exportReleaseLevel="7.2 .0.0" exportTable="ops_email_template" version="2"> <bcc /> <body>This is the body text.</ body> <cc /> <connection>QA #2</connection> <description /> <opswiseGroups /> <replyTo /> <subject>Email Task email</ subject> <sysId>62701879a6264107bb757a952b cc65cc</sysId> <templateName>Email Task email template</templateName> <to>doc@stonebranch.com</to> </emailTemplate> </emailTemplates> </pre>	JSON Response <pre> [{ "bcc": null, "body": "This is the body text.", "cc": null, "connection": "QA #1", "description": null, "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_email_template", "opswiseGroups": null, "replyTo": null, "subject": "SAP Task email", "sysId": "55b5d2a6176e4c499cbd43b0d4cc6515", "templateName": "SAP Task email template", "to": "doc@stonebranch.com", "version": 7 } { "bcc": null, "body": "This is the body text.", "cc": null, "connection": "QA #2", "description": null, "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_email_template", "opswiseGroups": null, "replyTo": null, "subject": "Email Task email", "sysId": "62701879a6264107bb757a952bcc65cc", "templateName": "Email Task email template", "to": "doc@stonebranch.com", "version": 2 }] </pre>

4.16.4.5 Modify an Email Template

	Description
URI	http://host_name/uc/resources/emailtemplate

	Description
HTTP Method	PUT
Description	Modifies the Email Template specified by the <code>sysId</code> .
Example URI	http://localhost:8080/uc/resources/emailtemplate
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Modify an Email Template Example Request , below.
Email Template Properties	See Email Template Properties .
Example Response	Status 200 /OK Successfully updated the Email Template with sysId <sysId> to version <version>.

4.16.4.5.1 Modify an Email Template: Example Request

XML Request	JSON Request
XML Request <pre> <emailTemplate> <bcc /> <body>This is the body text.</body> <cc /> <connection>QA #1</connection> <description /> <opswiseGroups /> <replyTo /> <subject>SAP Task email</subject> <sysId>55b5d2a6176e4c499cbd43b0d4cc6515</sysId> <templateName>SAP Task email template</templateName> <to>doc@stonebranch.com</to> </emailTemplate> </pre>	JSON Request <pre> { "bcc": null, "body": "This is the body text.", "cc": null, "connection": "QA #1", "description": null, "opswiseGroups": null, "replyTo": null, "subject": "SAP Task email", "sysId": "55b5d2a6176e4c499cbd43b0d4cc6515", "templateName": "SAP Task email template", "to": "doc@stonebranch.com" } </pre>

4.16.4.6 Read an Email Template

URI	http://host_name/uc/resources/emailtemplate
HTTP Method	GET
Description	Retrieves information on a specific Email Template.
URI Parameters	See Read an Email Template URI Parameters , below.

Example URI	http://localhost:8080/uc/resources/emailtemplate?templatename=Test4
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See Read an Email Template Example Response , below.
Email Template Properties	See Email Template Properties .

4.16.4.6.1 Read an Email Template: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
templateid	ID used within the Controller to identify this Email Template.	String; URI parameter.	Y (unless <code>templatename</code> is specified)	templatename
templatename	Name used within the Controller to identify this Email Template.	String; URI parameter.	Y (unless <code>templateid</code> is specified)	templateid

4.16.4.6.2 Read an Email Template: Example Response

XML Response	JSON Response
XML Response <pre><emailTemplate exportReleaseLevel="7.2.0.0" exportTable="ops_email_template" retainSysIds="true" version="1"> <bcc /> <body>This is the body text.</body> <cc /> <connection>QA #1</connection> <description /> <opswiseGroups /> <replyTo /> <subject>SAP Task email</subject> <sysId>55b5d2a6176e4c499cbd43b0d4cc6515</sysId> <templateName>SAP Task email template</templateName> <to>doc@stonebranch.com</to> </emailTemplate></pre>	JSON Response <pre>{ "bcc": null, "body": "This is the body text.", "cc": null, "connection": "QA #1", "description": null, "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_email_template", "opswiseGroups": null, "replyTo": null, "subject": "SAP Task email", "sysId": "55b5d2a6176e4c499cbd43b0d4cc6515", "templateName": "SAP Task email template", "to": "doc@stonebranch.com", "version": 1 }</pre>

4.16.5 PeopleSoft Connection Web Services

- [Overview](#)
- [Create a PeopleSoft Connection](#)
- [Delete a PeopleSoft Connection](#)
- [List PeopleSoft Connections](#)
- [Modify a PeopleSoft Connection](#)
- [Read a PeopleSoft Connection](#)

4.16.5.1 Overview

Universal Controller supports the following RESTful-based web services for [PeopleSoft Connection](#) operations, which are listed alphabetically on this page.

- [Create a PeopleSoft Connection](#)
- [Delete a PeopleSoft Connection](#)
- [List PeopleSoft Connections](#)
- [Modify a PeopleSoft Connection](#)
- [Read a PeopleSoft Connection](#)

Formatting specifications for each web service, including details about property requirements, are provided.

4.16.5.2 Create a PeopleSoft Connection

	Description
URI	http://host_name/uc/resources/peoplesoftconnection
HTTP Method	POST
Description	Creates a PeopleSoft Connection .
Example URI	http://localhost:8080/uc/resources/peoplesoftconnection
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Create a PeopleSoft Connection: Example Request , below.
Example Response	• Status 200 /OK Successfully created the PeopleSoft Connection with sysId {sysId}. • Status 400 /Bad Request Create PeopleSoft Connection failed. A duplicate value has been detected. Name must be unique.
PeopleSoft Connection Properties	See PeopleSoft Connection Properties , below.

4.16.5.2.1 Create a PeopleSoft Connection: Example Request

XML Request	JSON Request
XML Request <pre><peoplesoftConnection retainSysIds="true"> <credentials>user 1</credentials> <description>description</description> <endpoint>upps.stone.branch:8080</ endpoint> <name>PeopleSoft Connection 1</name> <opswiseGroups /> <port>8080</port> <server>upps.stone.branch</server> <sysId>62701879a6264107bb757a952bcc65cc< /sysId> </peoplesoftConnection></pre>	JSON Request <pre>{ "credentials": "user 1", "description": "description", "endpoint": "upps.stone.branch:8080", "name": "PeopleSoft Connection 1", "opswiseGroups": null, "port": "8080", "retainSysIds": true, "server": "upps.stone.branch", "sysId": "62701879a6264107bb757a952bcc65cc" }</pre>

4.16.5.2.2 PeopleSoft Connection Properties

Property	UI Field Name	Description	Specifications	Required
credentials	Credentials	Credentials for the PeopleSoft connection.		N
description	Description	User-defined; description of this record.		N
exportReleaseLevel	n/a	Universal Controller release that the record was exported from.	read only	N
exportTable	n/a	Record table information.	read only	N
name	Connection Name	Name used within the Controller to identify this PeopleSoft Connection.		Y
endpoint	Endpoint	Web service endpoint for the PROCESSREQUEST service.		Y

Property	UI Field Name	Description	Specifications	Required
opswiseGroups	Member of Business Services	Business Services that this record belongs to. XML <pre><opswiseGroups> <opswiseGroup>group1< /opswiseGroup> <opswiseGroup>group2< /opswiseGroup> </opswiseGroups></pre> JSON <pre>"opswiseGroups": ["group1", "group2"]</pre>		N
port	Port	Port number for the PeopleSoft application server.		N
retainSysIds	n/a	Specification for whether or not the Create a PeopleSoft Connection web service will persist the sysId property. - If retainSysIds="true" and sysId is included in the request/response, sysId will be persisted to the database. - If retainSysIds="false" and sysId is included in the request/response, sysId will be ignored; it will be autogenerated by the Controller. Note In XML web services, retainSysIds is specified as an attribute in the <PeopleSoftConnection> element.	Valid values: true/false (default is true).	N
server	Server	Host name of the Name or IP address of the PeopleSoft application server.		Y

Property	UI Field Name	Description	Specifications	Required
sysId	n/a	System ID field in the database for this PeopleSoft Connection record.	Persisted only if retainSysIds is set to true.	N

4.16.5.3 Delete a PeopleSoft Connection

	Description
URI	http://host_name/uc/resources/peoplesoftconnection
HTTP Method	DELETE
Description	Deletes a PeopleSoft Connection.
URI Parameters	See Delete a PeopleSoft Connection: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/peoplesoftconnection?connectionname=Test4
Example Response	- Status 200 /OK PeopleSoft Connection deleted successfully. - Status 400 /Bad Request Mutual exclusion violation. Cannot specify <code>connectionname</code> and <code>connectionid</code> at the same time. - Status 404 /Not Found a PeopleSoft Connection with {name/id} "test" does not exist.

4.16.5.3.1 Delete a PeopleSoft Connection: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
connectionid	ID used within the Controller to identify this PeopleSoft Connection.	String; URI parameter.	Y (unless <code>connectionname</code> is specified)	connectionname
connectionname	Name used within the Controller to identify this PeopleSoft Connection.	String; URI parameter.	Y (unless <code>connectionid</code> is specified)	connectionid

4.16.5.4 List PeopleSoft Connections

	Description
URI	http://host_name/uc/resources/peoplesoftconnection/list
HTTP Method	GET
Description	Retrieves information on all PeopleSoft Connections.

	Description
Example URI	http://localhost:8080/uc/resources/peoplesoftconnection/list
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See List PeopleSoft Connections: Example Response , below.
PeopleSoft Connection Properties	See PeopleSoft Connection Properties .

4.16.5.4.1 List PeopleSoft Connections: Example Response

XML Response	JSON Response
XML Response <pre> <peoplesoftConnections> <peoplesoftConnection exportReleaseLevel="7.2.0.0" exportTable=" ops_peoplesoft_connection" version="7"> <credentials>user 1</credentials> <description>description</ description> <endpoint>upps.stone.branch:8080</ endpoint> <name>PeopleSoft Connection 1</ name> <opswiseGroups /> <port>8080</port> <server>upps.stone.branch</server> <sysId>62701879a6264107bb757a952bc c65cc</sysId> </peoplesoftConnection> <peoplesoftConnection exportReleaseLevel="7.2.0.0" exportTable=" ops_peoplesoft_connection" version="2"> <credentials>user 2</credentials> <description>description</ description> <endpoint>upps.stone.branch:8090</ endpoint> <name>PeopleSoft Connection 2</ name> <opswiseGroups /> <port>8090</port> <server>upps.stone.branch</server> <sysId>3d7a03053ad64de1b21b6849e6d eafd9</sysId> </peoplesoftConnection> </peoplesoftConnections> </pre>	JSON Response <pre> [{ { "credentials": "user 1", "description": "description", "endpoint": "upps.stone.branch:8080", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_peoplesoft_connection", "name": "PeopleSoft Connection 1", "opswiseGroups": null, "port": "8080", "server": "upps.stone.branch", "sysId": "62701879a6264107bb757a952bcc65cc", "version": 7 }, { "credentials": "user 2", "description": "description", "endpoint": "upps.stone.branch:8090", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_peoplesoft_connection", "name": "PeopleSoft Connection 2", "opswiseGroups": null, "port": "8090", "server": "upps.stone.branch", "sysId": "3d7a03053ad64de1b21b6849e6deafd9", "version": 2 } }] </pre>

4.16.5.5 Modify a PeopleSoft Connection

	Description
URI	http://host_name/uc/resources/peoplesoftconnection
HTTP Method	PUT
Description	Modifies the PeopleSoft Connection specified by the <code>sysId</code> .
Example URI	http://localhost:8080/uc/resources/peoplesoftconnection
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Modify a PeopleSoft Connection: Example Request , below.
PeopleSoft Connection Properties	See PeopleSoft Connection Properties .
Example Response	- Status 200 /OK - Successfully updated the PeopleSoft Connection with sysId <sysId> to version <version>.

4.16.5.5.1 Modify a PeopleSoft Connection: Example Request

XML Request	JSON Request
XML Request <pre> <peoplesoftConnection> <credentials>user 1</credentials> <description>description</description> <endpoint>upps.stone.branch:8080</ endpoint> <name>PeopleSoft Connection 1</name> <opswiseGroups /> <port>8080</port> <server>upps.stone.branch</server> <sysId>62701879a6264107bb757a952bcc65c c</sysId> </peoplesoftConnection> </pre>	JSON Request <pre> { "credentials": "user 1", "description": "description", "endpoint": "upps.stone.branch:8080", "name": "PeopleSoft Connection 1", "opswiseGroups": null, "port": "8080", "server": "upps.stone.branch", "sysId": "62701879a6264107bb757a952bcc65cc" } </pre>

4.16.5.6 Read a PeopleSoft Connection

URI	http://host_name/uc/resources/peoplesoftconnection
HTTP Method	GET

Description	Retrieves information on a specific PeopleSoft Connection.
URI Parameters	See Read a PeopleSoft Connection: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/peoplesoftconnection?connectionname=Test4
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See Read a PeopleSoft Connection: Example Response , below.
PeopleSoft Connection Properties	See PeopleSoft Connection Properties .

4.16.5.6.1 Read a PeopleSoft Connection: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
connectionid	ID used within the Controller to identify this PeopleSoft Connection.	String; URI parameter.	Y (unless connectionname is specified)	connectionname
connectionname	Name used within the Controller to identify this PeopleSoft Connection.	String; URI parameter.	Y (unless connectionid is specified)	connectionid

4.16.5.6.2 Read a PeopleSoft Connection: Example Response

XML Response	JSON Response
XML Request <pre><peoplesoftConnection exportReleaseLevel="7.2.0.0" exportTable="ops_peoplesoft_connection" retainSysIds="true" version="1"> <credentials>user 1</credentials> <description>description</description> <endpoint>upps.stone.branch:8080</endpoint> <name>PeopleSoft Connection 1</name> <opswiseGroups /> <port>8080</port> <server>upps.stone.branch</server> <sysId>62701879a6264107bb757a952bcc65cc</sysId> </peoplesoftConnection></pre>	JSON Response <pre>{ "credentials": "user 1", "description": "description", "endpoint": "upps.stone.branch:8080", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_peoplesoft_connection", "name": "PeopleSoft Connection 1", "opswiseGroups": null, "port": "8080", "retainSysIds": true, "server": "upps.stone.branch", "sysId": "62701879a6264107bb757a952bcc65cc", "version": 1 }</pre>

4.16.6 SAP Connection Web Services

- [Overview](#)
- [Create an SAP Connection](#)
- [Delete an SAP Connection](#)
- [List SAP Connections](#)
- [Modify an SAP Connection](#)
- [Read an SAP Connection](#)
- [SAP Connection Properties](#)

4.16.6.1 Overview

Universal Controller supports the following RESTful-based web services for [SAP Connection](#) operations, which are listed alphabetically on this page.

- [Create an SAP Connection](#)
- [Delete an SAP Connection](#)
- [List SAP Connections](#)
- [Modify an SAP Connection](#)
- [Read an SAP Connection](#)

Formatting specifications for each web service, including details about property requirements, are provided.

4.16.6.2 Create an SAP Connection

	Description
URI	http://host_name/uc/resources/sapconnection
HTTP Method	POST
Description	Creates an SAP Connection .
Example URI	http://localhost:8080/uc/resources/sapconnection
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Create an SAP Connection: Example Request , below.
Example Response	• Status 200 /OK Successfully created the SAP Connection with sysId {sysId}. • Status 400 /Bad Request Create SAP Connection failed. A duplicate value has been detected. Name must be unique.
SAP Connection Properties	See SAP Connection Properties .

4.16.6.2.1 Create an SAP Connection: Example Request

XML Request	JSON Request
XML Request <pre> <sapConnection retainSysIds="true"> <description>description</description> <name>SAP Connection 1</name> <opswiseGroups /> <sapAshost /> <sapClient /> <sapConnectionType>Load Balancing</ sapConnectionType> <sapGroup>groupa</sapGroup> <sapGwhost>ABC</sapGwhost> <sapGwserv>test</sapGwserv> <sapMshost>server</sapMshost> <sapMysapsso2>>D: \ellen\qa\uc\testdir\new.data</ sapMysapsso2> <sapR3name>777</sapR3name> <sapSaprouter>/H/192.168.30.17/S/3297/ H/155.56.59.11</sapSaprouter> <sapSncLib>/qa/durability_export</ sapSncLib> <sapSncMode>Off </sapSncMode> <sapSncMyname>my_test_name</ sapSncMyname> <sapSncPartnername>partnername</ sapSncPartnername> <sapSncQop>Integrity Protection</ sapSncQop> <sapSncSso>No</sapSncSso> <sapSysnr /> <sapUseSymbolicNames>Yes</ sapUseSymbolicNames> <sapX509cert>D: \ellen\qa\uc\testdir\ecu.txt</sapX509cert> <sysId>1c6a3b42f2704ae8b3f2b62cc5f867c 9</sysId> </sapConnection> </pre>	JSON Request <pre> { "description": null, "name": "SAP Connection 1", "opswiseGroups": [], "retainSysIds": true, "sapAshost": null, "sapClient": null, "sapConnectionType": "Load Balancing", "sapGroup": "groupa", "sapGwhost": "ABC", "sapGwserv": "test", "sapMshost": "server", "sapMysapsso2": "D:\\ellen\\qa\\uc\\ \\testdir\\new.data", "sapR3name": "777", "sapSaprouter": "/H/192.168.30.17/S/ 3297/H/155.56.59.11", "sapSncLib": "/qa/durability_export", "sapSncMode": "Off", "sapSncMyname": "my_test_name", "sapSncPartnername": "partnername", "sapSncQop": "Integrity Protection", "sapSncSso": "No", "sapSysnr": null, "sapUseSymbolicNames": "Yes", "sapX509cert": "D:\\ellen\\qa\\uc\\ \\testdir\\ecu.txt", "sysId": "1c6a3b42f2704ae8b3f2b62cc5f867c9" } </pre>

4.16.6.3 Delete an SAP Connection

	Description
URI	http://host_name/uc/resources/sapconnection
HTTP Method	DELETE

	Description
Description	Deletes an SAP Connection.
URI Parameters	See Delete an SAP Connection: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/sapconnection?connectionname=Test4
Example Response	- Status 200 /OK SAP Connection deleted successfully. - Status 400 /Bad Request Mutual exclusion violation. Cannot specify <code>connectionname</code> and <code>connectionid</code> at the same time. - Status 404 /Not Found An SAP Connection with {name/id} "test" does not exist.

4.16.6.3.1 Delete an SAP Connection: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
<code>connectionid</code>	ID used within the Controller to identify this SAP Connection.	String; URI parameter.	Y (unless <code>connectionname</code> is specified)	<code>connectionname</code>
<code>connectionname</code>	Name used within the Controller to identify this SAP Connection.	String; URI parameter.	Y (unless <code>connectionid</code> is specified)	<code>connectionid</code>

4.16.6.4 List SAP Connections

	Description
URI	http://host_name/uc/resources/sapconnection/list
HTTP Method	GET
Description	Retrieves information on all SAP Connections.
Example URI	http://localhost:8080/uc/resources/sapconnection/list
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See List SAP Connections: Example Response , below.
SAP Connection Properties	See SAP Connection Properties .

4.16.6.4.1 List SAP Connections: Example Response

XML Response	JSON Response
XML Response <pre> <sapConnections> <sapConnection exportReleaseLevel="7. 2.0.0" exportTable="ops_sap_connection" version="7"> <description>description</description> <name>SAP Connection 1</name> <opswiseGroups /> <sapAshost /> <sapClient /> <sapConnectionType>Load Balancing</ sapConnectionType> <sapGroup>groupa</sapGroup> <sapGwhost>ABC</sapGwhost> <sapGwserv>test</sapGwserv> <sapMshost>server</sapMshost> <sapMysapsso2>>D: \ellen\qa\uc\testdir\new.data</ sapMysapsso2> <sapR3name>777</sapR3name> <sapSaprouter>/H/192.168.30.17/S/ 3297/H/155.56.59.11</sapSaprouter> <sapSncLib>/qa/durability_export</ sapSncLib> <sapSncMode>Off </sapSncMode> <sapSncMyname>my_est_name</ sapSncMyname> <sapSncPartnername>partnername</ sapSncPartnername> <sapSncQop>Integrity Protection</ sapSncQop> <sapSncSso>No</sapSncSso> <sapSysnr /> <sapUseSymbolicNames>Yes</ sapUseSymbolicNames> <sapX509cert>D: \ellen\qa\uc\testdir\ecu.txt</sapX509cert> <sysId>1c6a3b42f2704ae8b3f2b62cc5f867 c9</sysId> </sapConnection> <sapConnection exportReleaseLevel="7. 2.0.0" exportTable="ops_sap_connection" version="2"> <description>description</description> <name>SAP Connection 1</name> <opswiseGroups /> <sapAshost /> <sapClient /> <sapConnectionType>Load Balancing</ sapConnectionType> </pre>	JSON Response <pre> [{ "description": null, "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_sap_connection", "name": "SAP Connection 1", "opswiseGroups": [], "retainSysIds": true, "sapAshost": null, "sapClient": null, "sapConnectionType": "Load Balancing", "sapGroup": "groupa", "sapGwhost": "ABC", "sapGwserv": "test", "sapMshost": "server", "sapMysapsso2": "D:\\ellen\\qa\\uc\\ \\testdir\\new.data", "sapR3name": "777", "sapSaprouter": "/H/192.168.30.17/S/3297/ H/155.56.59.11", "sapSncLib": "/qa/durability_export", "sapSncMode": "Off", "sapSncMyname": "my_test_name", "sapSncPartnername": "partnername", "sapSncQop": "Integrity Protection", "sapSncSso": "No", "sapSysnr": null, "sapUseSymbolicNames": "Yes", "sapX509cert": "D:\\ellen\\qa\\uc\\ \\testdir\\ecu.txt", "sysId": "1c6a3b42f2704ae8b3f2b62cc5f867c9" "version": 7 }, { "description": null, "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_sap_connection", "name": "SAP Connection 1", "opswiseGroups": [], "retainSysIds": true, "sapAshost": null, "sapClient": null, "sapConnectionType": "Load Balancing", "sapGroup": "groupa", "sapGwhost": "ABC", "sapGwserv": "test", "sapMshost": "server", "sapMysapsso2": "D:\\ellen\\qa\\uc\\ \\testdir\\new.data", </pre>

XML Response	JSON Response
<pre> <sapGroup>groupa</sapGroup> <sapGwhost>ABC</sapGwhost> <sapGwserv>test</sapGwserv> <sapMshost>server</sapMshost> <sapMysapssso2>>D: \ellen\qa\uc\testdir\new.data</ sapMysapssso2> <sapR3name>777</sapR3name> <sapSaprouter>/H/192.168.30.17/S/ 3297/H/155.56.59.11</sapSaprouter> <sapSncLib>/qa/durability_export</ sapSncLib> <sapSncMode>Off</sapSncMode> <sapSncMyname>my_test_name</ sapSncMyname> <sapSncPartnername>partnername</ sapSncPartnername> <sapSncQop>Integrity Protection</ sapSncQop> <sapSncSso>No</sapSncSso> <sapSysnr /> <sapUseSymbolicNames>Yes</ sapUseSymbolicNames> <sapX509cert>D: \ellen\qa\uc\testdir\ecu.txt</sapX509cert> <sysId>3d7a03053ad64de1b21b6849e6deaf d9</sysId> </sapConnection> <sapConnections> </pre>	<pre> "sapR3name": "777", "sapSaprouter": "/H/192.168.30.17/S/3297/ H/155.56.59.11", "sapSncLib": "/qa/durability_export", "sapSncMode": "Off", "sapSncMyname": "my_test_name", "sapSncPartnername": "partnername", "sapSncQop": "Integrity Protection", "sapSncSso": "No", "sapSysnr": null, "sapUseSymbolicNames": "Yes", "sapX509cert": "D:\\ellen\\qa\\uc\\ \\testdir\\ecu.txt", "sysId": "3d7a03053ad64de1b21b6849e6deaf d9" "version": 2 }] </pre>

4.16.6.5 Modify an SAP Connection

	Description
URI	http://host_name/uc/resources/sapconnection
HTTP Method	PUT
Description	Modifies the SAP Connection specified by the <code>sysId</code> .
Example URI	http://localhost:8080/uc/resources/sapconnection □
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Modify an SAP Connection: Example Request , below.
SAP Connection Properties	See SAP Connection Properties .

	Description
Example Response	Status 200 /OK Successfully updated the SAP Connection with sysId <sysId> to version <version>.

4.16.6.5.1 Modify an SAP Connection: Example Request

XML Request	JSON Request
XML Request <pre> <sapConnection> <description>description</description> <name>SAP Connection 1</name> <opswiseGroups /> <sapAshost /> <sapClient /> <sapConnectionType>Load Balancing</ sapConnectionType> <sapGroup>groupa</sapGroup> <sapGwhost>ABC</sapGwhost> <sapGwserv>test</sapGwserv> <sapMshost>server</sapMshost> <sapMysapsso2>>D: \ellen\qa\uc\testdir\new.data</ sapMysapsso2> <sapR3name>777</sapR3name> <sapSaprouter>/H/192.168.30.17/S/3297/ H/155.56.59.11</sapSaprouter> <sapSncLib>/qa/durability_export</ sapSncLib> <sapSncMode>Off </sapSncMode> <sapSncMyname>my_test_name</ sapSncMyname> <sapSncPartnername>partnername</ sapSncPartnername> <sapSncQop>Integrity Protection</ sapSncQop> <sapSncSso>No</sapSncSso> <sapSysnr /> <sapUseSymbolicNames>Yes</ sapUseSymbolicNames> <sapX509cert>D: \ellen\qa\uc\testdir\ecu.txt</sapX509cert> <sysId>1c6a3b42f2704ae8b3f2b62cc5f867c 9</sysId> </sapConnection> </pre>	JSON Request <pre> { "description": null, "name": "SAP Connection 1", "opswiseGroups": [], "retainSysIds": true, "sapAshost": null, "sapClient": null, "sapConnectionType": "Load Balancing", "sapGroup": "groupa", "sapGwhost": "ABC", "sapGwserv": "test", "sapMshost": "server", "sapMysapsso2": "D:\\ellen\\qa\\uc\\ \\testdir\\new.data", "sapR3name": "777", "sapSaprouter": "/H/192.168.30.17/S/ 3297/H/155.56.59.11", "sapSncLib": "/qa/durability_export", "sapSncMode": "Off", "sapSncMyname": "my_test_name", "sapSncPartnername": "partnername", "sapSncQop": "Integrity Protection", "sapSncSso": "No", "sapSysnr": null, "sapUseSymbolicNames": "Yes", "sapX509cert": "D:\\ellen\\qa\\uc\\ \\testdir\\ecu.txt", "sysId": "1c6a3b42f2704ae8b3f2b62cc5f867c9" } </pre>

4.16.6.6 Read an SAP Connection

URI	http://host_name/uc/resources/sapconnection
HTTP Method	GET
Description	Retrieves information on a specific SAP Connection.
URI Parameters	See Read an SAP Connection: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/sapconnection?connectionname=Test4
Example Response	See Read an SAP Connection: Example Response , below.
SAP Connection Properties	See SAP Connection Properties .

4.16.6.6.1 Read an SAP Connection: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
connectionid	ID used within the Controller to identify this SAP Connection.	String; URI parameter.	Y (unless connectionname is specified)	connectionname
connectionname	Name used within the Controller to identify this SAP Connection.	String; URI parameter.	Y (unless connectionid is specified)	connectionid

4.16.6.6.2 Read an SAP Connection: Example Response

XML Response	JSON Response
XML Response <pre> <sapConnection exportReleaseLevel="7.2.0.0" exportTable="ops_sap_connection" retainSysIds="true" version="1"> <description>description</description> <name>SAP Connection 1</name> <opswiseGroups /> <sapAshost /> <sapClient /> <sapConnectionType>Load Balancing</ sapConnectionType> <sapGroup>groupa</sapGroup> <sapGwhost>ABC</sapGwhost> <sapGwserv>test</sapGwserv> <sapMshost>server</sapMshost> <sapMysapsso2>>D: \ellen\qa\uc\testdir\new.data</sapMysapsso2> <sapR3name>777</sapR3name> <sapSaprouter>/H/192.168.30.17/S/3297/ H/155.56.59.11</sapSaprouter> <sapSncLib>/qa/durability_export</ sapSncLib> <sapSncMode>Off </sapSncMode> <sapSncMyname>my_test_name</ sapSncMyname> <sapSncPartnername>partnername</ sapSncPartnername> <sapSncQop>Integrity Protection</ sapSncQop> <sapSncSso>No</sapSncSso> <sapSysnr /> <sapUseSymbolicNames>Yes</ sapUseSymbolicNames> <sapX509cert>D: \ellen\qa\uc\testdir\ecu.txt</sapX509cert> <sysId>1c6a3b42f2704ae8b3f2b62cc5f867c9 </sysId> </sapConnection> </pre>	JSON Response <pre> { "description": null, "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_sap_connection", "name": "SAP Connection 1", "opswiseGroups": [], "retainSysIds": true, "sapAshost": null, "sapClient": null, "sapConnectionType": "Load Balancing", "sapGroup": "groupa", "sapGwhost": "ABC", "sapGwserv": "test", "sapMshost": "server", "sapMysapsso2": "D:\\ellen\\qa\\uc\\ \\testdir\\new.data", "sapR3name": "777", "sapSaprouter": "/H/192.168.30.17/S/ 3297/H/155.56.59.11", "sapSncLib": "/qa/durability_export", "sapSncMode": "Off", "sapSncMyname": "my_test_name", "sapSncPartnername": "partnername", "sapSncQop": "Integrity Protection", "sapSncSso": "No", "sapSysnr": null, "sapUseSymbolicNames": "Yes", "sapX509cert": "D:\\ellen\\qa\\uc\\ \\testdir\\ecu.txt", "sysId": "1c6a3b42f2704ae8b3f2b62cc5f867c9" "version": 1 } </pre>

4.16.6.7 SAP Connection Properties

Property	UI Field Name	Description	Specifications	Required
description	Description	Description of this record.		N

Property	UI Field Name	Description	Specifications	Required
exportReleaseLevel	n/a	Universal Controller release that the record was exported from.	read only	N
exportTable	n/a	Record table information.	read only	N
name	Connection Name	Name used within the Controller to identify this SAP Connection.		Y
opswiseGroups	Member of Business Services	Business Services that this record belongs to. XML <pre><opswiseGroups> <opswiseGroup>group1</opswiseGroup> <opswiseGroup>group2</opswiseGroup> </opswiseGroups></pre> JSON <pre>"opswiseGroups": ["group1", "group2"]</pre>		N
retainSysIds	n/a	Specification for whether or not the Create an SAP Connection web service will persist the <code>sysId</code> property. - If retainSysIds="true" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database. - If retainSysIds="false" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller. Note In XML web services, <code>retainSysIds</code> is specified as an attribute in the <code><sapConnection></code> element.	Valid values: true/false (default is true).	N

Property	UI Field Name	Description	Specifications	Required
sapAshost	Application Server	If <code>connectionType</code> = Specific Application Server; Host name of an SAP application server. If the path to the server goes through SAP routers, prefix the host name with the SAP router string.		Y
sapClient	Client	If <code>connectionType</code> = Specific Application Server; SAP Client number.		Y
sapConnectionType	Connection Type	Type of SAP Connection.	Valid Values: - As String = Specific Application Server, As Value = 1 - As String = Load Balancing, As Value = 2	Y
sapGroup	Group	If <code>connectionType</code> = Load Balancing; Host name of the message server.		N
sapGwhost	Gateway	If <code>connectionType</code> = Specific Application Server; Host name of the SAP gateway.		N
sapGwserv	Gateway Service	If <code>connectionType</code> = Specific Application Server; Service name of the SAP gateway.		N
sapMshost	Message Server	If <code>connectionType</code> = Load Balancing; Application servers group name.		Y
sapMysapso2	Single Sign-On Ticket	Path to a file that contains the actual value for the MYSAPSSO2 parameter.		N
sapR3name	System ID	If <code>connectionType</code> = Load Balancing; System ID of the SAP system to which you want to connect.		Y
sapSaprouter	SAProuter	SAProuter parameter.		N
sapSncLib	SNC Library	SNC_LIB parameter; Path to the third-party security library for SNC.		N
sapSncMode	SNC Mode	SNC_MODE parameter; Specification for whether or not SNC is activated.	Valid Values: - As String = Off, As Value = 0 - As String = On, As Value = 1	N
sapSncMyname	SNC My Name	SNC_MYNAME parameter; Token/identifier representing the external RFC program.		N
sapSncPartnername	SNC Partner Name	SNC_PARTNERNAME parameter; Token/identifier representing the back-end system.		N

Property	UI Field Name	Description	Specifications	Required
sapSncQop	SNC Quality of Protection	SNC_QOP parameter.	Valid Values: - As String = Authentication Only, As Value = 1 - As String = Integrity Protection, As Value = 2 - As String = Privacy Protection, As Value = 3 - As String = Default Protection, As Value = 8 - As String = Maximum Protection, As Value = 9	N
sapSncSso	SNC Single Sign-On	SNC_SSO parameter; Specification for whether or not to use single sign-on for SNC.	Valid Values: - As String = No, As Value = 0 - As String = Yes, As Value = 1	N
sapSysnr	System Number	If <code>connectionType</code> = Specific Application Server; SYSNR parameter.		Y
sapUseSymbolicNames	Use Symbolic Names	If <code>connectionType</code> = Load Balancing; USE_SYMBOLIC_NAMES parameter; Specification for whether or not to use symbolic service names.	Valid Values: - As String = Off, As Value = 0 - As String = On, As Value = 1	N
sapX509cert	X.509 Certificate	Path to a file that contains the actual value for the X509CERT parameter.		Y
sysId	UUID	System ID field in the database for this SAP Connection record.	Persisted only if <code>retainSysIds</code> is set to true.	N

4.16.7 SNMP Manager Web Services

- [Overview](#)
- [Create an SNMP Manager](#)
- [Delete an SNMP Manager](#)
- [List SNMP Managers](#)
- [Modify an SNMP Manager](#)
- [Read an SNMP Manager](#)

4.16.7.1 Overview

Universal Controller supports the following RESTful-based web services for [SNMP Manager](#) operations, which are listed alphabetically on this page.

- [Create an SNMP Manager](#)
- [Delete an SNMP Manager](#)
- [List SNMP Managers](#)
- [Modify an SNMP Manager](#)
- [Read an SNMP Manager](#)

Formatting specifications for each web service, including details about property requirements, are provided.

4.16.7.2 Create an SNMP Manager

	Description
URI	http://host_name/uc/resources/snmpmanager
HTTP Method	POST
Description	Creates an SNMP Manager .
Example URI	http://localhost:8080/uc/resources/snmpmanager
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Create an SNMP Manager: Example Request , below.
Example Response	- Status 200 /OK Successfully created the SNMP Manager with sysId {sysId}. - Status 400 /Bad Request Create SNMP Manager failed. A duplicate value has been detected. Name must be unique.
SNMP Manager Properties	See SNMP Manager Properties , below.

4.16.7.2.1 Create an SNMP Manager: Example Request

XML Request	JSON Request
XML Request <pre> <snmpManager retainSysIds="true"> <description>description</description> <managerAddress>Junk.com</managerAddress> <managerPort>123</managerPort> <name>Test4</name> <opswiseGroups /> <sysId>62701879a6264107bb757a952bcc65cc</sysId> <trapCommunity>Test4</trapCommunity> </snmpManager> </pre>	JSON Request <pre> { "description": "description", "managerAddress": "Junk.com", "managerPort": 123, "name": "Test4", "opswiseGroups": null, "retainSysIds": true, "sysId": "62701879a6264107bb757a952bcc65cc", "trapCommunity": "public" } </pre>

4.16.7.2.2 SNMP Manager Properties

Property	UI Field Name	Description	Specifications	Required
description	Description	Description of this record.		N

Property	UI Field Name	Description	Specifications	Required
exportReleaseLevel	n/a	Universal Controller release that the record was exported from.	read only	N
exportTable	n/a	Record table information.	read only	N
managerAddress	Manager Address	Name or IP address of the SNMP Manager.		Y
managerPort	Manager Port	Port used by the SNMP Manager.		Y
name	Manager Name	Name used within the Controller to identify this SNMP Manager.		Y
opswiseGroups	Member of Business Services	Business Services that this record belongs to. XML <pre><opswiseGroups> <opswiseGroup>group1< /opswiseGroup> <opswiseGroup>group2< /opswiseGroup> </opswiseGroups></pre> JSON <pre>"opswiseGroups": ["group1", "group2"]</pre>		N

Property	UI Field Name	Description	Specifications	Required
<code>retainSysIds</code>	n/a	Specification for whether or not the Create an SNMP Manager web service will persist the <code>sysId</code> property. - If <code>retainSysIds</code>="true" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database. - If <code>retainSysIds</code>="false" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller Note In XML web services, <code>retainSysIds</code> is specified as an attribute in the <code><snmpManager></code> element.	Valid values: true/false (default is true).	N
<code>sysId</code>	n/a	System ID field in the database for this SNMP Manager record.	Persisted only if <code>retainSysIds</code> is set to true.	N
<code>trapCommunity</code>	Trap Community String	Used by the trap receiver to determine which traps to process.	Default is public .	N

4.16.7.3 Delete an SNMP Manager

	Description
URI	http://host_name/uc/resources/snmpmanager
HTTP Method	DELETE
Description	Deletes an SNMP Manager.
URI Parameters	See Delete an SNMP Manager: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/snmpmanager?managername=Test4
Example Response	- Status 200 /OK SNMP Manager deleted successfully. - Status 400 /Bad Request Mutual exclusion violation. Cannot specify <code>managername</code> and <code>managerid</code> at the same time. - Status 404 /Not Found An SNMP Manager with {name/id} "test" does not exist.

4.16.7.3.1 Delete an SNMP Manager: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
<code>managerid</code>	ID used within the Controller to identify this SNMP Manager.	String; URI parameter.	Y (unless <code>managername</code> is specified)	<code>managername</code>
<code>managername</code>	Name used within the Controller to identify this SNMP Manager.	String; URI parameter.	Y (unless <code>managerid</code> is specified)	<code>managerid</code>

4.16.7.4 List SNMP Managers

	Description
URI	http://host_name/uc/resources/snmpmanager/list
HTTP Method	GET
Description	Retrieves information on all SNMP Managers.
Example URI	http://localhost:8080/uc/resources/snmpmanager/list
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See List SNMP Managers Example Response , below.
SNMP Manager Properties	See SNMP Manager Properties .

4.16.7.4.1 List SNMP Managers: Example Response

XML Response	JSON Response
XML Response <pre> <snmpManagers> <snmpManager exportReleaseLevel="7.2.0.0" exportTable="ops_snmp_connection" version="7"> <description>description</description> <managerAddress>qa.stone.branch</managerAddress> <managerPort>162</managerPort> <name>qa.stone.branch1</name> <opswiseGroups /> <sysId>3d7a03053ad64de1b21b6849e6deafd9</sysId> <trapCommunity>Test4</trapCommunity> </snmpManager> <snmpManager exportReleaseLevel="7.2.0.0" exportTable="ops_snmp_connection" version="2"> <description>description</description> <managerAddress>qa.stone.branch</managerAddress> <managerPort>162</managerPort> <name>qa.stone.branch2</name> <opswiseGroups /> <sysId>94640cb62679407692cb41091e5c73fe</sysId> <trapCommunity>Test4</trapCommunity> </snmpManager> </snmpManagers> </pre>	JSON Response <pre> [{ "description": "description", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_snmp_connection", "managerAddress": "qa.stone.branch", "managerPort": 162, "name": "qa.stone.branch1", "opswiseGroups": null, "sysId": "3d7a03053ad64de1b21b6849e6deafd9", "trapCommunity": "public", "version": 7 }, { "description": "description", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_snmp_connection", "managerAddress": "qa.stone.branch", "managerPort": 162, "name": "qa.stone.branch", "opswiseGroups": null, "sysId": "94640cb62679407692cb41091e5c73fe", "trapCommunity": "public", "version": 2 }] </pre>

4.16.7.5 Modify an SNMP Manager

	Description
URI	http://host_name/uc/resources/snmpmanager
HTTP Method	PUT
Description	Modifies the SNMP Manager specified by the <code>sysId</code> .
Example URI	http://localhost:8080/uc/resources/snmpmanager
Consumes Content-Type	application/xml, application/json

	Description
Produces Content-Type	n/a
Example Request	See Modify an SNMP Manager Example Request , below.
SNMP Manager Properties	See SNMP Manager Properties .
Example Response	- Status 200 /OK - Successfully updated the SNMP Manager with sysId <sysId> to version <version>.

4.16.7.5.1 Modify an SNMP Manager: Example Request

XML Request	JSON Request
XML Request <pre> <snmpManager> <description>description</description> <managerAddress>Junk.com</managerAddress> <managerPort>123</managerPort> <name>Test4</name> <opswiseGroups> <opswiseGroup>Accounting</opswiseGroup> </opswiseGroups> <sysId>62701879a6264107bb757a952bcc65cc</sysId> <trapCommunity>Test4</trapCommunity> </snmpManager> </pre>	JSON Request <pre> { "description": "description", "managerAddress": "Junk.com", "managerPort": 123, "name": "Test4", "opswiseGroups": ["Accounting"], "sysId": "62701879a6264107bb757a952bcc65cc", "trapCommunity": "public" } </pre>

4.16.7.6 Read an SNMP Manager

	Description
URI	http://host_name/uc/resources/snmpmanager
HTTP Method	GET
Description	Retrieves information on a specific SNMP Manager.
URI Parameters	See Read an SNMP Manager URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/snmpmanager?managername=Test4
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See Read an SNMP Manager Example Response , below.
SNMP Manager Properties	See SNMP Manager Properties .

4.16.7.6.1 Read an SNMP Manager: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
managerid	ID used within the Controller to identify this SNMP Manager.	String; URI parameter.	Y (unless managername is specified)	managername
managername	Name used within the Controller to identify this SNMP Manager.	String; URI parameter.	Y (unless managerid is specified)	managerid

4.16.7.6.2 Read an SNMP Manager: Example Response

XML Response	JSON Response
XML Response <pre><snmpManager exportReleaseLevel="7.2.0.0" exportTable="ops_snmp_connection" retainSysIds="true" version="1"> <description>description</description> <managerAddress>Junk.com</managerAddress> <managerPort>123</managerPort> <name>Test4</name> <opswiseGroups /> <sysId>62701879a6264107bb757a952bcc65cc</ sysId> <trapCommunity>Test4</trapCommunity> </snmpManager></pre>	JSON Response <pre>{ "description": "description", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_snmp_connection", "managerAddress": "Junk.com", "managerPort": 123, "name": "Test4", "opswiseGroups": null, "sysId": "62701879a6264107bb757a952bcc65cc", "trapCommunity": "public", "version": 1 }</pre>

4.17 Credential Web Services

• Overview • Create a Credential • Delete a Credential • List Credentials • Modify a Credential • Read a Credential • Test Provider

4.17.1 Overview

Universal Controller supports the following RESTful-based web services for Credential operations, which are listed alphabetically on this page.

- [Create a Credential](#)
- [Delete a Credential](#)
- [List Credentials](#)
- [Modify a Credential](#)
- [Read a Credential](#)

Formatting specifications for each web service, including details about property requirements, are provided.

Note

If you want to change only the runtime password, rather than modifying the whole credential record, you can use the [Password API](#).

4.17.2 Create a Credential

	Description
URI	http://host_name/uc/resources/credential
HTTP Method	POST
Description	Creates a Credentials .
Example URI	http://localhost:8080/uc/resources/credential
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Create a Credential Example Request , below.
Properties	See Credential Properties.
Example Response	• Status 200 /OK Successfully created the credential with sysId {sysId}. • Status 400 /Bad Request Create credential failed. A duplicate value has been detected. Name must be unique.

4.17.2.1 Create a Credential: Example Request

XML Request	JSON Request
XML Request <pre> <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <credential exportReleaseLevel="7.3.0.0" exportTable="ops_credentials" retainSysIds="true" version="28"> <description /> <name>AWS_Secrets_Manager</name> <opswiseGroups/> <provider>AWS Secrets Manager</provider> <providerParameters> <providerParameter> <name>ACCESS_KEY_ID</name> <value>*****</value> </providerParameter> <providerParameter> <name>SECRET_ACCESS_KEY</name> <value>*****</value> </providerParameter> <providerParameter> <name>REGION</name> <value>us-east-1</value> </providerParameter> <providerParameter> <name>SECRET_ID</name> <value>arn:aws:secretsmanager:us- east-1:792840030488:secret:uc-e6wnD3</value> </providerParameter> <providerParameter> <name>SECRET_PASSWORD_KEY</name> <value>password</value> </providerParameter> <providerParameter> <name>SECRET_PASSPHRASE_KEY</ name> <value></value> </providerParameter> </pre>	JSON Request <pre> { "description": null, "exportReleaseLevel": "7.3.0.0", "exportTable": "ops_credentials", "name": "AWS_Secrets_Manager", "opswiseGroups": [], "provider": "AWS Secrets Manager", "providerParameters": [{ "name": "ACCESS_KEY_ID", "value": "*****" }, { "name": "SECRET_ACCESS_KEY", "value": "*****" }, { "name": "REGION", "value": "us-east-1" }, { "name": "SECRET_ID", "value": "arn:aws:secretsmanager:us- east-1:792840030488:secret:uc-e6wnD3" }, { "name": "SECRET_PASSWORD_KEY", "value": "password" }, { "name": "SECRET_PASSPHRASE_KEY", "value": "" }, { "name": "SECRET_TOKEN_KEY", </pre>

XML Request	JSON Request
<pre> <providerParameter> <name>SECRET_TOKEN_KEY</name> <value></value> </providerParameter> </providerParameters> <runtimeKeyLocation /> <runtimeUser>secret</runtimeUser> <sysId>f71d4960469840c2ac3734962405bedd</sysId> <type>Standard</type> </credential> </pre>	<pre> "value": "" },], "retainSysIds": true, "runtimeKeyLocation": null, "runtimeUser": "secret", "sysId": "f71d4960469840c2ac3734962405bedd", "type": "Standard", "version": 28 } </pre>

4.17.2.2 Credential Properties

Properties	UI Field Name	Description	Specifications	Required
description	Description	User-defined; description of this record.		N
exportReleaseLevel	n/a	Universal Controller release that the record was exported from.	read only	N
exportTable	n/a	Record table information.	read only	N
name	Name	Name used within the Controller to identify this Credential.	Maximum 40 alphanumerics.	Y

Properties	UI Field Name	Description	Specifications	Required
opswiseGroups	Member of Business Services	Business Services that this record belongs to. Format: XML <pre><opswiseGroups> <opswiseGroup>group1</opswiseGroup> <opswiseGroup>group2</opswiseGroup> </opswiseGroups></pre> JSON <pre>"opswiseGroups": ["group1", "group2"]</pre>		N
provider	Provider	Provider of credentials.	Valid values (case-insensitive): - As String = Universal Controller, As Value = 1 - As String = AWS Secrets Manager, As Value=2 - As String = Azure Key Vault, As Value = 3 - As String = CyberArk Credential Provider, As Value = 4 - As String = CyberArk Central Credential Provider, As Value = 5 - As String = HashiCorp Vault, As Value = 6 Default is Universal Controller (1).	N

Properties	UI Field Name	Description	Specifications	Required
providerParameters	Provider Parameters	Set of parameters specific to provider. See Provider Parameters for provider parameter details for each provider.	XML JSON	Y (if provider is not Universal Controller)
retainSysIds	n/a	Specification for whether or not the Create a Credential web service will persist the <code>sysId - CRED</code> property. - If <code>retainSysIds="true"</code> and <code>sysId</code> is included in the request, <code>sysId</code> will be persisted to the database. - If <code>retainSysIds="false"</code> and <code>sysId</code> is included in the request, <code>sysId</code> will be ignored; it will be autogenerated by the Controller. Note In XML web services, <code>retainSysIds</code> is specified as an attribute in the <code><credential></code> element.	Optional; Valid values: true/false (default is true).	N
runtimeKeyLocation	Key Location (SFTP only)	Using SFTP requires that you supply a valid credential that specifies the location of the SSL/TLS Private key on your Agent. This property provides the location, which must exist on the Agent where you intend to run the SFTP task. Currently, the Controller does not support password authentication for SFTP Transfer. For File Transfer over SSL/TLS, make sure you have your private/public keys properly set up and working before you configure the Controller to use it. For example, to validate the keys, log into your destination server from your agent server using SSL/TLS.		N
runtimePassPhrase	Pass Phrase (SFTP only)	Pass phrase for the Runtime User's SSL/TLS Private key file.		N

Properties	UI Field Name	Description	Specifications	Required
runtimePassword	Runtime Password	Runtime user's Change Runtime Password of Credentials .	- If runtimePassword is omitted in the request, it will be ignored. - If runtimePassword is provided in the request, it will be updated.	N
runtimeToken	Token	Runtime user Token that can be used with the Return Token of a Credential function.	- If runtimeToken is omitted in the request, it will be ignored. - If runtimeToken is provided in the request, it will be updated.	N
runtimeUser	Runtime User	Runtime user ID, including an LDAP- or AD-formatted user ID, under which the job will be run.		Y
sysId	n/a	System ID field in the database for this Credential record.	Persisted only if retainSysIds is set to true.	N
type	Type	Type of Credential. Note: You cannot modify the type after the Credential has been created, but you can convert any Credential type to any other type.	Valid Values: - As String = Standard, As Value = 1 - As String = Resolvable, As Value = 2 - As String = Web Service, As Value = 3 - As String = Email, As Value = 4 - As String = SAP, As Value = 5 Default is Standard (1).	N

4.17.2.3 Provider Parameters

If a provider parameter is secure, its value will not be exposed in the GET response (xml: no `<value>` property; json: `"value" : null`). However, you can manually add it to the PUT/POST request to update the value.

4.17.2.3.1 AWS Secrets Manager

Provider Parameter	Required	Description
ACCESS_KEY_ID	true	The AWS access key, used to identify the user interacting with AWS.

Provider Parameter	Required	Description
SECRET_ACCESS_KEY	true	The AWS secret access key, used to authenticate the user interacting with AWS.
REGION	true	The region name (e.g., us-east-1).
SECRET_ID	true	The ARN or name of the secret to retrieve.
SECRET_PASSWORD_KEY	false	If this secret was created by using the console, then Secrets Manager stores the information as a JSON structure of key/value pairs. Specifies the key for the password in the JSON structure. If left unspecified, the password will evaluate to the entire secret value.
SECRET_PASSPHRASE_KEY	false	Specifies the key for the passphrase in the JSON structure. If left unspecified, the passphrase will be undefined.
SECRET_TOKEN_KEY	false	Specifies the key for the token in the JSON structure. If left unspecified, the token will be undefined.
CACHE_TTL	false	The TTL (Time To Live), in seconds, for the cached secret before a new request to the provider is made. (default 3600 seconds / 1 hour)

4.17.2.3.2 Azure Key Vault

Provider Parameter	Required	Description
KEY_VAULT_NAME	true	The name of the Key Vault used to build the vault URL to send HTTP requests to. https://<your-key-vault-name>.vault.azure.net
SECRET_NAME	true	The name of the secret.
CLIENT_ID	true	The client (application) ID.
TENANT_ID	true	The Azure Active Directory tenant (directory) ID.
CLIENT_SECRET		The client secret used to authenticate. Only one of CLIENT_SECRET, CLIENT_ASSERTION, PEM_CERTIFICATE, or PFX_CERTIFICATE can be specified.
CLIENT_ASSERTION		The client assertion used to authenticate. Only one of CLIENT_SECRET, CLIENT_ASSERTION, PEM_CERTIFICATE, or PFX_CERTIFICATE can be specified.
PEM_CERTIFICATE		The path of the PEM certificate used for authenticating. Only one of CLIENT_SECRET, CLIENT_ASSERTION, PEM_CERTIFICATE, or PFX_CERTIFICATE can be specified.
PFX_CERTIFICATE		The path of the PFX certificate used for authenticating. Only one of CLIENT_SECRET, CLIENT_ASSERTION, PEM_CERTIFICATE, or PFX_CERTIFICATE can be specified.
PFX_CERTIFICATE_PASSWORD		The password for the PFX certificate. Required if the PFX_CERTIFICATE is specified.

Provider Parameter	Required	Description
CACHE_TTL	false	The TTL (Time To Live), in seconds, for the cached secret before a new request to the provider is made. (default 28800 seconds / 8 hours)

4.17.2.3.3 CyberArk Credential Provider

Provider Parameter	Required	Description
APPLICATION_ID	true	The unique ID of the application issuing the password request.
SAFE	true	The name of the Safe where the password is stored.
FOLDER	true	The name of the folder where the password is stored.
OBJECT	true	The name of the password object to retrieve.
REASON	false	The reason for retrieving the password.
CACHE_TTL	false	The TTL (Time To Live), in seconds, for the cached secret before a new request to the provider is made. (default 5

4.17.2.3.4 CyberArk Central Credential Provider

Provider Parameter	Required	Description
HOST	true	The hostname of the Central Credential Provider.
PORT	true	The port of the Central Credential Provider.
APPLICATION_ID	true	The unique ID of the application issuing the password request.
SAFE	true	The name of the Safe where the password is stored.
FOLDER	true	The name of the folder where the password is stored.
OBJECT	true	The name of the password object to retrieve.
CACHE_TTL	false	The TTL (Time To Live), in seconds, for the cached secret before a new request to the provider is made. (default 5 seconds)

4.17.2.3.5 HashiCorp Vault

P r o v i d e r P a r a m e t e r	R e q u i r e d	Description
ADD RES S	true	The address of the Vault server (e.g. http://127.0.0.1:8200).
TOK EN		The Vault token for use with Vault's token auth method.
ROL E_ID		The Role ID of the AppRole for use with Vault's AppRole auth method.
SEC RET _ID		The Secret ID belonging to the AppRole for use with Vault's AppRole auth method. Required if the ROLE_ID is specified.
JWT		The signed JSON Web Token (JWT) for use with Vault's JWT auth method.
ROL E		The Role name for use with Vault's JWT auth method. Required, but not enforced, if the JWT auth method backend does not have a default role.
KEY STO RE		The path to the keystore containing the client certificate and private key for use with Vault's TLS Certificates auth method.
KEY STO RE_ PAS SWO RD		The password used to unlock the keystore.
KEY STO RE_ TYP E		The type of keystore. Default is PKCS12. - JKS - The proprietary keystore implementation provided by the SUN provider. - PKCS12 - The transfer syntax for personal identity information as defined in PKCS #12.
CLIE NT_ CER TIFI CAT E		The path to the X.509 certificate, in PEM format, for use with Vault's TLS certificates auth method.
CLIE NT_ KEY		The path to the unencrypted RSA private key, in PEM format, for use with Vault's TLS certificates auth method. Required if the CLIENT_CERTIFICATE is specified.

P r o v i d e r P a r a m e t e r	R e q u i r e d	Description
AUTH_MOUNT_PATH	false	Specifies the path where the auth method backend is mounted.
MOUNT_PATH	false	Specifies the path where the KV backend is mounted. If not specified, the SECRET_PATH parameter will be interpreted as the combined mount path and secret path, with /data/ automatically inserted for KV Version 2 secrets.
SECRET_PATH	true	The path to the KV secret.
DATAPASSWORDKEY	false	Specifies the key for the password in the secret data.
DATAPASSPHRASE_KEY	false	Specifies the key for the passphrase in the secret data.
DATATOKEN_KEY	false	Specifies the key for the token in the secret data.
CACHE_TTL	false	The TTL (Time To Live), in seconds, for the cached secret before a new request to the provider is made. (default 300 seconds / 5 minutes) If the secret has a TTL, then it will be used to set the expiration time (KV Version 1 only).

4.17.3 Delete a Credential

	Description
URI	http://host_name/uc/resources/credential
HTTP Method	DELETE

	Description
Description	Deletes a Credential.
URI Parameters	See Delete a Credential URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/credential?credentialname=test
Example Response	• Status 200 /OK Credential deleted successfully. • Status 400 /Bad Request Mutual exclusion violation. Cannot specify <code>credentialname</code> and <code>credentialid</code> at the same time. • Status 404 /Not Found A credential with {name/id} "test" does not exist.

4.17.3.1 Delete a Credential: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
<code>credentialid</code>	ID used within the Controller to identify this Credential.	String; URI parameter.	Y (unless <code>credentialname</code> is specified)	<code>credentialname</code>
<code>credentialname</code>	Name used within the Controller to identify this Credential.	String; URI parameter.	Y (unless <code>credentialid</code> is specified)	<code>credentialid</code>

4.17.4 List Credentials

	Description
URI	http://host_name/uc/resources/credential/list
HTTP Method	GET
Description	Retrieves information on all Credentials.
Example URI	http://localhost:8080/uc/resources/credential/list
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See List Credentials Example Response , below.
Properties	See Credential Properties.

4.17.4.1 List Credentials: Example Response

XML Response	JSON Response
XML Response <pre><?xml version="1.0" encoding="UTF-8" standalone="yes"?> <credential exportReleaseLevel="7.3.0.0" exportTable="ops_credentials" retainSysIds="true" version="28"> <description /> <name>AWS_Secrets_Manager</name> <opswiseGroups/> <provider>AWS Secrets Manager</provider> <providerParameters> <providerParameter> <name>ACCESS_KEY_ID</name> </providerParameter> <providerParameter> <name>SECRET_ACCESS_KEY</name> </providerParameter> <providerParameter> <name>REGION</name> <value>us-east-1</value> </providerParameter> <providerParameter> <name>SECRET_ID</name> <value>arn:aws:secretsmanager:us- east-1:792840030488:secret:uc-e6wnD3</value> </providerParameter> <providerParameter> <name>SECRET_PASSWORD_KEY</name> <value>password</value> </providerParameter> <providerParameter> <name>SECRET_PASSPHRASE_KEY</ name> <value></value></pre>	JSON Response <pre>{ "description": null, "exportReleaseLevel": "7.3.0.0", "exportTable": "ops_credentials", "name": "AWS_Secrets_Manager", "opswiseGroups": [], "provider": "AWS Secrets Manager", "providerParameters": [{ "name": "ACCESS_KEY_ID", "value": null }, { "name": "SECRET_ACCESS_KEY", "value": null }, { "name": "REGION", "value": "us-east-1" }, { "name": "SECRET_ID", "value": "arn:aws:secretsmanager:us- east-1:792840030488:secret:uc-e6wnD3" }, { "name": "SECRET_PASSWORD_KEY", "value": "password" }, { "name": "SECRET_PASSPHRASE_KEY", "value": ""</pre>

XML Response	JSON Response
<pre> </providerParameter> <providerParameter> <name>SECRET_TOKEN_KEY</name> <value></value> </providerParameter> </providerParameters> <runtimeKeyLocation /> <runtimeUser>secret</runtimeUser> <sysId>f71d4960469840c2ac3734962405bedd</sysId> <type>Standard</type> </credential> </pre>	<pre> }, { "name": "SECRET_TOKEN_KEY", "value": "" }], "retainSysIds": true, "runtimeKeyLocation": null, "runtimeUser": "secret", "sysId": "f71d4960469840c2ac3734962405bedd", "type": "Standard", "version": 28 } </pre>

4.17.5 Modify a Credential

	Description
URI	http://host_name/uc/resources/credential
HTTP Method	PUT
Description	Modifies the Credential specified by the <code>sysId</code> .
Example URI	http://localhost:8080/uc/resources/credential
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Modify a Credential Example Request , below.
Properties	See Credential Properties.
Example Response	Status 200 /OK Successfully updated the credential with sysId <sysId> to version <version>.

4.17.5.1 Modify a Credential: Example Request

XML Request	JSON Request
XML Request <pre><?xml version="1.0" encoding="UTF-8" standalone="yes"?> <credential exportReleaseLevel="7.3.0.0" exportTable="ops_credentials" retainSysIds="true" version="28"> <description /> <name>AWS_Secrets_Manager</name> <opswiseGroups/> <provider>AWS Secrets Manager</provider> <providerParameters> <providerParameter> <name>ACCESS_KEY_ID</name> <value>*****</value> </providerParameter> <providerParameter> <name>SECRET_ACCESS_KEY</name> <value>*****</value> </providerParameter> <providerParameter> <name>REGION</name> <value>us-east-1</value> </providerParameter> <providerParameter> <name>SECRET_ID</name> <value>arn:aws:secretsmanager:us- east-1:792840030488:secret:uc-e6wnD3</value> </providerParameter> <providerParameter> <name>SECRET_PASSWORD_KEY</name> <value>password</value> </providerParameter> <providerParameter> <name>SECRET_PASSPHRASE_KEY</</pre>	JSON Request <pre>{ "description": null, "exportReleaseLevel": "7.3.0.0", "exportTable": "ops_credentials", "name": "AWS_Secrets_Manager", "opswiseGroups": [], "provider": "AWS Secrets Manager", "providerParameters": [{ "name": "ACCESS_KEY_ID", "value": "*****" }, { "name": "SECRET_ACCESS_KEY", "value": "*****" }, { "name": "REGION", "value": "us-east-1" }, { "name": "SECRET_ID", "value": "arn:aws:secretsmanager:us- east-1:792840030488:secret:uc-e6wnD3" }, { "name": "SECRET_PASSWORD_KEY", "value": "password" }, { "name": "SECRET_PASSPHRASE_KEY", "value": "" }] }</pre>

XML Request	JSON Request
<pre> name> <value></value> </providerParameter> <providerParameter> <name>SECRET_TOKEN_KEY</name> <value></value> </providerParameter> </providerParameters> <runtimeKeyLocation /> <runtimeUser>secret</runtimeUser> <sysId>f71d4960469840c2ac3734962405bedd</sysId> <type>Standard</type> </credential> </pre>	<pre> }, { "name": "SECRET_TOKEN_KEY", "value": "" }], "retainSysIds": true, "runtimeKeyLocation": null, "runtimeUser": "secret", "sysId": "f71d4960469840c2ac3734962405bedd", "type": "Standard", "version": 28 } </pre>

4.17.6 Read a Credential

URI	http://host_name/uc/resources/credential
HTTP Method	GET
Description	Retrieves information on a specific Credential.
URI Parameters	See Read a Credential URI Parameters , below.
Example URI	• http://localhost:8080/uc/resources/credential?credentialname=test • http://localhost:8080/uc/resources/credential?credentialid=f87848b00a0001037f43e7c81c8ec969
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See Read a Credential Example Response , below.
Properties	See Credential Properties.

4.17.6.1 Read a Credential: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
credentialid	ID used within the Controller to identify this Credential.	String; URI parameter.	Y (unless credentialname is specified)	credentialname
credentialname	Name used within the Controller to identify this Credential.	String; URI parameter.	Y (unless credentialid is specified)	credentialid

4.17.6.2 Read a Credential: Example Response

XML Response	JSON Response
XML Response <pre><?xml version="1.0" encoding="UTF-8" standalone="yes"?> <credential exportReleaseLevel="7.3.0.0" exportTable="ops_credentials" retainSysIds="true" version="28"> <description /> <name>AWS_Secrets_Manager</name> <opswiseGroups/> <provider>AWS Secrets Manager</provider> <providerParameters> <providerParameter> <name>ACCESS_KEY_ID</name> </providerParameter> <providerParameter> <name>SECRET_ACCESS_KEY</name> </providerParameter> <providerParameter> <name>REGION</name> <value>us-east-1</value> </providerParameter> <providerParameter> <name>SECRET_ID</name></pre>	JSON Response <pre>{ "description": null, "exportReleaseLevel": "7.3.0.0", "exportTable": "ops_credentials", "name": "AWS_Secrets_Manager", "opswiseGroups": [], "provider": "AWS Secrets Manager", "providerParameters": [{ "name": "ACCESS_KEY_ID", "value": null }, { "name": "SECRET_ACCESS_KEY", "value": null }, { "name": "REGION", "value": "us-east-1" }, { "name": "SECRET_ID", "value":</pre>

XML Response	JSON Response
<pre><value>arn:aws:secretsmanager:us-east-1:792840030488:secret:uc-e6wnD3</value> </providerParameter> <providerParameter> <name>SECRET_PASSWORD_KEY</name> <value>password</value> </providerParameter> <providerParameter> <name>SECRET_PASSPHRASE_KEY</name> <value></value> </providerParameter> <providerParameter> <name>SECRET_TOKEN_KEY</name> <value></value> </providerParameter> </providerParameters> <runtimeKeyLocation /> <runtimeUser>secret</runtimeUser> <sysId>f71d4960469840c2ac3734962405bedd</sysId> <type>Standard</type> </credential></pre>	<pre>"arn:aws:secretsmanager:us-east-1:792840030488:secret:uc-e6wnD3" }, { "name": "SECRET_PASSWORD_KEY", "value": "password" }, { "name": "SECRET_PASSPHRASE_KEY", "value": "" }, { "name": "SECRET_TOKEN_KEY", "value": "" }], "retainSysIds": true, "runtimeKeyLocation": null, "runtimeUser": "secret", "sysId": "f71d4960469840c2ac3734962405bedd", "type": "Standard", "version": 28 }</pre>

4.17.7 Test Provider

	Description
URI	http://host_name/uc/resources/credential/testprovider
HTTP Method	POST
Description	Run the Test Provider command for the specified credentials.
Example URI	http://localhost:8080/uc/resources/credential/testprovider?credentialname=My_AWS_Secret

	Description
Authentication	HTTP Basic
Produces Content-Type	application/xml, application/json
Consumes Content-Type	N/A
Example Responses	• Status 200 • Successfully created the credentialname with id {uuid}. • Status 400 • Error message. • Status 403 • Operation prohibited due to security constraints. • Status 404 • A credential with name "{name}" does not exist. • A credential with id "{uuid}" does not exist. • Status 500 • Unexpected request failure. See log(s) for more details.

4.17.7.1 Test Provider: Query Parameters

The following request parameters will be needed for the service.

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
credentialname	N/A	Name used within the Controller to identify the Credentials.	String; URI parameter	Y (unless <i>credentialid</i> is specified)	credentialid
credentialid	N/A	ID used within the Controller to identify the Credentials.	String; URI parameter	Y (unless <i>credentialname</i> is specified)	credentialname

4.17.7.2 Test Provider: Example Response

XML Response	JSON Response
XML Response <pre><?xml version="1.0" encoding="UTF-8" standalone="yes"?> <command-response> <type>credential_provider_test</type> <success>true</success> <info>Credential provider test completed successfully for "My_AWS_Secret".</info> <errors></errors> </command-response></pre> XML Response <pre><?xml version="1.0" encoding="UTF-8" standalone="yes"?> <command-response> <type>credential_provider_test</type> <success>false</success> <info></info> <errors>The security token included in the request is invalid.</errors> </command-response></pre>	JSON Response <pre>{ "type": "credential_provider_test", "success": true, "info": "Credential provider test completed successfully for \"My_AWS_Secret\".", "errors": "" }</pre> JSON Response <pre>{ "type": "credential_provider_test", "success": false, "info": "", "errors": "The security token included in the request is invalid." }</pre>

4.18 Custom Day Web Services

- [Overview](#)
- [Create a Custom Day](#)
 - [Create a Custom Day: Example Request](#)
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- [Delete a Custom Day: URI Parameters](#)
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4.18.1 Overview

Universal Controller supports the following RESTful-based web services for Custom Day operations, which are listed alphabetically on this page.

- [Create a Custom Day](#)
- [Delete a Custom Day](#)
- [List Custom Day Qualifying Dates](#)
- [List Custom Day Qualifying Periods](#)
- [List Custom Days](#)
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Formatting specifications for each web service, including details about parameter requirements, are provided.

For Local Custom Day operations, see [Calendar Web Services](#).

Note

You can create and modify a Custom Day only if the [Custom Day Global Permitted](#) Universal Controller system property is set to **true**.

4.18.2 Create a Custom Day

	Description
URI	http://host_name/uc/resources/customday

	Description
HTTP Method	POST
Description	Creates a new Custom Day .
Example URI	http://localhost:8080/uc/resources/customday
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Create a Custom Day: Example Request , below.
Custom Day Properties	See Custom Day Properties , below.
Example Response	- Status 200 /OK - Successfully created the custom day with sysId <sysId>.

4.18.2.1 Create a Custom Day: Example Request

XML Request	JSON Request
XML Request <pre> <customDay retainSysIds="true"> <adjustment>None</adjustment> <adjustmentAmount>1</ adjustmentAmount> <adjustmentType>Day</ adjustmentType> <category>Day</category> <comments /> <ctype>Relative Repeating Date</ctype> <date /> <dateList /> <day>1</day> <dayofweek>Sun</dayofweek> <holiday>>false</holiday> <month>Sep</month> <name>special day</name> <nthAmount>8</nthAmount> <nthType>Business Day</nthType> <observedRules /> <period>>false</period> <relfreq>Nth</relfreq> <sysId>dae77560c0a80165006d805 1753b806c</sysId> </customDay> </pre>	JSON Request <pre> { "adjustment": "None", "adjustmentAmount": 1, "adjustmentType": "Day", "category": "Day", "comments": null, "ctype": "Relative Repeating Date", "date": null, "dateList": [], "day": 1, "dayofweek": "Sun", "holiday": false, "month": "Sep", "name": "special day", "nthAmount": 8, "nthType": "Business Day", "observedRules": [], "period": false, "relfreq": "Nth", "retainSysIds": true, "sysId": "dae77560c0a80165006d8051753b806c" } </pre>

4.18.2.2 Custom Day: Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>adjustment</code>	Adjustment	If <code>ctype</code> is Relative Repeating Date (1); Adjustment for the repeating date.	Valid values: - As String = None, As Value = 0 - As String = Less, As Value = 1 - As String = Plus, As Value = 2 Default is None (0).	N	
<code>adjustmentAmount</code>	Adjustment Amount	If <code>adjustment</code> is Less (1) or Plus (2); Amount (number of days) of the adjustment to be made.	Default is 1.	N	
<code>adjustmentType</code>	Adjustment Type	If <code>adjustment</code> is Less (1) or Plus (2); Type of day on which to make the adjustment.	Valid values: - As String = Day, As Value = 1 - As String = Business Day, As Value = 2 Default is Day (1).	N	
<code>category</code>	Category	Category of this Local Custom Day.	Valid values: - As String = Day, As Value = 1 - As String = Business Day, As Value = 2 - As String = Holiday, As Value = 3 - As String = Period, As Value = 4 Default is Day (1).	N	
<code>comments</code>	Description	Description of this Custom Day.		N	
<code>ctype</code>	Type	Type of this Custom Day.	Valid values: - As String = Single Date, As Value = 0 - As String = Relative Repeating Date, As Value = 1 - As String = Absolute Repeating Date, As Value = 2 - As String = List of Dates, As Value = 3 Default is Single Date (0).	N	
<code>date</code>	Date	Specific date for this Custom Day	Format: yyyy-mm-dd.	Y (if <code>ctype</code> = Single Date.)	<code>datelist</code>

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
dateList	Dates	Multiple specific dates for this Custom Day. XML <pre><dateList> <date>2017-12-13</date> <date>2017-12-14</date> </dateList></pre> JSON <pre>"dateList": ["2017-12-13", "2017-12-14"],</pre>		Y (if ctype is List of Dates.)	date
day	Day	Day of the month.	Integer; Valid values: 1-31.	Y (if ctype is Absolute Repeating Date)	
dayofweek	Day Of Week	Day of the week.	Valid values: - As String = Sun, As Value = 1 - As String = Mon, As Value = 2 - As String = Tue, As Value = 3 - As String = Wed, As Value = 4 - As String = Thu, As Value = 5 - As String = Fri, As Value = 6 - As String = Sat, As Value = 7 Default is Mon (2).	Y (if ctype is Relative Repeating Date) N (if relfreq is Nth)	
exportReleaseLevel	n/a	Universal Controller release that the record was exported from.	read only	N	
exportTable	n/a	Record table information.	read only	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
holiday	(none)	Deprecated. Indication of whether or not this Custom Day is a holiday.	Boolean; Valid values: true/false; Default is false.	N	
month	Month	Month of the year.	Valid values: • As String = Jan, As Value = 0 • As String = Feb, As Value = 1 • As String = Mar, As Value = 2 • As String = Apr, As Value = 3 • As String = May, As Value = 4 • As String = Jun, As Value = 5 • As String = Jul, As Value = 6 • As String = Aug, As Value = 7 • As String = Sep, As Value = 8 • As String = Oct, As Value = 9 • As String = Nov, As Value = 10 • As String = Dec, As Value = 11 • As String = ALL, As Value = 12 Default is Jan (0).	Y (if ctype is Relative Repeating Date or Absolute Repeating Date)	
name	Name	Name of this Custom Day.		Y	
nthAmount	Nth Amount	If relfreq is Nth; Value of N.		Y	
nthType	Nth Type	If relfreq is Nth; Type of Nth day.	Valid values: • As String = Day, As Value = 1 • As String = Business Day, As Value = 2 Default is Day (1).	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
observedRules	Observed Rules	If <code>category</code> is Holiday (3) and <code>ctype</code> is Relative Repeating Date (1) or Absolute Repeating Date (2); Rules for when the holiday will be observed. XML <pre> <observedRules> <observedRule> <actualDayOfWeek>Sat</actualDayOfWeek> <observedDayOfWeek>Fri</observedDayOfWeek> </observedRule> <observedRule> <actualDayOfWeek>Sun</actualDayOfWeek> <observedDayOfWeek>Mon</observedDayOfWeek> </observedRule> </observedRules> </pre> JSON	Valid day of week values: Sun, Mon, Tue, Wed, Thu, Fri, Sat	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
		<pre> "observedRules" : [{ "actualDayOfWeek" : "Sat", "observedDayOfWeek" : "Fri" }, { "actualDayOfWeek" : "Sun", "observedDayOfWeek" : "Mon" }] </pre>			
period	(none)	Deprecated. Indication of whether or not this Custom Day defines a custom period of days.	Boolean; Valid values: true/false; Default is false.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
relfreq	When	Occurrence of this day in the month.	Valid values: • As String = 1st, As Value = 1 • As String = 2nd, As Value = 2 • As String = 3rd, As Value = 3 • As String = 4th, As Value = 4 • As String = Last, As Value = 5 • As String = Every, As Value = 6 • As String = Nth, As Value = 7 • As String = Last Day, As Value = 8 • As String = Last Business Day, As Value = 9 Default is 1st (1).	Y (if ctype is Relative Repeating Date)	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>retainSysIds</code>	n/a	Specification for whether or not the Create a Custom Day web service will persist the <code>sysId</code> property. - If <code>retainSysIds</code>="true" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database. - If <code>retainSysIds</code>="false" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller. Note In XML web services, <code>retainSysIds</code> is specified as an attribute in the <code><customDay></code> element.	Valid values: true/false (default is true).	N	
<code>sysId</code>	n/a	System ID in the database for this Custom Day.	Persisted only if <code>retainSysIds</code> is set to true.	Y (if <code>retainSysIds</code> is true.)	

4.18.3 Delete a Custom Day

	Description
URI	http://host_name/uc/resources/customday
HTTP Method	DELETE
Description	Deletes a specific Custom Day .
URI Parameters	See Delete a Custom Day: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/customday?customdayname=testCustomDay http://localhost:8080/uc/resources/customday?customdayid=f87848b00a0001037f43e7c81c8ec969
Authentication	HTTP Basic
Example Response	- Status 200 /OK Custom day deleted successfully. - Status 404 /Not Found A custom day with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

4.18.3.1 Delete a Custom Day: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
customdayid	Unique ID for this Custom Day.		Y (unless customdayname is specified)	customdayname
customdayname	Name used within the Controller to identify this Custom Day.	Maximum 40 alphanumerics.	Y (unless customdayid is specified)	customdayid

4.18.4 List Custom Day Qualifying Dates

	Description
URI	http://host_name/uc/resources/customday/qualifyingdates
HTTP Method	GET
Description	Retrieves information on Qualifying Dates for a specific Custom Day .
URI Parameters	See List Custom Day Qualifying Dates URI Parameters: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/customday/qualifyingdates?customdayname=testCustomDay http://localhost:8080/uc/resources/customday/qualifyingdates?customdayname=testCustomDay&calendarname=testCalendar
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See List Custom Day Qualifying Dates: Example Response , below.

4.18.4.1 List Custom Day Qualifying Dates: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
customdayid	Unique ID for this Custom Day.		Y (unless customdayname is specified)	customdayname
customdayname	Name used within the Controller to identify this Custom Day.	Maximum 40 alphanumerics.	Y (unless customdayid is specified)	customdayid

Name	Description	Specifications	Required	Mutually Exclusive With
calendarid	Unique ID for this Calendar.		Y; If Custom Day adjustmentType is Business Day or When is Last Business Day. (unless calendarname is specified)	calendarname
calendarname	Name used within the Controller to identify a Calendar.	Maximum 40 alphanumerics.	Y; If Custom Day adjustmentType is Business Day or When is Last Business Day. (unless calendarid is specified)	calendarid

4.18.4.2 List Custom Day Qualifying Dates: Example Response

XML Response	JSON Response
XML Response <pre> <qualifyingDates> <qualifyingDate>Mon, Jan 1, 2018</ qualifyingDate> <qualifyingDate>Tue, Jan 1, 2019</ qualifyingDate> <qualifyingDate>Wed, Jan 1, 2020</ qualifyingDate> <qualifyingDate>Fri, Jan 1, 2021</ qualifyingDate> <qualifyingDate>Sat, Jan 1, 2022</ qualifyingDate> <qualifyingDate>Sun, Jan 1, 2023</ qualifyingDate> <qualifyingDate>Mon, Jan 1, 2024</ qualifyingDate> <qualifyingDate>Wed, Jan 1, 2025</ qualifyingDate> <qualifyingDate>Thu, Jan 1, 2026</ qualifyingDate> <qualifyingDate>Fri, Jan 1, 2027</ qualifyingDate> <qualifyingDate>Sat, Jan 1, 2028</ qualifyingDate> <qualifyingDate>Mon, Jan 1, 2029</ qualifyingDate> <qualifyingDate>Tue, Jan 1, 2030</ qualifyingDate> <qualifyingDate>Wed, Jan 1, 2031</ qualifyingDate> <qualifyingDate>Thu, Jan 1, 2032</ qualifyingDate> <qualifyingDate>Sat, Jan 1, 2033</ qualifyingDate> <qualifyingDate>Sun, Jan 1, 2034</ qualifyingDate> <qualifyingDate>Mon, Jan 1, 2035</ qualifyingDate> <qualifyingDate>Tue, Jan 1, 2036</ qualifyingDate> <qualifyingDate>Thu, Jan 1, 2037</ qualifyingDate> <qualifyingDate>Fri, Jan 1, 2038</ qualifyingDate> <qualifyingDate>Sat, Jan 1, 2039</ qualifyingDate> <qualifyingDate>Sun, Jan 1, 2040</ qualifyingDate> <qualifyingDate>Tue, Jan 1, 2041</ qualifyingDate> </pre>	JSON Response <pre> ["Mon, Jan 1, 2018", "Tue, Jan 1, 2019", "Wed, Jan 1, 2020", "Fri, Jan 1, 2021", "Sat, Jan 1, 2022", "Sun, Jan 1, 2023", "Mon, Jan 1, 2024", "Wed, Jan 1, 2025", "Thu, Jan 1, 2026", "Fri, Jan 1, 2027", "Sat, Jan 1, 2028", "Mon, Jan 1, 2029", "Tue, Jan 1, 2030", "Wed, Jan 1, 2031", "Thu, Jan 1, 2032", "Sat, Jan 1, 2033", "Sun, Jan 1, 2034", "Mon, Jan 1, 2035", "Tue, Jan 1, 2036", "Thu, Jan 1, 2037", "Fri, Jan 1, 2038", "Sat, Jan 1, 2039", "Sun, Jan 1, 2040", "Tue, Jan 1, 2041", "Wed, Jan 1, 2042", "Thu, Jan 1, 2043", "Fri, Jan 1, 2044", "Sun, Jan 1, 2045", "Mon, Jan 1, 2046", "Tue, Jan 1, 2047"] </pre>

XML Response	JSON Response
<pre> <qualifyingDate>Wed, Jan 1, 2042</ qualifyingDate> <qualifyingDate>Thu, Jan 1, 2043</ qualifyingDate> <qualifyingDate>Fri, Jan 1, 2044</ qualifyingDate> <qualifyingDate>Sun, Jan 1, 2045</ qualifyingDate> <qualifyingDate>Mon, Jan 1, 2046</ qualifyingDate> <qualifyingDate>Tue, Jan 1, 2047</ qualifyingDate> </qualifyingDates> </pre>	

4.18.5 List Custom Day Qualifying Periods

	Description
URI	http://host_name/uc/resources/customday/qualifyingperiods
HTTP Method	GET
Description	Retrieves information on Qualifying Periods for a specific Custom Day .
URI Parameters	See List Custom Day Qualifying Periods URI Parameters: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/customday/qualifyingperiods?customdayname=testCustomDay http://localhost:8080/uc/resources/customday/qualifyingperiods?customdayname=testCustomDay&calendarname=testCalendar
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See List Custom Day Qualifying Periods: Example Response , below.

4.18.5.1 List Custom Day Qualifying Periods: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
customdayid	Unique ID for this Custom Day.		Y (unless customdayname is specified)	customdayname

Name	Description	Specifications	Required	Mutually Exclusive With
customdayname	Name used within the Controller to identify this Custom Day.	Maximum 40 alphanumerics.	Y (unless customdayid is specified)	customdayid
calendarid	Unique ID for this Calendar.		Y If Custom Day When is Last Business Day. (unless calendarname is specified)	calendarname
calendarname	Name used within the Controller to identify a Calendar.	Maximum 40 alphanumerics.	Y If Custom Day When is Last Business Day. (unless calendarid is specified)	calendarid

4.18.5.2 List Custom Day Qualifying Periods: Example Response

XML Response	JSON Response
XML Response <pre> <qualifyingPeriods> <qualifyingPeriod> <startDate>Sun, Jan 1, 2017</ startDate> <endDate>Sat, Jan 6, 2018</endDate> </qualifyingPeriod> <qualifyingPeriod> <startDate>Sun, Jan 7, 2018</ startDate> <endDate>Sat, Jan 5, 2019</endDate> </qualifyingPeriod> <qualifyingPeriod> <startDate>Sun, Jan 6, 2019</ startDate> <endDate>Sat, Jan 4, 2020</endDate> </qualifyingPeriod> <qualifyingPeriod> <startDate>Sun, Jan 5, 2020</ startDate> <endDate>Sat, Jan 2, 2021</endDate> </qualifyingPeriod> <qualifyingPeriod> <startDate>Sun, Jan 3, 2021</ startDate> <endDate>Sat, Jan 1, 2022</endDate> </qualifyingPeriod> <qualifyingPeriod> <startDate>Sun, Jan 2, 2022</ startDate> <endDate>Sat, Dec 31, 2022</endDate> </qualifyingPeriod> </qualifyingPeriods> </pre>	JSON Response <pre> [{ "startDate": "Sun, Jan 1, 2017", "endDate": "Sat, Jan 6, 2018" }, { "startDate": "Sun, Jan 7, 2018", "endDate": "Sat, Jan 5, 2019" }, { "startDate": "Sun, Jan 6, 2019", "endDate": "Sat, Jan 4, 2020" }, { "startDate": "Sun, Jan 5, 2020", "endDate": "Sat, Jan 2, 2021" }, { "startDate": "Sun, Jan 3, 2021", "endDate": "Sat, Jan 1, 2022" }, { "startDate": "Sun, Jan 2, 2022", "endDate": "Sat, Dec 31, 2022" }] </pre>

4.18.6 List Custom Days

	Description
URI	http://host_name/uc/resources/customday/list
HTTP Method	GET
Description	Retrieves information on all Custom Days .
Example URI	http://localhost:8080/uc/resources/customday/list

	Description
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See List Custom Days: Example Response, below.
Custom Day Properties	See Custom Day Properties .

4.18.6.1 List Custom Days: Example Response

XML Response	JSON Response
XML Response	JSON Response

XML Response	JSON Response
<pre> <customDays> <customDay exportReleaseLevel="7.2 .0.0" exportTable="ops_custom_day" version="1"> <adjustment>None</adjustment> <adjustmentAmount>1</ adjustmentAmount> <adjustmentType>Day</ adjustmentType> <category>Day</category> <comments /> <ctype>Relative Repeating Date</ctype> <date /> <dateList /> <day>1</day> <dayofweek>Sun</dayofweek> <holiday>>false</holiday> <month>Sep</month> <name>special day</name> <nthAmount>8</nthAmount> <nthType>Business Day</ nthType> <period>>false</period> <relfreq>Nth</relfreq> <sysId>dae77560c0a80165006d8 051753b806c</sysId> </customDay> <customDay exportReleaseLevel="7.2 .0.0" exportTable="ops_custom_day" version="1"> <adjustment>None</adjustment> <adjustmentAmount>1</ adjustmentAmount> <adjustmentType>Day</ adjustmentType> <category>Day</category> <comments /> <ctype>Relative Repeating Date</ctype> <date /> <dateList /> <day>1</day> <dayofweek>Sun</dayofweek> <holiday>>false</holiday> <month>Sep</month> <name>special day</name> <nthAmount>9</nthAmount> <nthType>Business Day</ nthType> <period>>false</period> <relfreq>Nth</relfreq> <sysId>dae77560c0a80165006d8 051753b806c</sysId> </customDay> </customDays> </pre>	<pre> [{ "adjustment": "None", "adjustmentAmount": 1, "adjustmentType": "Day", "category": "Day", "comments": null, "ctype": "Relative Repeating Date", "date": null, "dateList": [], "day": 1, "dayofweek": "Sun", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_custom_day", "holiday": false, "month": "Sep", "name": "special day", "nthAmount": 8, "nthType": "Business Day", "period": false, "relfreq": "Nth", "retainSysIds": true, "sysId": "dae77560c0a80165006d8051753b806c" "version": 1 }, { "adjustment": "None", "adjustmentAmount": 1, "adjustmentType": "Day", "category": "Day", "comments": null, "ctype": "Relative Repeating Date", "date": null, "dateList": [], "day": 1, "dayofweek": "Sun", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_custom_day", "holiday": false, "month": "Sep", "name": "special day", "nthAmount": 9, "nthType": "Business Day", "period": false, "relfreq": "Nth", "retainSysIds": true, "sysId": "abc77560c0a80165006d8051753b806c" "version": 1 }] </pre>

4.18.7 Modify a Custom Day

	Description
URI	http://host_name/uc/resources/customday
HTTP Method	PUT
Description	Modifies the Custom Day specified by the <code>sysId</code> .
Example URI	http://localhost:8080/uc/resources/customday
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Modify a Custom Day: Example Request , below.
Custom Day Properties	See Custom Day Properties .
Example Response	Status 200 /OK Successfully updated the custom day with sysId <sysId> to version <version>.

4.18.7.1 Modify a Custom Day: Example Request

XML Request	JSON Request
XML Request <pre> <customDay> <adjustment>None</adjustment> <adjustmentAmount>1</ adjustmentAmount> <adjustmentType>Day</ adjustmentType> <category>Day</category> <comments /> <ctype>Relative Repeating Date</ctype> <date /> <dateList /> <day>1</day> <dayofweek>Sun</dayofweek> <holiday>>false</holiday> <month>Sep</month> <name>special day</name> <nthAmount>8</nthAmount> <nthType>Business Day</nthType> <period>>false</period> <relfreq>Nth</relfreq> <sysId>dae77560c0a80165006d805 1753b806c</sysId> </customDay> </pre>	JSON Request <pre> { "adjustment": "None", "adjustmentAmount": 1, "adjustmentType": "Day", "category": "Day", "comments": null, "ctype": "Relative Repeating Date", "date": null, "dateList": [], "day": 1, "dayofweek": "Sun", "holiday": false, "month": "Sep", "name": "special day", "nthAmount": 8, "nthType": "Business Day", "period": false, "relfreq": "Nth", "sysId": "dae77560c0a80165006d8051753b806c" } </pre>

4.18.8 Read a Custom Day

	Description
URI	http://host_name/uc/resources/customday
HTTP Method	GET
Description	Retrieves information on a specific Custom Day .
URI Parameters	See Read a Custom Day: URI Parameters , below.
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example URI	http://localhost:8080/uc/resources/customday?customdayname=testCustomDay http://localhost:8080/uc/resources/customday?customdayid=f87848b00a0001037f43e7c81c8ec969

	Description
Example Response	- Status 200 /OK (See Read a Custom Day: Example Response, below.) - Status 404 /Not Found A custom day with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
Custom Day Properties	See Custom Day Properties .

4.18.8.1 Read a Custom Day: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
customdayid	Unique ID for this Custom Day.		Y (unless customdayname is specified)	customdayname
customdayname	Name used within the Controller to identify this Custom Day.	Maximum 40 alphanumerics.	Y (unless customdayid is specified)	customdayid

4.18.8.2 Read a Custom Day: Example Response

XML Response	JSON Response
XML Response <pre><customDay exportReleaseLevel="7.2.0.0" exportTable="ops_custom_day" retainSysIds="true" version="1"> <adjustment>None</adjustment> <adjustmentAmount>1</ adjustmentAmount> <adjustmentType>Day</ adjustmentType> <category>Day</category> <comments /> <ctype>Relative Repeating Date< /ctype> <date /> <dateList /> <day>1</day> <dayofweek>Sun</dayofweek> <holiday>>false</holiday> <month>Sep</month> <name>special day</name> <nthAmount>8</nthAmount> <nthType>Business Day</nthType> <period>>false</period> <relfreq>Nth</relfreq> <sysId>dae77560c0a80165006d8051 753b806c</sysId> </customDay></pre>	JSON Response <pre>{ "adjustment": "None", "adjustmentAmount": 1, "adjustmentType": "Day", "category": "Day", "comments": null, "ctype": "Relative Repeating Date", "date": null, "dateList": [], "day": 1, "dayofweek": "Sun", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_custom_day", "holiday": false, "month": "Sep", "name": "special day", "nthAmount": 8, "nthType": "Business Day", "period": false, "relfreq": "Nth", "retainSysIds": true, "sysId": "dae77560c0a80165006d8051753b806c" "version": 1 }</pre>

4.19 Group Web Services

• Overview • Create a Group • Create and Modify a Group: XML and JSON Examples • Delete a Group • Delete a Group: URI Parameters • List Groups • List Groups XML and JSON Examples • Modify a Group • Read a Group • Read a Group: URI Parameters • Read a Group XML and JSON Examples

- [Properties](#)
 - [Group Properties](#)
 - [Group Member Properties](#)
 - [Group Permission Properties](#)
 - [Group Role Properties](#)

4.19.1 Overview

Universal Controller supports the following RESTful-based web services for User and Group operations, which are listed alphabetically on this page.

- [Create a Group](#)
- [Delete a Group](#)
- [List Groups](#)
- [Modify a Group](#)
- [Read a Group](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

4.19.2 Create a Group

	Description
URI	http://host_name/uc/resources/usergroup
HTTP Method	POST
Description	Creates a new User Group .
Example URI	http://localhost:8080/uc/resources/usergroup
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See Create and Modify a Group: XML and JSON Examples , below.
Group Properties	See Group Properties , below.
Group Member Properties	See Group Member Properties , below.
Group Permission Properties	See Group Permission Properties , below.
Group Role Properties	See Group Role Properties , below.
Example Response	• Status 200 /OK Successfully created the group with sysId {sysId}.

4.19.3 Create and Modify a Group: XML and JSON Examples

The [excludeRelated](#) and [retainSysIds](#) properties are specified as attributes in the <userGroup> element of XML web services.

XML	JSON
XML <pre> <userGroup retainSysIds="true"> <ctrlNavigationVisibility>false</ctrlNavigationVisibility> <description /> <email /> <groupMembers> <groupMember> <sysId>386bf68d82a74a9e94eab18c1b1844c2</sysId> <user name="stone b branch">stonebranch-user-02</user> </groupMember> <groupMember> <sysId>792aa1dc1a1b4decb0b02d82ed7e9422</sysId> <user name="stone c branch">stonebranch-user-03</user> </groupMember> <groupMember> <sysId>b78079e1166d4c5180d7e42443de44a0</sysId> <user name="stone a branch">stonebranch-user-01</user> </groupMember> </groupMembers> <groupRoles> <groupRole> <role description="The administrator role.">ops_admin</role> <sysId>b80e78a42589435f92f3e176af6dc542</sysId> </groupRole> </groupRoles> <manager /> <name>stonebranch-group-01</name> <navigationVisibility/> <parent /> <permissions> <permission> <allGroups>true</allGroups> <commands /> <defaultGroup>true</defaultGroup> </permission> </permissions> <nameWildcard>*</nameWildcard> <notGroups>false</notGroups> <opCreate>false</opCreate> </pre>	JSON <pre> { "ctrlNavigationVisibility" : false, "description" : null, "email" : null, "groupMembers" : [{ "sysId" : "386bf68d82a74a9e94eab18c1b1844c2", "user" : { "name" : "stone b branch", "value" : "stonebranch-user-02" } }, { "sysId" : "792aa1dc1a1b4decb0b02d82ed7e9422", "user" : { "name" : "stone c branch", "value" : "stonebranch-user-03" } }, { "sysId" : "b78079e1166d4c5180d7e42443de44a0", "user" : { "name" : "stone a branch", "value" : "stonebranch-user-01" } }], "groupRoles" : [{ "role" : { "description" : "The administrator role.", "value" : "ops_admin" }, "sysId" : "b80e78a42589435f92f3e176af6dc542" }], "manager" : null, "name" : "stonebranch-group-01", "navigationVisibility" : [], "parent" : null, "permissions" : [{ "allGroups" : true, "commands" : null, "defaultGroup" : true, "nameWildcard" : "*", "notGroups" : false, "opCreate" : false, "opDelete" : false, "opExecute" : false, "opRead" : true, "opUpdate" : false, </pre>

XML	JSON
<pre> <opDelete>false</opDelete> <opExecute>false</opExecute> <opRead>true</opRead> <opUpdate>false</opUpdate> <opswiseGroups/> <permissionType>Task Instance</ permissionType> <sysId>59e5565c9f6a45ed8633d05a91ac1019</ sysId> </permission> </permissions> <sysId>b39b2b8eac644e068a68f92f325b0c74</ sysId> </userGroup> </pre>	<pre> "opswiseGroups" : [], "permissionType" : "Task Instance", "sysId" : "59e5565c9f6a45ed8633d05a91ac1019" }], "retainSysIds" : true, "sysId" : "b39b2b8eac644e068a68f92f325b0c74" } </pre>

4.19.4 Delete a Group

	Description
URI	http://host_name/uc/resources/usergroup
HTTP Method	DELETE
Description	Deletes a Group .
URI Parameters	See Group Delete a Group URI Parameters , below.
Example URI	http://localhost:9080/uc/resources/usergroup?groupname=Test_Group http://localhost:9080/uc/resources/usergroup?groupid=f93b9403aec546bcbef1c2c06cf26e3c
Example Response	- Status 200 /OK User group {groupname} deleted successfully. - Status 400 /Bad Request Mutual exclusion violation. Cannot specify groupid and groupname at the same time. - Status 404 /Not Found User group with {groupname/groupid} does not exist.

4.19.4.1 Delete a Group: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
groupid	ID used within the Controller to identify this group.	String; URI parameter.	Y (unless groupname is specified)	groupname
groupname	Name used within the Controller to identify this group.	String; URI parameter.	Y (unless groupid is specified)	groupid

4.19.5 List Groups

	Description
URI	http://host_name/uc/resources/usergroup/list
HTTP Method	GET
Description	Retrieves information on all Groups .
Example URI	http://localhost:8080/uc/resources/usergroup/list
Authentication	HTTP Basic
Produces Content-Type	application/xml, application/json
Example	See Read a Group: XML and JSON Examples .
Group Properties	See Group Properties .
Group Member Properties	See Group Member Properties .
Group Permission Properties	See Group Permission Properties .
Group Role Properties	See Group Role Properties .

4.19.5.1 List Groups XML and JSON Examples

XML	JSON
XML <pre> <userGroups> <userGroup> <ctrlNavigationVisibility>false</ctrlNavigationVisibility> <description/> <email/> <groupMembers> <groupMember> <sysId>386bf68d82a74a9e94eab18c1b1844c2</sysId> <user name="stone b branch">stonebranch-user-02</user> </groupMember> </groupMembers> <sysId>792aa1dc1a1b4decb0b02d82ed7e9422</sysId> <user name="stone c branch">stonebranch-user-03</user> </groupMember> </groupMembers> <sysId>b78079e1166d4c5180d7e42443de44a0</sysId> <user name="stone a branch">stonebranch-user-01</user> </groupMember> </groupMembers> <groupRoles> <groupRole> <role description="The administrator role.">ops_admin</role> <sysId>b80e78a42589435f92f3e176af6dc542</sysId> </groupRole> </groupRoles> <manager /> <name>stonebranch-group-01</name> <navigationVisibility/> <parent /> <permissions> <permission> </pre>	JSON <pre> [{ "ctrlNavigationVisibility" : false, "description" : null, "email" : null, "groupMembers" : [{ "sysId" : "386bf68d82a74a9e94eab18c1b1844c2", "user" : { "name" : "stone b branch", "value" : "stonebranch-user-02" } }, { "sysId" : "792aa1dc1a1b4decb0b02d82ed7e9422", "user" : { "name" : "stone c branch", "value" : "stonebranch-user-03" } }, { "sysId" : "b78079e1166d4c5180d7e42443de44a0", "user" : { "name" : "stone a branch", "value" : "stonebranch-user-01" } }], "groupRoles" : [{ "role" : { "description" : "The administrator role.", "value" : "ops_admin" }, "sysId" : "b80e78a42589435f92f3e176af6dc542" }], "manager" : null, "name" : "stonebranch-group-01", "navigationVisibility" : [], "parent" : null, "permissions" : [{ "allGroups" : true, "commands" : null, "defaultGroup" : true, "nameWildcard" : "*", "notGroups" : false, "opCreate" : false, "opDelete" : false, "opExecute" : false, "opRead" : true, "opUpdate" : false, "opswiseGroups" : [], </pre>

XML	JSON
<pre> allGroups> <allGroups>true</ allGroups> <commands/> <defaultGroup>true</ defaultGroup> nameWildcard> <nameWildcard>*</ nameWildcard> notGroups> <notGroups>false</ notGroups> opCreate> <opCreate>false</ opCreate> opDelete> <opDelete>false</ opDelete> opExecute> <opExecute>false</ opExecute> <opRead>true</opRead> opUpdate> <opUpdate>false</ opUpdate> <opswiseGroups/> <permissionType>Task Instance</permissionType> <sysId>59e5565c9f6a45ed8633d05a91ac1019 </sysId> </permission> </permissions> <sysId>b39b2b8eac644e068a68f92f325b0c74 </sysId> </userGroup> </userGroups> </pre>	<pre> "permissionType" : "Task Instance", "sysId" : "59e5565c9f6a45ed8633d05a91ac1019" }], "sysId" : "b39b2b8eac644e068a68f92f325b0c74" }] </pre>

4.19.6 Modify a Group

	Description
URI	http://host_name/uc/resources/usergroup
HTTP Method	PUT
Description	Modifies the Group specified by the <code>sysId</code> in the request. To modify Group properties without modifying related records, see the excludeRelated property, below.
Example URI	http://localhost:8080/uc/resources/usergroup
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a

	Description
Example Request	See Create and Modify a Group: XML and JSON Examples .
Group Properties	See Group Properties .
Group Member Properties	See Group Member Properties .
Group Permission Properties	See Group Permission Properties .
Group Role Properties	See Group Role Properties .
Example Response	Status 200 /OK Successfully updated the user group with sysId <sysId>.

4.19.7 Read a Group

	Description
URI	http://host_name/uc/resources/usergroup
HTTP Method	GET
Description	Retrieves information on a specific Group .
URI Parameters	See Read a Group: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/usergroup?groupname=test.group http://localhost:8080/uc/resources/usergroup?groupid=c489750500d444eca9325559d0ef9673
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	- Status 200 /OK (See Read a Group: Example XML and JSON Examples, below.) - Status 404 /Not Found A user group with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
Response Group Member Properties	See Group Member Properties .
Response Group Permission Properties	See Group Permission Properties .
Response Group Role Properties	See Group Role Properties .

4.19.7.1 Read a Group: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
groupid	ID used within the Controller to identify this group.	String; URI parameter.	Y (unless <code>groupname</code> is specified)	<code>groupname</code>
groupname	Name used within the Controller to identify this group.	String; URI parameter.	Y (unless <code>groupid</code> is specified)	<code>groupid</code>

4.19.7.2 Read a Group XML and JSON Examples

The [retainSysIds](#) property is specified as an attribute in the <userGroup> element of the XML response.

XML	JSON
XML <pre> <userGroup retainSysIds="true"> <ctrlNavigationVisibility>false</ctrlNavigationVisibility> <description /> <email /> <groupMembers> <groupMember> <sysId>386bf68d82a74a9e94eab18c1b1844c2</sysId> <user name="stone b branch">stonebranch-user-02</user> </groupMember> <groupMember> <sysId>792aa1dc1a1b4decb0b02d82ed7e9422</sysId> <user name="stone c branch">stonebranch-user-03</user> </groupMember> <groupMember> <sysId>b78079e1166d4c5180d7e42443de44a0</sysId> <user name="stone a branch">stonebranch-user-01</user> </groupMember> </groupMembers> <groupRoles> <groupRole> <role description="The administrator role.">ops_admin</role> <sysId>b80e78a42589435f92f3e176af6dc542</sysId> </groupRole> </groupRoles> <manager /> <name>stonebranch-group-01</name> <navigationVisibility/> <parent /> <permissions> <permission> <allGroups>true</allGroups> <commands /> <defaultGroup>true</defaultGroup> </permission> </permissions> <nameWildcard>*</nameWildcard> <notGroups>false</notGroups> <opCreate>false</opCreate> </pre>	JSON <pre> { "ctrlNavigationVisibility" : false, "description" : null, "email" : null, "groupMembers" : [{ "sysId" : "386bf68d82a74a9e94eab18c1b1844c2", "user" : { "name" : "stone b branch", "value" : "stonebranch-user-02" } }, { "sysId" : "792aa1dc1a1b4decb0b02d82ed7e9422", "user" : { "name" : "stone c branch", "value" : "stonebranch-user-03" } }, { "sysId" : "b78079e1166d4c5180d7e42443de44a0", "user" : { "name" : "stone a branch", "value" : "stonebranch-user-01" } }], "groupRoles" : [{ "role" : { "description" : "The administrator role.", "value" : "ops_admin" }, "sysId" : "b80e78a42589435f92f3e176af6dc542" }], "manager" : null, "name" : "stonebranch-group-01", "navigationVisibility" : [], "parent" : null, "permissions" : [{ "allGroups" : true, "commands" : null, "defaultGroup" : true, "nameWildcard" : "*", "notGroups" : false, "opCreate" : false, "opDelete" : false, "opExecute" : false, "opRead" : true, "opUpdate" : false, </pre>

XML	JSON
<pre> <opDelete>false</opDelete> <opExecute>false</opExecute> <opRead>true</opRead> <opUpdate>false</opUpdate> <opswiseGroups/> <permissionType>Task Instance</ permissionType> <sysId>59e5565c9f6a45ed8633d05a91ac1019</ sysId> </permission> </permissions> <sysId>b39b2b8eac644e068a68f92f325b0c74</ sysId> </userGroup> </pre>	<pre> "opswiseGroups" : [], "permissionType" : "Task Instance", "sysId" : "59e5565c9f6a45ed8633d05a91ac1019" }], "retainSysIds" : true, "sysId" : "b39b2b8eac644e068a68f92f325b0c74" } </pre>

4.19.8 Properties

4.19.8.1 Group Properties

Property	UI Field Name	Description	Specifications	Required
<code>ctrlNavigationVisibility</code>	Control Navigation Visibility	Indication of whether or not to control the visibility of navigation pane entries in the Controller Navigator, via the <code>navigationVisibility</code> property, for members of this Group. If <code>ctrlNavigationVisibility</code> is false, all entries are visible.	Boolean. Valid values: true/false. Default is false.	N
<code>description</code>	Description	Description of the group.		N
<code>email</code>	Email	Email address of this group.		N
<code>excludeRelated</code>	n/a	For the Modify Group web service; specification for whether or not to exclude related records (Group Roles, Group Members, Group Permissions) from the update, even if they are provided in the request. Note In XML, <code>excludeRelated</code> is specified as an attribute in the <code><userGroup></code> element.	Valid values: true/false (default is false).	N

Property	UI Field Name	Description	Specifications	Required
groupMembers	n/a	Users in this group. Note Universal Controller only supports a user being a member of 1,000 groups or less.	Format: XML <pre><groupMembers> <groupMember> <user>userc</user> </groupMember> </groupMembers></pre> JSON <pre>"groupMembers": [{ "user": "userc" }]</pre>	N
groupRoles	n/a	Roles assigned to this group.	Format: XML <pre><groupRoles> <groupRole> <role>ops_report_admin</role> </groupRole> </groupRoles></pre> JSON <pre>"groupRoles": [{ "role": "ops_report_global" }]</pre>	N

Property	UI Field Name	Description	Specifications	Required
manager	Manager	ID of the Universal Controller user that is the manager of this group.		N
name	Name	Name of the group.		Y
navigationVisibility	Navigation Visibility	List of all Controller Navigator entries.	Format: XML <pre><navigationVisibility> <navigationNode>Reports</navigationNode> </navigationVisibility></pre> To include all values, set the <code>navigationNode</code> to All <pre><navigationVisibility> <navigationNode>All</navigationNode> </navigationVisibility></pre> JSON <pre>"navigationVisibility" : ["Reports", "Support Portal"]</pre> Valid values: (see <code>navigationNode</code> Valid Values, below)	N
parent	Parent	Name of this group's parent group, if any.		N

Property	UI Field Name	Description	Specifications	Required
permissions	n/a	Permissions assigned to this group.		N
retainSysIds	n/a	For Create and Read web services; specification for whether or not the web service should persist the <code>sysId</code> property. - If <code>retainSysIds</code> is true and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database. - If <code>retainSysIds</code> is false and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller. Note In XML, <code>retainSysIds</code> is specified as an attribute in the <code><userGroup></code> element.	Valid values: true/false (default is true).	N
sysId	n/a	System ID field in the database for this record.	Persisted only if retainSysIds is set to true.	N

4.19.8.1.1 navigationNode Valid Values

Values	Navigation Panel
All	All navigation panels

Values	Navigation Panel
• Activity • Task Instances • History • All Triggers • Active Triggers • Cron Triggers • Time Triggers • Manual Triggers • Temporary Triggers • File Monitor Triggers • Task Monitor Triggers • Variable Monitor Triggers • Email Monitor Triggers • Application Monitor Triggers • Composite Triggers • Forecasts • Forecast Calendar • All Tasks • Workflow Tasks • Linux/Unix Tasks • Windows Tasks • z/OS Tasks • Universal Command Tasks • SAP Tasks • PeopleSoft Tasks • File Transfer Tasks • Manual Tasks • Timer Tasks • SQL Tasks • Stored Procedure Tasks • Email Tasks • Web Service Tasks • Task Monitors • File Monitors • FTP File Monitors • System Monitors • Variable Monitors • Email Monitors • Application Control Tasks • Calendars • Custom Days • Variables • Scripts • Virtual Resources • Credentials	Automation Center
• Dashboards • Reports • Widgets • Colors	Reporting
• All Agents • Linux/Unix Agents • Windows Agents • z/OS Agents • Linux/Unix Agent Clusters • Windows Agent Clusters • OMS Servers • Cluster Nodes • Email Templates • Email Connections • Database Connections • PeopleSoft Connections • SAP Connections • SNMP Managers • Applications	Agents & Connections

Values	Navigation Panel
• Bundles • Promotion Targets • Promotion History • Promotion Schedules	Bundles & Promotion
• Properties • LDAP Settings • Data Backup / Purge • Server Operations • Universal Templates • Filters • Users • Groups • Business Services • Audits • Support Portal • Video Classroom	Administration

4.19.8.2 Group Member Properties

Property	UI Field Name	Description	Specifications	Required
<code>sysId</code>	n/a	System ID field in the database for this record.		N
<code>user</code>	User	User name of a group member.		Y

4.19.8.3 Group Permission Properties

Property	UI Field Name	Description	Specifications	Required
<code>allGroups</code>	Member of Any Business Service or Unassigned Business Service Criteria • Member of Any Business Service or Unassigned	Specification for whether or not this permission applies both to records that belong to any Business Service and to records that do not belong to any Business Service. If <code>allGroups</code> is specified as true, <code>defaultGroup</code> is set to true, <code>notGroups</code> is set to false, and <code>opswiseGroups</code> is cleared, regardless of what you specify in the payload.	Boolean. Valid Values: true/false. Default is false.	N
<code>commands</code>	Commands	Commands that are associated with each permission.	Valid values: see Group Command Permissions , below.	N

Property	UI Field Name	Description	Specifications	Required
defaultGroup	Unassigned to Business Service Business Service Criteria - Member of Specific Business Services or Unassigned - Unassigned - Not Member of Specific Business Services or Unassigned	Specification for whether or not this permission applies to records that do not belong to any Business Service.	Boolean. Valid Values: true/false. Default is false.	N
nameWildcard	Name	Specification to apply this permission to records whose name matches the string specified here.	Wildcards (*s) can be used.	Y
notGroups	Not Member of Business Services Business Service Criteria - Not Member of Specific Business Services or Unassigned - Not Member of Specific Business Services	Specification for whether or not this permission applies to records that are a member of opwiseGroups or not a member of opwiseGroups.	Boolean. Valid Values: true/false. Default is false.	N
opCreate	Create	Allows members of the group to create records of the specified <code>permissionType</code> .	Boolean. Valid Values: true/false. Default is false. Cannot be set to true if <code>permissionType</code> is Agent or Task Instance.	N
opDelete	Delete	Allows members of the group to delete records of the specified <code>permissionType</code> .	Boolean. Valid Values: true/false. Default is false. Cannot be set to true if <code>permissionType</code> is Agent.	N
opExecute	Execute	Allows the user to execute records of the specified <code>permissionType</code> .	Boolean. Valid Values: true/false. Default is false. If the Strict Connection Execute Constraints Universal Controller system property is false: <code>opExecute</code> can be set to true only if <code>permissionType</code> is Agent, Credential, Script, or Virtual Resource. If the Strict Connection Execute Constraints Universal Controller system property is true: <code>opExecute</code> can be set to true only if <code>permissionType</code> is Agent, Credential, Database Connection, Email Connection, SAP Connection, Script, SNMP Manager, or Virtual Resource.	N

Property	UI Field Name	Description	Specifications	Required
opRead	Read	Allows the user to read records of the specified <code>permissionType</code> .	Boolean. Valid Values: true/false. Default is false. If the Strict Business Service Membership Read Constraints Universal Controller system property is false: <code>opRead</code> must be set to true if <code>permissionType</code> is Agent, Agent Cluster, Calendar, Credential, Database Connection, Email Connection, SAP Connection, Email Template, SNMP Manager, or Virtual Resource.	N
opUpdate	Update	Allows members of the group to update records of the specified <code>permissionType</code> .	Boolean. Valid Values: true/false. Default is false. Must be set to true if <code>opCreate</code> is set to true.	N
opwiseGroups	Specific Business Services	Applies this permission to records that are members of the selected Business Service(s).	Format: XML <pre><opwiseGroups> <opwiseGroup>test</opwiseGroup> </opwiseGroups></pre> JSON <pre>"opwiseGroups": ["test"]</pre>	N

Property	UI Field Name	Description	Specifications	Required
permissionType	Type	Type of permission for this group.	Valid values: • As String = Agent, As Value = 1 • As String = Calendar, As Value = 2 • As String = Credential, As Value = 3 • As String = Task, As Value = 4 • As String = Task Instance, As Value = 5 • As String = Trigger, As Value = 6 • As String = Application, As Value = 7 • As String = Script, As Value = 8 • As String = Variable, As Value = 9 • As String = Virtual Resource, As Value = 10 • As String = Agent Cluster, As Value = 11 • As String = Email Template, As Value = 12 • As String = Email Connection, As Value = 13 • As String = Database Connection, As Value = 14 • As String = SAP Connection, As Value = 15 • As String = SNMP Manager, As Value = 16 • As String = PeopleSoft Connection, As Value = 17 • As String = Bundle, As Value = 18 • As String = Promotion Target, As Value = 19 • As String = OMS Server, As Value = 20	Y
sysId	n/a	System ID field in the database for this record.	Persisted only if retainSysIds is set to true.	N

4.19.8.3.1 Command Permissions

Permission Type	Commands
Agent	• ALL • resume_agent • suspend_agent
Agent Cluster	• ALL • resolve_agent_cluster • resume_agent_cluster • suspend_agent_cluster • resume_agent_cluster_membership • suspend_agent_cluster_membership
Application	• ALL • appl_start • appl_stop • appl_query
Bundle	• ALL • promote_bundle

Permission Type	Commands
Calendar	• ALL • copy_calendar
Credential	
Database Connection	• ALL • copy_database_connection • database_connection_test
Email Connection	• ALL • copy_email_connection • email_connection_test
Email Template	• ALL • copy_email_template
OMS Server	• ALL • resume_oms_server • suspend_oms_server
PeopleSoft Connection	• ALL • copy_peoplesoft_connection
Promotion Target	• ALL • refresh_target_agents
SAP Connection	• ALL • copy_sap_connection
Script	• ALL • copy_script
SNMP Manager	• ALL • copy_snmp_manager
Task	• ALL • copy_task • launch • recalculate_forecast • reset_statistics • reset_zos_override_statistics • set_execution_restriction

Permission Type	Commands
Task Instance	• ALL • cancel • clear_all_dependencies • clear_exclusive • clear_resources • clear_timewait • force_finish • force_finish_cancel • hold • insert_task • rerun • release • release_recursive • retrieve_output • set_edge_satisfied (Mark as Satisfied in UI) • set_edges_satisfied (Clear Predecessors in UI) • set_priority_low • set_priority_medium • set_priority_high • set_manual_completed • set_manual_started • skip • unskip
Trigger	• ALL • assign_trigger_execution_user • copy_trigger • disable_trigger • enable_trigger • recalculate_forecast • set_skip_count • trigger_now
Variable	
Virtual Resource	• ALL • copy_virtual_resource

4.19.8.4 Group Role Properties

Property	UI Field Name	Description	Specifications	Required
role	Role	Role assigned to this group.		Y
sysId	n/a	System ID field in the database for this record.		N

4.20 LDAP Web Services

- [Overview](#)
- [Read LDAP Settings](#)
 - [Read LDAP Settings: XML and JSON Examples](#)

- [Update LDAP Settings](#)
 - [Update LDAP Settings: XML and JSON Examples](#)
 - [LDAP: Request Properties](#)
 - [LDAP: Mapping Properties](#)
- [Update LDAP Bind Password](#)

4.20.1 Overview

Universal Controller supports the following RESTful-based web services for LDAP Settings, which are listed alphabetically on this page.

- [Read LDAP Settings](#)
- [Update LDAP Settings](#)
- [Update LDAP Bind Password](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

4.20.2 Read LDAP Settings

	Description
Consumes Content-Type	N/A
Description	Get LDAP Settings
Authentication	HTTP Basic
URI	<code>http://host_name/uc/resources/ldap</code>
HTTP Method	GET
Example URI	<code>http://localhost:8080/uc/resources/ldap</code>
Produces Content-Type	application/xml, application/json

4.20.2.1 Read LDAP Settings: XML and JSON Examples

XML	JSON
<pre> XML <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <ldap exportReleaseLevel="7.7.0.0" exportTable="ops_ldap"> <allowLocalLogin>false</allowLocalLogin> <baseDn>DC=qad,DC=stone,DC=branch</baseDn> <bindDn>administrator@qad</bindDn> <bindPassword /> <connectTimeout>5</connectTimeout> <groupFilter>(&(objectClass=group)(objectCategory=group) ((cn=GroupA) (memberOf:1.2.840.113556.1.4.1941:=CN=GroupA,OU=TestGroups,D C=qad,DC=stone,DC=branch)))</groupFilter> <groupMemberAttribute /> <groupTargetOuList> <targetOu>OU=TestUsers</targetOu> <targetOu>OU=TestOtherUsers</targetOu> </groupTargetOuList> <loginMethod>Standard, Single Sign-On</loginMethod> <mappings> <mapping type="Group" column="manager">managedBy</ mapping> <mapping type="Group" column="email">mail</mapping> <mapping type="User" column="manager">manager</ mapping> <mapping type="User" column="phone">telephoneNumber</mapping> <mapping type="User" column="department">department</mapping> <mapping type="User" column="first_name">givenName</ mapping> <mapping type="User" column="last_name">sn</mapping> <mapping type="User" column="mobile_phone">mobile</ mapping> <mapping type="User" column="home_phone">homePhone</ mapping> <mapping type="User" column="email">mail</mapping> <mapping type="User" column="title">title</mapping> <mapping type="Group" column="description">description1</mapping> <mapping type="User" column="middle_name">initials</ mapping> </mappings> <readTimeout>30</readTimeout> <sysId>bb678a4f4d2c4fc4a1dc93b1ffe4bdfc</sysId> <url>ldap://qa-dc1.stone.branch:389</url> <useForAuthentication>true</useForAuthentication> <userFilter>(&(objectClass=user)(objectCategory=person) (memberOf:1.2.840.113556.1.4.1941:=CN=GroupA,OU=TestGroups,D C=qad,DC=stone,DC=branch))</userFilter> <userIdAttribute>sAMAccountName</userIdAttribute> <userMembershipAttribute>user member</ userMembershipAttribute> <userTargetOuList> <targetOu>OU=TestUsers</targetOu> <targetOu>OU=TestOtherUsers</targetOu> </userTargetOuList> </ldap> </pre>	<pre> JSON { "allowLocalLogin": false, "baseDn": "DC=qad,DC=stone,DC=branch", "bindDn": "administrator@qad", "bindPassword": null, "connectTimeout": 5, "exportReleaseLevel": "7.7.0.0", "exportTable": "ops_ldap", "groupFilter": "(&(objectClass=group) (objectCategory=group)((cn=GroupA) (memberOf:1.2.840.113556.1.4.1941:=CN=GroupA,OU=TestGroups,D C=qad,DC=stone,DC=branch)))", "groupMemberAttribute": null, "groupTargetOuList": null, "loginMethod": "Standard, Single Sign-On", "mappings": [{ "attribute": "managedBy", "column": "manager", "type": "Group" }, { "attribute": "mail", "column": "email", "type": "Group" }, { "attribute": "manager", "column": "manager", "type": "User" }, { "attribute": "telephoneNumber", "column": "phone", "type": "User" }, { "attribute": "department", "column": "department", "type": "User" }, { "attribute": "givenName", "column": "first_name", "type": "User" }, { "attribute": "sn", "column": "last_name", "type": "User" }, { "attribute": "mobile", "column": "mobile_phone", "type": "User" }, { "attribute": "homePhone", "column": "home_phone", "type": "User" }], } </pre>

XML	JSON
	<pre> { "attribute": "mail", "column": "email", "type": "User" }, { "attribute": "title", "column": "title", "type": "User" }, { "attribute": "description1", "column": "description", "type": "Group" }, { "attribute": "initials", "column": "middle_name", "type": "User" }], "readTimeout": 30, "sysId": "bb678a4f4d2c4fc4a1dc93b1ffe4bdfc", "url": "ldap://qa-dc1.stone.branch:389", "useForAuthentication": true, "userFilter": "(&(objectClass=user) (objectCategory=person) (memberOf:1.2.840.113556.1.4.1941:=CN=GroupA,OU=TestGroups,DC=qqad,DC=stone,DC=branch))", "userIdAttribute": "sAMAccountName", "userMembershipAttribute": "user member", "userTargetOuList": ["OU=TestUsers", "OU=TestOtherUsers"] } </pre>

4.20.3 Update LDAP Settings

	Description
Consumes Content-Type	application/xml, application/json
Description	Modify LDAP Settings
Authentication	HTTP Basic
URI	http://host_name/uc/resources/ldap
HTTP Method	PUT
Example URI	http://localhost:8080/uc/resources/ldap
Produces Content-Type	application/xml, application/json

	Description
Example Responses	• Status 200 • Successfully updated the LDAP Setting with id {uuid}. • Status 400 • Error message. • Status 403 • Operation prohibited due to security constraints. • Status 404 • LDAP Setting with id "{uuid}" not found. • Status 500 • Unexpected request failure. See log(s) for more details.

4.20.3.1 Update LDAP Settings: XML and JSON Examples

XML	JSON
<pre> XML <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <ldap exportReleaseLevel="7.7.0.0" exportTable="ops_ldap"> <allowLocalLogin>false</allowLocalLogin> <baseDn>DC=qad,DC=stone,DC=branch</baseDn> <bindDn>administrator@qad</bindDn> <bindPassword /> <connectTimeout>5</connectTimeout> <groupFilter>(&(objectClass=group)(objectCategory=group) ((cn=GroupA) (memberOf:1.2.840.113556.1.4.1941:=CN=GroupA,OU=TestGroups,D C=qad,DC=stone,DC=branch)))</groupFilter> <groupMemberAttribute /> <groupTargetOuList> <targetOu>OU=TestUsers</targetOu> <targetOu>OU=TestOtherUsers</targetOu> </groupTargetOuList> <loginMethod>Standard, Single Sign-On</loginMethod> <mappings> <mapping type="Group" column="manager">managedBy</ mapping> <mapping type="Group" column="email">mail</mapping> <mapping type="User" column="manager">manager</ mapping> <mapping type="User" column="phone">telephoneNumber</mapping> <mapping type="User" column="department">department</mapping> <mapping type="User" column="first_name">givenName</ mapping> <mapping type="User" column="last_name">sn</mapping> <mapping type="User" column="mobile_phone">mobile</ mapping> <mapping type="User" column="home_phone">homePhone</ mapping> <mapping type="User" column="email">mail</mapping> <mapping type="User" column="title">title</mapping> <mapping type="Group" column="description">description1</mapping> <mapping type="User" column="middle_name">initials</ mapping> </mappings> <readTimeout>30</readTimeout> <sysId>bb678a4f4d2c4fc4a1dc93b1ffe4bdfc</sysId> <url>ldap://qa-dc1.stone.branch:389</url> <useForAuthentication>true</useForAuthentication> <userFilter>(&(objectClass=user)(objectCategory=person) (memberOf:1.2.840.113556.1.4.1941:=CN=GroupA,OU=TestGroups,D C=qad,DC=stone,DC=branch))</userFilter> <userIdAttribute>sAMAccountName</userIdAttribute> <userMembershipAttribute>user member</ userMembershipAttribute> <userTargetOuList> <targetOu>OU=TestUsers</targetOu> <targetOu>OU=TestOtherUsers</targetOu> </userTargetOuList> </ldap> </pre>	<pre> JSON { "allowLocalLogin": false, "baseDn": "DC=qad,DC=stone,DC=branch", "bindDn": "administrator@qad", "bindPassword": null, "connectionTimeout": 5, "exportReleaseLevel": "7.7.0.0", "exportTable": "ops_ldap", "groupFilter": "(&(objectClass=group) (objectCategory=group)((cn=GroupA) (memberOf:1.2.840.113556.1.4.1941:=CN=GroupA,OU=TestGroups,D C=qad,DC=stone,DC=branch)))", "groupMemberAttribute": null, "groupTargetOuList": null, "loginMethod": "Standard, Single Sign-On", "mappings": [{ "attribute": "managedBy", "column": "manager", "type": "Group" }, { "attribute": "mail", "column": "email", "type": "Group" }, { "attribute": "manager", "column": "manager", "type": "User" }, { "attribute": "telephoneNumber", "column": "phone", "type": "User" }, { "attribute": "department", "column": "department", "type": "User" }, { "attribute": "givenName", "column": "first_name", "type": "User" }, { "attribute": "sn", "column": "last_name", "type": "User" }, { "attribute": "mobile", "column": "mobile_phone", "type": "User" }, { "attribute": "homePhone", "column": "home_phone", "type": "User" }], } </pre>

XML	JSON
	<pre> { "attribute": "mail", "column": "email", "type": "User" }, { "attribute": "title", "column": "title", "type": "User" }, { "attribute": "description1", "column": "description", "type": "Group" }, { "attribute": "initials", "column": "middle_name", "type": "User" }], "readTimeout": 30, "sysId": "bb678a4f4d2c4fc4a1dc93b1ffe4bdfc", "url": "ldap://qa-dc1.stone.branch:389", "useForAuthentication": true, "userFilter": "(&(objectClass=user) (objectCategory=person) (memberOf:1.2.840.113556.1.4.1941:=CN=GroupA,OU=TestGroups,D C=qad,DC=stone,DC=branch))", "userIdAttribute": "sAMAccountName", "userMembershipAttribute": "user member", "userTargetOuList": ["OU=TestUsers", "OU=TestOtherUsers"] } </pre>

4.20.3.2 LDAP: Request Properties

Property	UI Field	Description	Required
allowLocalLogin	Allow Local Login	If the LDAP Synchronization Enabled Universal Controller system property is false, or if it is true but the Use for Authentication field is not enabled, an administrator must explicitly specify Allow Local Login to allow local account login for users that were provisioned through LDAP synchronization.	N
baseDn	Base DN	Starting point for searching the directory. For example: dc=stonebranch,dc=com. If you do not specify a Base DN, the search starts as the root of the directory tree.	N
url	URL	URL of the LDAP connection.	Y
bindDn	Bind DN or User	Distinguished Name (DN) or User ID used for initial access to the LDAP server.	N
bindPassword	Bind Password		N

Property	UI Field	Description	Required
<code>useForAuthentication</code>	Use for Authentication	If enabled, indicates that LDAP will be used for password authentication.	N
<code>userIdAttribute</code>	User Id Attribute	LDAP attribute for the specified User ID . Options: • sAMAccountName • cn • uid • Other...	Y
<code>userFilter</code>	User Filter	Search filter for users. If you do not specify a User Filter, the server uses (&(objectClass=user)(objectCategory=person)).	N
<code>userTargetOuList</code>	User Target OU List	Single- or multi-level target OU's (Organizational Units) within the Base DN directory to filter for user records. For example, OU=Employees or OU=Employees,OU=Users. If you do not specify one or more OU's, the entire sub-tree from the Base DN will be searched.	N
<code>groupFilter</code>	Group Filter	Search filter for groups. If you do not specify a Group Filter, the server uses (&(objectClass=group)(objectCategory=group)).	N
<code>groupTargetOuList</code>	Group Target OU List	Single- or multi-level target OU's within the Base DN directory to filter for group records. For example, OU=Universal Controller or OU=Universal Controller,OU=Groups. If you do not specify one or more OU's, the entire sub-tree from the Base DN will be searched.	N
<code>connectTimeout</code>	Connect Timeout (Seconds)	Timeout for connecting to the LDAP server.	N
<code>readTimeout</code>	Read Timeout (Seconds)	Timeout for reading from the LDAP server.	N
<code>userMembershipAttribute</code>	User Membership Attribute	LDAP attribute for the groups in which a user is a member. If you do not specify a User Membership Attribute, the LDAP server uses memberOf (see the <code>uc.ldap.users.synchronize_indirect</code> Universal Controller start-up property).	N
<code>groupMemberAttribute</code>	Group Member Attribute	LDAP attribute for the members of a group. If you do not specify a Group Member Attribute, the LDAP server uses member (see the <code>uc.ldap.groups.update_members</code> Universal Controller start-up property).	N

Property	UI Field	Description	Required
loginMethod	Login Method	Login method(s) that an LDAP-provisioned user can authenticate with by default. The default is applied only at user creation time. Options: • Standard • Single Sign-On • Standard, Single Sign-On • Standard / Authenticator App (TOTP) • Standard / Authenticator App (TOTP), Single Sign-On	Y
mappings		List of Controller columns mapped to LDAP attributes.	

4.20.3.3 LDAP: Mapping Properties

Property	UI Field	Description	Required
type	Type	Type of records.	Y
column	Column	Controller column being mapped to LDAP attribute.	Y
attribute	Attribute	LDAP attribute to which the Controller column is being mapped.	N

4.20.4 Update LDAP Bind Password

	Description
Consumes Content-Type	N/A
Description	Modify LDAP Settings Bind Password
Authentication	HTTP Basic
URI	http://host_name/uc/resources/ldap/changeBindPwd http://host_name/uc/resources/ldap/changebindpwd
HTTP Method	POST
Example URI	http://localhost:8080/uc/resources/ldap/changebindpwd http://localhost:8080/uc/resources/ldap/changeBindPwd
Produces Content-Type	application/xml, application/json
Body	New Password

4.21 Monitoring Web Services

- [Overview](#)
- [Universal Controller Metrics \(Prometheus\)](#)

4.21.1 Overview

Universal Controller supports the following RESTful-based web service for Monitoring operations:

- [Universal Controller Metrics \(Prometheus\)](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

4.21.2 Universal Controller Metrics (Prometheus)

The Universal Controller Metrics API requires the [ops_admin](#) role or the [ops_service](#) role.

	Description
URI	<code>http://host_name/uc/resources/metrics</code>
HTTP Method	GET
Description	Scrape the Universal Controller metrics as Prometheus text.
Example URI	http://localhost:8080/uc/resources/metrics
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	text/plain; version=0.0.4
Example Responses	• Status 200 • <Metrics as text/plain; version=0.0.4> • Status 403 • Operation prohibited due to security constraints.

4.21.2.1 Metrics

The following metric details will be collected and will be scraped by [Prometheus](#), an open-source systems monitoring and alerting toolkit.

- **Universal Controller Task Instance Activity and History Metric Exports**
- **Standard Metric Exports (CPU Time Spent and Memory Usage)**
- **JVM Class Loading**

- JVM Memory Pools Metric Exports
- JVM Memory Allocation Metric Exports
- JVM Buffer Pools Metric Exports
- JVM Garbage Collector Exports
- JVM Thread Metric Exports
- JVM Class Loading Metric Exports
- JVM Version Info Exports
- **Universal Controller Build Info Metric Exports**
- **Universal Controller Database Connection Pool Metric Exports**
- **OMS Server Metrics**
- **License Detail Metrics**

See [Universal Controller Provided Metrics](#) for a full list of metrics.

4.21.2.2 Metrics Data Example

```
# HELP uc_history_total Total number of task instances that completed with an end status of In
Doubt, Start Failure, Confirmation Required, Cancelled, Failed, Skipped, Finished, or Success.
# TYPE uc_history_total counter
uc_history_total{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="Email",task_type_detailed="Email",task_instance_status="Success",} 1.0
uc_history_total{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Universal
Command",task_type_detailed="Universal Command",task_instance_status="Success",} 2.0
uc_history_total{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="SQL",task_type_detailed="SQL",task_instance_status="Success",} 1.0
uc_history_total{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Application
Control",task_type_detailed="Application Control",task_instance_status="Finished",} 1.0
uc_history_total{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Remote File
Monitor",task_type_detailed="Remote File Monitor",task_instance_status="Success",} 1.0
uc_history_total{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="Workflow",task_type_detailed="Workflow",task_instance_status="Success",}
2.0
uc_history_total{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Stored
Procedure",task_type_detailed="Stored Procedure",task_instance_status="Success",} 1.0
uc_history_total{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Task
Monitor",task_type_detailed="Task Monitor",task_instance_status="Success",} 1.0
uc_history_total{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Variable
Monitor",task_type_detailed="Variable Monitor",task_instance_status="Success",} 1.0
uc_history_total{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="Manual",task_type_detailed="Manual",task_instance_status="Success",} 1.0
uc_history_total{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Linux/
Unix",task_type_detailed="Linux/Unix",task_instance_status="Success",} 1.0
uc_history_total{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="File
Transfer",task_type_detailed="File Transfer",task_instance_status="Success",} 1.0
uc_history_total{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="System
Monitor",task_type_detailed="System Monitor",task_instance_status="Success",} 1.0
uc_history_total{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="z/
OS",task_type_detailed="z/OS",task_instance_status="Skipped",} 1.0
```

```

uc_history_total{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Universal",task_type_detailed="License Generator - 7.7",task_instance_status="Success",} 1.0
uc_history_total{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Application Control",task_type_detailed="Application Control",task_instance_status="Failed",} 1.0
uc_history_total{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Agent File Monitor",task_type_detailed="Agent File Monitor",task_instance_status="Success",} 1.0
uc_history_total{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Windows",task_type_detailed="Windows",task_instance_status="Skipped",} 1.0
uc_history_total{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="SAP",task_type_detailed="SAP",task_instance_status="Success",} 1.0
uc_history_total{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Timer",task_type_detailed="Timer",task_instance_status="Success",} 2.0
uc_history_total{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="z/OS",task_type_detailed="z/OS",task_instance_status="Success",} 101.0
# HELP uc_task_instance_late_start_total Total number of task instances that started late.
# TYPE uc_task_instance_late_start_total counter
# HELP jvm_classes_currently_loaded The number of classes that are currently loaded in the JVM
# TYPE jvm_classes_currently_loaded gauge
jvm_classes_currently_loaded 17606.0
# HELP jvm_classes_loaded_total The total number of classes that have been loaded since the JVM has started execution
# TYPE jvm_classes_loaded_total counter
jvm_classes_loaded_total 18951.0
# HELP jvm_classes_unloaded_total The total number of classes that have been unloaded since the JVM has started execution
# TYPE jvm_classes_unloaded_total counter
jvm_classes_unloaded_total 1345.0
# HELP jvm_info VM version info
# TYPE jvm_info gauge
jvm_info{runtime="OpenJDK Runtime Environment",vendor="Ubuntu",version="11.0.17+8-post-Ubuntu-1ubuntu220.04",} 1.0
# HELP uc_task_instance_early_finish_total Total number of task instances that finished early.
# TYPE uc_task_instance_early_finish_total counter
# HELP uc_task_instance_duration_seconds Task instance duration in seconds.
# TYPE uc_task_instance_duration_seconds histogram
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="File Transfer",task_type_detailed="File Transfer",le="1.0",} 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="File Transfer",task_type_detailed="File Transfer",le="2.5",} 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="File Transfer",task_type_detailed="File Transfer",le="5.0",} 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="File Transfer",task_type_detailed="File Transfer",le="10.0",} 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="File Transfer",task_type_detailed="File Transfer",le="15.0",} 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="File Transfer",task_type_detailed="File Transfer",le="30.0",} 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="File Transfer",task_type_detailed="File Transfer",le="45.0",} 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="File Transfer",task_type_detailed="File Transfer",le="60.0",} 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="File Transfer",task_type_detailed="File Transfer",le="150.0",} 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="File Transfer",task_type_detailed="File Transfer",le="300.0",} 1.0

```

[illegible]

[illegible]


```

uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Email",task_type_detailed="Email",le="1800.0",} 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Email",task_type_detailed="Email",le="2700.0",} 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Email",task_type_detailed="Email",le="3600.0",} 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Email",task_type_detailed="Email",le="+Inf",} 1.0
uc_task_instance_duration_seconds_count{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Email",task_type_detailed="Email",} 1.0
uc_task_instance_duration_seconds_sum{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Email",task_type_detailed="Email",} 0.091
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="SAP",task_type_detailed="SAP",le="1.0",} 0.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="SAP",task_type_detailed="SAP",le="2.5",} 0.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="SAP",task_type_detailed="SAP",le="5.0",} 0.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="SAP",task_type_detailed="SAP",le="10.0",} 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="SAP",task_type_detailed="SAP",le="15.0",} 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="SAP",task_type_detailed="SAP",le="30.0",} 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="SAP",task_type_detailed="SAP",le="45.0",} 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="SAP",task_type_detailed="SAP",le="60.0",} 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="SAP",task_type_detailed="SAP",le="150.0",} 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="SAP",task_type_detailed="SAP",le="300.0",} 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="SAP",task_type_detailed="SAP",le="600.0",} 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="SAP",task_type_detailed="SAP",le="900.0",} 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="SAP",task_type_detailed="SAP",le="1800.0",} 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="SAP",task_type_detailed="SAP",le="2700.0",} 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="SAP",task_type_detailed="SAP",le="3600.0",} 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="SAP",task_type_detailed="SAP",le="+Inf",} 1.0
uc_task_instance_duration_seconds_count{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="SAP",task_type_detailed="SAP",} 1.0
uc_task_instance_duration_seconds_sum{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="SAP",task_type_detailed="SAP",} 6.358
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Stored Procedure",task_type_detailed="Stored Procedure",le="1.0",} 0.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Stored Procedure",task_type_detailed="Stored Procedure",le="2.5",} 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Stored Procedure",task_type_detailed="Stored Procedure",le="5.0",} 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Stored Procedure",task_type_detailed="Stored Procedure",le="10.0",} 1.0

```

[illegible]

```

uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="Workflow",task_type_detailed="Workflow",le="3600.0"}, 2.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="Workflow",task_type_detailed="Workflow",le="+Inf"}, 2.0
uc_task_instance_duration_seconds_count{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="Workflow",task_type_detailed="Workflow"}, 2.0
uc_task_instance_duration_seconds_sum{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="Workflow",task_type_detailed="Workflow"}, 174.09699999999998
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="SQL",task_type_detailed="SQL",le="1.0"}, 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="SQL",task_type_detailed="SQL",le="2.5"}, 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="SQL",task_type_detailed="SQL",le="5.0"}, 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="SQL",task_type_detailed="SQL",le="10.0"}, 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="SQL",task_type_detailed="SQL",le="15.0"}, 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="SQL",task_type_detailed="SQL",le="30.0"}, 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="SQL",task_type_detailed="SQL",le="45.0"}, 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="SQL",task_type_detailed="SQL",le="60.0"}, 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="SQL",task_type_detailed="SQL",le="150.0"}, 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="SQL",task_type_detailed="SQL",le="300.0"}, 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="SQL",task_type_detailed="SQL",le="600.0"}, 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="SQL",task_type_detailed="SQL",le="900.0"}, 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="SQL",task_type_detailed="SQL",le="1800.0"}, 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="SQL",task_type_detailed="SQL",le="2700.0"}, 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="SQL",task_type_detailed="SQL",le="3600.0"}, 1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="SQL",task_type_detailed="SQL",le="+Inf"}, 1.0
uc_task_instance_duration_seconds_count{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="SQL",task_type_detailed="SQL"}, 1.0
uc_task_instance_duration_seconds_sum{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="SQL",task_type_detailed="SQL"}, 0.376
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="z/OS",task_type_detailed="z/OS",le="1.0"}, 0.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="z/OS",task_type_detailed="z/OS",le="2.5"}, 0.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="z/OS",task_type_detailed="z/OS",le="5.0"}, 11.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="z/OS",task_type_detailed="z/OS",le="10.0"}, 78.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="z/OS",task_type_detailed="z/OS",le="15.0"}, 100.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="z/OS",task_type_detailed="z/OS",le="30.0"}, 100.0

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[illegible]

[illegible]

[illegible]

[illegible]

[illegible]


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uc_task_instance_duration_seconds_count{cluster_node_id="qa-opswise6:8080-
qa_opswise6",task_type="Universal",task_type_detailed="License Generator - 7.7",} 1.0
uc_task_instance_duration_seconds_sum{cluster_node_id="qa-opswise6:8080-
qa_opswise6",task_type="Universal",task_type_detailed="License Generator - 7.7",} 0.979
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa_opswise6",task_type="Remote File Monitor",task_type_detailed="Remote File Monitor",le="1.0",}
1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa_opswise6",task_type="Remote File Monitor",task_type_detailed="Remote File Monitor",le="2.5",}
1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa_opswise6",task_type="Remote File Monitor",task_type_detailed="Remote File Monitor",le="5.0",}
1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa_opswise6",task_type="Remote File Monitor",task_type_detailed="Remote File Monitor",le="10.0",}
1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa_opswise6",task_type="Remote File Monitor",task_type_detailed="Remote File Monitor",le="15.0",}
1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa_opswise6",task_type="Remote File Monitor",task_type_detailed="Remote File Monitor",le="30.0",}
1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa_opswise6",task_type="Remote File Monitor",task_type_detailed="Remote File Monitor",le="45.0",}
1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa_opswise6",task_type="Remote File Monitor",task_type_detailed="Remote File Monitor",le="60.0",}
1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa_opswise6",task_type="Remote File Monitor",task_type_detailed="Remote File Monitor",le="150.0",}
1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa_opswise6",task_type="Remote File Monitor",task_type_detailed="Remote File Monitor",le="300.0",}
1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa_opswise6",task_type="Remote File Monitor",task_type_detailed="Remote File Monitor",le="600.0",}
1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa_opswise6",task_type="Remote File Monitor",task_type_detailed="Remote File Monitor",le="900.0",}
1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa_opswise6",task_type="Remote File Monitor",task_type_detailed="Remote File Monitor",le="1800.0",}
1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa_opswise6",task_type="Remote File Monitor",task_type_detailed="Remote File Monitor",le="2700.0",}
1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa_opswise6",task_type="Remote File Monitor",task_type_detailed="Remote File Monitor",le="3600.0",}
1.0
uc_task_instance_duration_seconds_bucket{cluster_node_id="qa-opswise6:8080-
qa_opswise6",task_type="Remote File Monitor",task_type_detailed="Remote File Monitor",le="+Inf",}
1.0
uc_task_instance_duration_seconds_count{cluster_node_id="qa-opswise6:8080-
qa_opswise6",task_type="Remote File Monitor",task_type_detailed="Remote File Monitor",} 1.0
uc_task_instance_duration_seconds_sum{cluster_node_id="qa-opswise6:8080-
qa_opswise6",task_type="Remote File Monitor",task_type_detailed="Remote File Monitor",} 0.261

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# HELP jvm_gc_collection_seconds Time spent in a given JVM garbage collector in seconds.
# TYPE jvm_gc_collection_seconds summary
jvm_gc_collection_seconds_count{gc="G1 Young Generation",} 64.0
jvm_gc_collection_seconds_sum{gc="G1 Young Generation",} 0.899
jvm_gc_collection_seconds_count{gc="G1 Old Generation",} 163.0
jvm_gc_collection_seconds_sum{gc="G1 Old Generation",} 20.936
# HELP uc_universal_event_total Total number of Universal Events published for Universal Event
Templates and Universal Template Event Templates.
# TYPE uc_universal_event_total counter
# HELP uc_database_connection_pool_active Number of connections currently borrowed from this pool.
# TYPE uc_database_connection_pool_active gauge
uc_database_connection_pool_active{pool="Server",db_type="Microsoft SQL Server",} 0.0
uc_database_connection_pool_active{pool="Client",db_type="Microsoft SQL Server",} 1.0
uc_database_connection_pool_active{pool="Reserved",db_type="Microsoft SQL Server",} 0.0
# HELP uc_database_connection_pool_idle Returns the number of connections currently idle in this
pool.
# TYPE uc_database_connection_pool_idle gauge
uc_database_connection_pool_idle{pool="Server",db_type="Microsoft SQL Server",} 3.0
uc_database_connection_pool_idle{pool="Client",db_type="Microsoft SQL Server",} 0.0
uc_database_connection_pool_idle{pool="Reserved",db_type="Microsoft SQL Server",} 3.0
# HELP uc_database_connection_pool_idle_min Returns the target for the minimum number of idle
connections to maintain in the pool.
# TYPE uc_database_connection_pool_idle_min gauge
uc_database_connection_pool_idle_min{pool="Server",db_type="Microsoft SQL Server",} 2.0
uc_database_connection_pool_idle_min{pool="Client",db_type="Microsoft SQL Server",} 1.0
uc_database_connection_pool_idle_min{pool="Reserved",db_type="Microsoft SQL Server",} 1.0
# HELP uc_database_connection_pool_idle_max Returns the cap on the number of idle connections in
the pool.
# TYPE uc_database_connection_pool_idle_max gauge
uc_database_connection_pool_idle_max{pool="Server",db_type="Microsoft SQL Server",} 21.0
uc_database_connection_pool_idle_max{pool="Client",db_type="Microsoft SQL Server",} 15.0
uc_database_connection_pool_idle_max{pool="Reserved",db_type="Microsoft SQL Server",} 15.0
# HELP uc_database_connection_pool_total Returns the total number of connections currently borrowed
and currently idle in this pool.
# TYPE uc_database_connection_pool_total gauge
uc_database_connection_pool_total{pool="Server",db_type="Microsoft SQL Server",} 3.0
uc_database_connection_pool_total{pool="Client",db_type="Microsoft SQL Server",} 1.0
uc_database_connection_pool_total{pool="Reserved",db_type="Microsoft SQL Server",} 3.0
# HELP uc_database_connection_pool_max Returns the maximum number of connections that can be
allocated by the pool (currently borrowed and currently idle) at a given time.
# TYPE uc_database_connection_pool_max gauge
uc_database_connection_pool_max{pool="Server",db_type="Microsoft SQL Server",} 40.0
uc_database_connection_pool_max{pool="Client",db_type="Microsoft SQL Server",} 30.0
uc_database_connection_pool_max{pool="Reserved",db_type="Microsoft SQL Server",} 30.0
# HELP jvm_threads_current Current thread count of a JVM
# TYPE jvm_threads_current gauge
jvm_threads_current 150.0
# HELP jvm_threads_daemon Daemon thread count of a JVM
# TYPE jvm_threads_daemon gauge
jvm_threads_daemon 143.0
# HELP jvm_threads_peak Peak thread count of a JVM
# TYPE jvm_threads_peak gauge
jvm_threads_peak 228.0
# HELP jvm_threads_started_total Started thread count of a JVM
# TYPE jvm_threads_started_total counter
jvm_threads_started_total 418.0

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# HELP jvm_threads_deadlocked Cycles of JVM-threads that are in deadlock waiting to acquire object
monitors or ownable synchronizers
# TYPE jvm_threads_deadlocked gauge
jvm_threads_deadlocked 0.0
# HELP jvm_threads_deadlocked_monitor Cycles of JVM-threads that are in deadlock waiting to acquire
object monitors
# TYPE jvm_threads_deadlocked_monitor gauge
jvm_threads_deadlocked_monitor 0.0
# HELP jvm_threads_state Current count of threads by state
# TYPE jvm_threads_state gauge
jvm_threads_state{state="NEW",} 0.0
jvm_threads_state{state="RUNNABLE",} 20.0
jvm_threads_state{state="TIMED_WAITING",} 91.0
jvm_threads_state{state="TERMINATED",} 0.0
jvm_threads_state{state="BLOCKED",} 0.0
jvm_threads_state{state="WAITING",} 39.0
# HELP uc_task_instance_launch_total Total number of task instances launched.
# TYPE uc_task_instance_launch_total counter
uc_task_instance_launch_total{cluster_node_id="qa-opswise6:8080-qa_opswise6",task_type="File
Transfer",task_type_detailed="File Transfer",} 1.0
uc_task_instance_launch_total{cluster_node_id="qa-opswise6:8080-qa_opswise6",task_type="Linux/
Unix",task_type_detailed="Linux/Unix",} 1.0
uc_task_instance_launch_total{cluster_node_id="qa-opswise6:8080-qa_opswise6",task_type="System
Monitor",task_type_detailed="System Monitor",} 1.0
uc_task_instance_launch_total{cluster_node_id="qa-opswise6:8080-
qa_opswise6",task_type="Email",task_type_detailed="Email",} 1.0
uc_task_instance_launch_total{cluster_node_id="qa-opswise6:8080-
qa_opswise6",task_type="SAP",task_type_detailed="SAP",} 1.0
uc_task_instance_launch_total{cluster_node_id="qa-opswise6:8080-
qa_opswise6",task_type="Windows",task_type_detailed="Windows",} 1.0
uc_task_instance_launch_total{cluster_node_id="qa-opswise6:8080-qa_opswise6",task_type="Stored
Procedure",task_type_detailed="Stored Procedure",} 1.0
uc_task_instance_launch_total{cluster_node_id="qa-opswise6:8080-
qa_opswise6",task_type="Workflow",task_type_detailed="Workflow",} 2.0
uc_task_instance_launch_total{cluster_node_id="qa-opswise6:8080-
qa_opswise6",task_type="SQL",task_type_detailed="SQL",} 1.0
uc_task_instance_launch_total{cluster_node_id="qa-opswise6:8080-qa_opswise6",task_type="z/
OS",task_type_detailed="z/OS",} 102.0
uc_task_instance_launch_total{cluster_node_id="qa-opswise6:8080-qa_opswise6",task_type="Task
Monitor",task_type_detailed="Task Monitor",} 1.0
uc_task_instance_launch_total{cluster_node_id="qa-opswise6:8080-qa_opswise6",task_type="Application
Control",task_type_detailed="Application Control",} 1.0
uc_task_instance_launch_total{cluster_node_id="qa-opswise6:8080-qa_opswise6",task_type="Agent File
Monitor",task_type_detailed="Agent File Monitor",} 1.0
uc_task_instance_launch_total{cluster_node_id="qa-opswise6:8080-
qa_opswise6",task_type="Timer",task_type_detailed="Timer",} 2.0
uc_task_instance_launch_total{cluster_node_id="qa-opswise6:8080-qa_opswise6",task_type="Variable
Monitor",task_type_detailed="Variable Monitor",} 1.0
uc_task_instance_launch_total{cluster_node_id="qa-opswise6:8080-qa_opswise6",task_type="Universal
Command",task_type_detailed="Universal Command",} 2.0
uc_task_instance_launch_total{cluster_node_id="qa-opswise6:8080-
qa_opswise6",task_type="Manual",task_type_detailed="Manual",} 1.0
uc_task_instance_launch_total{cluster_node_id="qa-opswise6:8080-
qa_opswise6",task_type="Universal",task_type_detailed="License Generator - 7.7",} 1.0
uc_task_instance_launch_total{cluster_node_id="qa-opswise6:8080-qa_opswise6",task_type="Remote File
Monitor",task_type_detailed="Remote File Monitor",} 1.0

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# HELP jvm_memory_pool_allocated_bytes_total Total bytes allocated in a given JVM memory pool. Only
updated after GC, not continuously.
# TYPE jvm_memory_pool_allocated_bytes_total counter
jvm_memory_pool_allocated_bytes_total{pool="CodeHeap 'profiled nmethods'",} 6.174336E7
jvm_memory_pool_allocated_bytes_total{pool="G1 Old Gen",} 1.329290744E9
jvm_memory_pool_allocated_bytes_total{pool="G1 Eden Space",} 3.2922140672E10
jvm_memory_pool_allocated_bytes_total{pool="CodeHeap 'non-profiled nmethods'",} 2.3922688E7
jvm_memory_pool_allocated_bytes_total{pool="G1 Survivor Space",} 3.38690048E8
jvm_memory_pool_allocated_bytes_total{pool="Compressed Class Space",} 1.3807904E7
jvm_memory_pool_allocated_bytes_total{pool="Metaspace",} 1.21685536E8
jvm_memory_pool_allocated_bytes_total{pool="CodeHeap 'non-nmethods'",} 1588864.0
# HELP uc_build_info Universal Controller build information.
# TYPE uc_build_info gauge
uc_build_info{build="build.171",build_date="10-12-2023_0104",release="7.7.0.0",} 1.0
# HELP jvm_memory_objects_pending_finalization The number of objects waiting in the finalizer
queue.
# TYPE jvm_memory_objects_pending_finalization gauge
jvm_memory_objects_pending_finalization 0.0
# HELP jvm_memory_bytes_used Used bytes of a given JVM memory area.
# TYPE jvm_memory_bytes_used gauge
jvm_memory_bytes_used{area="heap",} 1.45380792E8
jvm_memory_bytes_used{area="nonheap",} 2.04027032E8
# HELP jvm_memory_bytes_committed Committed (bytes) of a given JVM memory area.
# TYPE jvm_memory_bytes_committed gauge
jvm_memory_bytes_committed{area="heap",} 5.36870912E8
jvm_memory_bytes_committed{area="nonheap",} 2.11431424E8
# HELP jvm_memory_bytes_max Max (bytes) of a given JVM memory area.
# TYPE jvm_memory_bytes_max gauge
jvm_memory_bytes_max{area="heap",} 6.442450944E9
jvm_memory_bytes_max{area="nonheap",} -1.0
# HELP jvm_memory_bytes_init Initial bytes of a given JVM memory area.
# TYPE jvm_memory_bytes_init gauge
jvm_memory_bytes_init{area="heap",} 5.36870912E8
jvm_memory_bytes_init{area="nonheap",} 7667712.0
# HELP jvm_memory_pool_bytes_used Used bytes of a given JVM memory pool.
# TYPE jvm_memory_pool_bytes_used gauge
jvm_memory_pool_bytes_used{pool="CodeHeap 'non-nmethods'",} 1589632.0
jvm_memory_pool_bytes_used{pool="Metaspace",} 1.18930624E8
jvm_memory_pool_bytes_used{pool="CodeHeap 'profiled nmethods'",} 4.9174528E7
jvm_memory_pool_bytes_used{pool="Compressed Class Space",} 1.3103448E7
jvm_memory_pool_bytes_used{pool="G1 Eden Space",} 5.8720256E7
jvm_memory_pool_bytes_used{pool="G1 Old Gen",} 8.3514808E7
jvm_memory_pool_bytes_used{pool="G1 Survivor Space",} 3145728.0
jvm_memory_pool_bytes_used{pool="CodeHeap 'non-profiled nmethods'",} 2.12288E7
# HELP jvm_memory_pool_bytes_committed Committed bytes of a given JVM memory pool.
# TYPE jvm_memory_pool_bytes_committed gauge
jvm_memory_pool_bytes_committed{pool="CodeHeap 'non-nmethods'",} 2555904.0
jvm_memory_pool_bytes_committed{pool="Metaspace",} 1.23744256E8
jvm_memory_pool_bytes_committed{pool="CodeHeap 'profiled nmethods'",} 4.9217536E7
jvm_memory_pool_bytes_committed{pool="Compressed Class Space",} 1.4680064E7
jvm_memory_pool_bytes_committed{pool="G1 Eden Space",} 3.3554432E8
jvm_memory_pool_bytes_committed{pool="G1 Old Gen",} 1.98180864E8
jvm_memory_pool_bytes_committed{pool="G1 Survivor Space",} 3145728.0
jvm_memory_pool_bytes_committed{pool="CodeHeap 'non-profiled nmethods'",} 2.1233664E7
# HELP jvm_memory_pool_bytes_max Max bytes of a given JVM memory pool.
# TYPE jvm_memory_pool_bytes_max gauge

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jvm_memory_pool_bytes_max{pool="CodeHeap 'non-nmethods'",} 5832704.0
jvm_memory_pool_bytes_max{pool="Metaspace",} -1.0
jvm_memory_pool_bytes_max{pool="CodeHeap 'profiled nmethods'",} 1.22912768E8
jvm_memory_pool_bytes_max{pool="Compressed Class Space",} 1.073741824E9
jvm_memory_pool_bytes_max{pool="G1 Eden Space",} -1.0
jvm_memory_pool_bytes_max{pool="G1 Old Gen",} 6.442450944E9
jvm_memory_pool_bytes_max{pool="G1 Survivor Space",} -1.0
jvm_memory_pool_bytes_max{pool="CodeHeap 'non-profiled nmethods'",} 1.22912768E8
# HELP jvm_memory_pool_bytes_init Initial bytes of a given JVM memory pool.
# TYPE jvm_memory_pool_bytes_init gauge
jvm_memory_pool_bytes_init{pool="CodeHeap 'non-nmethods'",} 2555904.0
jvm_memory_pool_bytes_init{pool="Metaspace",} 0.0
jvm_memory_pool_bytes_init{pool="CodeHeap 'profiled nmethods'",} 2555904.0
jvm_memory_pool_bytes_init{pool="Compressed Class Space",} 0.0
jvm_memory_pool_bytes_init{pool="G1 Eden Space",} 2.8311552E7
jvm_memory_pool_bytes_init{pool="G1 Old Gen",} 5.0855936E8
jvm_memory_pool_bytes_init{pool="G1 Survivor Space",} 0.0
jvm_memory_pool_bytes_init{pool="CodeHeap 'non-profiled nmethods'",} 2555904.0
# HELP jvm_memory_pool_collection_used_bytes Used bytes after last collection of a given JVM memory pool.
# TYPE jvm_memory_pool_collection_used_bytes gauge
jvm_memory_pool_collection_used_bytes{pool="G1 Eden Space",} 0.0
jvm_memory_pool_collection_used_bytes{pool="G1 Old Gen",} 8.4038408E7
jvm_memory_pool_collection_used_bytes{pool="G1 Survivor Space",} 3145728.0
# HELP jvm_memory_pool_collection_committed_bytes Committed after last collection bytes of a given JVM memory pool.
# TYPE jvm_memory_pool_collection_committed_bytes gauge
jvm_memory_pool_collection_committed_bytes{pool="G1 Eden Space",} 3.3554432E8
jvm_memory_pool_collection_committed_bytes{pool="G1 Old Gen",} 1.98180864E8
jvm_memory_pool_collection_committed_bytes{pool="G1 Survivor Space",} 3145728.0
# HELP jvm_memory_pool_collection_max_bytes Max bytes after last collection of a given JVM memory pool.
# TYPE jvm_memory_pool_collection_max_bytes gauge
jvm_memory_pool_collection_max_bytes{pool="G1 Eden Space",} -1.0
jvm_memory_pool_collection_max_bytes{pool="G1 Old Gen",} 6.442450944E9
jvm_memory_pool_collection_max_bytes{pool="G1 Survivor Space",} -1.0
# HELP jvm_memory_pool_collection_init_bytes Initial after last collection bytes of a given JVM memory pool.
# TYPE jvm_memory_pool_collection_init_bytes gauge
jvm_memory_pool_collection_init_bytes{pool="G1 Eden Space",} 2.8311552E7
jvm_memory_pool_collection_init_bytes{pool="G1 Old Gen",} 5.0855936E8
jvm_memory_pool_collection_init_bytes{pool="G1 Survivor Space",} 0.0
# HELP uc_task_instance_late_finish_total Total number of task instances that finished late.
# TYPE uc_task_instance_late_finish_total counter
# HELP process_cpu_seconds_total Total user and system CPU time spent in seconds.
# TYPE process_cpu_seconds_total counter
process_cpu_seconds_total 865.34
# HELP process_start_time_seconds Start time of the process since unix epoch in seconds.
# TYPE process_start_time_seconds gauge
process_start_time_seconds 1.697134656711E9
# HELP process_open_fds Number of open file descriptors.
# TYPE process_open_fds gauge
process_open_fds 369.0
# HELP process_max_fds Maximum number of open file descriptors.
# TYPE process_max_fds gauge
process_max_fds 524288.0

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# HELP process_virtual_memory_bytes Virtual memory size in bytes.
# TYPE process_virtual_memory_bytes gauge
process_virtual_memory_bytes 1.0662772736E10
# HELP process_resident_memory_bytes Resident memory size in bytes.
# TYPE process_resident_memory_bytes gauge
process_resident_memory_bytes 1.11794176E9
# HELP uc_license_agents_distributed_used Returns the number of distributed agents used.
# TYPE uc_license_agents_distributed_used gauge
uc_license_agents_distributed_used{environment="QA",customer="*Stonebranch
Internal*",expiry_date="2025-12-31",} 223.0
# HELP uc_license_agents_distributed_max Returns the number of distributed agents allowed.
# TYPE uc_license_agents_distributed_max gauge
uc_license_agents_distributed_max{environment="QA",customer="*Stonebranch
Internal*",expiry_date="2025-12-31",} 10000.0
# HELP uc_license_agents_zos_used Returns the number of Zos agents used.
# TYPE uc_license_agents_zos_used gauge
uc_license_agents_zos_used{environment="QA",customer="*Stonebranch
Internal*",expiry_date="2025-12-31",} 74.0
# HELP uc_license_agents_zos_max Returns the number of Zos agents allowed.
# TYPE uc_license_agents_zos_max gauge
uc_license_agents_zos_max{environment="QA",customer="*Stonebranch
Internal*",expiry_date="2025-12-31",} 100.0
# HELP uc_license_cluster_nodes_used Returns the number of cluster nodes used.
# TYPE uc_license_cluster_nodes_used gauge
uc_license_cluster_nodes_used{environment="QA",customer="*Stonebranch
Internal*",expiry_date="2025-12-31",} 1.0
# HELP uc_license_cluster_nodes_max Returns the number of cluster nodes allowed.
# TYPE uc_license_cluster_nodes_max gauge
uc_license_cluster_nodes_max{environment="QA",customer="*Stonebranch
Internal*",expiry_date="2025-12-31",} 2.0
# HELP uc_license_monthly_executions_used Returns the number of monthly task executions used.
# TYPE uc_license_monthly_executions_used gauge
uc_license_monthly_executions_used{environment="QA",customer="*Stonebranch
Internal*",expiry_date="2025-12-31",} 0.0
# HELP uc_license_monthly_executions_max Returns the number of monthly task executions allowed.
# TYPE uc_license_monthly_executions_max gauge
uc_license_monthly_executions_max{environment="QA",customer="*Stonebranch
Internal*",expiry_date="2025-12-31",} -1.0
# HELP uc_license_task_definitions_used Returns the number of task definitions used.
# TYPE uc_license_task_definitions_used gauge
uc_license_task_definitions_used{environment="QA",customer="*Stonebranch
Internal*",expiry_date="2025-12-31",} 0.0
# HELP uc_license_task_definitions_max Returns the number of task definitions allowed.
# TYPE uc_license_task_definitions_max gauge
uc_license_task_definitions_max{environment="QA",customer="*Stonebranch
Internal*",expiry_date="2025-12-31",} -1.0
# HELP jvm_buffer_pool_used_bytes Used bytes of a given JVM buffer pool.
# TYPE jvm_buffer_pool_used_bytes gauge
jvm_buffer_pool_used_bytes{pool="mapped",} 0.0
jvm_buffer_pool_used_bytes{pool="direct",} 90112.0
# HELP jvm_buffer_pool_capacity_bytes Bytes capacity of a given JVM buffer pool.
# TYPE jvm_buffer_pool_capacity_bytes gauge
jvm_buffer_pool_capacity_bytes{pool="mapped",} 0.0
jvm_buffer_pool_capacity_bytes{pool="direct",} 90112.0
# HELP jvm_buffer_pool_used_buffers Used buffers of a given JVM buffer pool.
# TYPE jvm_buffer_pool_used_buffers gauge

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jvm_buffer_pool_used_buffers{pool="mapped"},} 0.0
jvm_buffer_pool_used_buffers{pool="direct"},} 11.0
# HELP uc_oms_server_last_connected_time_seconds OMS Server last connected time specified as the
number of seconds since the Unix epoch, namely January 1, 1970, 00:00:00 GMT.
# TYPE uc_oms_server_last_connected_time_seconds gauge
uc_oms_server_last_connected_time_seconds{server_address="qa-lx3rh7-x64:7878",last_connected="qa-
lx3rh7-x64/10.130.38.68:7878"},} 1.69713468E9
# HELP uc_oms_server_session_status OMS Server session status. (0=None, 1=Impaired, 2=Operational,
-1=Unknown)
# TYPE uc_oms_server_session_status gauge
uc_oms_server_session_status{server_address="qa-lx3rh7-x64:7878",last_connected="qa-lx3rh7-
x64/10.130.38.68:7878"},} 2.0
# HELP uc_oms_server_status OMS Server status. (0=Disconnected, 1=Connected, -1=Unknown)
# TYPE uc_oms_server_status gauge
uc_oms_server_status{server_address="qa-lx3rh7-x64:7878",last_connected="qa-lx3rh7-
x64/10.130.38.68:7878"},} 1.0
# HELP uc_oms_server_last_connected_time_seconds OMS Server last connected time specified as the
number of seconds since the Unix epoch, namely January 1, 1970, 00:00:00 GMT.
# TYPE uc_oms_server_last_connected_time_seconds gauge
uc_oms_server_last_connected_time_seconds{server_address="qa-sol11-x64:7878",last_connected="qa-
sol11-x64/192.168.31.113:7878"},} 1.697145997E9
# HELP uc_oms_server_session_status OMS Server session status. (0=None, 1=Impaired, 2=Operational,
-1=Unknown)
# TYPE uc_oms_server_session_status gauge
uc_oms_server_session_status{server_address="qa-sol11-x64:7878",last_connected="qa-sol11-
x64/192.168.31.113:7878"},} 2.0
# HELP uc_oms_server_status OMS Server status. (0=Disconnected, 1=Connected, -1=Unknown)
# TYPE uc_oms_server_status gauge
uc_oms_server_status{server_address="qa-sol11-x64:7878",last_connected="qa-sol11-
x64/192.168.31.113:7878"},} 1.0
# HELP uc_oms_server_last_connected_time_seconds OMS Server last connected time specified as the
number of seconds since the Unix epoch, namely January 1, 1970, 00:00:00 GMT.
# TYPE uc_oms_server_last_connected_time_seconds gauge
uc_oms_server_last_connected_time_seconds{server_address="qa-lx3s12-x64:7878",last_connected="qa-
lx3s12-x64/10.130.38.70:7878"},} 1.69713468E9
# HELP uc_oms_server_session_status OMS Server session status. (0=None, 1=Impaired, 2=Operational,
-1=Unknown)
# TYPE uc_oms_server_session_status gauge
uc_oms_server_session_status{server_address="qa-lx3s12-x64:7878",last_connected="qa-lx3s12-
x64/10.130.38.70:7878"},} 2.0
# HELP uc_oms_server_status OMS Server status. (0=Disconnected, 1=Connected, -1=Unknown)
# TYPE uc_oms_server_status gauge
uc_oms_server_status{server_address="qa-lx3s12-x64:7878",last_connected="qa-lx3s12-
x64/10.130.38.70:7878"},} 1.0
# HELP uc_oms_server_last_connected_time_seconds OMS Server last connected time specified as the
number of seconds since the Unix epoch, namely January 1, 1970, 00:00:00 GMT.
# TYPE uc_oms_server_last_connected_time_seconds gauge
uc_oms_server_last_connected_time_seconds{server_address="qa-aix71:7878",last_connected="qa-
aix71/192.168.31.89:7878"},} 1.69713468E9
# HELP uc_oms_server_session_status OMS Server session status. (0=None, 1=Impaired, 2=Operational,
-1=Unknown)
# TYPE uc_oms_server_session_status gauge
uc_oms_server_session_status{server_address="qa-aix71:7878",last_connected="qa-
aix71/192.168.31.89:7878"},} 2.0
# HELP uc_oms_server_status OMS Server status. (0=Disconnected, 1=Connected, -1=Unknown)
# TYPE uc_oms_server_status gauge

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uc_oms_server_status{server_address="qa-aix71:7878",last_connected="qa-aix71/192.168.31.89:7878",}
1.0
# HELP uc_oms_server_last_connected_time_seconds OMS Server last connected time specified as the
number of seconds since the Unix epoch, namely January 1, 1970, 00:00:00 GMT.
# TYPE uc_oms_server_last_connected_time_seconds gauge
# HELP uc_oms_server_session_status OMS Server session status. (0=None, 1=Impaired, 2=Operational,
-1=Unknown)
# TYPE uc_oms_server_session_status gauge
uc_oms_server_session_status{server_address="10.253.0.163:7777",last_connected="",} 0.0
# HELP uc_oms_server_status OMS Server status. (0=Disconnected, 1=Connected, -1=Unknown)
# TYPE uc_oms_server_status gauge
uc_oms_server_status{server_address="10.253.0.163:7777",last_connected="",} 0.0
# HELP uc_oms_server_last_connected_time_seconds OMS Server last connected time specified as the
number of seconds since the Unix epoch, namely January 1, 1970, 00:00:00 GMT.
# TYPE uc_oms_server_last_connected_time_seconds gauge
uc_oms_server_last_connected_time_seconds{server_address="qa-w2k19-x64:7878",last_connected="qa-
w2k19-x64/10.130.38.50:7878",} 1.69713468E9
# HELP uc_oms_server_session_status OMS Server session status. (0=None, 1=Impaired, 2=Operational,
-1=Unknown)
# TYPE uc_oms_server_session_status gauge
uc_oms_server_session_status{server_address="qa-w2k19-x64:7878",last_connected="qa-w2k19-
x64/10.130.38.50:7878",} 0.0
# HELP uc_oms_server_status OMS Server status. (0=Disconnected, 1=Connected, -1=Unknown)
# TYPE uc_oms_server_status gauge
uc_oms_server_status{server_address="qa-w2k19-x64:7878",last_connected="qa-w2k19-
x64/10.130.38.50:7878",} 0.0
# HELP uc_oms_server_last_connected_time_seconds OMS Server last connected time specified as the
number of seconds since the Unix epoch, namely January 1, 1970, 00:00:00 GMT.
# TYPE uc_oms_server_last_connected_time_seconds gauge
uc_oms_server_last_connected_time_seconds{server_address="qa-solaris11:7878",last_connected="qa-
solaris11/192.168.31.85:7878",} 1.697147882E9
# HELP uc_oms_server_session_status OMS Server session status. (0=None, 1=Impaired, 2=Operational,
-1=Unknown)
# TYPE uc_oms_server_session_status gauge
uc_oms_server_session_status{server_address="qa-solaris11:7878",last_connected="qa-
solaris11/192.168.31.85:7878",} 2.0
# HELP uc_oms_server_status OMS Server status. (0=Disconnected, 1=Connected, -1=Unknown)
# TYPE uc_oms_server_status gauge
uc_oms_server_status{server_address="qa-solaris11:7878",last_connected="qa-
solaris11/192.168.31.85:7878",} 1.0
# HELP uc_oms_server_last_connected_time_seconds OMS Server last connected time specified as the
number of seconds since the Unix epoch, namely January 1, 1970, 00:00:00 GMT.
# TYPE uc_oms_server_last_connected_time_seconds gauge
uc_oms_server_last_connected_time_seconds{server_address="qa-solaris11-
x64:7878",last_connected="qa-solaris11-x64/10.130.38.91:7878",} 1.697146469E9
# HELP uc_oms_server_session_status OMS Server session status. (0=None, 1=Impaired, 2=Operational,
-1=Unknown)
# TYPE uc_oms_server_session_status gauge
uc_oms_server_session_status{server_address="qa-solaris11-x64:7878",last_connected="qa-solaris11-
x64/10.130.38.91:7878",} 0.0
# HELP uc_oms_server_status OMS Server status. (0=Disconnected, 1=Connected, -1=Unknown)
# TYPE uc_oms_server_status gauge
uc_oms_server_status{server_address="qa-solaris11-x64:7878",last_connected="qa-solaris11-
x64/10.130.38.91:7878",} 0.0
# HELP uc_oms_server_last_connected_time_seconds OMS Server last connected time specified as the
number of seconds since the Unix epoch, namely January 1, 1970, 00:00:00 GMT.

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# TYPE uc_oms_server_last_connected_time_seconds gauge
uc_oms_server_last_connected_time_seconds{server_address="qa-lx5rh9-x64:7878",last_connected="qa-
lx5rh9-x64/10.130.38.87:7878",} 1.69713468E9
# HELP uc_oms_server_session_status OMS Server session status. (0=None, 1=Impaired, 2=Operational,
-1=Unknown)
# TYPE uc_oms_server_session_status gauge
uc_oms_server_session_status{server_address="qa-lx5rh9-x64:7878",last_connected="qa-lx5rh9-
x64/10.130.38.87:7878",} 0.0
# HELP uc_oms_server_status OMS Server status. (0=Disconnected, 1=Connected, -1=Unknown)
# TYPE uc_oms_server_status gauge
uc_oms_server_status{server_address="qa-lx5rh9-x64:7878",last_connected="qa-lx5rh9-
x64/10.130.38.87:7878",} 0.0
# HELP uc_oms_server_last_connected_time_seconds OMS Server last connected time specified as the
number of seconds since the Unix epoch, namely January 1, 1970, 00:00:00 GMT.
# TYPE uc_oms_server_last_connected_time_seconds gauge
uc_oms_server_last_connected_time_seconds{server_address="qa-lx4rh8-p64le:7878",last_connected="qa-
lx4rh8-p64le/10.130.38.88:7878",} 1.69713468E9
# HELP uc_oms_server_session_status OMS Server session status. (0=None, 1=Impaired, 2=Operational,
-1=Unknown)
# TYPE uc_oms_server_session_status gauge
uc_oms_server_session_status{server_address="qa-lx4rh8-p64le:7878",last_connected="qa-lx4rh8-p64le/
10.130.38.88:7878",} 2.0
# HELP uc_oms_server_status OMS Server status. (0=Disconnected, 1=Connected, -1=Unknown)
# TYPE uc_oms_server_status gauge
uc_oms_server_status{server_address="qa-lx4rh8-p64le:7878",last_connected="qa-lx4rh8-p64le/
10.130.38.88:7878",} 1.0
# HELP uc_oms_server_last_connected_time_seconds OMS Server last connected time specified as the
number of seconds since the Unix epoch, namely January 1, 1970, 00:00:00 GMT.
# TYPE uc_oms_server_last_connected_time_seconds gauge
uc_oms_server_last_connected_time_seconds{server_address="qa-aix72:7878",last_connected="qa-
aix72/192.168.31.95:7878",} 1.69713468E9
# HELP uc_oms_server_session_status OMS Server session status. (0=None, 1=Impaired, 2=Operational,
-1=Unknown)
# TYPE uc_oms_server_session_status gauge
uc_oms_server_session_status{server_address="qa-aix72:7878",last_connected="qa-
aix72/192.168.31.95:7878",} 0.0
# HELP uc_oms_server_status OMS Server status. (0=Disconnected, 1=Connected, -1=Unknown)
# TYPE uc_oms_server_status gauge
uc_oms_server_status{server_address="qa-aix72:7878",last_connected="qa-aix72/192.168.31.95:7878",}
0.0
# HELP uc_oms_server_last_connected_time_seconds OMS Server last connected time specified as the
number of seconds since the Unix epoch, namely January 1, 1970, 00:00:00 GMT.
# TYPE uc_oms_server_last_connected_time_seconds gauge
uc_oms_server_last_connected_time_seconds{server_address="qa-lx4s12-p64le:7878",last_connected="qa-
lx4s12-p64le/192.168.31.44:7878",} 1.697145082E9
# HELP uc_oms_server_session_status OMS Server session status. (0=None, 1=Impaired, 2=Operational,
-1=Unknown)
# TYPE uc_oms_server_session_status gauge
uc_oms_server_session_status{server_address="qa-lx4s12-p64le:7878",last_connected="qa-lx4s12-p64le/
192.168.31.44:7878",} 2.0
# HELP uc_oms_server_status OMS Server status. (0=Disconnected, 1=Connected, -1=Unknown)
# TYPE uc_oms_server_status gauge
uc_oms_server_status{server_address="qa-lx4s12-p64le:7878",last_connected="qa-lx4s12-p64le/
192.168.31.44:7878",} 1.0
# HELP uc_oms_server_last_connected_time_seconds OMS Server last connected time specified as the
number of seconds since the Unix epoch, namely January 1, 1970, 00:00:00 GMT.

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# TYPE uc_oms_server_last_connected_time_seconds gauge
uc_oms_server_last_connected_time_seconds{server_address="qa-lx4u18-x64:7878",last_connected="qa-lx4u18-x64/10.130.38.61:7878"}, 1.697145645E9
# HELP uc_oms_server_session_status OMS Server session status. (0=None, 1=Impaired, 2=Operational, -1=Unknown)
# TYPE uc_oms_server_session_status gauge
uc_oms_server_session_status{server_address="qa-lx4u18-x64:7878",last_connected="qa-lx4u18-x64/10.130.38.61:7878"}, 2.0
# HELP uc_oms_server_status OMS Server status. (0=Disconnected, 1=Connected, -1=Unknown)
# TYPE uc_oms_server_status gauge
uc_oms_server_status{server_address="qa-lx4u18-x64:7878",last_connected="qa-lx4u18-x64/10.130.38.61:7878"}, 1.0
# HELP uc_oms_server_last_connected_time_seconds OMS Server last connected time specified as the number of seconds since the Unix epoch, namely January 1, 1970, 00:00:00 GMT.
# TYPE uc_oms_server_last_connected_time_seconds gauge
uc_oms_server_last_connected_time_seconds{server_address="qa-lx4deb9-x64:7878",last_connected="qa-lx4deb9-x64/10.130.38.66:7878"}, 1.69713468E9
# HELP uc_oms_server_session_status OMS Server session status. (0=None, 1=Impaired, 2=Operational, -1=Unknown)
# TYPE uc_oms_server_session_status gauge
uc_oms_server_session_status{server_address="qa-lx4deb9-x64:7878",last_connected="qa-lx4deb9-x64/10.130.38.66:7878"}, 2.0
# HELP uc_oms_server_status OMS Server status. (0=Disconnected, 1=Connected, -1=Unknown)
# TYPE uc_oms_server_status gauge
uc_oms_server_status{server_address="qa-lx4deb9-x64:7878",last_connected="qa-lx4deb9-x64/10.130.38.66:7878"}, 1.0
# HELP uc_oms_server_last_connected_time_seconds OMS Server last connected time specified as the number of seconds since the Unix epoch, namely January 1, 1970, 00:00:00 GMT.
# TYPE uc_oms_server_last_connected_time_seconds gauge
uc_oms_server_last_connected_time_seconds{server_address="qa-lx3rh7-p64le:7878",last_connected="qa-lx3rh7-p64le/10.130.38.89:7878"}, 1.69713468E9
# HELP uc_oms_server_session_status OMS Server session status. (0=None, 1=Impaired, 2=Operational, -1=Unknown)
# TYPE uc_oms_server_session_status gauge
uc_oms_server_session_status{server_address="qa-lx3rh7-p64le:7878",last_connected="qa-lx3rh7-p64le/10.130.38.89:7878"}, 2.0
# HELP uc_oms_server_status OMS Server status. (0=Disconnected, 1=Connected, -1=Unknown)
# TYPE uc_oms_server_status gauge
uc_oms_server_status{server_address="qa-lx3rh7-p64le:7878",last_connected="qa-lx3rh7-p64le/10.130.38.89:7878"}, 1.0
# HELP uc_oms_server_last_connected_time_seconds OMS Server last connected time specified as the number of seconds since the Unix epoch, namely January 1, 1970, 00:00:00 GMT.
# TYPE uc_oms_server_last_connected_time_seconds gauge
uc_oms_server_last_connected_time_seconds{server_address="qa-opswise6:7878",last_connected="qa-opswise6/127.0.1.1:7878"}, 1.697134683E9
# HELP uc_oms_server_session_status OMS Server session status. (0=None, 1=Impaired, 2=Operational, -1=Unknown)
# TYPE uc_oms_server_session_status gauge
uc_oms_server_session_status{server_address="qa-opswise6:7878",last_connected="qa-opswise6/127.0.1.1:7878"}, 2.0
# HELP uc_oms_server_status OMS Server status. (0=Disconnected, 1=Connected, -1=Unknown)
# TYPE uc_oms_server_status gauge
uc_oms_server_status{server_address="qa-opswise6:7878",last_connected="qa-opswise6/127.0.1.1:7878"}, 1.0
# HELP uc_oms_server_last_connected_time_seconds OMS Server last connected time specified as the number of seconds since the Unix epoch, namely January 1, 1970, 00:00:00 GMT.

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# TYPE uc_oms_server_last_connected_time_seconds gauge
uc_oms_server_last_connected_time_seconds{server_address="qa-lx4rh8-s390x:50681",last_connected="qa-lx4rh8-s390x/192.168.50.39:50681",} 1.697134681E9
# HELP uc_oms_server_session_status OMS Server session status. (0=None, 1=Impaired, 2=Operational, -1=Unknown)
# TYPE uc_oms_server_session_status gauge
uc_oms_server_session_status{server_address="qa-lx4rh8-s390x:50681",last_connected="qa-lx4rh8-s390x/192.168.50.39:50681",} 2.0
# HELP uc_oms_server_status OMS Server status. (0=Disconnected, 1=Connected, -1=Unknown)
# TYPE uc_oms_server_status gauge
uc_oms_server_status{server_address="qa-lx4rh8-s390x:50681",last_connected="qa-lx4rh8-s390x/192.168.50.39:50681",} 1.0
# HELP jvm_memory_pool_allocated_bytes_created Total bytes allocated in a given JVM memory pool. Only updated after GC, not continuously.
# TYPE jvm_memory_pool_allocated_bytes_created gauge
jvm_memory_pool_allocated_bytes_created{pool="CodeHeap 'profiled nmethods'",} 1.697134675323E9
jvm_memory_pool_allocated_bytes_created{pool="G1 Old Gen",} 1.697134675333E9
jvm_memory_pool_allocated_bytes_created{pool="G1 Eden Space",} 1.697134675333E9
jvm_memory_pool_allocated_bytes_created{pool="CodeHeap 'non-profiled nmethods'",} 1.697134675333E9
jvm_memory_pool_allocated_bytes_created{pool="G1 Survivor Space",} 1.697134675333E9
jvm_memory_pool_allocated_bytes_created{pool="Compressed Class Space",} 1.697134675333E9
jvm_memory_pool_allocated_bytes_created{pool="Metaspace",} 1.697134675333E9
jvm_memory_pool_allocated_bytes_created{pool="CodeHeap 'non-nmethods'",} 1.697134675333E9
# HELP uc_history_created Total number of task instances that completed with an end status of In Doubt, Start Failure, Confirmation Required, Cancelled, Failed, Skipped, Finished, or Success.
# TYPE uc_history_created gauge
uc_history_created{cluster_node_id="qa-opswise6:8080-qa_opswise6",task_type="Email",task_type_detailed="Email",task_instance_status="Success",} 1.697134754749E9
uc_history_created{cluster_node_id="qa-opswise6:8080-qa_opswise6",task_type="Universal Command",task_type_detailed="Universal Command",task_instance_status="Success",} 1.697134728697E9
uc_history_created{cluster_node_id="qa-opswise6:8080-qa_opswise6",task_type="SQL",task_type_detailed="SQL",task_instance_status="Success",} 1.697134752333E9
uc_history_created{cluster_node_id="qa-opswise6:8080-qa_opswise6",task_type="Application Control",task_type_detailed="Application Control",task_instance_status="Finished",} 1.697134756041E9
uc_history_created{cluster_node_id="qa-opswise6:8080-qa_opswise6",task_type="Remote File Monitor",task_type_detailed="Remote File Monitor",task_instance_status="Success",} 1.697134755806E9
uc_history_created{cluster_node_id="qa-opswise6:8080-qa_opswise6",task_type="Workflow",task_type_detailed="Workflow",task_instance_status="Success",} 1.697134756315E9
uc_history_created{cluster_node_id="qa-opswise6:8080-qa_opswise6",task_type="Stored Procedure",task_type_detailed="Stored Procedure",task_instance_status="Success",} 1.697134754076E9
uc_history_created{cluster_node_id="qa-opswise6:8080-qa_opswise6",task_type="Task Monitor",task_type_detailed="Task Monitor",task_instance_status="Success",} 1.69713475496E9
uc_history_created{cluster_node_id="qa-opswise6:8080-qa_opswise6",task_type="Variable Monitor",task_type_detailed="Variable Monitor",task_instance_status="Success",} 1.697134726188E9
uc_history_created{cluster_node_id="qa-opswise6:8080-qa_opswise6",task_type="Manual",task_type_detailed="Manual",task_instance_status="Success",} 1.697134744335E9
uc_history_created{cluster_node_id="qa-opswise6:8080-qa_opswise6",task_type="Linux/Unix",task_type_detailed="Linux/Unix",task_instance_status="Success",} 1.697134729413E9
uc_history_created{cluster_node_id="qa-opswise6:8080-qa_opswise6",task_type="File Transfer",task_type_detailed="File Transfer",task_instance_status="Success",} 1.697134737053E9
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uc_history_created{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="System
Monitor",task_type_detailed="System Monitor",task_instance_status="Success",} 1.697134756256E9
uc_history_created{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="z/
OS",task_type_detailed="z/OS",task_instance_status="Skipped",} 1.697134728692E9
uc_history_created{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="Universal",task_type_detailed="License Generator -
7.7",task_instance_status="Success",} 1.69713932838E9
uc_history_created{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Application
Control",task_type_detailed="Application Control",task_instance_status="Failed",} 1.697134755972E9
uc_history_created{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Agent File
Monitor",task_type_detailed="Agent File Monitor",task_instance_status="Success",} 1.697134755274E9
uc_history_created{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="Windows",task_type_detailed="Windows",task_instance_status="Skipped",}
1.697134728696E9
uc_history_created{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="SAP",task_type_detailed="SAP",task_instance_status="Success",}
1.697134736571E9
uc_history_created{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="Timer",task_type_detailed="Timer",task_instance_status="Success",}
1.697134751506E9
uc_history_created{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="z/
OS",task_type_detailed="z/OS",task_instance_status="Success",} 1.697139274988E9
# HELP uc_task_instance_duration_seconds_created Task instance duration in seconds.
# TYPE uc_task_instance_duration_seconds_created gauge
uc_task_instance_duration_seconds_created{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="File Transfer",task_type_detailed="File Transfer",} 1.697134737052E9
uc_task_instance_duration_seconds_created{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="Linux/Unix",task_type_detailed="Linux/Unix",} 1.697134729411E9
uc_task_instance_duration_seconds_created{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="System Monitor",task_type_detailed="System Monitor",} 1.697134756255E9
uc_task_instance_duration_seconds_created{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="Email",task_type_detailed="Email",} 1.697134754748E9
uc_task_instance_duration_seconds_created{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="SAP",task_type_detailed="SAP",} 1.69713473657E9
uc_task_instance_duration_seconds_created{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="Stored Procedure",task_type_detailed="Stored Procedure",} 1.697134754074E9
uc_task_instance_duration_seconds_created{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="Workflow",task_type_detailed="Workflow",} 1.697134756315E9
uc_task_instance_duration_seconds_created{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="SQL",task_type_detailed="SQL",} 1.697134752333E9
uc_task_instance_duration_seconds_created{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="z/OS",task_type_detailed="z/OS",} 1.697139274987E9
uc_task_instance_duration_seconds_created{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="Task Monitor",task_type_detailed="Task Monitor",} 1.697134754959E9
uc_task_instance_duration_seconds_created{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="Timer",task_type_detailed="Timer",} 1.697134751505E9
uc_task_instance_duration_seconds_created{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="Agent File Monitor",task_type_detailed="Agent File Monitor",}
1.697134755271E9
uc_task_instance_duration_seconds_created{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="Variable Monitor",task_type_detailed="Variable Monitor",} 1.697134726187E9
uc_task_instance_duration_seconds_created{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="Universal Command",task_type_detailed="Universal Command",}
1.697134728691E9
uc_task_instance_duration_seconds_created{cluster_node_id="qa-opswise6:8080-
qa-opswise6",task_type="Manual",task_type_detailed="Manual",} 1.697134744335E9

```

```

uc_task_instance_duration_seconds_created{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Universal",task_type_detailed="License Generator - 7.7",} 1.69713932838E9
uc_task_instance_duration_seconds_created{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Remote File Monitor",task_type_detailed="Remote File Monitor",} 1.697134755803E9
# HELP uc_task_instance_launch_created Total number of task instances launched.
# TYPE uc_task_instance_launch_created gauge
uc_task_instance_launch_created{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="File Transfer",task_type_detailed="File Transfer",} 1.697134724532E9
uc_task_instance_launch_created{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Linux/Unix",task_type_detailed="Linux/Unix",} 1.697134724532E9
uc_task_instance_launch_created{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="System Monitor",task_type_detailed="System Monitor",} 1.697134724532E9
uc_task_instance_launch_created{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Email",task_type_detailed="Email",} 1.697134724532E9
uc_task_instance_launch_created{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="SAP",task_type_detailed="SAP",} 1.697134724532E9
uc_task_instance_launch_created{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Windows",task_type_detailed="Windows",} 1.697134724532E9
uc_task_instance_launch_created{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Stored Procedure",task_type_detailed="Stored Procedure",} 1.697134724532E9
uc_task_instance_launch_created{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Workflow",task_type_detailed="Workflow",} 1.697134724532E9
uc_task_instance_launch_created{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="SQL",task_type_detailed="SQL",} 1.697134724533E9
uc_task_instance_launch_created{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="z/OS",task_type_detailed="z/OS",} 1.697134724532E9
uc_task_instance_launch_created{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Task Monitor",task_type_detailed="Task Monitor",} 1.697134724532E9
uc_task_instance_launch_created{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Application Control",task_type_detailed="Application Control",} 1.697134724532E9
uc_task_instance_launch_created{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Agent File Monitor",task_type_detailed="Agent File Monitor",} 1.697134724532E9
uc_task_instance_launch_created{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Timer",task_type_detailed="Timer",} 1.697134724533E9
uc_task_instance_launch_created{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Variable Monitor",task_type_detailed="Variable Monitor",} 1.697134724532E9
uc_task_instance_launch_created{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Universal Command",task_type_detailed="Universal Command",} 1.697134724532E9
uc_task_instance_launch_created{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Manual",task_type_detailed="Manual",} 1.697134724532E9
uc_task_instance_launch_created{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Universal",task_type_detailed="License Generator - 7.7",} 1.697139327117E9
uc_task_instance_launch_created{cluster_node_id="qa-opswise6:8080-qa-opswise6",task_type="Remote File Monitor",task_type_detailed="Remote File Monitor",} 1.697134724532E9

```

4.22 OAuth Client Web Services

- [Overview](#)
- [Create an OAuth Client](#)
- [Modify an OAuth Client](#)

- [Read an OAuth Client](#)
- [Delete an OAuth Client](#)
- [List OAuth Clients](#)

4.22.1 Overview

Universal Controller supports the following RESTful-based web services for OAuth Client operations, which are listed alphabetically on this page.

- [Create an OAuth Client](#)
- [Modify an OAuth Client](#)
- [Read an OAuth Client](#)
- [Delete an OAuth Client](#)
- [List OAuth Clients](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

4.22.2 Create an OAuth Client

	Description
URI	<code>http://host_name/uc/resources/oauthclient</code>
HTTP Method	POST
Description	Creates an OAuth Client.
Example URI	http://localhost:8080/uc/resources/oauthclient
Authentication	HTTP Basic
Produces Content-Type	n/a
Consumes Content-Type	application/xml, application/json
Example Responses	• Status 200 • Successfully created the OAuth Client with id {uuid}. • Status 400 • Error message. • Status 403 • Operation prohibited due to security constraints. • Status 404 • An OAuth Client with name "{name}" does not exist. • An OAuth Client with id "{uuid}" does not exist. • Status 500 • Unexpected request failure. See log(s) for more details.

4.22.2.1 OAuth Client Properties

Property	UI Field Name	Description	Specifications	Required
authorizationEndpoint	Authorization Endpoint	The authorization endpoint for the authorization server.	Read only.	Y
clientId	Client ID	The Client ID issued by the authorization server.		N
clientSecret	Client Secret	The Client secret issued by the authorization server.		Y
clusterRedirectUrls	Cluster Node Redirect URLs	List of Redirect URLs. XML <pre><clusterRedirectUrls> <clusterRedirectUrl> <clusterNode>node1:8080-uc</clusterNode> <redirectUrl>http://localhost:8080/uc/oauth2/callback</redirectUrl> </clusterRedirectUrl> </clusterRedirectUrls></pre> JSON <pre>"clusterRedirectUrls": [{ "clusterNode": "node1:8080-uc", "redirectUrl": "http://localhost:8080/uc/oauth2/callback" }]</pre>		N
description	Description	Description of this record.		N
exportReleaseLevel	n/a	Universal Controller release that the record was exported from.	read only	N
exportTable	n/a	Record table information.	read only	N

Property	UI Field Name	Description	Specifications	Required
name	Name	Name used within the Controller to identify this OAuth Client.	Maximum 100 alphanumerics.	Y
opswiseGroups	Member of Business Services	List of Business Services: XML <pre><opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups></pre> JSON <pre>"opswiseGroups": ["test"]</pre>		N
provider	Provider	The authentication server provider. The Provider property cannot be changed after the OAuth Client is created.	Valid Values: - As String = Azure AD, As Value = 1 - As String = Google, As Value = 2	Y
retainSysIds	n/a	Specification for whether or not the Create an OAuth Client web service will persist the <code>sysId</code> property. - If <code>retainSysIds="true"</code> and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database. - If <code>retainSysIds="false"</code> and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller. Note In XML web services, <code>retainSysIds</code> is specified as an attribute in the <code><calendar></code> element.	Valid values: true/false (default is true).	N

Property	UI Field Name	Description	Specifications	Required
scopes	Scopes	List of scopes to request access to. XML <pre><scopes> <scope>https:// mail.google.com</scope> </scopes></pre> JSON <pre>"scopes": ["https:// mail.google.com"]</pre>		Y
sysId	UUID	System ID field in the database for this OAuth Client record.	Persisted only if retainSysIds is set to true.	N
tenantId	Tenant ID	If provider is Azure AD; The tenant identifier. If not specified, defaults to common.		N
tokenEndpoint	Token Endpoint	The token endpoint for the authorization server.	Read only.	N

4.22.2.2 Create an OAuth Client: XML and JSON Examples

	XML	JSON

Example Request	XML	JSON
	<pre> <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <oauthClient retainSysIds="true"> <clientId>client_id</clientId> <clientSecret>client_secret</ clientSecret> <clusterRedirectUrls> <clusterRedirectUrl> <clusterNode>node1:8080-uc</ clusterNode> <redirectUrl>http:// localhost:8080/uc/oauth2/callback</ redirectUrl> </clusterRedirectUrl> </clusterRedirectUrls> <description>description</description> <name>Google</name> <opswiseGroups/> <provider>Google</provider> <scopes> <scope>https://mail.google.com</ scope> </scopes> <sysId>239119555c2c427f8f5b29faeecd27</ sysId> </oauthClient> </pre>	<pre> { "clientId": "client_id", "clientSecret": "client_secret", "clusterRedirectUrls": [{ "clusterNode": "node1:8080-uc", "redirectUrl": "http://localhost:8080/uc/oauth2/callback" }], "description": "description", "name": "Google", "opswiseGroups": [], "provider": "Google", "retainSysIds": true, "scopes": ["https://mail.google.com"], "sysId": "239119555c2c427f8f5b29faeecd27" } </pre>

4.22.3 Modify an OAuth Client

	Description
URI	http://host_name/uc/resources/oauthclient
HTTP Method	PUT
Description	Modifies an OAuth Client.
Example URI	http://localhost:8080/uc/resources/oauthclient

	Description
Authentication	HTTP Basic
Produces Content-Type	n/a
Consumes Content-Type	application/xml, application/json
Example Responses	• Status 200 • Successfully updated the OAuth Client with id {uuid}. • Status 400 • Error message. • Status 403 • Operation prohibited due to security constraints. • Status 404 • An OAuth Client with name "{name}" does not exist. • An OAuth Client with id "{uuid}" does not exist. • Status 500 • Unexpected request failure. See log(s) for more details.

4.22.3.1 Modify an OAuth Client: XML and JSON Examples

	XML	JSON

Example Request	XML	JSON
	<pre><?xml version="1.0" encoding="UTF-8" standalone="yes"?> <oauthClient retainSysIds="true"> <clientId>client_id</clientId> <clientSecret>client_secret</clientSecret> <clusterRedirectUrls> <clusterRedirectUrl> <clusterNode>node1:8080-uc</clusterNode> <redirectUrl>http://localhost:8080/uc/oauth2/callback</redirectUrl> </clusterRedirectUrl> </clusterRedirectUrls> <description>description</description> <name>Google</name> <opswiseGroups/> <provider>Google</provider> <scopes> <scope>https://mail.google.com</scope> </scopes> <sysId>239119555c2c427f8f5b29faeecd27</sysId> </oauthClient></pre>	<pre>{ "clientId": "client_id", "clientSecret": "client_secret", "clusterRedirectUrls": [{ "clusterNode": "node1:8080-uc", "redirectUrl": "http://localhost:8080/uc/oauth2/callback" }], "description": "description", "name": "Google", "opswiseGroups": [], "provider": "Google", "retainSysIds": true, "scopes": ["https://mail.google.com"], "sysId": "239119555c2c427f8f5b29faeecd27" }</pre>

4.22.4 Read an OAuth Client

	Description
URI	http://host_name/uc/resources/oauthclient
HTTP Method	GET
Description	Retrieves information for a specific OAuth Client.
Example URI	http://localhost:8080/uc/resources/oauthclient?oauthclientname=testOAuthClient

	Description
Authentication	HTTP Basic
Produces Content-Type	application/xml, application/json
Consumes Content-Type	n/a
Example Responses	- Status 200 - See Example Response section below. - Status 404 - An OAuth Client with name "{name}" does not exist. - An OAuth Client with id "{uuid}" does not exist.

4.22.4.1 Read an OAuth Client: Query Parameters

The following request parameters will be needed for the service.

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>oauthclientname</code>	N/A	Name used within the Controller to identify the OAuth Client.	String; URI parameter	Y (unless <i>oauthclientid</i> is specified)	<code>oauthclientid</code>
<code>oauthclientid</code>	N/A	ID used within the Controller to identify the OAuth Client.	String; URI parameter	Y (unless <i>oauthclientname</i> is specified)	<code>oauthclientname</code>

4.22.4.2 Read an OAuth Client: XML and JSON Examples

	XML	JSON

Example Response

XML

```
<?xml version="1.0" encoding="UTF-8"
standalone="yes"?>
<oauthClient exportReleaseLevel="7.3.0.0"
exportTable="ops_oauth_client"
retainSysIds="true" version="5">
  <authorizationEndpoint>https://
accounts.google.com/o/oauth2/v2/auth</
authorizationEndpoint>
  <clientId>client_id</clientId>
  <clusterRedirectUrls>
    <clusterRedirectUrl>
      <clusterNode>node1:8080-uc</
clusterNode>
      <redirectUrl>http://localhost:8180/
uc/oauth2/callback</redirectUrl>
    </clusterRedirectUrl>
  </clusterRedirectUrls>
  <description>description</description>
  <name>Google</name>
  <opswiseGroups/>
  <provider>Google</provider>
  <scopes>
    <scope>https://mail.google.com</scope>
  </scopes>
  <sysId>239119555c2c427f8f5b29faeecd27</
sysId>
  <tokenEndpoint>https://
oauth2.googleapis.com/token</tokenEndpoint>
</oauthClient>
```

JSON

```
{
  "authorizationEndpoint":
    "https://accounts.google.com/o/
oauth2/v2/auth",
  "clientId": "client_id",
  "clusterRedirectUrls": [
    {
      "clusterNode":
        "node1:8080-uc",
      "redirectUrl":
        "http://localhost:8080/uc/oauth2/
callback"
    }
  ],
  "description": "description",
  "exportReleaseLevel":
    "7.3.0.0",
  "exportTable":
    "ops_oauth_client",
  "name": "Google",
  "opswiseGroups": [],
  "provider": "Google",
  "retainSysIds": true,
  "scopes": [
    "https://mail.google.com"
  ],
  "sysId":
    "239119555c2c427f8f5b29faeecd27",
  "tokenEndpoint": "https://
oauth2.googleapis.com/token",
  "version": 5
}
```

4.22.5 Delete an OAuth Client

	Description
URI	<code>http://host_name/uc/resources/oauthclient</code>
HTTP Method	DELETE
Description	Deletes an OAuth Client.
Example URI	http://localhost:8080/uc/resources/oauthclient?oauthclientname=testOAuthClient
Authentication	HTTP Basic
Produces Content-Type	n/a
Consumes Content-Type	n/a
Example Responses	- Status 200 - OAuth Client deleted successfully. - Status 404 - An OAuth Client with name "{name}" does not exist. - An OAuth Client with id "{uuid}" does not exist.

4.22.5.1 Delete an OAuth Client: Query Parameters

The following request parameters will be needed for the service.

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>oauthclientname</code>	N/A	Name used within the Controller to identify the OAuth Client.	String; URI parameter	Y (unless <code>oauthclientid</code> is specified)	<code>oauthclientid</code>
<code>oauthclientid</code>	N/A	ID used within the Controller to identify the OAuth Client.	String; URI parameter	Y (unless <code>oauthclientname</code> is specified)	<code>oauthclientname</code>

4.22.6 List OAuth Clients

	Description
URI	<code>http://host_name/uc/resources/oauthclient/list</code>
HTTP Method	GET
Description	Retrieves information for all OAuth Clients.

	Description
Example URI	http://localhost:8080/uc/resources/oauthclient/list
Authentication	HTTP Basic
Produces Content-Type	application/xml, application/json
Consumes Content-Type	n/a
Example Responses	- Status 200 - See Example Response section below.

4.22.6.1 List an OAuth Client: XML and JSON Examples

	XML	JSON

Example Response

XML

```
<?xml version="1.0" encoding="UTF-8"
standalone="yes"?>
<oauthClients>
  <oauthClient exportReleaseLevel="7.3.0.0"
exportTable="ops_oauth_client" version="5">
    <authorizationEndpoint>https://
accounts.google.com/o/oauth2/v2/auth</
authorizationEndpoint>
    <clientId>client_id</clientId>
    <clusterRedirectUrls>
      <clusterRedirectUrl>
        <clusterNode>node1:8080-uc</
clusterNode>
        <redirectUrl>http://
localhost:8080/uc/oauth2/callback</redirectUrl>
      </clusterRedirectUrl>
    </clusterRedirectUrls>
    <description>description</description>
    <name>Google</name>
    <opswiseGroups/>
    <provider>Google</provider>
    <scopes>
      <scope>https://mail.google.com</
scope>
    </scopes>
    <sysId>239119555c2c427f8f5b29faeecd27</sysId>
    <tokenEndpoint>https://
oauth2.googleapis.com/token</tokenEndpoint>
  </oauthClient>
</oauthClients>
```

JSON

```
[
  {
    "authorizationEndpoint":
"https://accounts.google.com/o/
oauth2/v2/auth",
    "clientId": "client_id",
    "clusterRedirectUrls": [
      {
        "clusterNode":
"node1:8080-uc",
        "redirectUrl":
"http://localhost:8080/uc/oauth2/
callback"
      }
    ],
    "description":
"description",
    "exportReleaseLevel":
"7.3.0.0",
    "exportTable":
"ops_oauth_client",
    "name": "Google",
    "opswiseGroups": [],
    "provider": "Google",
    "scopes": [
      "https://
mail.google.com"
    ],
    "sysId":
"239119555c2c427f8f5b29faeecd27",
    "tokenEndpoint":
"https://oauth2.googleapis.com/
token",
    "version": 5
  },
]
```

4.23 OAuth Single Sign-On Web Services

- [Overview](#)
- [Read OAuth Single Sign-On Settings](#)
 - [Read OAuth Single Sign-On Settings: XML and JSON Responses](#)
- [Update OAuth Single Sign-On Settings](#)
 - [Update OAuth Single Sign-On Settings: XML and JSON Requests](#)
 - [Update OAuth Single Sign-On Settings: Payload Properties](#)

4.23.1 Overview

Universal Controller supports the following RESTful-based web services for OAuth Single Sign-On Settings, which are listed alphabetically on this page.

- [Read OAuth Single Sign-On Settings](#)
- [Update OAuth Single Sign-On Settings](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

4.23.2 Read OAuth Single Sign-On Settings

	Description
URI	<code>http://host_name/uc/resources/oauthsettings</code>
HTTP Method	GET
Description	Read the OAuth Single Sign-On Settings.
Example URI	<code>http://localhost:8080/uc/resources/oauthsettings</code>
Authentication	Required
Produces Content-Type	application/xml, application/json
Consumes Content-Type	N/A
Example Responses	• Status 200 • Status 403 • Operation prohibited due to security constraints.

4.23.2.1 Read OAuth Single Sign-On Settings: XML and JSON Responses

XML	JSON
XML <pre><?xml version="1.0" encoding="UTF-8" standalone="yes"?> <oauthSettings exportReleaseLevel="7.7.0.0" exportTable="ops_oauth_settings"> <attrActive /> <attrDepartment /> <attrEmail>email</attrEmail> <attrFirstName>given_name</attrFirstName> <attrGroups>groups</attrGroups> <attrHomePhone /> <attrLastName>family_name</attrLastName> <attrManager /> <attrMiddleName /> <attrMobilePhone /> <attrPhone /> <attrTitle /> <clientId>00a22oyww...NIS0h8</clientId> <clusterBaseRedirectUrls> <clusterBaseRedirectUrl> <baseRedirectUrl>http:// example.com:8080/uc</baseRedirectUrl> <clusterNode>example.com:8080- uc</clusterNode> </clusterBaseRedirectUrl> </clusterBaseRedirectUrls> <issuerUri>https:// {accountId}.oktapreview.com/oauth2/default</ issuerUri> <jwtAudienceClaimValue>api://default</ jwtAudienceClaimValue> <jwtJwkSetUri /> <opaqueIntrospectionUri /> <pkce>true</pkce> <scopes> <scope>openid</scope> <scope>profile</scope> <scope>email</scope> </scopes> <singleSignOn>true</singleSignOn> <sysId>78c1fcdd9df446fb82c0bd74bfb0697e</ sysId> <tokenValidation>JWT</tokenValidation> <userNameClaimName>uc_username</ userNameClaimName> <userProvisioning></pre>	JSON <pre>{ "attrActive": null, "attrDepartment": null, "attrEmail": "email", "attrFirstName": "given_name", "attrGroups": "groups", "attrHomePhone": null, "attrLastName": "family_name", "attrManager": null, "attrMiddleName": null, "attrMobilePhone": null, "attrPhone": null, "attrTitle": null, "clientId": "00a22oyww...NIS0h8", "clusterBaseRedirectUrls": [{ "baseRedirectUrl": "http:// example.com:8080/uc", "clusterNode": "example.com:8080-uc" }], "exportReleaseLevel": "7.7.0.0", "exportTable": "ops_oauth_settings", "issuerUri": "https:// {accountId}.oktapreview.com/oauth2/ default", "jwtAudienceClaimValue": "api:// default", "jwtJwkSetUri": null, "opaqueIntrospectionUri": "https:// {accountId}.oktapreview.com/oauth2/ default", "pkce": true, "scopes": ["openid", "profile", "email"], "singleSignOn": true, "sysId": "78c1fcdd9df446fb82c0bd74bfb0697e", "tokenValidation": "JWT", "userNameClaimName": "uc_username", "userProvisioning": ["Web Browser Access",</pre>

XML	JSON
<pre><userProvisioningOption>Web Browser Access</userProvisioningOption> <userProvisioningOption>Web Service Access</userProvisioningOption> </userProvisioning> </oauthSettings></pre>	<pre>"Web Service Access"] }</pre>

4.23.3 Update OAuth Single Sign-On Settings

	Description
URI	http://host_name/uc/resources/oauthsettings
HTTP Method	PUT
Description	Update the OAuth Single Sign-On Settings.
Example URI	http://localhost:8080/uc/resources/oauthsettings
Authentication	Required
Produces Content-Type	text/plain
Consumes Content-Type	application/xml, application/json
Example Responses	- Status 200 - Successfully updated the OAuth Single Sign-On Settings with id 78c1fcdd9df446fb82c0bd74bfb0697e.

4.23.3.1 Update OAuth Single Sign-On Settings: XML and JSON Requests

XML	JSON
XML <pre><?xml version="1.0" encoding="UTF-8" standalone="yes"?> <oauthSettings exportReleaseLevel="7.7.0.0" exportTable="ops_oauth_settings"> <attrActive /> <attrDepartment /> <attrEmail>email</attrEmail> <attrFirstName>given_name</attrFirstName> <attrGroups>groups</attrGroups> <attrHomePhone /> <attrLastName>family_name</attrLastName> <attrManager /> <attrMiddleName /> <attrMobilePhone /> <attrPhone /> <attrTitle /> <clientId>00a22oyww...NIS0h8</clientId> <clusterBaseRedirectUrls> <clusterBaseRedirectUrl> <baseRedirectUrl>http:// example.com:8080/uc</baseRedirectUrl> <clusterNode>example.com:8080- uc</clusterNode> </clusterBaseRedirectUrl> </clusterBaseRedirectUrls> <issuerUri>https:// {accountId}.oktapreview.com/oauth2/default</ issuerUri> <jwtAudienceClaimValue>api://default</ jwtAudienceClaimValue> <jwtJwkSetUri /> <opaqueIntrospectionUri /> <pkce>true</pkce> <scopes> <scope>openid</scope> <scope>profile</scope> <scope>email</scope> </scopes> <singleSignOn>true</singleSignOn> <sysId>78c1fcdd9df446fb82c0bd74bfb0697e</ sysId> <tokenValidation>JWT</tokenValidation> <userNameClaimName>uc_username</ userNameClaimName> <userProvisioning></pre>	JSON <pre>{ "attrActive": null, "attrDepartment": null, "attrEmail": "email", "attrFirstName": "given_name", "attrGroups": "groups", "attrHomePhone": null, "attrLastName": "family_name", "attrManager": null, "attrMiddleName": null, "attrMobilePhone": null, "attrPhone": null, "attrTitle": null, "clientId": "00a22oyww...NIS0h8", "clusterBaseRedirectUrls": [{ "baseRedirectUrl": "http:// example.com:8080/uc", "clusterNode": "example.com:8080-uc" }], "exportReleaseLevel": "7.7.0.0", "exportTable": "ops_oauth_settings", "issuerUri": "https:// {accountId}.oktapreview.com/oauth2/ default", "jwtAudienceClaimValue": "api:// default", "jwtJwkSetUri": null, "opaqueIntrospectionUri": "https:// {accountId}.oktapreview.com/oauth2/ default", "pkce": true, "scopes": ["openid", "profile", "email"], "singleSignOn": true, "sysId": "78c1fcdd9df446fb82c0bd74bfb0697e", "tokenValidation": "JWT", "userNameClaimName": "uc_username", "userProvisioning": ["Web Browser Access",</pre>

XML	JSON
<pre> <userProvisioningOption>Web Browser Access</userProvisioningOption> <userProvisioningOption>Web Service Access</userProvisioningOption> </userProvisioning> </oauthSettings> </pre>	<pre> "Web Service Access"] } </pre>

4.23.3.2 Update OAuth Single Sign-On Settings: Payload Properties

Property	UI Field Name	Description	Specifications	Required
singleSignOn	OAuth Single Sign-On	If true, turns on OAuth Single Sign-On. If false, turns off OAuth Single Sign-On.	Boolean; Valid values: true/false. Default is false.	N
userProvisioning	User Provisioning	Turn on or off the provisioning of users through Access or ID Token attributes. Select the application access method(s) you want User Provisioning to be applied.	Valid values (case-insensitive): - As String = Web Browser Access, As Value = 1 - As String = Web Service Access, As Value = 2 XML <pre> <userProvisioning/> <userProvisioning> <userProvisioningOption>Web Browser Access</userProvisioningOption> <userProvisioningOption>Web Service Access</userProvisioningOption> </userProvisioning> </pre> JSON <pre> "userProvisioning": [] "userProvisioning": ["Web Browser Access", "Web Service Access"] </pre>	N

Property	UI Field Name	Description	Specifications	Required
issuerUri	Issuer URI	Universal Controller uses the Issuer URI for discovery of the OpenID Connect / OAuth 2.0 protocol endpoints for authenticating users. One of the following must be a supported endpoint for the authorization server, referred to as a Provider Configuration endpoint or a Authorization Server Metadata endpoint. {Issuer URI}/.well-known/openid-configuration {Issuer URI Host}/.well-known/openid-configuration/{Issuer URI Path} {Issuer URI Host}/.well-known/oauth-authorization-server/{Issuer URI Path}	Must be a valid URL beginning with http://, or https:// and contain no spaces.	Y (if singleSignOn is true)
clientId	Client Id	Client identifier for the Universal Controller Web Application required for OAuth flows.		Y (if singleSignOn is true)
clientSecret	Client Secret	Client secret used for client authentication with the authorization server.	The clientSecret is not returned in the GET response payload.	Y (if singleSignOn is true)
scopes	Scopes	Specify a comma-delimited list of OAuth scopes. If left unspecified will default to "openid".	XML <pre><scopes> <scope>profile</scope> <scope>openid</scope> <scope>email</scope> </scopes></pre> JSON <pre>"scopes": ["profile", "openid", "email"]</pre>	N
userNameClaimName	User Id (Username) Claim Name	Specifies the name of a specific claim / attribute to identify the Universal Controller User Id (Username). If left unspecified will default to the Subject identifier (sub).		N

Property	UI Field Name	Description	Specifications	Required
pkce	Proof Key for Code Exchange (PKCE)	Authorization Code grant type requires PKCE as additional verification.	Boolean; Valid values: true/false. Default is false.	N
clusterBaseRedirectUrls	Cluster Node Base Redirect URLs	Cluster Node Base Redirect URLs are used to construct the sign-in redirection endpoint for each Cluster Node and are specified as a URL with protocol, server, port, and context path scheme://server:port/contextPath If not specified, defaults to values from the request using the Host header value, if any, or the resolved server name (or server IP address) and server port the client connection was accepted on. It is recommended that you specify the Base Redirect URL for each Cluster Node rather than rely on the Host header value for redirection endpoint resolution. The fully qualified sign-in redirection endpoint for each Cluster Node will be: {Cluster Node Base Redirect URL}/login/oauth2/code/default Each Cluster Node's fully qualified sign-in redirection endpoint must be added to your registered application in the authorization server.	XML <pre><clusterBaseRedirectUrls> <clusterBaseRedirectUrl> <baseRedirectUrl>http:// example.com:8080/uc</baseRedirectUrl> <clusterNode>node1:8080-uc</ clusterNode> </clusterBaseRedirectUrl> <clusterBaseRedirectUrl> <baseRedirectUrl>http:// example.com:8080/uc</baseRedirectUrl> <clusterNode>node2:8080-uc</ clusterNode> </clusterBaseRedirectUrl> </clusterBaseRedirectUrls></pre> JSON <pre>"clusterBaseRedirectUrls": [{ "baseRedirectUrl": "http:// example.com:8080/uc", "clusterNode": "node1:8080-uc" }, { "baseRedirectUrl": "http:// example.com:8080/uc", "clusterNode": "node2:8080-uc" }]</pre> baseRedirectUrl must be a valid URL beginning with http://, or https:// and contain no spaces. baseRedirectUrl cannot have a trailing '/' character. clusterNode must be a valid Cluster Node Node Id.	N
tokenValidation	OAuth Bearer Token Validation	Choose the type of OAuth2 Bearer Token authentication supported for Universal Controller Web Service API endpoints. If None, then only Basic and Personal Access Token authentication are supported.	Valid values (case-insensitive): - As String = None, As Value = 0 (Default) - As String = Opaque Token, As Value = 1 - As String = JWT, As Value = 2	N

Property	UI Field Name	Description	Specifications	Required
opaqueIntrospectionUri	Introspection URI	The introspection endpoint URI.	Must be a valid URL beginning with http://, or https:// and contain no spaces.	Y (if singleSignOn is true and tokenValidation is Opaque Token)
jwtJwkSetUri	JWK Set URI	Specifies a JSON Web Key (JWK) endpoint that contains public keys used for Access and ID Token verification. If left unspecified, Universal Controller will use the Issuer URI to query the Provider Configuration or Authorization Server Metadata endpoint for the JWK Set URI .	Must be a valid URL beginning with http://, or https:// and contain no spaces.	N
jwtAudienceClaimValue	Audience Claim Value	Specification of the expected audience claim value so the Universal Controller can validate the Token audience (aud) matches.		N
attrFirstName	First Name	The Name of an attribute from the Access or ID Token containing the user's First Name .		Y (if singleSignOn is true and userProvisioning is true)
attrMiddleName	Middle Name	The Name of an attribute from the Access or ID Token containing the user's Middle Name .		N
attrLastName	Last Name	The Name of an attribute from the Access or ID Token containing the user's Last Name .		N
attrEmail	Email	The Name of an attribute from the Access or ID Token containing the user's Email .		N
attrTitle	Title	The Name of an attribute from the Access or ID Token containing the user's Title .		N
attrDepartment	Department	The Name of an attribute from the Access or ID Token containing the user's Department .		N
attrManager	Manager	The Name of an attribute from the Access or ID Token containing the user's Manager Name .		N

Property	UI Field Name	Description	Specifications	Required
attrBusinessPhone	Business Phone	The Name of an attribute from the Access or ID Token containing the user's Business Phone .		N
attrMobilePhone	Mobile Phone	The Name of an attribute from the Access or ID Token containing the user's Mobile Phone .		N
attrHomePhone	Home Phone	The Name of an attribute from the Access or ID Token containing the user's Home Phone .		N
attrActive	Active	The Name of an attribute from the Access or ID Token containing the user's Active condition.		N
attrGroups	Groups	The Name of a multi-valued attribute from the Access or ID Token containing the Group Names the user is a member of.		N

4.24 OMS Server Web Services

- [Overview](#)
- [Create an OMS Server](#)
- [Delete an OMS Server](#)
- [List OMS Servers](#)
- [Modify an OMS Server](#)
- [Read an OMS Server](#)
- [Properties](#)

4.24.1 Overview

Universal Controller supports the following RESTful-based web services for OMS Server operations, which are listed alphabetically on this page.

- [Create an OMS Server](#)
- [Delete an OMS Server](#)
- [List OMS Servers](#)
- [Modify an OMS Server](#)
- [Read an OMS Server](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

4.24.2 Create an OMS Server

	Description
URI	http://host_name/uc/resources/omsserver
HTTP Method	POST
Description	Creates an OMS Server .
Example URI	http://localhost:8080/uc/resources/omsserver
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See OMS Server: XML and JSON Examples .
Request OMS Server Properties	See OMS Server: Properties .
Request Email Notification Properties	See OMS Server: Email Notification Properties .
Request SNMP Notification Properties	See OMS Server: SNMP Notification Properties .
Example Response	• Status 200 /OK Successfully created the OMS Server with sysId {sysId}. • Status 400 /Bad Request Create OMS Server failed. A duplicate value has been detected. OMS Server Address must be unique.

4.24.3 Delete an OMS Server

	Description
URI	http://host_name/uc/resources/omsserver
HTTP Method	DELETE
Description	Deletes an OMS Server.
URI Parameters	See Delete an OMS Server: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/omsserver?serveraddress=localhost:7878
Example Response	• Status 200 /OK OMS Server deleted successfully. • Status 400 /Bad Request Mutual exclusion violation. Cannot specify <code>serveraddress</code> and <code>serverid</code> at the same time. • Status 404 /Not Found OMS Server with {server address/id} "localhost:7878" does not exist.

4.24.3.1 Delete an OMS Server: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
<code>serverid</code>	ID used within the Controller to identify this OMS Server.	String; URI parameter.	Y (unless <code>serveraddress</code> is specified)	<code>serveraddress</code>
<code>serveraddress</code>	IP address or host name of this OMS Server.	String; URI parameter.	Y (unless <code>serverid</code> is specified)	<code>serverid</code>

4.24.4 List OMS Servers

	Description
URI	http://host_name/uc/resources/omsserver
HTTP Method	GET
Description	Retrieves the Server address or partial server address of all OMS servers.
Example URI	http://localhost:8080/uc/resources/omsserver/list
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See OMS Server: XML and JSON Examples .
Response Properties	See OMS Server: Properties .

4.24.5 Modify an OMS Server

	Description
URI	http://host_name/uc/resources/omsserver
HTTP Method	PUT
Description	Modifies the OMS Server specified by the <code>sysId</code> . To modify OMS Server properties without modifying related records, see the excludeRelated property.
Example URI	http://localhost:8080/uc/resources/omsserver

	Description
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See OMS Server: XML and JSON Examples .
Request Properties	See OMS Server: Properties .
Example Response	- Status 200 /OK Successfully updated the OMS Server with sysId {sysId}. - Status 400 /Bad Request Update OMS Server failed. A duplicate value has been detected. OMS Server Address must be unique.

4.24.6 Read an OMS Server

URI	http://host_name/uc/resources/omsserver
HTTP Method	GET
Description	Retrieves information on a specific OMS Server.
URI Parameters	See Read an OMS Server: URI Parameters .
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example URI	http://localhost:8080/uc/resources/omsserver?serveraddress=localhost:7878
Example Response	See OMS Server: XML and JSON Examples .
Response Properties	See OMS Server: Properties .

4.24.6.1 Read an OMS Server: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
<code>serverid</code>	ID used within the Controller to identify this OMS Server.	String; URI parameter.	Y (unless <code>serveraddress</code> is specified)	<code>serveraddress</code>
<code>serveraddress</code>	IP address or host name of this OMS Server.	String; URI parameter.	Y (unless <code>serverid</code> is specified)	<code>serverid</code>

4.24.6.2 OMS Server: XML and JSON Examples

The `exportReleaseLevel` and `exportTable` properties are specified as attributes in XML.

XML	JSON
<pre> XML <omsServer exportReleaseLevel="7.2.0.0" exportTable="ops_oms_server" version="1"> <authenticate>false</authenticate> <description>Server A</description> <lastConnected>localhost/ 127.0.0.1:7878</lastConnected> <lastConnectedTime>localhost/ 127.0.0.1:7878</lastConnectedTime> <notifications> <emailNotification> <status>Disconnected</status> <sysId>735cc6806d1347e5a0730 36ee5397097</sysId> <bcc /> <body>test</body> <cc /> <emailConnection>uc - Test Account</emailConnection> <emailTemplate>uc - Template</emailTemplate> <replyTo /> <subject /> <to /> </emailNotification> <snmpNotification> <status>Disconnected</status> <sysId>c17b45b2bdd84b3aa9437 c60baf60647</sysId> <severity>Minor</severity> <snmpManager>SNMP Manager</ snmpManager> </snmpNotification> </notifications> <opswiseGroups> <opswiseGroup>group A</ opswiseGroup> <opswiseGroup>group B</ opswiseGroup> <opswiseGroup>group C</ opswiseGroup> </opswiseGroups> <serverAddress>localhost:7878</ serverAddress> <sessionStatus>None</sessionStatus> <status>Disconnected</status> <suspended>true</suspended> <sysId>1307d3159099415c9bd36158b812e d54</sysId> <timeout>30</timeout> </omsServer> </pre>	<pre> JSON { "authenticate": false, "description": "Server A", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_oms_server", "lastConnected": "localhost/127.0.0.1:7878", "lastConnectedTime": "2020-06-03 11:00:11 -0400", "notifications": { "emailNotifications": [{ "bcc": null, "body": "test", "cc": null, "emailConnection": "uc - Test Account ", "emailTemplate": "uc - Template", "replyTo": null, "status": "Disconnected", "subject": null, "sysId": "3104c0f2e5fd4e8c9e54ab5f653cfe2e", "to": null }], "snmpNotifications": [{ "severity": "Minor", "snmpManager": "SNMP Manager", "status": "Disconnected", "sysId": "bc2898e0c1b94594ac7912a34df33216" }] }, "opswiseGroups": ["A", "B", "C"], "retainSysIds": true, "serverAddress": "localhost:7878", "sessionStatus": "Operational", "status": "Connected", "suspended": false, "sysId": "0f28a0cadaa64e2a8710c417bb895055", "timeout": 60 } </pre>

4.24.7 Properties

4.24.7.1 OMS Server: Properties

Property	UI Field Name	Description	Specifications	Required
authenticate	Authenticate OMS Server	Specification for whether or not the Controller authenticates the OMS server digital certificate.	Boolean; Valid values: true/false. Default is false.	N
description	Description	User-defined; description of this record.		N
excludeRelated	n/a	For the Modify OMS Server web service; specification for whether or not to exclude related records from the update, even if they are provided in the request. Note In XML, <code>excludeRelated</code> is specified as an attribute in the <code><omsServer></code> element.	Valid values: true/false (default is false).	N
exportReleaseLevel	n/a	Universal Controller release that the record was exported from.	read only	N
exportTable	n/a	Record table information.	read only	N
lastConnected	Last Connected Server Address	OMS Server, in a High Availability environment of multiple cluster nodes, that is connected to the Controller or was last connected to the Controller.	Read-only.	n/a
lastConnectedTime	Last Connected Time	Time when the Universal Controller last connected to the server.	Read-only.	n/a

Property	UI Field Name	Description	Specifications	Required
opswiseGroups	Member of Business Services	Business Services that this record belongs to. Format: XML <pre><opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups></pre> JSON <pre>"opswiseGroups": ["test"]</pre>		N
retainSysIds	n/a	Specification for whether or not the Create an OMS Server web service will persist the sysId property. - If retainSysIds="true" and sysId is included in the request/response, sysId will be persisted to the database. - If retainSysIds="false" and sysId is included in the request/response, sysId will be ignored; it will be autogenerated by the Controller. Note In XML web services, retainSysIds is specified as an attribute in the <omsServer> element.	Valid values: true/false (default is true).	N
serverAddress	OMS Server Address	IP address or host name of an OMS Server, or a comma-separated list of OMS Servers configured as an OMS Server cluster.		Y
sessionStatus	Session Status	Current status of the OMS server messaging sessions: heartbeat, input, and output sessions.	Read-only. Valid values: - None - Impaired - Operational	n/a
status	Status	Current status of the OMS server.	Read-only. Valid values: - Disconnected - Connected	n/a

Property	UI Field Name	Description	Specifications	Required
suspended	Suspended	Indication of whether or not the OMS Server has been suspended.	Read -only. Valid values: true/false.	n/a
sysId	n/a	System ID field in the database for this OMS Server record.	Persisted only if retainSysIds is set to true.	N
timeout	Network Timeout (Seconds)	Network socket time-out value used for TCP/IP receive and connect operations.	Integer.	N

4.24.7.2 OMS Server: Email Notification Properties

Property	UI Field Name	Description	Specifications	Required
bcc	Bcc	Email address of the party being sent a blind (hidden) copy of the email, if any.	Use commas to separate multiple recipients. Variables and Functions are supported.	N
body	Body	Text of the email message.	Variables and Functions are supported. If the <code>emailTemplate</code> contains text in the body, this text is appended.	N
cc	Cc	Email address of the party being sent a copy of the email, if any.	Use commas to separate multiple recipients. Variables and Functions are supported.	N
emailConnection	Email Connection	Name of an Email Connection .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> .	Y (unless <code>emailTemplate</code> is specified)
emailTemplate	Email Template	Name of an Email Template .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> .	Y (unless <code>emailConnection</code> is specified)
replyTo	Reply-To	Email address of the sender of the email.	Use commas to separate multiple recipients. Variables and Functions are supported.	N
status	Status Options	Comma-separated list of statuses	Valid values: - As String = Disconnected, As Value = 0 - As String = Connected, As Value = 1	N
subject	Subject	Subject line of the email.	Variables and Functions are supported.	N
sysId	n/a	<code>sys_id</code> used within the Controller to identify this Email Notification.		N
to	To	Email address of the recipient.	Use commas to separate multiple recipients. Variables and Functions are supported.	N

4.24.7.3 OMS Server: SNMP Notification Properties

Property	UI Field Name	Description	Specifications	Required
severity	Notification Severity	Severity level of this notification.	Valid values: - As String = Normal, As Value = 1 - As String = Warning, As Value = 2 - As String = Minor, As Value = 3 - As String = Major, As Value = 4 - As String = Critical, As Value = 5 Default is Normal (1).	N
snmpManager	SNMP Manager	SNMP Manager that will receive this notification.		N
status	Status Options	Comma-separated list of statuses	Valid values: - As String = Disconnected, As Value = 0 - As String = Connected, As Value = 1	N
sysId	n/a	sys_id used within the Controller to identify this SNMP Notification.		N

4.25 Password Web Services

- [Overview](#)
- [Change a Universal Controller User Password](#)
- [Change Runtime Password of Credentials](#)

4.25.1 Overview

Universal Controller supports the following RESTful-based web services for Password operations, which are listed alphabetically on this page.

- [Change a Universal Controller User Password](#)
- [Change Runtime Password of Credentials](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Note

For other credential modifications, see [Credential Web Services](#). For other user modifications, see [User Web Services](#).

4.25.2 Change a Universal Controller User Password

	Description
URI	http://host_name/uc/resources/user/changepassword
HTTP Method	POST
Description	Changes a Universal Controller user password.
Example URI	http://localhost:8080/uc/resources/user/changepassword
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Change a Universal Controller User Password: XML and JSON Examples .
Request Properties	See Change a Universal Controller User Password: Request Properties .
Example Response	See Change a Universal Controller User Password: XML and JSON Examples .

Note

The Authentication user must have the [ops_admin](#) or [ops_user_admin](#) role.

If the Authentication user has an [expired password](#) or has a [Password Requires Reset](#) condition, the Authentication user can change only his/her own password.

The Password Requires Reset condition will be cleared only if the Authentication user is changing his/her own password.

The Password Last Changed time will be updated for any user whose password has been changed through the Change User Password operation, regardless of who changed it.

Once the Authentication user, with an expired password or Password Requires Reset condition, has changed his/her own password via the Change User Password operation, he/she can proceed with authenticating for all other Web Service APIs.

A password cannot be reused if it has been maintained in Password history, as specified by the [Maximum Passwords In History](#) field in [Password Settings](#).

4.25.2.1 Change a Universal Controller User Password: XML and JSON Examples

Examples	XML	JSON
Example Request	<pre>XML <change-user-password> <userId>test.password</userId> <newPassword>test</newPassword> </change-user-password></pre>	<pre>JSON { "userId": "test.password", "newPassword": "test" }</pre>
Example Response	<pre>XML <command-response> <type>change_user_password</type> <success>true</success> <info>Successfully changed password for user "test.password".</info> <errors /> </command-response></pre>	<pre>JSON { "type": "change_user_password", "success": true, "info": "Successfully changed password for user "test.password".", "errors": "" }</pre>

4.25.2.2 Change a Universal Controller User Password: Request Properties

Property	UI Field Name	Description	Specifications	Required
userId	User Id	ID of this Universal Controller user.		Y
newPassword	Password	Name of a user password for this user.		Y

4.25.3 Change Runtime Password of Credentials

	Description
URI	http://host_name/uc/resources/credential/ops-change-password
HTTP Method	POST
Description	Changes the runtime password of the credentials based on name.
Example URI	http://localhost:8080/uc/resources/credential/ops-change-password
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json

	Description
Example Request	See Change Runtime Password of Credentials: XML and JSON Examples .
Request Properties	See Change Runtime Password of Credentials: Request Properties .
Example Response	See Change Runtime Password of Credentials: XML and JSON Examples .

Note

The user must have the **Update Credential** permission.

4.25.3.1 Change Runtime Password of Credentials: XML and JSON Examples

Examples	XML	JSON
Example Request	<pre>XML <change-credentials-password> <name>test</name> <newRuntimePassword>test2</ newRuntimePassword> </change-credentials-password></pre>	<pre>JSON { "name": "test", "newRuntimePassword": "test2" }</pre>
Example Response	<pre>XML <command-response> <type>change_credentials_password< /type> <success>true</success> <info>Successfully changed runtime password for credentials with name "test".</info> <errors /> </command-response></pre>	<pre>JSON { "type": "change_credentials_password", "success": true, "info": "Successfully changed runtime password for credentials with name "test".", "errors": "" }</pre>

4.25.3.2 Change Runtime Password of Credentials: Request Properties

Property	UI Field Name	Description	Specifications	Required
name	Name	Name of this Credential.		Y

Property	UI Field Name	Description	Specifications	Required
newruntimepassword	Runtime Password	Name of a new runtime password for this Credential .		Y

4.26 Properties Web Services

- [Overview](#)
- [List Properties](#)
- [Modify a Property](#)
- [Read a Property](#)

4.26.1 Overview

Universal Controller supports the following RESTful-based web services for Universal Controller system properties, which are listed alphabetically on this page.

- [List Properties](#)
- [Modify a Property](#)
- [Read a Property](#)

Formatting specifications for each web service, including details about property requirements, are provided.

4.26.2 List Properties

	Description
URI	http://host_name:port/uc/resources/property/list
HTTP Method	GET
Description	Retrieves information on all properties.
Example URI	http://localhost:8080/uc/resources/property/list
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See List Properties: XML and JSON Responses , below.
List Properties Properties	See List Properties: Properties , below.

4.26.2.1 List Properties: XML and JSON Responses

XML	JSON
<pre>XML <properties> <property> <name label="Administrator Email Address">uc.admin.email_addr</name> <value>admin@stonebranch.com</value> </property> <property> <name label="Agent Cache Retention Period In Days">uc.agent.cache.retention</ name> <value>7</value> </property> </properties></pre>	<pre>JSON [{ "name": { "label": "Administrator Email Address", "value": "uc.admin.email_addr" }, "value": "admin@stonebranch.com" }, { "name": { "label": "Agent Cache Retention Period In Days", "value": "uc.agent.cache.retention" }, "value": "7" }]</pre>

4.26.2.2 List Properties: Properties

Property	UI Field Name	Description
name	Name	Name of the property.
value	Value	Value of the property.

4.26.3 Modify a Property

	Description
URI	http://host_name:port/uc/resources/property
HTTP Method	PUT
Description	Modifies the specified property.
Example URI	http://localhost:8080/uc/resources/property?propertyname=uc.forecast.days&value=20
URI Parameters	See Modify a Property: URI Parameters , below.

	Description
Example Response	- Status 200 /OK Successfully updated the property with name {propertyname}. - Status 404 /Not Found A property with name {propertyname} does not exist.

4.26.3.1 Modify a Property: URI Parameters

Parameter	Description	Specifications	Required
propertyname	Name used within the Controller to identify this property.	String; URI parameter.	Y
value	Value of this property.	Case-sensitive; URI parameter.	Y

4.26.4 Read a Property

URI	http://host_name:port/uc/resources/property
HTTP Method	GET
Description	Retrieves information on a specific property.
URI Parameters	See Read a Property: URI Parameters , below.
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example URI	http://localhost:8080/uc/resources/property?propertyname=uc.forecast.days
Example Response	See Read a Property: XML and JSON Responses , below.
Read a Property Properties	See List Properties: Properties .

4.26.4.1 Read a Property: URI Parameters

Parameter	Description	Specifications	Required
propertyname	Name used within the Controller to identify this property.	String; URI parameter.	Y

4.26.4.2 Read a Property XML and JSON Responses

XML	JSON
XML <pre><property> <name label="Forecast Period In Days">uc.forecast.days</name> <value>31</value> </property></pre>	JSON <pre>{ "name": { "name": "Forecast Period In Days", "value": "uc.forecast.days" }, "value": "31" }</pre>

4.27 Report Web Services

- [Overview](#)
 - [Run Report](#)

4.27.1 Overview

Universal Controller supports the following RESTful-based web service for Report.

- [Run Report](#)

Formatting specifications for the web service, including details about parameter requirements, are provided.

4.27.2 Run Report

	Description
URI	http://host_name/uc/resources/report/run
HTTP Method	GET
HTTP Header	Accept • application/pdf (Default) • application/xml • application/json • text/csv • text/tab-separated-values

	Description
Description	Run report. Chart reports are generated in png format ("image/png") List reports are generated in pdf format (application/pdf), by default. - To get the report in XML format, the Accept HTTP Header must be set to application/xml. - To get the report in JSON format, the Accept HTTP Header must be set to application/json. - To get the report in CSV format, the Accept HTTP Header must be set to text/csv. - To get the report in TSV format, the Accept HTTP Header must be set to text/tab-separated-values.
URI Parameters	See Run Report: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/report/run?reporttitle=testReport http://localhost:8080/uc/resources/report/run?reporttitle=testReport&visibility=Me http://localhost:8080/uc/resources/report/run?reporttitle=testReport&visibility=Group&groupname=testGroup http://localhost:8080/uc/resources/report/run?reporttitle=testReport&visibility=Everyone
Authentication	HTTP Basic
Example Responses	See Run Report Examples , below.

4.27.2.1 Run Report: URI Parameters

Parameter	Description	Specifications	Required
groupname	If <code>visibility</code> = Group; Name of a user group.	To run a report that is visible to multiple groups, you can specify any one of the groups that the report is visible to.	N
reporttitle	Title of the Report.		Y

Parameter	Description	Specifications	Required
visibility	Users that will be able to view this report.	Valid Values: • Me • Group • Everyone If there are multiple reports with the same title: • If visibility is not provided, reports are sorted in the following order: a. User visibility b. Group visibility (any group that the user running the report is a member of) c. Everyone visibility • If visibility is provided: • If visibility = Me, web service returns only the report that matches reporttitle and is visible to the user running the report. • If visibility = Group, web service returns only the report that matches reporttitle and is visible to the groupname . • If visibility = Everyone, web service returns only the report that matches reporttitle and is visible to Everyone.	N

4.27.2.2 Run Report Examples

XML	JSON	CSV
XML <pre><report> <rows rowCount="2"> <row> <columns> <column label="Task Name">t1</column> <column label="Type">Workflow</column> <column label="Task Description" /> </columns> </row> <row> <columns> <column label="Task name">t2</column> <column label="Type">Workflow</column> <column label="Task Description" /> </columns> </row> </rows> <title>test report</title> <totalRows>2</totalRows> </report></pre>	JSON <pre>{ "rows": { "rowCount": 2, "rows": [{ "columns": [{ "label": "Task Name", "value": "t1" }, { "label": "Type", "value": "Workflow" }, { "label": "Task Description", "value": "" }] }, { "columns": [{ "label": "Task Name", "value": "t2" }, { "label": "Type", "value": "Workflow" }, { "label": "Task Description", "value": "" }] }] }, "title": "test report", "totalRows": 2 }</pre>	CSV <pre>Task Name,Type,Task Description t1,Workflow,, t2,Workflow,,</pre>

4.28 Script Web Services

- [Overview](#)
 - [Create a Script](#)
 - [Delete a Script](#)
 - [List Scripts](#)
 - [Modify a Script](#)
 - [Read a Script](#)

4.28.1 Overview

Universal Controller supports the following RESTful-based web services for Script operations, which are listed alphabetically on this page.

- [Create a Script](#)
- [Delete a Script](#)
- [List Scripts](#)
- [Modify a Script](#)
- [Read a Script](#)

Formatting specifications for each web service, including details about property requirements, are provided.

4.28.2 Create a Script

	Description
URI	http://host_name/uc/resources/script
HTTP Method	POST
Description	Creates a Script .
Example URI	http://localhost:8080/uc/resources/script
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Create a Script: Example Request , below.
Example Response	• Status 200 /OK Successfully created the Script with sysId {sysId}. • Status 400 /Bad Request Create Script failed. A duplicate value has been detected. Name must be unique.
Script Properties	See Create a Script: Script Properties , below.
Notes Properties	See Create a Script: Notes Properties , below.

4.28.2.1 Create a Script: Example Request

XML Request	JSON Request
XML Request <pre> <script retainSysIds="true"> <content>echo %*</content> <description>description</ description> <notes> <note> <sysId>a8756a120a00010357097d05fa5c558 e</sysId> <text>test</text> <title>note 1</ title> </note> </notes> <opswiseGroups> <opswiseGroup>1</ opswiseGroup> <opswiseGroup>2</ opswiseGroup> </opswiseGroups> <resolveVariables>false</ resolveVariables> <scriptName>test.bat</scriptName> <scriptType>Script</scriptType> <sysId>f8756a120a00010357097d05fa5c558 e</sysId> </script> </pre>	JSON Request <pre> { "content": "echo", "description": "description", "notes": [{ "sysId": "a8756a120a00010357097d05fa5c558e", "text": "test", "title": "note" }], "opswiseGroups": ["1","2"], "resolveVariables": false, "retainSysIds": true, "scriptName": "test.bat", "scriptType": "Script", "sysId": "f8756a120a00010357097d05fa5c558e" } </pre>

4.28.2.2 Create a Script: Script Properties

Property	UI Field Name	Description	Specifications	Required
content	Content	Content of the script or SAP definition file.		Y
description	Description	User-defined; description of this record.		N
excludeRelated	n/a	Specification for whether or not to exclude related records (Notes) from an update, even if they are provided in the request.	Valid values: true/false (default is false).	N
exportReleaseLevel	n/a	Universal Controller release that the record was exported from.	read only	N

Property	UI Field Name	Description	Specifications	Required
exportTable	n/a	Record table information.	read only	N
opswisewGroups	Member of Business Services	Business Services that this record belongs to. XML <pre><opswisewGroups> <opswisewGroup>group1</opswisewGroup> <opswisewGroup>group2</opswisewGroup> </opswisewGroups></pre> JSON <pre>"opswisewGroups": ["group1", "group2"]</pre>		N
resolveVariables	Resolve UAC Variables	Controls whether or not the Script will be parsed in pursuit of Universal Controller variables. It allows the Controller to avoid the overhead of parsing a Script that does not contain variables.		N
retainSysIds	n/a	Specification for whether or not the Create a Script web service will persist the <code>sysId</code> property. - If <code>retainSysIds="true"</code> and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database. - If <code>retainSysIds="false"</code> and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller. Note In XML web services, <code>retainSysIds</code> is specified as an attribute in the <code><script></code> element.	Valid values: true/false (default is true).	N

Property	UI Field Name	Description	Specifications	Required
<code>scriptName</code>	Script Name	Name of the script.	This name can be the same as the name of the script file. You also can specify a file extension; the default file extension for Windows is .bat. If the name has the extension .ps1, Windows will run the script as a powershell script. You may have to create the appropriate file association and security for this to work.	Y
<code>scriptType</code>	Script Type	Type of Script	Valid Values: - As String = Script, As Value = 1 (for use in Windows or Linux/ Unix tasks) - As String = SAP Definition, As Value = 2 (for use in SAP tasks) - As String = UDM Script, As Value = 3 (for use in UDM File Transfer tasks) - As String = Web Service Payload, As Value = 4 (for use in Web Service tasks) - As String = Data, As Value = 5 (for use in a script or task) Default is Script (1).	N
<code>sysId</code>	n/a	System ID field in the database for this Script record.	Persisted only if retainSysIds is set to true.	N

4.28.2.3 Create a Script: Notes Properties

Property	UI Field Name	Description	Specifications	Required
<code>sysId</code>	n/a	sys_id used within the Controller to identify this Note.		N
<code>text</code>	Text	Text of this note.		N
<code>title</code>	Title	Title of this note.		N

4.28.3 Delete a Script

	Description
URI	http://host_name/uc/resources/script
HTTP Method	DELETE

	Description
Description	Deletes a Script.
URI Parameters	See Delete a Script: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/script?scriptname=test
Example Response	- Status 200 /OK Script deleted successfully. - Status 400 /Bad Request Mutual exclusion violation. Cannot specify <code>scriptname</code> and <code>scriptid</code> at the same time. - Status 404 /Not Found A Script with {name/id} "test" does not exist.

4.28.3.1 Delete a Script: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
<code>scriptid</code>	ID used within the Controller to identify this Script.	String; URI parameter.	Y (unless <code>scriptname</code> is specified)	<code>scriptname</code>
<code>scriptname</code>	Name used within the Controller to identify this Script.	String; URI parameter.	Y (unless <code>scriptid</code> is specified)	<code>scriptid</code>

4.28.4 List Scripts

	Description
URI	http://host_name/uc/resources/script/list
HTTP Method	GET
Description	Retrieves information on all Scripts.
Example URI	http://localhost:8080/uc/resources/script/list
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See List Scripts: Example Response , below.
Script Properties	See Create a Script: Script Properties .
Notes Properties	See Create a Script: Notes Properties .

4.28.4.1 List Scripts: Example Response

XML Response

JSON Response

```
[
  {
    "content": "echo",
    "description": "description",
    "exportReleaseLevel": "7.2.0.0",
    "exportTable": "ops_script",
    "notes": [ {
      "sysId":
"a8756a120a00010357097d05fa5c558e",
      "text": "test",
      "title": "note"
    } ],
    "opswiseGroups": ["group1","group2"],
    "resolveVariables": false,
    "scriptName": "test.bat",
    "scriptType": "Script",
    "sysId":
"f8756a120a00010357097d05fa5c558e",
    "version": 2
  },
  {
    "content": "echo",
    "description": "description",
    "exportReleaseLevel": "7.2.0.0",
    "exportTable": "ops_script",
    "notes": [ {
      "sysId":
"a8756a120a00010357097d05fa5c558f",
      "text": "test",
      "title": "note"
    } ],
    "opswiseGroups": ["group1","group2"],
    "resolveVariables": false,
    "scriptName": "test2.bat",
    "scriptType": "Script",
    "sysId":
"f8756a120a00010357097d05fa5c558f",
    "version": 3
  }
]
```

```

<scripts>
  <script exportReleaseLevel="7.2.0.0"
exportTable="ops_script" version="2">
    <content>echo %*</content>
    <description>description</description>
    <notes>
      <note>

<sysId>a8756a120a00010357097d05fa5c558e</sysId>
      <text>test</text>
      <title>note 1</title>
    </note>
    </notes>
    <opswiseGroups>
      <opswiseGroup>group1</
opswiseGroup>
      <opswiseGroup>group2</
opswiseGroup>
    </opswiseGroups>
    <resolveVariables>>false</resolveVariables>
    <scriptName>test.bat</scriptName>
    <scriptType>Script</scriptType>
    <sysId>f8756a120a00010357097d05fa5c558e</
sysId>
  </script>
  <script exportReleaseLevel="7.2.0.0"
exportTable="ops_script" version="3">
    <content>echo ?*</content>
    <description>description</description>
    <notes>
      <note>

<sysId>a8756a120a00010357097d05fa5c558f</sysId>
      <text>test</text>
      <title>note 1</title>
    </note>
    </notes>
    <opswiseGroups>
      <opswiseGroup>group1</
opswiseGroup>
      <opswiseGroup>group2</
opswiseGroup>
    </opswiseGroups>
    <resolveVariables>>false</resolveVariables>
    <scriptName>test2.bat</scriptName>
    <scriptType>Script</scriptType>
    <sysId>f8756a120a00010357097d05fa5c558f</
sysId>
  </script>
</scripts>

```

4.28.5 Modify a Script

	Description
URI	http://host_name/uc/resources/script
HTTP Method	PUT
Description	Modifies the Script specified by the <code>sysId</code> .
Example URI	http://localhost:8080/uc/resources/script
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Modify a Script: Example Request , below.
Script Properties	See Create a Script: Script Properties .
Notes Properties	See Create a Script: Notes Properties .
Example Response	Status 200 /OK Successfully updated the Script with sysId <sysId> to version <version>.

4.28.5.1 Modify a Script: Example Request

XML Request	JSON Request
XML Request <pre> <script retainSysIds="true"> <content>echo %*</content> <description>description</ description> <notes> <note> <sysId>a8756a120a00010357097d05fa5c558 e</sysId> <text>test</text> <title>note 1</ title> </note> </notes> <opswiseGroups> <opswiseGroup>1</ opswiseGroup> <opswiseGroup>2</ opswiseGroup> </opswiseGroups> <resolveVariables>false</ resolveVariables> <scriptName>test.bat</scriptName> <scriptType>Script</scriptType> <sysId>f8756a120a00010357097d05fa5c558 e</sysId> </script> </pre>	JSON Request <pre> { "content": "echo", "description": "description", "notes": [{ "sysId": "a8756a120a00010357097d05fa5c558e", "text": "test", "title": "note" }], "opswiseGroups": ["1","2"], "resolveVariables": false, "retainSysIds": true, "scriptName": "test.bat", "scriptType": "Script", "sysId": "f8756a120a00010357097d05fa5c558e" } </pre>

4.28.6 Read a Script

URI	http://host_name/uc/resources/script
HTTP Method	GET
Description	Retrieves information on a specific Script.
URI Parameters	See Read a Script: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/script?scriptname=test http://localhost:8080/uc/resources/script?scriptid=f87848b00a0001037f43e7c81c8ec969
Example Response	See Read a Script: Example Response , below.
Script Properties	See Create a Script: Script Properties .

Notes Properties	See Create a Script: Notes Properties .

4.28.6.1 Read a Script: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
scriptid	ID used within the Controller to identify this Script.	String; URI parameter.	Y (unless scriptname is specified)	scriptname
scriptname	Name used within the Controller to identify this Script.	String; URI parameter.	Y (unless scriptid is specified)	scriptid

4.28.6.2 Read a Script: Example Response

XML Response <pre><script exportReleaseLevel="7.2.0.0" exportTable="ops_script" retainSysIds="true" version="1"> <content>echo %*</content> <description>description</description> <notes> <note> <sysId>a8756a120a00010357097d05fa5c558e</ sysId> <text>test</text> <title>note 1</title> </note> </notes> <opswiseGroups> <opswiseGroup>group1</ opswiseGroup> <opswiseGroup>group2</ opswiseGroup> </opswiseGroups> <resolveVariables>false</ resolveVariables> <scriptName>test.bat</scriptName> <scriptType>Script</scriptType> <sysId>f8756a120a00010357097d05fa5c558e</ sysId> </script></pre>	JSON Response <pre>{ "content": "echo", "description": "description", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_script", "notes": [{ "sysId": "a8756a120a00010357097d05fa5c558e", "text": "test", "title": "note" }], "opswiseGroups": ["group1","group2"], "resolvableVariables": false, "retainSysIds": true, "scriptName": "test.bat", "scriptType": "Script", "sysId": "f8756a120a00010357097d05fa5c558e", "version": 2 }</pre>

4.29 Server Operations Web Services

4.29.1 Overview

Universal Controller supports RESTful-based web services for the following types of Server Operations:

- [Export and Import](#)
- [LDAP](#)
- [List/Download Logs](#)
- [Pause and Resume Cluster Node](#)
- [Roll Log](#)
- [Temporary Property Change](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

4.29.2 Server Operations Web Services - Export and Import

- [Overview](#)
- [Bulk Export](#)
- [Bulk Export with Versions](#)
- [Bulk Export Activity](#)
- [Bulk Export Audit](#)
- [Bulk Export History](#)
- [Bulk Import](#)

4.29.2.1 Overview

Universal Controller supports the following RESTful-based web services for Export and Import Server Operations, which are listed alphabetically on this page.

- [Bulk Export](#)
- [Bulk Export with Versions](#)
- [Bulk Export Activity](#)
- [Bulk Export Audit](#)
- [Bulk Export History](#)
- [Bulk Import](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

4.29.2.2 Bulk Export

	Description
URI	http://host_name/uc/resources/serveroperation/bulkexport

	Description
HTTP Method	POST
Description	Performs a Bulk Export server operation.
Example URI	http://localhost:8080/uc/resources/serveroperation/bulkexport
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See Bulk Export: XML and JSON Examples .
Response Properties	See Bulk Export: Response Properties .

4.29.2.2.1 Bulk Export: Example Response

XML Response	JSON Response
XML Response <pre><serverOperationResponse> <operation>Bulk Export</operation> <success>true</success> <output>Bulk export completed successfully. Bulk exporting table: ops_abort_action No records exported for table ops_abort_action. ... Bulk exporting table: ops_backup Bulk exporting 3 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_23_59_EDT_2 018-BULK_EXPORT\ops_backup.xml". Bulk exporting table: ops_bundle No records exported for table ops_bundle. ... Bulk exporting table: ops_calendar Bulk exporting 1 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_23_59_EDT_2 018-BULK_EXPORT\ops_calendar.xml". Bulk exporting table: ops_config Bulk exporting 134 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_23_59_EDT_2 018-BULK_EXPORT\ops_config.xml". Bulk exporting table: ops_credentials No records exported for table ops_credentials. ... Bulk exporting table: ops_task_manual Bulk exporting 1 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_23_59_EDT_2</pre>	JSON Response <pre>{ "operation": "Bulk Export", "success": true, "output": "Bulk export completed successfully.\nBulk exporting table: ops_abort_action\nNo records exported for table ops_abort_action. ... \nBulk exporting table: ops_backup\nBulk exporting 3 record(s) to file \"D:\\tomcat\\ \\uc_export\\Tue_Jun_19_14_27_17_EDT_2018- BULK_EXPORT\\ops_backup.xml\". \nBulk exporting table: ops_bundle\nNo records exported for table ops_bundle. ... \nBulk exporting table: ops_calendar\nBulk exporting 1 record(s) to file \"D:\\tomcat\\ \\uc_export\\Tue_Jun_19_14_27_17_EDT_2018- BULK_EXPORT\\ops_calendar.xml\". \nBulk exporting table: ops_config\nBulk exporting 134 record(s) to file \"D:\\ \tomcat\\uc_export\\ \\Tue_Jun_19_14_27_17_EDT_2018-BULK_EXPORT\\ \\ops_config.xml\". \nBulk exporting table: ops_credentials\nNo records exported for table ops_credentials. ... \nBulk exporting table: ops_task_manual\nBulk exporting 1 record(s) to file \"D:\\tomcat\\uc_export\\ \\Tue_Jun_19_14_27_17_EDT_2018-BULK_EXPORT\\</pre>

XML Response	JSON Response
<pre> 018-BULK_EXPORT\ops_task_manual.xml". Bulk exporting table: ops_task_monitor No records exported for table ops_task_monitor. ... Bulk exporting table: ops_task_sleep Bulk exporting 3 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_23_59_EDT_2 018-BULK_EXPORT\ops_task_sleep.xml". Bulk exporting table: ops_task_sql No records exported for table ops_task_sql. ... Bulk exporting table: ops_trigger_manual Bulk exporting 1 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_23_59_EDT_2 018-BULK_EXPORT\ops_trigger_manual.xml". Bulk exporting table: ops_trigger_temp No records exported for table ops_trigger_temp. ... Bulk exporting table: ops_unix_agent_cluster Bulk exporting 1 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_23_59_EDT_2 018- BULK_EXPORT\ops_unix_agent_cluster.xml". Bulk exporting table: ops_unix_agent_cluster_join No records exported for table ops_unix_agent_cluster_join. ... Bulk exporting table: ops_windows_agent_cluster Bulk exporting 1 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_23_59_EDT_2 018- BULK_EXPORT\ops_windows_agent_cluster.xml". Bulk exporting table: ops_win_agent_cluster_join No records exported for table ops_win_agent_cluster_join. ... Bulk exporting table: ops_group_has_role Bulk exporting 6 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_23_59_EDT_2 018-BULK_EXPORT\ops_group_has_role.xml". Bulk exporting table: ops_user Bulk exporting 1 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_23_59_EDT_2 018-BULK_EXPORT\ops_user.xml". Bulk exporting table: ops_user_grmember Bulk exporting 1 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_23_59_EDT_2 018-BULK_EXPORT\ops_user_grmember.xml". Bulk exporting table: ops_user_group </pre>	<pre> \ops_task_manual.xml\". \nBulk exporting table: ops_task_monitor\nNo records exported for table ops_task_monitor. ... \nBulk exporting table: ops_task_sleep\nBulk exporting 3 record(s) to file \"D:\\tomcat\\uc_export\\ Tue_Jun_19_14_27_17_EDT_2018-BULK_EXPORT\\ ops_task_sleep.xml\". \nBulk exporting table: ops_task_sql\nNo records exported for table ops_task_sql. ... \nBulk exporting table: ops_trigger_manual\nBulk exporting 1 record(s) to file \"D:\\tomcat\\uc_export\\ Tue_Jun_19_14_27_17_EDT_2018-BULK_EXPORT\\ ops_trigger_manual.xml\". \nBulk exporting table: ops_trigger_temp\nNo records exported for table ops_trigger_temp. ... \nBulk exporting table: ops_unix_agent_cluster\nBulk exporting 1 record(s) to file \"D:\\tomcat\\uc_export\\ Tue_Jun_19_14_27_17_EDT_2018-BULK_EXPORT\\ ops_unix_agent_cluster.xml\". \nBulk exporting table: ops_unix_agent_cluster_join\nNo records exported for table ops_unix_agent_cluster_join. ... \nBulk exporting table: ops_windows_agent_cluster\nBulk exporting 1 record(s) to file \"D:\\tomcat\\uc_export\\ Tue_Jun_19_14_27_17_EDT_2018-BULK_EXPORT\\ ops_windows_agent_cluster.xml\". \nBulk exporting table: ops_win_agent_cluster_join\nNo records exported for table ops_win_agent_cluster_join. ... \nBulk exporting table: ops_group_has_role\nBulk exporting 6 record(s) to file \"D:\\tomcat\\uc_export\\ Tue_Jun_19_14_27_17_EDT_2018-BULK_EXPORT\\ ops_group_has_role.xml\". \nBulk exporting table: ops_user\nBulk exporting 1 record(s) to file \"D:\\tomcat\\ uc_export\\Tue_Jun_19_14_27_17_EDT_2018- BULK_EXPORT\\ops_user.xml\". \nBulk exporting table: ops_user_grmember\nBulk exporting 1 record(s) to file \"D:\\tomcat\\uc_export\\ Tue_Jun_19_14_27_17_EDT_2018-BULK_EXPORT\\ </pre>

XML Response	JSON Response
<pre> Bulk exporting 2 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_23_59_EDT_2 018-BULK_EXPORT\ops_user_group.xml". Bulk exporting table: ops_user_has_role Bulk exporting 25 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_23_59_EDT_2 018-BULK_EXPORT\ops_user_has_role.xml". Bulk exporting table: ops_permission Bulk exporting 8 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_23_59_EDT_2 018-BULK_EXPORT\ops_permission.xml". Bulk exporting table: ops_user_preference No records exported for table ops_user_preference. ... Bulk exporting table: ops_nav_tree_pref Bulk exporting 1 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_23_59_EDT_2 018-BULK_EXPORT\ops_nav_tree_pref.xml". Bulk exporting table: ops_ldap Bulk exporting 1 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_23_59_EDT_2 018-BULK_EXPORT\ops_ldap.xml". Bulk exporting table: ops_ldap_mapping Bulk exporting 13 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_23_59_EDT_2 018-BULK_EXPORT\ops_ldap_mapping.xml". Bulk exporting table: ops_single_sign_on Bulk exporting 2 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_23_59_EDT_2 018-BULK_EXPORT\ops_single_sign_on.xml". Bulk exporting table: ops_chart_color Bulk exporting 26 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_23_59_EDT_2 018-BULK_EXPORT\ops_chart_color.xml". Bulk exporting table: ops_widget_activity No records exported for table ops_widget_activity. ... Bulk exporting table: ops_dashboard Bulk exporting 1 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_23_59_EDT_2 018-BULK_EXPORT\ops_dashboard.xml". Bulk exporting table: ops_dashboard_portlet No records exported for table ops_dashboard_portlet. ... Bulk exporting table: ops_unv_tmplt_field_choice No records exported for table ops_unv_tmplt_field_choice. </output> <path>D: \tomcat\uc_export\Fri_Jun_15_14_27_58_EDT_2 018-BULK_EXPORT</path> </serverOperationResponse> </pre>	<pre> \ops_user_grmember.xml\". \nBulk exporting table: ops_user_group\nBulk exporting 2 record(s) to file \"D:\\tomcat\\uc_export\\ \tue_Jun_19_14_27_17_EDT_2018-BULK_EXPORT\\ \ops_user_group.xml\". \nBulk exporting table: ops_user_has_role\nBulk exporting 25 record(s) to file \"D:\\tomcat\\uc_export\\ \tue_Jun_19_14_27_17_EDT_2018-BULK_EXPORT\\ \ops_user_has_role.xml\". \nBulk exporting table: ops_permission\nBulk exporting 8 record(s) to file \"D:\\tomcat\\uc_export\\ \tue_Jun_19_14_27_17_EDT_2018-BULK_EXPORT\\ \ops_permission.xml\". \nBulk exporting table: ops_user_preference\nNo records exported for table ops_user_preference. ... \nBulk exporting table: ops_nav_tree_pref\nBulk exporting 1 record(s) to file \"D:\\tomcat\\uc_export\\ \tue_Jun_19_14_27_17_EDT_2018-BULK_EXPORT\\ \ops_nav_tree_pref.xml\". \nBulk exporting table: ops_ldap\nBulk exporting 1 record(s) to file \"D:\\tomcat\\ uc_export\\Tue_Jun_19_14_27_17_EDT_2018- BULK_EXPORT\\ops_ldap.xml\". \nBulk exporting table: ops_ldap_mapping\nBulk exporting 13 record(s) to file \"D:\\tomcat\\uc_export\\ \tue_Jun_19_14_27_17_EDT_2018-BULK_EXPORT\\ \ops_ldap_mapping.xml\". \nBulk exporting table: ops_single_sign_on\nBulk exporting 2 record(s) to file \"D:\\tomcat\\uc_export\\ \tue_Jun_19_14_27_17_EDT_2018-BULK_EXPORT\\ \ops_single_sign_on.xml\". \nBulk exporting table: ops_chart_color\nBulk exporting 26 record(s) to file \"D:\\tomcat\\uc_export\\ \tue_Jun_19_14_27_17_EDT_2018-BULK_EXPORT\\ \ops_chart_color.xml\". \nBulk exporting table: ops_widget_activity\nNo records exported for table ops_widget_activity. ... \nBulk exporting table: ops_dashboard\nBulk exporting 1 record(s) to file \"D:\\tomcat\\ uc_export\\Tue_Jun_19_14_27_17_EDT_2018- BULK_EXPORT\\ops_dashboard.xml\". \nBulk exporting table: ops_dashboard_portlet\nNo records exported for table ops_dashboard_portlet. </pre>

XML Response	JSON Response
	<pre>... .\nBulk exporting table: ops_unv_tmplt_field_choice\nNo records exported for table ops_unv_tmplt_field_choice.\n", "path": "D:\\tomcat\\uc_export\\ \\Fri_Jun_15_14_27_29_EDT_2018-BULK_EXPORT" }</pre>

4.29.2.3 Bulk Export with Versions

	Description
URI	http://host_name/uc/resources/serveroperation/bulkexportwithversions
HTTP Method	POST
Description	Performs a Bulk Export with Versions server operation.
Example URI	http://localhost:8080/uc/resources/serveroperation/bulkexportwithversions
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See Bulk Export with Versions: Example Response .
Response Properties	See Bulk Export: Response Properties .

4.29.2.3.1 Bulk Export with Versions: Example Response

XML Response	JSON Response
<pre>XML Response <serverOperationResponse> <operation>Bulk Export with Versions< /operation> <success>true</success> <output>Bulk export with Versions completed successfully. Bulk exporting table: ops_abort_action No records exported for table ops_abort_action. ... Bulk exporting table: ops_backup</pre>	<pre>JSON Response { "operation": "Bulk Export", "success": true, "output": "Bulk export with versions completed successfully. \nBulk exporting table: ops_abort_action\nNo records exported for table ops_abort_action. ... \nBulk exporting table: ops_backup\nBulk exporting 3 record(s) to file \"D:\\tomcat\\</pre>

XML Response	JSON Response
<pre> Bulk exporting 3 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_30_48_EDT_ 2018-BULK_EXPORT\ops_backup.xml". Bulk exporting table: ops_bundle No records exported for table ops_bundle. ... Bulk exporting table: ops_calendar Bulk exporting 1 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_30_48_EDT_ 2018-BULK_EXPORT\ops_calendar.xml". Bulk exporting table: ops_config Bulk exporting 134 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_30_48_EDT_ 2018-BULK_EXPORT\ops_config.xml". Bulk exporting table: ops_credentials No records exported for table ops_credentials. ... Bulk exporting table: ops_task_manual Bulk exporting 1 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_30_48_EDT_ 2018-BULK_EXPORT\ops_task_manual.xml". Bulk exporting table: ops_task_monitor No records exported for table ops_task_monitor. ... Bulk exporting table: ops_task_sleep Bulk exporting 3 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_30_48_EDT_ 2018-BULK_EXPORT\ops_task_sleep.xml". Bulk exporting table: ops_task_sql No records exported for table ops_task_sql. ... Bulk exporting table: ops_trigger_manual Bulk exporting 1 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_30_48_EDT_ 2018-BULK_EXPORT\ops_trigger_manual.xml". Bulk exporting table: ops_trigger_temp No records exported for table ops_trigger_temp. ... Bulk exporting table: ops_unix_agent_cluster Bulk exporting 1 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_30_48_EDT_ 2018- BULK_EXPORT\ops_unix_agent_cluster.xml". Bulk exporting table: ops_unix_agent_cluster_join No records exported for table ops_unix_agent_cluster_join. ... Bulk exporting table: </pre>	<pre> \uc_export\\Tue_Jun_19_14_29_43_EDT_2018- BULK_EXPORT\\ops_backup.xml\". \nBulk exporting table: ops_bundle\nNo records exported for table ops_bundle. ... \nBulk exporting table: ops_calendar\nBulk exporting 1 record(s) to file \"D:\\tomcat\ \uc_export\\Tue_Jun_19_14_29_43_EDT_2018- BULK_EXPORT\\ops_calendar.xml\". \nBulk exporting table: ops_config\nBulk exporting 134 record(s) to file \"D:\ \tomcat\\uc_export\ \tue_Jun_19_14_29_43_EDT_2018-BULK_EXPORT\ \ops_config.xml\". \nBulk exporting table: ops_credentials\nNo records exported for table ops_credentials. ... \nBulk exporting table: ops_task_manual\nBulk exporting 1 record(s) to file \"D:\\tomcat\\uc_export\ \tue_Jun_19_14_29_43_EDT_2018-BULK_EXPORT\ \ops_task_manual.xml\". \nBulk exporting table: ops_task_monitor\nNo records exported for table ops_task_monitor. ... \nBulk exporting table: ops_task_sleep\nBulk exporting 3 record(s) to file \"D:\\tomcat\\uc_export\ \tue_Jun_19_14_29_43_EDT_2018-BULK_EXPORT\ \ops_task_sleep.xml\". \nBulk exporting table: ops_task_sql\nNo records exported for table ops_task_sql. ... \nBulk exporting table: ops_trigger_manual\nBulk exporting 1 record(s) to file \"D:\\tomcat\\uc_export\ \tue_Jun_19_14_29_43_EDT_2018-BULK_EXPORT\ \ops_trigger_manual.xml\". \nBulk exporting table: ops_trigger_temp\nNo records exported for table ops_trigger_temp. ... \nBulk exporting table: ops_unix_agent_cluster\nBulk exporting 1 record(s) to file \"D:\\tomcat\\uc_export\ \tue_Jun_19_14_29_43_EDT_2018-BULK_EXPORT\ \ops_unix_agent_cluster.xml\". \nBulk exporting table: ops_windows_agent_cluster\nBulk exporting 1 record(s) to file \"D:\\tomcat\\uc_export\ \tue_Jun_19_14_29_43_EDT_2018-BULK_EXPORT\ \ops_windows_agent_cluster.xml\". \nBulk exporting table: </pre>

XML Response	JSON Response
<pre>ops_windows_agent_cluster Bulk exporting 1 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_30_48_EDT_ 2018- BULK_EXPORT\ops_windows_agent_cluster.xml" . Bulk exporting table: ops_win_agent_cluster_join No records exported for table ops_win_agent_cluster_join. ... Bulk exporting table: ops_group_has_role Bulk exporting 6 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_30_48_EDT_ 2018-BULK_EXPORT\ops_group_has_role.xml". Bulk exporting table: ops_user Bulk exporting 1 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_30_48_EDT_ 2018-BULK_EXPORT\ops_user.xml". Bulk exporting table: ops_user_grmember Bulk exporting 1 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_30_48_EDT_ 2018-BULK_EXPORT\ops_user_grmember.xml". Bulk exporting table: ops_user_group Bulk exporting 2 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_30_48_EDT_ 2018-BULK_EXPORT\ops_user_group.xml". Bulk exporting table: ops_user_has_role Bulk exporting 25 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_30_48_EDT_ 2018-BULK_EXPORT\ops_user_has_role.xml". Bulk exporting table: ops_permission Bulk exporting 8 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_30_48_EDT_ 2018-BULK_EXPORT\ops_permission.xml". Bulk exporting table: ops_user_preference No records exported for table ops_user_preference. ... Bulk exporting table: ops_nav_tree_pref Bulk exporting 1 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_30_48_EDT_ 2018-BULK_EXPORT\ops_nav_tree_pref.xml". Bulk exporting table: ops_ldap Bulk exporting 1 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_30_48_EDT_ 2018-BULK_EXPORT\ops_ldap.xml". Bulk exporting table: ops_ldap_mapping Bulk exporting 13 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_30_48_EDT_ 2018-BULK_EXPORT\ops_ldap_mapping.xml". Bulk exporting table: ops_single_sign_on Bulk exporting 2 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_30_48_EDT_ 2018-BULK_EXPORT\ops_single_sign_on.xml".</pre>	<pre>ops_win_agent_cluster_join\nNo records exported for table ops_win_agent_cluster_join. ... \nBulk exporting table: ops_group_has_role\nBulk exporting 6 record(s) to file \"D:\\tomcat\\uc_export\\ Tue_Jun_19_14_29_43_EDT_2018-BULK_EXPORT\\ ops_group_has_role.xml\". \nBulk exporting table: ops_user\nBulk exporting 1 record(s) to file \"D:\\tomcat\\ uc_export\\Tue_Jun_19_14_29_43_EDT_2018- BULK_EXPORT\\ops_user.xml\". \nBulk exporting table: ops_user_grmember\nBulk exporting 1 record(s) to file \"D:\\tomcat\\uc_export\\ Tue_Jun_19_14_29_43_EDT_2018-BULK_EXPORT\\ ops_user_grmember.xml\". \nBulk exporting table: ops_user_group\nBulk exporting 2 record(s) to file \"D:\\tomcat\\uc_export\\ Tue_Jun_19_14_29_43_EDT_2018-BULK_EXPORT\\ ops_user_group.xml\". \nBulk exporting table: ops_user_has_role\nBulk exporting 25 record(s) to file \"D:\\tomcat\\uc_export\\ Tue_Jun_19_14_29_43_EDT_2018-BULK_EXPORT\\ ops_user_has_role.xml\". \nBulk exporting table: ops_permission\nBulk exporting 8 record(s) to file \"D:\\tomcat\\uc_export\\ Tue_Jun_19_14_29_43_EDT_2018-BULK_EXPORT\\ ops_permission.xml\".\nBulk exporting table: ops_user_preference\nNo records exported for table ops_user_preference. \nBulk exporting table: ops_list_grid_pref\nNo records exported for table ops_list_grid_pref. \nBulk exporting table: ops_list_grid_pinfilter\nNo records exported for table ops_list_grid_pinfilter. ... \nBulk exporting table: ops_nav_tree_pref\nBulk exporting 1 record(s) to file \"D:\\tomcat\\uc_export\\ Tue_Jun_19_14_29_43_EDT_2018-BULK_EXPORT\\ ops_nav_tree_pref.xml\". \nBulk exporting table: ops_ldap\nBulk exporting 1 record(s) to file \"D:\\tomcat\\ uc_export\\Tue_Jun_19_14_29_43_EDT_2018- BULK_EXPORT\\ops_ldap.xml\". \nBulk exporting table: ops_ldap_mapping\nBulk exporting 13 record(s) to file \"D:\\tomcat\\uc_export\\ Tue_Jun_19_14_29_43_EDT_2018-BULK_EXPORT\\</pre>

XML Response	JSON Response
<pre> Bulk exporting table: ops_chart_color Bulk exporting 26 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_30_48_EDT_ 2018-BULK_EXPORT\ops_chart_color.xml". Bulk exporting table: ops_widget_activity No records exported for table ops_widget_activity. ... Bulk exporting table: ops_dashboard Bulk exporting 1 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_30_48_EDT_ 2018-BULK_EXPORT\ops_dashboard.xml". Bulk exporting table: ops_dashboard_portlet No records exported for table ops_dashboard_portlet. ... Bulk exporting table: ops_task_manual_v Bulk exporting 3 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_30_48_EDT_ 2018-BULK_EXPORT\ops_task_manual_v.xml". Bulk exporting table: ops_task_monitor_v No records exported for table ops_task_monitor_v. ... Bulk exporting table: ops_trigger_manual_v Bulk exporting 1 record(s) to file "D: \tomcat\uc_export\Tue_Jun_19_14_30_48_EDT_ 2018- BULK_EXPORT\ops_trigger_manual_v.xml". Bulk exporting table: ops_trigger_temp_v No records exported for table ops_trigger_temp_v. ... </output> <path>D: \tomcat\uc_export\Fri_Jun_15_14_27_58_EDT_ 2018-BULK_EXPORT</path> </serverOperationResponse> </pre>	<pre> \ops_ldap_mapping.xml\". \nBulk exporting table: ops_single_sign_on\nBulk exporting 2 record(s) to file \"D:\\tomcat\\uc_export\\ Tue_Jun_19_14_29_43_EDT_2018-BULK_EXPORT\\ ops_single_sign_on.xml\". \nBulk exporting table: ops_chart_color\nBulk exporting 26 record(s) to file \"D:\\tomcat\\uc_export\\ Tue_Jun_19_14_29_43_EDT_2018-BULK_EXPORT\\ ops_chart_color.xml\". \nBulk exporting table: ops_widget_activity\nNo records exported for table ops_widget_activity. ... \nBulk exporting table: ops_dashboard\nBulk exporting 1 record(s) to file \"D:\\tomcat\\ uc_export\\Tue_Jun_19_14_29_43_EDT_2018- BULK_EXPORT\\ops_dashboard.xml\". \nBulk exporting table: ops_dashboard_portlet\nNo records exported for table ops_dashboard_portlet. ... \nBulk exporting table: ops_task_manual_v\nBulk exporting 3 record(s) to file \"D:\\tomcat\\uc_export\\ Tue_Jun_19_14_29_43_EDT_2018-BULK_EXPORT\\ ops_task_manual_v.xml\". \nBulk exporting table: ops_task_monitor_v\nNo records exported for table ops_task_monitor_v. ... \nBulk exporting table: ops_trigger_manual_v\nBulk exporting 1 record(s) to file \"D:\\tomcat\\uc_export\\ Tue_Jun_19_14_29_43_EDT_2018-BULK_EXPORT\\ ops_trigger_manual_v.xml\". \nBulk exporting table: ops_trigger_temp_v\nNo records exported for table ops_trigger_temp_v. ... \nBulk exporting table: ops_zos_step_action_sysop_v\nNo records exported for table ops_zos_step_action_sysop_v.\n", "path": "D:\\tomcat\\uc_export\\ Fri_Jun_15_14_27_29_EDT_2018-BULK_EXPORT" } </pre>

4.29.2.4 Bulk Export Activity

	Description
URI	http://host_name/uc/resources/serveroperation/bulkexportactivity
HTTP Method	POST
Description	Performs a Bulk Export Activity server operation.
Example URI	http://localhost:8080/uc/resources/serveroperation/bulkexportactivity
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See Bulk Export: XML and JSON Examples .
Response Properties	See Bulk Export: Response Properties .

4.29.2.4.1 Bulk Export Activity: Example Response

4.29.2.4.1.1 Success

XML Response	JSON Response
XML Response <pre> <serverOperationResponse> <operation>Bulk Export Activity</operation> <success>true</success> <output>Bulk export completed successfully. Bulk exporting table: ops_exec_workflow No records exported for table ops_exec_workflow. ... Bulk exporting table: ops_exec_manual Bulk exporting 13 record(s) to file "D:\tomcat\uc_export\Tue_Jun_19_14_36_48_EDT_2018-BULK_EXPORT\ops_exec_manual.xml". Bulk exporting table: ops_exec_email No records exported for table ops_exec_email. ... Bulk exporting table: ops_map Bulk exporting 13 record(s) to file "D:\tomcat\uc_export\Tue_Jun_19_14_36_48_EDT_2018-BULK_EXPORT\ops_map.xml". Bulk exporting table: ops_exec_to_resource No records exported for table ops_exec_to_resource. ... </output> <path>D:\tomcat\uc_export\Fri_Jun_15_14_27_58_EDT_2018-BULK_EXPORT</path> </serverOperationResponse> </pre>	JSON Response <pre> { "operation": "Bulk Export Activity", "success": true, "output": "Bulk export activity completed successfully. \nBulk exporting table: ops_exec_workflow\nNo records exported for table ops_exec_workflow. ... \nBulk exporting table: ops_exec_manual\nBulk exporting 13 record(s) to file \"D:\\tomcat\\uc_export\\Tue_Jun_19_14_36_08_EDT_2018-BULK_EXPORT\\ops_exec_manual.xml\". \nBulk exporting table: ops_exec_email\nNo records exported for table ops_exec_email. ... \nBulk exporting table: ops_map\nBulk exporting 13 record(s) to file \"D:\\tomcat\\uc_export\\Tue_Jun_19_14_36_08_EDT_2018-BULK_EXPORT\\ops_map.xml\". \nBulk exporting table: ops_exec_to_resource\nNo records exported for table ops_exec_to_resource. ... \nBulk exporting table: ops_zos_step_action_sysop\nNo records exported for table ops_zos_step_action_sysop.\n", "path": "D:\\tomcat\\uc_export\\Tue_Jun_19_14_36_08_EDT_2018-BULK_EXPORT" } </pre>

4.29.2.4.1.2 Failure

XML Response	JSON Response
XML Response <pre> <serverOperationResponse> <operation>Bulk Export Activity</operation> <success>>false</success> <output>Failed to complete bulk export activity due to error(s). Bulk Export Activity not permitted; Universal Controller property "Bulk Export Activity Permitted" is not enabled. </output> </serverOperationResponse> </pre>	JSON Response <pre> { "operation": "Bulk Export Activity", "success": false, "output": "Failed to complete bulk export activity due to error(s).\nBulk Export Activity not permitted; Universal Controller property \"Bulk Export Activity Permitted\" is not enabled.\n", } </pre>

4.29.2.5 Bulk Export Audit

	Description
URI	http://host_name/uc/resources/serveroperation/bulkexportaudit
HTTP Method	POST
Description	Performs a Bulk Export Audit server operation.
Example URI	http://localhost:8080/uc/resources/serveroperation/bulkexportaudit
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See Bulk Export: XML and JSON Examples .
Response Properties	See Bulk Export: Response Properties .

4.29.2.5.1 Bulk Export Audit: Example Response

XML Response	JSON Response
XML Response <pre> <serverOperationResponse> <operation>Bulk Export Audit </ operation> <success>true</success> <output>Bulk export audit completed successfully. Bulk exporting table: ops_audit Bulk exporting 65 record(s) to file "D: \tomcat\uc_export\tue_Jun_19_14_38_07_EDT_ 2018-BULK_EXPORT\ops_audit.xml". </output> <path>D: \tomcat\uc_export\Fri_Jun_15_14_27_58_EDT_ 2018-BULK_EXPORT</path> </serverOperationResponse> </pre>	JSON Response <pre> { "operation": "Bulk Export Audit", "success": true, "output": "Bulk export audit completed successfully.\nBulk exporting table: ops_audit\nBulk exporting 67 record(s) to file \"D:\\tomcat\\uc_export\\ \\Tue_Jun_19_14_38_35_EDT_2018-BULK_EXPORT\\ ops_audit.xml\".\n", "path": "D:\\tomcat\\uc_export\\ \\Fri_Jun_15_14_27_29_EDT_2018-BULK_EXPORT" } </pre>

4.29.2.6 Bulk Export History

	Description
URI	http://host_name/uc/resources/serveroperation/bulkexporthistory
HTTP Method	POST
Description	Performs a Bulk Export History server operation.
Example URI	http://localhost:8080/uc/resources/serveroperation/bulkexporthistory
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See Bulk Export: XML and JSON Examples .
Response Properties	See Bulk Export: Response Properties .

4.29.2.6.1 Bulk Export History: Example Response

XML Response	JSON Response
XML Response <pre><serverOperationResponse> <operation>Bulk Export History</operation> <success>true</success> <output>Bulk export history completed successfully. Bulk exporting table: ops_history No records exported for table ops_history. </output> <path>D: \tomcat\uc_export\Fri_Jun_15_14_27_58_EDT_2018-BULK_EXPORT</path> </serverOperationResponse></pre>	JSON Response <pre>{ "operation": "Bulk Export History", "success": true, "output": "Bulk export history completed successfully.\nBulk exporting table: ops_history\nNo records exported for table ops_history.\n", "path": "D:\\tomcat\\uc_export\\Fri_Jun_15_14_27_29_EDT_2018-BULK_EXPORT" }</pre>

4.29.2.6.2 Bulk Export: Response Properties

Property	UI Field Name	Description	Specifications
operation	n/a	Server Operation that was performed.	
success	n/a	Result of the Server Operation.	Boolean; Valid values: true/false.
output	n/a	Output of the server operation.	
path	n/a	Directory containing the exported files.	

4.29.2.7 Bulk Import

	Description
URI	http://host_name/uc/resources/serveroperation/bulkimport
HTTP Method	POST
Description	Performs a Bulk Import server operation.
URI Parameters	See Bulk Import: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/serveroperation/bulkimport?path=path
Authentication	HTTP Basic
Consumes Content-Type	n/a

	Description
Produces Content-Type	application/xml, application/json
Example Response	See Bulk Import: XML and JSON Examples .
Response Properties	See Bulk Import: Properties .

4.29.2.7.1 Bulk Import: URI Parameters

Name	Description	Specifications	Required
path	Directory containing the imported file(s).		Y

Note

Some characters in the path parameter may need to be URL-encoded. For example, the backslash character in a Windows path may need to be encoded as %5C as shown below:

[http://localhost:8080/uc/resources/serveroperation/bulkImport?path=D:
%5Ctomcat%5Cuc_export%5CFri_Jun_15_14_17_33_EDT_2018-BULK_EXPORT](http://localhost:8080/uc/resources/serveroperation/bulkImport?path=D:%5Ctomcat%5Cuc_export%5CFri_Jun_15_14_17_33_EDT_2018-BULK_EXPORT)

4.29.2.7.2 Bulk Import: Example Response

XML Response	JSON Response
XML Response <pre><serverOperationResponse> <operation>Bulk Import</operation> <success>true</success> <output>Bulk import completed successfully. Processing bulk import directory "D: \tomcat\uc_export\Fri_Jun_15_14_17_33_EDT_2 018-BULK_EXPORT". Bulk importing 1 file(s). Bulk importing file: D: \tomcat\uc_export\Fri_Jun_15_14_17_33_EDT_2 018-BULK_EXPORT\ops_audit.xml 47 record(s) found in file ops_audit.xml. </output> </serverOperationResponse></pre>	JSON Response <pre>{ "operation": "Bulk Import", "success": true, "output": "Bulk import completed successfully.\nProcessing bulk import directory \"D:\\tomcat\\uc_export\\ Fri_Jun_15_14_17_33_EDT_2018- BULK_EXPORT\".\nBulk importing 1 file(s). \nBulk importing file: D:\\tomcat\\ uc_export\\Fri_Jun_15_14_17_33_EDT_2018- BULK_EXPORT\\ops_audit.xml\n47 record(s) found in file ops_audit.xml.\n" }</pre>

4.29.2.7.3 Bulk Import: Response Properties

Property	UI Field Name	Description	Specifications
operation	n/a	Server Operation that was performed.	
success	n/a	Result of the Server Operation.	Boolean; Valid values: true/false.
output	n/a	Output of the server operation.	

4.29.3 Server Operations Web Services - LDAP

- [Overview](#)
- [LDAP Refresh](#)
 - [LDAP Refresh: Example Response](#)
 - [LDAP Refresh: Response Properties](#)
- [LDAP Refresh \(Asynchronous\)](#)
 - [LDAP Refresh \(Asynchronous\): Example Response](#)
 - [LDAP Refresh \(Asynchronous\): Response Properties](#)

4.29.3.1 Overview

Universal Controller supports the following RESTful-based web services for LDAP Server Operations, which are listed alphabetically on this page.

- [LDAP Refresh](#)
- [LDAP Refresh \(Asynchronous\)](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

4.29.3.2 LDAP Refresh

	Description
URI	http://host_name/uc/resources/serveroperation/ldaprefresh
HTTP Method	POST
Description	If LDAP is configured for this installation, it refreshes every 24 hours. This system operation forces a refresh. The refresh writes all log entries to the response output, as well as to the log, and the response will not be returned until the process completes. If you estimate the refresh could take a considerable amount of time, we recommend you use LDAP Refresh (Asynchronous).
Example URI	http://localhost:8080/uc/resources/serveroperation/ldaprefresh

	Description
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See LDAP Refresh: Example Response .
Response Properties	See LDAP Refresh: Response Properties .

4.29.3.2.1 LDAP Refresh: Example Response

XML Response	JSON Response
XML Response <pre><serverOperationResponse> <operation>LDAP Refresh</operation> <success>true</success> <output>Processing LDAP users with target OU: OU=TestUsers LDAP Processing Range: (sAMAccountName<=a) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((sAMAccountName<=a)) ((&(objectClass=user) (objectCategory=person))))] LDAP Processing Range: (sAMAccountName>=z) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((sAMAccountName>=z)) ((&(objectClass=user) (objectCategory=person))))] LDAP Processing Range: (&(sAMAccountName>=_) (sAMAccountName<=0)) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName>=_) (sAMAccountName<=0))) (&(objectClass=user) (objectCategory=person)))] LDAP Processing Range: (&(sAMAccountName>=0) (sAMAccountName<=1)) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName>=0) (sAMAccountName<=1))) (&(objectClass=user) (objectCategory=person)))] LDAP Processing Range: (&(sAMAccountName>=1) (sAMAccountName<=2)) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName>=1) (sAMAccountName<=2))) (&(objectClass=user)</pre>	JSON Response <pre>{ "operation": "LDAP Refresh", "success": true, "output": "Processing LDAP users with target OU: OU=TestUsers\nLDAP Processing Range: (sAMAccountName<=a)\nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((sAMAccountName<=a)) ((&(objectClass=user) (objectCategory=person))))]\nLDAP Processing Range: (sAMAccountName>=z)\nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((sAMAccountName>=z)) ((&(objectClass=user) (objectCategory=person)))]\nLDAP Processing Range: (&(sAMAccountName>=_) (sAMAccountName<=0)) \nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName>=_) (sAMAccountName<=0))) (&(objectClass=user) (objectCategory=person)))]\nLDAP Processing Range: (&(sAMAccountName>=0) (sAMAccountName<=1)) \nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName>=0) (sAMAccountName<=1))) (&(objectClass=user) (objectCategory=person)))]\nLDAP Processing Range: (&(sAMAccountName>=1) (sAMAccountName<=2)) \nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName>=1) (sAMAccountName<=2))) (&(objectClass=user)</pre>

XML Response	JSON Response
<pre> (sAMAccountName<=2))((&(objectClass=user) (objectCategory=person))))] LDAP Processing Range: (&(sAMAccountName>=2)(sAMAccountName<=3)) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&(sAMAccountName>=2) (sAMAccountName<=3))((&(objectClass=user) (objectCategory=person))))] LDAP Processing Range: (&(sAMAccountName>=3)(sAMAccountName<=4)) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&(sAMAccountName>=3) (sAMAccountName<=4))((&(objectClass=user) (objectCategory=person))))] LDAP Processing Range: (&(sAMAccountName>=4)(sAMAccountName<=5)) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&(sAMAccountName>=4) (sAMAccountName<=5))((&(objectClass=user) (objectCategory=person))))] LDAP Processing Range: (&(sAMAccountName>=5)(sAMAccountName<=6)) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&(sAMAccountName>=5) (sAMAccountName<=6))((&(objectClass=user) (objectCategory=person))))] LDAP Processing Range: (&(sAMAccountName>=6)(sAMAccountName<=7)) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&(sAMAccountName>=6) (sAMAccountName<=7))((&(objectClass=user) (objectCategory=person))))] LDAP Processing Range: (&(sAMAccountName>=7)(sAMAccountName<=8)) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&(sAMAccountName>=7) (sAMAccountName<=8))((&(objectClass=user) (objectCategory=person))))] LDAP Processing Range: (&(sAMAccountName>=8)(sAMAccountName<=9)) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&(sAMAccountName>=8) (sAMAccountName<=9))((&(objectClass=user) (objectCategory=person))))] LDAP Processing Range: (&(sAMAccountName>=9)(sAMAccountName<=a)) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch </pre>	<pre> (objectCategory=person)))]\nLDAP Processing Range: (&(sAMAccountName>=2)(sAMAccountName<=3)) \nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&(sAMAccountName>=2) (sAMAccountName<=3))((&(objectClass=user) (objectCategory=person)))]\nLDAP Processing Range: (&(sAMAccountName>=3)(sAMAccountName<=4)) \nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&(sAMAccountName>=3) (sAMAccountName<=4))((&(objectClass=user) (objectCategory=person)))]\nLDAP Processing Range: (&(sAMAccountName>=4)(sAMAccountName<=5)) \nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&(sAMAccountName>=4) (sAMAccountName<=5))((&(objectClass=user) (objectCategory=person)))]\nLDAP Processing Range: (&(sAMAccountName>=5)(sAMAccountName<=6)) \nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&(sAMAccountName>=5) (sAMAccountName<=6))((&(objectClass=user) (objectCategory=person)))]\nLDAP Processing Range: (&(sAMAccountName>=6)(sAMAccountName<=7)) \nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&(sAMAccountName>=6) (sAMAccountName<=7))((&(objectClass=user) (objectCategory=person)))]\nLDAP Processing Range: (&(sAMAccountName>=7)(sAMAccountName<=8)) \nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&(sAMAccountName>=7) (sAMAccountName<=8))((&(objectClass=user) (objectCategory=person)))]\nLDAP Processing Range: (&(sAMAccountName>=8)(sAMAccountName<=9)) \nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&(sAMAccountName>=8) (sAMAccountName<=9))((&(objectClass=user) (objectCategory=person)))]\nLDAP Processing Range: (&(sAMAccountName>=9)(sAMAccountName<=a)) \nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&(sAMAccountName>=9) </pre>

XML Response	JSON Response
<pre>], Filter[(&(&(sAMAccountName>=9) (sAMAccountName<=a))(&(objectClass=user) (objectCategory=person))))] LDAP Processing Range: (&(sAMAccountName>=a)(sAMAccountName<=b)) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&(&(sAMAccountName>=a) (sAMAccountName<=b))(&(objectClass=user) (objectCategory=person))))] LDAP Processing Range: (&(sAMAccountName>=b)(sAMAccountName<=c)) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&(&(sAMAccountName>=b) (sAMAccountName<=c))(&(objectClass=user) (objectCategory=person))))] LDAP Processing Range: (&(sAMAccountName>=c)(sAMAccountName<=d)) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&(&(sAMAccountName>=c) (sAMAccountName<=d))(&(objectClass=user) (objectCategory=person))))] LDAP Processing Range: (&(sAMAccountName>=d)(sAMAccountName<=e)) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&(&(sAMAccountName>=d) (sAMAccountName<=e))(&(objectClass=user) (objectCategory=person))))] LDAP Processing Range: (&(sAMAccountName>=e)(sAMAccountName<=f)) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&(&(sAMAccountName>=e) (sAMAccountName<=f))(&(objectClass=user) (objectCategory=person))))] LDAP Processing Range: (&(sAMAccountName>=f)(sAMAccountName<=g)) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&(&(sAMAccountName>=f) (sAMAccountName<=g))(&(objectClass=user) (objectCategory=person))))] LDAP Processing Range: (&(sAMAccountName>=g)(sAMAccountName<=h)) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&(&(sAMAccountName>=g) (sAMAccountName<=h))(&(objectClass=user) (objectCategory=person))))] LDAP Processing Range: (&(sAMAccountName>=h)(sAMAccountName<=i)) LDAP Search: </pre>	<pre> (sAMAccountName<=a))(&(objectClass=user) (objectCategory=person))))]\nLDAP Processing Range: (&(sAMAccountName>=a)(sAMAccountName<=b)) \nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&(&(sAMAccountName>=a) (sAMAccountName<=b))(&(objectClass=user) (objectCategory=person))))]\nLDAP Processing Range: (&(sAMAccountName>=b)(sAMAccountName<=c)) \nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&(&(sAMAccountName>=b) (sAMAccountName<=c))(&(objectClass=user) (objectCategory=person))))]\nLDAP Processing Range: (&(sAMAccountName>=c)(sAMAccountName<=d)) \nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&(&(sAMAccountName>=c) (sAMAccountName<=d))(&(objectClass=user) (objectCategory=person))))]\nLDAP Processing Range: (&(sAMAccountName>=d)(sAMAccountName<=e)) \nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&(&(sAMAccountName>=d) (sAMAccountName<=e))(&(objectClass=user) (objectCategory=person))))]\nLDAP Processing Range: (&(sAMAccountName>=e)(sAMAccountName<=f)) \nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&(&(sAMAccountName>=e) (sAMAccountName<=f))(&(objectClass=user) (objectCategory=person))))]\nLDAP Processing Range: (&(sAMAccountName>=f)(sAMAccountName<=g)) \nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&(&(sAMAccountName>=f) (sAMAccountName<=g))(&(objectClass=user) (objectCategory=person))))]\nLDAP Processing Range: (&(sAMAccountName>=g)(sAMAccountName<=h)) \nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&(&(sAMAccountName>=g) (sAMAccountName<=h))(&(objectClass=user) (objectCategory=person))))]\nLDAP Processing Range: (&(sAMAccountName>=h)(sAMAccountName<=i)) \nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch </pre>

XML Response	JSON Response
<pre> Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName>=h) (sAMAccountName<=i)))(&(objectClass=user) (objectCategory=person)))] LDAP Processing Range: (&(sAMAccountName>=i)(sAMAccountName<=j)) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName>=i) (sAMAccountName<=j)))(&(objectClass=user) (objectCategory=person)))] LDAP Processing Range: (&(sAMAccountName>=j)(sAMAccountName<=k)) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName>=j) (sAMAccountName<=k)))(&(objectClass=user) (objectCategory=person)))] LDAP Processing Range: (&(sAMAccountName>=k)(sAMAccountName<=l)) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName>=k) (sAMAccountName<=l)))(&(objectClass=user) (objectCategory=person)))] LDAP Processing Range: (&(sAMAccountName>=l)(sAMAccountName<=m)) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName>=l) (sAMAccountName<=m)))(&(objectClass=user) (objectCategory=person)))] LDAP Processing Range: (&(sAMAccountName>=m)(sAMAccountName<=n)) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName>=m) (sAMAccountName<=n)))(&(objectClass=user) (objectCategory=person)))] LDAP Processing Range: (&(sAMAccountName>=n)(sAMAccountName<=o)) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName>=n) (sAMAccountName<=o)))(&(objectClass=user) (objectCategory=person)))] LDAP Processing Range: (&(sAMAccountName>=o)(sAMAccountName<=p)) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName>=o) (sAMAccountName<=p)))(&(objectClass=user) (objectCategory=person)))] LDAP Processing Range: (&(sAMAccountName>=p)(sAMAccountName<=q)) </pre>	<pre>], Filter[(&((&(sAMAccountName>=h) (sAMAccountName<=i)))(&(objectClass=user) (objectCategory=person)))]\nLDAP Processing Range: (&(sAMAccountName>=i)(sAMAccountName<=j)) \nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName>=i) (sAMAccountName<=j)))(&(objectClass=user) (objectCategory=person)))]\nLDAP Processing Range: (&(sAMAccountName>=j)(sAMAccountName<=k)) \nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName>=j) (sAMAccountName<=k)))(&(objectClass=user) (objectCategory=person)))]\nLDAP Processing Range: (&(sAMAccountName>=k)(sAMAccountName<=l)) \nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName>=k) (sAMAccountName<=l)))(&(objectClass=user) (objectCategory=person)))]\nLDAP Processing Range: (&(sAMAccountName>=l)(sAMAccountName<=m)) \nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName>=l) (sAMAccountName<=m)))(&(objectClass=user) (objectCategory=person)))]\nLDAP Processing Range: (&(sAMAccountName>=m)(sAMAccountName<=n)) \nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName>=m) (sAMAccountName<=n)))(&(objectClass=user) (objectCategory=person)))]\nLDAP Processing Range: (&(sAMAccountName>=n)(sAMAccountName<=o)) \nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName>=n) (sAMAccountName<=o)))(&(objectClass=user) (objectCategory=person)))]\nLDAP Processing Range: (&(sAMAccountName>=o)(sAMAccountName<=p)) \nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName>=o) (sAMAccountName<=p)))(&(objectClass=user) (objectCategory=person)))]\nLDAP Processing Range: (&(sAMAccountName>=p)(sAMAccountName<=q)) \nLDAP Search: </pre>

XML Response	JSON Response
<pre> LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName=>p) (sAMAccountName<=q)))(&(objectClass=user) (objectCategory=person)))] LDAP Processing Range: (&(sAMAccountName=>q)(sAMAccountName<=r)) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName=>q) (sAMAccountName<=r)))(&(objectClass=user) (objectCategory=person)))] LDAP Processing Range: (&(sAMAccountName=>r)(sAMAccountName<=s)) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName=>r) (sAMAccountName<=s)))(&(objectClass=user) (objectCategory=person)))] LDAP Processing Range: (&(sAMAccountName=>s)(sAMAccountName<=t)) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName=>s) (sAMAccountName<=t)))(&(objectClass=user) (objectCategory=person)))] LDAP Processing Range: (&(sAMAccountName=>t)(sAMAccountName<=u)) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName=>t) (sAMAccountName<=u)))(&(objectClass=user) (objectCategory=person)))] LDAP Processing Range: (&(sAMAccountName=>u)(sAMAccountName<=v)) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName=>u) (sAMAccountName<=v)))(&(objectClass=user) (objectCategory=person)))] LDAP Processing Range: (&(sAMAccountName=>v)(sAMAccountName<=w)) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName=>v) (sAMAccountName<=w)))(&(objectClass=user) (objectCategory=person)))] LDAP Processing Range: (&(sAMAccountName=>w)(sAMAccountName<=x)) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName=>w) (sAMAccountName<=x)))(&(objectClass=user) (objectCategory=person)))] </pre>	<pre> Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName=>p) (sAMAccountName<=q)))(&(objectClass=user) (objectCategory=person)))]\nLDAP Processing Range: (&(sAMAccountName=>q)(sAMAccountName<=r)) \nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName=>q) (sAMAccountName<=r)))(&(objectClass=user) (objectCategory=person)))]\nLDAP Processing Range: (&(sAMAccountName=>r)(sAMAccountName<=s)) \nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName=>r) (sAMAccountName<=s)))(&(objectClass=user) (objectCategory=person)))]\nLDAP Processing Range: (&(sAMAccountName=>s)(sAMAccountName<=t)) \nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName=>s) (sAMAccountName<=t)))(&(objectClass=user) (objectCategory=person)))]\nLDAP Processing Range: (&(sAMAccountName=>t)(sAMAccountName<=u)) \nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName=>t) (sAMAccountName<=u)))(&(objectClass=user) (objectCategory=person)))]\nLDAP Processing Range: (&(sAMAccountName=>u)(sAMAccountName<=v)) \nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName=>u) (sAMAccountName<=v)))(&(objectClass=user) (objectCategory=person)))]\nLDAP Processing Range: (&(sAMAccountName=>v)(sAMAccountName<=w)) \nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName=>v) (sAMAccountName<=w)))(&(objectClass=user) (objectCategory=person)))]\nLDAP Processing Range: (&(sAMAccountName=>w)(sAMAccountName<=x)) \nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName=>w) (sAMAccountName<=x)))(&(objectClass=user) (objectCategory=person)))]\nLDAP Processing Range: (&(sAMAccountName=>x)(sAMAccountName<=y)) </pre>

XML Response	JSON Response
<pre> LDAP Processing Range: (&(sAMAccountName>=x)(sAMAccountName<=y)) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName>=x) (sAMAccountName<=y)))(&(objectClass=user) (objectCategory=person))))] LDAP Processing Range: (&(sAMAccountName>=y)(sAMAccountName<=z)) LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName>=y) (sAMAccountName<=z)))(&(objectClass=user) (objectCategory=person))))] Skipping LDAP group processing. No group filter or target OUs specified. </output> </serverOperationResponse> </pre>	<pre> \nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName>=x) (sAMAccountName<=y)))(&(objectClass=user) (objectCategory=person))))]\nLDAP Processing Range: (&(sAMAccountName>=y)(sAMAccountName<=z)) \nLDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch], Filter[(&((&(sAMAccountName>=y) (sAMAccountName<=z)))(&(objectClass=user) (objectCategory=person))))]\n\nSkipping LDAP group processing. No group filter or target OUs specified.\n" } </pre>

4.29.3.2.2 LDAP Refresh: Response Properties

Property	UI Field Name	Description	Specifications
operation	n/a	Server Operation that was performed.	
success	n/a	Result of the Server Operation.	Boolean; Valid values: true/false.
output	n/a	Output of the server operation.	

4.29.3.3 LDAP Refresh (Asynchronous)

	Description
URI	http://host_name/uc/resources/serveroperation/ldaprefreshasync
HTTP Method	POST
Description	If LDAP is configured for this installation, it refreshes every 24 hours. This system operation forces a refresh. The refresh is performed in the background and sends log entries to the Controller log.
Example URI	http://localhost:8080/uc/resources/serveroperation/ldaprefreshasync
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json

	Description
Example Response	See LDAP Refresh (Asynchronous): Example Response .
Response Properties	See LDAP Refresh (Asynchronous): Response Properties .

4.29.3.3.1 LDAP Refresh (Asynchronous): Example Response

XML Response	JSON Response
XML Response <pre><serverOperationResponse> <operation>LDAP Refresh (Asynchronous)</operation> <success>true</success> <output>LDAP Refresh scheduled for background processing </output> </serverOperationResponse></pre>	JSON Response <pre>{ "operation": "LDAP Refresh", "success": true, "output": "LDAP Refresh scheduled for background processing." }</pre>

4.29.3.3.2 LDAP Refresh (Asynchronous): Response Properties

Property	UI Field Name	Description	Specifications
operation	n/a	Server Operation that was performed.	
success	n/a	Result of the Server Operation.	Boolean; Valid values: true/false.
output	n/a	Output of the server operation.	

4.29.4 Server Operations Web Services - List/Download Logs

- [Overview](#)
- [List Log Files](#)
 - [List Log Files: Example Response](#)
- [Download Log Files](#)
 - [Download Log Files: Request Parameter](#)

4.29.4.1 Overview

Universal Controller supports the following RESTful-based web services for the List/Download Logs Server Operations, which are listed alphabetically on this page.

- [List Log Files](#)
- [Download Log Files](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

4.29.4.2 List Log Files

	Description
URI	http://host_name/uc/resources/serveroperation/listlog
HTTP Method	GET
Description	Retrieve the log details using a specific query parameter.
Example URI	http://localhost:8080/uc/resources/serveroperation/listlog
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See List Log Files Example Response .

4.29.4.2.1 List Log Files: Example Response

XML Response	JSON Response
XML Response <pre><?xml version="1.0" encoding="UTF-8" standalone="yes"?> <serverOperationResponse> <operation>List Logs</operation> <success>true</success> <output></output> <logs> <log> <logName>uc.d20200508.t120903.log</logName> <logDate>2020-05-08 12:09:03 -0400</logDate> <logSize>102</logSize> </log> <log> <logName>uc.d20200508.t121013.log</logName> <logDate>2020-05-08 12:10:13 -0400</logDate> <logSize>102</logSize> </log> <log> <logName>uc.d20200508.t121309.log</logName> <logDate>2020-05-08 12:13:09 -0400</logDate> <logSize>102</logSize> </log> </logs> </serverOperationResponse></pre>	JSON Response

XML Response	JSON Response
	<pre> { "operation": "List Logs", "success": true, "output": "", "logs": [{ "logName": "uc.d20200508.t115303.log", "logDate": "2020-05-08 11:53:03 -0400", "logSize": "112" }, { "logName": "uc.d20200508.t115847.log", "logDate": "2020-05-08 11:58:47 -0400", "logSize": "112" }, { "logName": "uc.d20200508.t120323.log", "logDate": "2020-05-08 12:03:23 -0400", "logSize": "112" }] } </pre>

4.29.4.3 Download Log Files

	Description
URI	http://host_name/uc/resources/serveroperation/downloadlog
HTTP Method	GET
Description	Retrieve the log details using a specific query parameter.
Example URI	• http://localhost:8080/uc/resources/serveroperation/downloadlog?logName=uc.log • http://localhost:8080/uc/resources/serveroperation/downloadlog?logName=uc.log&logname=uc.d20200602.t102808
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/octet-stream
Request Parameter	See Download Log Files: Request Parameter .

4.29.4.3.1 Download Log Files: Request Parameter

The following request parameter will be needed for download a log file. This is a List type request parameter; you can request multiple files using the same parameter name.

Property	UI Field Name	Description	Specifications	Required
logName	n/a	Request parameter to add the files for download.	String value of the log file name.	Y

4.29.5 Server Operations Web Services - Pause and Resume Cluster Node

- [Overview](#)
- [Pause Cluster Node](#)
 - [Pause Cluster Node: Example Response](#)
- [Resume Cluster Node](#)
 - [Resume Cluster Node: Example Response](#)

4.29.5.1 Overview

Universal Controller supports the following RESTful-based web services for the [Pause Cluster Node](#) and [Resume Cluster Node](#) Server Operations.

- Pause Cluster Node
- Resume Cluster Node

Formatting specifications for the web service are provided.

4.29.5.2 Pause Cluster Node

	Description
URI	http://host_name/uc/resources/serveroperation/pauseclusternode
HTTP Method	POST
Description	Sets the instance of the Universal Controller to paused (if active).
Example URI	http://localhost:8080/uc/resources/serveroperation/pauseclusternode
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See Pause Cluster Node: Example Response .

4.29.5.2.1 Pause Cluster Node: Example Response

XML Response	JSON Response
XML Response <pre><?xml version="1.0" encoding="UTF-8" standalone="yes"?> <serverOperationResponse> <operation>Pause Cluster Node</ operation> <success>true</success> <output> Universal Controller node paused at 2021-05-10 10:59:28 -0400 </output> </serverOperationResponse></pre>	JSON Response <pre>{ "operation": "Pause Cluster Node", "success": true, "output": " Universal Controller node was already paused, no action taken " }</pre>

4.29.5.3 Resume Cluster Node

	Description
URI	http://host_name/uc/resources/serveroperation/resumeclusternode
HTTP Method	POST
Description	Resumes the instance of the Universal Controller (if paused).
Example URI	http://localhost:8080/uc/resources/serveroperation/resumeclusternode
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See Resume Cluster Node: Example Response .

4.29.5.3.1 Resume Cluster Node: Example Response

XML Response	JSON Response
XML Response <pre><?xml version="1.0" encoding="UTF-8" standalone="yes"?> <serverOperationResponse> <operation>Resume Cluster Node</ operation> <success>true</success> <output>U niversal Controller node was not paused, no action taken. </output> </serverOperationResponse></pre>	JSON Response <pre>{ "operation": "Resume Cluster Node", "success": true, "output": " Universal Controller node resumed at 2021-05-10 11:02:50 -0400 " }</pre>

4.29.6 Server Operations Web Services - Roll Log

- [Overview](#)
- [Roll Log](#)
 - [Roll Log: Example Response](#)

4.29.6.1 Overview

Universal Controller supports the following RESTful-based web services for the [Roll Log](#) Server Operation. Formatting specifications for the web service, including details about parameter requirements, are provided.

4.29.6.2 Roll Log

	Description
URI	http://host_name/uc/resources/serveroperation/rolllog
HTTP Method	GET
Description	Renames the existing log to a timestamped log and opens a new log file.
Example URI	http://localhost:8080/uc/resources/serveroperation/rolllog
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See Roll Log: Example Response .

4.29.6.2.1 Roll Log: Example Response

XML Response	JSON Response
XML Response <pre><?xml version="1.0" encoding="UTF-8" standalone="yes"?> <serverOperationResponse> <operation>Roll Log</operation> <success>true</success> <output>Log rolled at 2021-02-22 11:49:43 -0500</output> </serverOperationResponse></pre>	JSON Response <pre>{ "operation": "Roll Log", "success": true, "output": "Log rolled at 2021-02-22 11:50:14 -0500" }</pre>

4.29.7 Server Operations Web Services - Temporary Property Change

- [Overview](#)
- [Temporary Property Change](#)
 - [Temporary Property Change: Example Response](#)
 - [Temporary Property Change: Request Parameters](#)

4.29.7.1 Overview

Universal Controller supports the following RESTful-based web services for the Temporary Property Change Server Operation. Formatting specifications for the web service, including details about parameter requirements, are provided.

4.29.7.2 Temporary Property Change

	Description
URI	http://host_name/uc/resources/serveroperation/temporarypropertychange
HTTP Method	POST
Description	Allows for the temporary setting of specific Universal Controller properties to be used for diagnosing problems. This operation and setting of properties should be performed only under the guidance of Stonebranch support.
Example URI	• http://localhost:8080/uc/resources/serveroperation/temporarypropertychange?name=uc.log.rpc&value=false • http://localhost:8080/uc/resources/serveroperation/temporarypropertychange?name=uc.http.debug&value=true
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See Temporary Property Change: Example Response .
Request Parameters	See Temporary Property Change: Example Response .

4.29.7.2.1 Temporary Property Change: Example Response

XML Response	JSON Response
XML Response <pre><?xml version="1.0" encoding="UTF-8" standalone="yes"?> <serverOperationResponse> <operation>Temporary Property Change</ operation> <success>true</success> <output>Property uc.log.rpc has been set to false</output> </serverOperationResponse></pre>	JSON Response <pre>{ "operation": "Temporary Property Change", "success": true, "output": "Property uc.log.rpc has been set to false" }</pre>

4.29.7.2.2 Temporary Property Change: Request Parameters

The following request parameters will be needed for a temporary property change.

Property	UI Field Name	Description	Specifications	Required
name	Property	Name of property to be changed.		Y
value	Value	New value that named property will be changed to	Boolean value to enable/disable.	Y

4.30 Simulation Web Services

• Overview • Create/Update a Simulation • Simulation Properties • Simulation Output Properties • Create/Update a Simulation: Example Request • Delete a Simulation • Delete a Simulation: URI Parameters • List Simulations • List Simulations: URI Parameters • List Simulations: Example Response • Read a Simulation

- [Read a Simulation: URI Parameters](#)
- [Read a Simulation: Example Response](#)

4.30.1 Overview

Universal Controller supports the following RESTful-based web services for Simulation operations, which are listed alphabetically on this page.

- [Create/Update a Simulation](#)
- [Delete a Simulation](#)
- [List Simulations](#)
- [Read a Simulation](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

4.30.2 Create/Update a Simulation

	Description
URI	<code>http://host_name/uc/resources/simulation</code>
HTTP Method	Post/PUT
Description	Create Simulation .
Example URI	http://localhost:8080/uc/resources/simulation
Authentication	HTTP Basic
Produces Content-Type	application/xml, application/json
Consumes Content-Type	application/xml, application/json
Example Request	See Create/Update a Simulation: Example Request .
Simulation Properties	See Simulation Properties and Simulation Output Properties, below.
Example Responses	• Status 200 • Successfully created the simulation with id {uuid}. • Status 400 • Error message. • Status 403 • Operation prohibited due to security constraints. • Status 404 • A simulation with taskname "{taskname}" does not exist. • A simulation with taskid "{uuid}" does not exist. • Status 500 • Unexpected request failure. See log(s) for more details.

4.30.2.1 Simulation Properties

Property	UI Field Name	Description	Specifications	Required
task	Task	Name of the task.		Y
retainSysIds	n/a	Specification for whether or not the Create a Simulation web service will persist the sysId property. - If retainSysIds="true" and sysId is included in the request/response, sysId will be persisted to the database. - If retainSysIds="false" and sysId is included in the request/response, sysId will be ignored; it will be autogenerated by the Controller. Note In XML web services, retainSysIds is specified as an attribute in the <simulation> element.	Valid values: true/false (default is true).	N
workflow	Workflow	Name of the workflow.		N
vertexId	Vertex	Vertex ID of the task added to the workflow.	Defaults to ANY (-1) if not specified	N
status	Status	Projected simulation status.	Allowed values - Success (200) - Failed (140)	N
exitCode	Exit Code	Exit code to return.	Defaults to 0(zero) if not specified.	N

Property	UI Field Name	Description	Specifications	Required
<code>variables</code>	Simulation Variables	Specifies variables that should be added for simulation purposes, including any built-in monitor variables starting with "ops_trigger_". The Simulation Variables are for adding variables that the simulated instance would have normally produced, therefore, are only available after the instance is already Queued or Running.	List of variables: <pre> <variables> <variable> <name>env1</name> <value>test1</value> </variable> <variable> <name>env2</name> <value>test2</value> </variable> </variables> </pre>	N
<code>publishStatus</code>	Publish Status	Specifies if Status events should be published to task monitor instances.	Defaults to false	N
<code>publishLateStart</code>	Publish Late Start	Specifies if Late Start events should be published to task monitor instances.	Defaults to false	N
<code>publishLateFinish</code>	Publish Late Finish	Specifies if Late Finish events should be published to task monitor instances.	Defaults to false	N
<code>publishEarlyFinish</code>	Publish Early Finish	Specifies if Early Finish events should be published to task monitor instances.	Defaults to false	N
<code>abortActions</code>	Execute Abort Actions	Specifies if Abort Actions should be executed for the simulated instance.	Defaults to false	N

Property	UI Field Name	Description	Specifications	Required
emailNotificationActions	Execute Email Notification Actions	Specifies if Email Notification Actions should be executed for the simulated instance.	Defaults to false	N
variableActions	Execute Set Variable Actions	Specifies if Set Variable Actions should be executed for the simulated instance.	Defaults to false	N
snmpNotificationActions	Execute SNMP Notification Actions	Specifies if SNMP Notification Actions should be executed for the simulated instance.	Defaults to false	N
systemOperationActions	Execute System Operation Actions	Specifies if System Operation Actions should be executed for the simulated instance.	Defaults to false	N
otherOptions	Other Options	Specify Other Options for the Simulation record.	Valid Values: • z/OS JCL Resolution (Integer value = 1)	N

4.30.2.2 Simulation Output Properties

Property	UI Field Name	Description	Specifications	Required
outputType	Type	Type of Output	Allowed Values: • STDOUT • STDERR • FILE • JOBLOG • WEB SERVICE • EXTENSION	N
outputData	Output	Output Data		N
outputFileName	File Name	Name of the File		N

4.30.2.3 Create/Update a Simulation: Example Request

XML Request	JSON Request
XML <pre><?xml version="1.0" encoding="UTF-8" standalone="yes"?> <simulation exportReleaseLevel="7.4.0.0" exportTable="ops_simulation" retainSysIds="true"> <abortActions>true</abortActions> <emailNotificationActions>>false</ emailNotificationActions> <exitCode>0</exitCode> <otherOptions>z/OS JCL Resolution</ otherOptions> <outputs> <output> <outputData>test-2</outputData> <outputFileName>test2.csv</ outputFileName> <outputType>STDERR</outputType> <sysId>1144f14157dc4e2bb58198330c434f34</ sysId> </output> <output> <outputData>test-json</ outputData> <outputFileName>test.json</ outputFileName> <outputType>STDOUT</outputType> <sysId>922dc2e5287845be842f1dd974e25b94</ sysId> </output> </outputs> <publishEarlyFinish>>false</ publishEarlyFinish> <publishLateFinish>>false</ publishLateFinish> <publishLateStart>true</publishLateStart> <publishStatus>true</publishStatus> <snmpNotificationActions>>false</ snmpNotificationActions> <status>SUCCESS</status> <sysId>e30b677763e14f72bdbe76e5c09263e7</ sysId> <systemOperationActions>>false</ systemOperationActions> <task>win-5</task></pre>	JSON <pre>{ "abortActions": true, "emailNotificationActions": false, "exitCode": "0", "exportReleaseLevel": "7.4.0.0", "exportTable": "ops_simulation", "otherOptions": "z/OS JCL Resolution", "outputs": [{ "outputData": "test-2", "outputFileName": "test2.csv", "outputType": "STDERR", "sysId": "1144f14157dc4e2bb58198330c434f34" }, { "outputData": "test-json", "outputFileName": "test.json", "outputType": "STDOUT", "sysId": "922dc2e5287845be842f1dd974e25b94" }], "publishEarlyFinish": false, "publishLateFinish": false, "publishLateStart": true, "publishStatus": true, "retainSysIds": false, "snmpNotificationActions": false, "status": "SUCCESS", "sysId": "e30b677763e14f72bdbe76e5c09263e7", "systemOperationActions": false, "task": "win-5", "variableActions": false, "variables": [{ "name": "A", "value": "abc" }, { "name": "B", "value": "123" }], "vertexId": "3",</pre>

XML Request	JSON Request
<pre><variableActions>false</variableActions> <variables> <variable> <name>A</name> <value>abc</value> </variable> <variable> <name>B</name> <value>123</value> </variable> </variables> <vertexId>3</vertexId> <workflow>work-1</workflow> </simulation></pre>	<pre>"workflow": "work-1" }</pre>

4.30.3 Delete a Simulation

	Description
URI	http://host_name/uc/resources/simulation
HTTP Method	DELETE
Description	Delete Simulation .
URI Parameters	See Delete a Simulation: URI Parameters, below.
Example URI	http://localhost:8080/uc/resources/simulation?taskname=task-1 http://localhost:8080/uc/resources/simulation?taskname=task-1&workflowname=work-1&vertexid=-1 http://localhost:8080/uc/resources/simulation?simulationid=12345
Authentication	HTTP Basic
Produces Content-Type	application/xml, application/json
Example Responses	Simulation deleted successfully.

4.30.3.1 Delete a Simulation: URI Parameters

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
simulationid	N/A	ID used within the Controller to identify this simulation.	String; URI parameter	Y	taskname

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
taskname	N/A	Name used within the Controller to identify the task Name.	String; URI parameter	Y	simulationid
workflowname	N/A	Name used within the Controller to identify the workflow Name.	String; URI parameter	N	simulationid
vertexid	N/A	Vertex ID of the task added to the workflow.	String; URI parameter	N (Y if workflowname is specified)	simulationid

4.30.4 List Simulations

	Description
URI	http://host_name/uc/resources/simulation/list
HTTP Method	GET
Description	List All Simulations.
Example URI	http://localhost:8080/uc/resources/simulation/list http://localhost:8080/uc/resources/simulation/list?taskname=task-1 http://localhost:8080/uc/resources/simulation/list?workflowname=work-1
Authentication	HTTP Basic
Produces Content-Type	application/xml, application/json
Example Responses	See List Simulation: Example Response .

4.30.4.1 List Simulations: URI Parameters

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
taskname	N/A	Name used within the Controller to identify the task Name.	String; URI parameter	N	
workflowname	N/A	Name used within the Controller to identify the workflow Name.	String; URI parameter	N	

4.30.4.2 List Simulations: Example Response

XML Response	JSON Response
XML <pre><?xml version="1.0" encoding="UTF-8" standalone="yes"?> <simulations> <simulation exportReleaseLevel="7.4.0.0" exportTable="ops_simulation"> <abortActions>>false</abortActions> <emailNotificationActions>>false</ emailNotificationActions> <exitCode>0</exitCode> <otherOptions>z/OS JCL Resolution</ otherOptions> <outputs/> <publishEarlyFinish>>false</ publishEarlyFinish> <publishLateFinish>>false</ publishLateFinish> <publishLateStart>>false</ publishLateStart> <publishStatus>>false</publishStatus> <snmpNotificationActions>>false</ snmpNotificationActions> <status>SUCCESS</status> <sysId>37a56842d09f43c59a81343a8a4e42d5</ sysId> <systemOperationActions>>false</ systemOperationActions> <task>Sleep 0</task> <variableActions>>false</ variableActions> <variables/> <vertexId>-1</vertexId> <workflow>work-2</workflow> </simulation> <simulation exportReleaseLevel="7.4.0.0" exportTable="ops_simulation"> <abortActions>true</abortActions> <emailNotificationActions>>false</ emailNotificationActions> <exitCode>0</exitCode> <otherOptions>z/OS JCL Resolution</ otherOptions> <outputs/> <publishEarlyFinish>>false</ publishEarlyFinish></pre>	JSON <pre>[{ "abortActions": false, "emailNotificationActions": false, "exitCode": "0", "exportReleaseLevel": "7.4.0.0", "exportTable": "ops_simulation", "otherOptions": "z/OS JCL Resolution", "outputs": [], "publishEarlyFinish": false, "publishLateFinish": false, "publishLateStart": false, "publishStatus": false, "snmpNotificationActions": false, "status": "SUCCESS", "sysId": "37a56842d09f43c59a81343a8a4e42d5", "systemOperationActions": false, "task": "Sleep 0", "variableActions": false, "variables": [], "vertexId": "-1", "workflow": "work-2" }, { "abortActions": true, "emailNotificationActions": false, "exitCode": "0", "exportReleaseLevel": "7.4.0.0", "exportTable": "ops_simulation", "otherOptions": "z/OS JCL Resolution", "outputs": [], "publishEarlyFinish": false, "publishLateFinish": false, "publishLateStart": true, "publishStatus": true, "snmpNotificationActions": false, "status": "SUCCESS", "sysId": "6f65583589db46dc977f1e3f79544c35", "systemOperationActions": false, "task": "Sleep 0", "variableActions": false, "variables": [</pre>

XML Response	JSON Response
<pre><publishLateFinish>false</publishLateFinish> <publishLateStart>true</publishLateStart> <publishStatus>true</publishStatus> <snmpNotificationActions>false</snmpNotificationActions> <status>SUCCESS</status> <sysId>6f65583589db46dc977f1e3f79544c35</sysId> <systemOperationActions>false</systemOperationActions> <task>Sleep 0</task> <variableActions>false</variableActions> <variables> <variable> <name>A</name> <value>abc</value> </variable> <variable> <name>B</name> <value>123</value> </variable> </variables> <vertexId>3</vertexId> <workflow>work-1</workflow> </simulation> <simulation exportReleaseLevel="7.4.0.0" exportTable="ops_simulation"> <abortActions>true</abortActions> <emailNotificationActions>false</emailNotificationActions> <exitCode>0</exitCode> <otherOptions>z/OS JCL Resolution</otherOptions> <outputs> <output> <outputData>test-2</outputData> <outputFileName>test2.csv</outputFileName> <outputType>STDERR</outputType> </output> <output> <outputData>test-json</outputData> <outputFileName>test.json</outputFileName></pre>	<pre>{ "name": "A", "value": "abc" }, { "name": "B", "value": "123" }], "vertexId": "3", "workflow": "work-1" }, { "abortActions": true, "emailNotificationActions": false, "exitCode": "0", "exportReleaseLevel": "7.4.0.0", "exportTable": "ops_simulation", "otherOptions": "z/OS JCL Resolution", "outputs": [{ "outputData": "test-2", "outputFileName": "test2.csv", "outputType": "STDERR", "sysId": "1144f14157dc4e2bb58198330c434f34" }, { "outputData": "test-json", "outputFileName": "test.json", "outputType": "STDOUT", "sysId": "922dc2e5287845be842f1dd974e25b94" }], "publishEarlyFinish": false, "publishLateFinish": false, "publishLateStart": true, "publishStatus": true, "snmpNotificationActions": false, "status": "SUCCESS", "sysId": "e30b677763e14f72bdbe76e5c09263e7", "systemOperationActions": false, "task": "win-5", "variableActions": false, "variables": [{ "name": "A", "value": "abc"</pre>

XML Response	JSON Response
<pre><outputType>STDOUT</outputType> outputType> <sysId>922dc2e5287845be842f1dd974e25b94</sysId> </output> </outputs> <publishEarlyFinish>>false</publishEarlyFinish> <publishLateFinish>>false</publishLateFinish> <publishLateStart>>true</publishLateStart> <publishStatus>>true</publishStatus> <snmpNotificationActions>>false</snmpNotificationActions> <status>SUCCESS</status> <sysId>e30b677763e14f72bdbe76e5c09263e7</sysId> <systemOperationActions>>false</systemOperationActions> <task>win-5</task> <variableActions>>false</variableActions> <variables> <variable> <name>A</name> <value>abc</value> </variable> <variable> <name>B</name> <value>123</value> </variable> </variables> <vertexId>3</vertexId> <workflow>work-1</workflow> </simulation> </simulations></pre>	<pre>{ "name": "B", "value": "123" }, "vertexId": "3", "workflow": "work-1"]</pre>

4.30.5 Read a Simulation

	Description
URI	http://host_name/uc/resources/simulation
HTTP Method	GET
Description	read Simulation

	Description
Example URI	http://localhost:8080/uc/resources/simulation?taskname=task-1 http://localhost:8080/uc/resources/simulation?taskname=task-1&workflowname=work-1&vertexid=-1 http://localhost:8080/uc/resources/simulation?simulationid=12345
Authentication	HTTP Basic
Produces Content-Type	application/xml, application/json
Consumes Content-Type	
Example Responses	See Read Simulation Response .

4.30.5.1 Read a Simulation: URI Parameters

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>simulationid</code>	N/A	ID used within the Controller to identify this simulation.	String; URI parameter	Y	<code>taskname</code>
<code>taskname</code>	N/A	Name used within the Controller to identify the task Name.	String; URI parameter	Y	<code>simulationid</code>
<code>workflowname</code>	N/A	Name used within the Controller to identify the workflow Name.	String; URI parameter	N	<code>simulationid</code>
<code>vertexid</code>	N/A	Vertex ID of the task added to the workflow.	String; URI parameter	N (Y if workflowname is specified)	<code>simulationid</code>

4.30.5.2 Read a Simulation: Example Response

XML Response	JSON Response
XML <pre><?xml version="1.0" encoding="UTF-8" standalone="yes"?> <simulation exportReleaseLevel="7.4.0.0" exportTable="ops_simulation" retainSysIds="true"> <abortActions>true</abortActions> <emailNotificationActions>false</ emailNotificationActions> <exitCode>0</exitCode> <otherOptions>z/OS JCL Resolution</ otherOptions> <outputs> <output> <outputData>test-2</outputData> <outputFileName>test2.csv</ outputFileName> <outputType>STDERR</outputType> <sysId>1144f14157dc4e2bb58198330c434f34</ sysId> </output> <output> <outputData>test-json</outputData> <outputFileName>test.json</ outputFileName> <outputType>STDOUT</outputType> <sysId>922dc2e5287845be842f1dd974e25b94</ sysId> </output> </outputs> <publishEarlyFinish>>false</ publishEarlyFinish> <publishLateFinish>>false</ publishLateFinish> <publishLateStart>true</publishLateStart> <publishStatus>true</publishStatus> <snmpNotificationActions>>false</ snmpNotificationActions> <status>SUCCESS</status> <sysId>e30b677763e14f72bdbe76e5c09263e7</ sysId> <systemOperationActions>>false</ systemOperationActions> <task>win-5</task> <variableActions>>false</variableActions></pre>	JSON <pre>{ "abortActions": true, "emailNotificationActions": false, "exitCode": "0", "exportReleaseLevel": "7.4.0.0", "exportTable": "ops_simulation", "otherOptions": "z/OS JCL Resolution", "outputs": [{ "outputData": "test-2", "outputFileName": "test2.csv", "outputType": "STDERR", "sysId": "1144f14157dc4e2bb58198330c434f34" }, { "outputData": "test-json", "outputFileName": "test.json", "outputType": "STDOUT", "sysId": "922dc2e5287845be842f1dd974e25b94" }], "publishEarlyFinish": false, "publishLateFinish": false, "publishLateStart": true, "publishStatus": true, "retainSysIds": true, "snmpNotificationActions": false, "status": "SUCCESS", "sysId": "e30b677763e14f72bdbe76e5c09263e7", "systemOperationActions": false, "task": "win-5", "variableActions": false, "variables": [{ "name": "A", "value": "abc" }, { "name": "B", "value": "123" }], "vertexId": "3",</pre>

XML Response	JSON Response
<pre><variables> <variable> <name>A</name> <value>abc</value> </variable> <variable> <name>B</name> <value>123</value> </variable> </variables> <vertexId>3</vertexId> <workflow>work-1</workflow> </simulation></pre>	<pre>"workflow": "work-1" }</pre>

4.31 System Web Services

- [Overview](#)
- [Retrieve System Details](#)

4.31.1 Overview

Universal Controller supports the following RESTful-based web services for system operations, which are listed alphabetically on this page

- [Retrieve System Details](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

4.31.2 Retrieve System Details

	Description
URI	http://host_name/uc/resources/status
HTTP Method	GET
Description	Retrieves Universal Controller system status/information.
Example URI	http://localhost:8080/uc/resources/status
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json

	Description
Example Response	See Retrieve System Details: Example Response , below.

4.31.2.1 Retrieve System Details: Example Response

XML Response	JSON Response
<pre> XML Response <status> <build>build.190</build> <buildDate>08-31-2020_1026</buildDate> <databaseConnections>Server (0/5) Client (0/5) Reserved (0/2)</ databaseConnections> <databaseName>qa_con_mysql</ databaseName> <databaseType>MySQL</databaseType> <databaseURL>jdbc:mysql://qa- db007.stone.branch/</databaseURL> <license>>[Distributed Agents: 3/3] [z/OS Agents: 2/2] [Expiry Date: 2020-12-14 [Days: 45]] [UPPS: true] [USAP: true] [Customer: Pre 6.9 License Migrated.]</license> <licenseExpired>>false</licenseExpired> <memoryFree>806.90 MB (79.19%)</ memoryFree> <memoryMaximum>1019.00 MB</ memoryMaximum> <memoryUsed>212.10 MB (20.81%)</ memoryUsed> <nodeId>qa-con- mysql.stone.branch:8080-qa_con_mysql</ nodeId> <nodeMode>Active</nodeMode> <nodeTime>2020-11-08 14:09:54 -0400 (America/New_York)</nodeTime> <nodeUptime>7 Days 19 Hours 57 Minutes 41 Seconds</nodeUptime> <release>6.9.0.0</release> </status> </pre>	<pre> JSON Response { "build": "build.190", "buildDate": "08-31-2020_1026", "databaseConnections": "Server (0/5) Client (0/5) Reserved (0/2)", "databaseName": "qa_con_mysql", "databaseType": "MySQL", "databaseURL": "jdbc:mysql://qa- db007.stone.branch/", "license": ">[Distributed Agents: 3/3] [z/ OS Agents: 2/2] [Expiry Date: 2020-05-14 [Days: 45]] [UPPS: true] [USAP: true] [Customer: Pre 6.9 License Migrated.]", "licenseExpired": false, "memoryFree": "806.90 MB (79.19%)", "memoryMaximum": "1019.00 MB", "memoryUsed": "212.10 MB (20.81%)", "nodeId": "qa-con-mysql.stone.branch:8080- qa_con_mysql", "nodeMode": "Active", "nodeTime": "2020-11-08 14:09:54 -0400 (America/New_York)", "nodeUptime": "7 Days 19 Hours 57 Minutes 41 Seconds", "release": "6.9.0.0" } </pre>

4.31.2.2 Retrieve System Details Properties

The System Details properties match the fields on the [System Details widget](#) which displays, by default, on the Universal Controller Home dashboard.

Property	UI Field Name	Description
build	Build	Build number for this version of the Controller.
buildDate	Build Date	Date when this build was created.
databaseConnections	Database Connections	Information on the database connections required for Universal Controller to execute an SQL task or a Stored Procedure Task .
databaseName	Database Name	Name of the database used by this Controller.
databaseType	DatabaseType	Type of database used by this Controller.
databaseURL	Database URL	URL of the database used by this Controller.
license	License	License information for the Universal Controller: • Distributed Agents • z/OS Agents • Expiry Date • Tasks • Monthly Executions • Cluster Nodes • UPPS • USAP • Customer • Environment
licenseExpired	n/a	Indication (true or false) that your Universal Controller license has expired.
memoryFree	Memory Free	Amount of memory available for use by this Controller.
memoryMaximum	Memory Maximum	Maximum amount of memory for this Controller.
memoryUsed	Memory Used	Amount of memory currently being used by this Controller.
nodeId	Node Id	URL of the Controller.
nodeMode	Node Mode	Current mode of the Controller. Valid values: • Active • Passive • Offline
nodeTime	Node Time	Time of day on the Controller when the details were retrieved.
nodeUptime	Node Uptime	Amount of time the Controller has been running.
release	Release	Release level of the Controller.

4.32 Task Instance Web Services

- [Overview](#)
- [Cancel a Task Instance](#)
- [Clear All Dependencies](#)
- [Clear Exclusive Dependencies](#)
- [Clear Instance Wait Dependencies](#)
- [Clear Predecessor Dependencies](#)
- [Clear Time Dependency](#)
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- [Delete a Task Instance](#)
- [Force Finish a Task Instance](#)
- [Force Finish/Cancel a Task Instance](#)
- [Hold a Task Instance](#)
- [Issue Set Completed Command for a Manual Task Instance](#)
- [Issue Set Started Command for a Manual Task Instance](#)
- [List Task Instances](#)
- [List Task Instances: Advanced](#)
- [List Task Instance Variables \(Show Variables\)](#)
- [Release a Task Instance from Hold](#)
- [Rerun a Task Instance](#)
- [Retrieve Task Instance Output](#)
- [Set or Modify Wait Time/Duration for Task Instance](#)
- [Set Priority for a Task Instance](#)
- [Skip a Task Instance](#)
- [Skip a Task Instance Path](#)
- [Unskip a Task Instance](#)
- [Update a Task Instance Operational Memo](#)

4.32.1 Overview

Universal Controller supports the following RESTful-based web services for Task Instance operations, which are listed alphabetically on this page.

- [Cancel a Task Instance](#)
- [Clear All Dependencies](#)
- [Clear Exclusive Dependencies](#)
- [Clear Instance Wait](#)
- [Clear Predecessor Dependencies](#)
- [Clear Time Dependency](#)
- [Clear Virtual Resource Dependencies](#)
- [Delete a Task Instance](#)
- [Force/Finish a Task Instance](#)
- [Force/Finish Cancel a Task Instance](#)
- [Hold a Task Instance](#)

- [Issue Set Completed Command for a Manual Task Instance](#)
- [Issue Set Started Command for a Manual Task Instance](#)
- [List Task Instances](#)
- [List Task Instances - Advanced](#)
- [List Task Instance Variables \(Show Variables\)](#)
- [Release a Task Instance from Hold](#)
- [Rerun a Task Instance](#)
- [Retrieve Task Instance Output](#)
- [Set or Modify Wait Time/Duration for Task Instance](#)
- [Set Priority for a Task Instance](#)
- [Skip a Task Instance](#)
- [Skip a Task Instance Path](#)
- [Unskip a Task Instance](#)
- [Update a Task Instance Operational Memo](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

For RESTful-based web services for Workflow Task Instance operations, see [Workflow Task Instance Web Services](#).

4.32.1.1 Task Instance Status Types

The following table describes all possible task instance statuses for all task types.

Note

The format of multi-word task status names specified in the [Task Instance Status](#) Web Service differs from the format of task status names used in the Controller [user interface](#). In [Task Instance Status](#), the words are separated by an underscore character; in the user interface, they are separated by a space.

Status Name	Status Code	Task Type	Description
Action_Required	60	Manual	When a manual task launches, it goes into Action Required status, meaning a user must perform some manual activity. For details, see Manual task .
Cancel_Pending	99	Agent-based	A process running on the Agent needs to be terminated. When the Cancel command is issued, the task instance will go into a Cancel Pending status until the Agent reports back that the process has been cancelled. At that point, the task instance will transition into the Cancelled status.
Cancelled	130	All	The task was cancelled by a user.
Confirmation_Required	125	z/OS	If you make JCL changes and restart a z/OS task, Universal Controller will put the task into Confirmation Required status and prompt you for a confirmation. For detailed processing steps, see Rerunning a z/OS Task .
Defined	0	All	The new task instance has been created (the task has been launched).

Status Name	Status Code	Task Type	Description
Exclusive_Requested	22	All	All tasks with a mutually exclusive task defined go immediately to a status of Exclusive Requested. If the task is available to run exclusively, the task then moves to the next appropriate processing status.
Exclusive_Wait	23	All	The task is mutually exclusive with one or more other tasks, and it is waiting for those tasks to finish before it will run.
Execution_Wait	33	Agent-based	The task must wait to be completed; either the Agent/Agent Cluster running the task has reached its Task Execution Limit, or the ability of the Agent/Agent Cluster to run tasks has been suspended .
Failed	140	All*	The task ran to a failure status.
Finished	190	All	The task was forced by the user to finish. The user may do this in cases where the task had a Cancelled or Failed status, and the user needed to release other task instances depending on the successful completion of this task instance in a workflow. For more information, see Force Finishing a Task .
Held	20	All	The task has been put on hold by a user.
In_Doubt	110	Agent-based	The Agent is "in doubt" about the current status of the task instance. This may occur if an Agent or Agent connection goes down. In this case, the Agent restarts and reviews its data about tasks in progress. If the Agent finds a task still running, it resumes normal monitoring. If the Agent cannot find the task, this usually indicates that the task completed, but the Agent considers the task status to be "in doubt."
Queued	40	Agent-based	The task has been queued on a resource.
Resource_Requested	25	All	All tasks with a virtual resource defined go immediately to a status of Resource Requested. If the resource is available, the task then moves to the next appropriate processing status.
Resource_Wait	30	All	All tasks with a virtual resource defined go immediately to a status of Resource Requested. If the resource is not available, the task goes to a status of Resource Wait. When the resource becomes available, the task moves to the next appropriate processing status
Running	80	All	The task is running. For Agent-based tasks, the Agent has started running the program.
Running/Problems	81	Workflow	One or more tasks within the workflow has one of the following statuses: • Cancelled • Confirmation Required • Failure • In Doubt • Running/Problems (for sub-workflows) • Start Failure • Undeliverable
Skipped	180	All	The task was skipped by a user.
Start Failure	120	All	The task was unable to start.
Started	70	Agent-based , Manual	The task has started. For Agent-based tasks, this means the Agent has received the task.

Status Name	Status Code	Task Type	Description
Submitted	43	z/OS	The task has been submitted to the z/OS Job Entry subsystem and scheduled by the z/OS Job Scheduler.
Success	200	All	The task has completed successfully. Workflows will transition to Success status when all of its tasks have transitioned to Success, Finished, or Skipped status.
Time_Wait	15	All (except Timer)	The task is waiting to start based on a Wait To Start and/or Delay On Start specification.
Undeliverable	35	Agent-based	The Agent is unavailable.
Waiting	10	All	The task has been loaded by a workflow and is waiting on a predecessor.

* Workflows cannot go to Failed status.

4.32.2 Cancel a Task Instance

Note

A Web Service Task instance cannot be cancelled if the specified Protocol is SOAP.

	Description
URI	http://host_name/uc/resources/taskinstance/cancel
HTTP Method	POST
Description	Cancel a task instance.
Example URI	http://localhost:8080/uc/resources/taskinstance/cancel
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Cancel a Task Instance: XML and JSON Examples .
Request Properties	See Cancel a Task Instance: Request Properties .
Example Response	See Cancel a Task Instance: XML and JSON Examples .

4.32.2.1 Cancel a Task Instance: XML and JSON Examples

Examples	XML	JSON
Example Request	XML <pre><task-instance> <id>1464817327170011848D633V 6106ENQ7</id> </task-instance> or <task-instance> <name>win-1</name> <operationalMemo>Test1</ operationalMemo> <workflowInstanceName>work-1</ workflowInstanceName> <criteria>Newest Instance</ criteria> </task-instance></pre>	JSON <pre>{ "name": "win-1", "criteria": "Newest Instance", "workflowInstanceName": "work-1", "operationalMemo": "Test1" }</pre>
Example Response	XML <pre><command-response> <type>cancel</type> <success>true</success> <info>Command Cancel executed successfully against task instance "test".</info> <errors /> </command-response></pre>	JSON <pre>{ "type": "cancel", "success": true, "info": "Command Cancel executed successfully against task instance \"Timer 60\".", "errors": "" }</pre>

4.32.2.2 Cancel a Task Instance: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
criteria	n/a	Specific task instance with this task instance <code>name</code> that you want to cancel.	Valid values: - As String = Oldest Active Instance, As Value = 1 - As String = Newest Active Instance, As Value = 2 - As String = Oldest Instance, As Value = 3 - As String = Newest Instance, As Value = 4 Default is Oldest Active Instance (1). Note Values with an underscore characters (<code>_</code>) instead of spaces also are supported (for example, oldest_active_instance).	N	
id	n/a	<code>sys_id</code> used within the Controller to identify this task instance.		Y (unless <code>name</code> is specified)	<code>name</code>
name	Instance Name	Name of the task instance.		Y (unless <code>id</code> is specified)	<code>id</code>
operationalMemo	Operational Memo	User-defined operational memo.		N	
workflowInstanceName	Workflow	Name of the parent Workflow of the task instance.	You can select to display the Workflow field on the Activity Monitor and/or Task Instances List; it is not displayed in the Task Instance Details.	N	

4.32.3 Clear All Dependencies

	Description
URI	http://host_name/uc/resources/taskinstance/cleardependencies
HTTP Method	POST
Description	Clears all dependencies of a task instance.

	Description
Example URI	http://localhost:8080/uc/resources/taskinstance/cleardependencies
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Clear All Dependencies: XML and JSON Examples .
Request Properties	See Clear All Dependencies: Request Properties .
Example Response	See Clear All Dependencies: XML and JSON Examples .

4.32.3.1 Clear All Dependencies: XML and JSON Examples

Examples	XML	JSON
Example Request	XML <pre> <task-instance> <id>1464817327170011848D633V61 06ENQ7</id> </task-instance> or <task-instance> <name>Timer 60</name> <criteria>Newest Instance</ criteria> <workflowInstanceName>test</ workflowInstanceName> </task-instance> </pre>	JSON <pre> { "name": "Timer 60", "criteria": "Newest Instance", "workflowInstanceName": "Test" } </pre>
Example Response	XML <pre> <command-response> <type>clear_all_dependencies</ type> <success>true</success> <info>Command Clear All Dependencies executed successfully against task instance "Timer 60".</info> <errors /> </command-response> </pre>	JSON <pre> { "type": "clear_all_dependencies", "success": true, "info": "Command Clear All Dependencies executed successfully against task instance \"Timer 60\".", "errors": "" } </pre>

4.32.3.2 Clear All Dependencies: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
criteria	n/a	Specific task instance with this task instance <code>name</code> for which you want to clear all dependencies.	Valid values: - As String = Oldest Active Instance, As Value = 1 - As String = Newest Active Instance, As Value = 2 - As String = Oldest Instance, As Value = 3 - As String = Newest Instance, As Value = 4 Default is Oldest Active Instance (1). Note Values with an underscore characters (<code>_</code>) instead of spaces also are supported (for example, oldest_active_instance).	N	
id	n/a	<code>sys_id</code> used within the Controller to identify this task instance.		Y (unless <code>name</code> is specified)	<code>name</code>
name	Instance Name	Name of the task instance.		Y (unless <code>id</code> is specified)	<code>id</code>
operationalMemo	Operational Memo	User-defined operational memo.		N	
workflowInstanceName	Workflow	Name of the parent Workflow of the task instance.	You can select to display the Workflow field on the Activity Monitor and/or Task Instances List; it is not displayed in the Task Instance Details.	N	

4.32.4 Clear Exclusive Dependencies

	Description
URI	http://host_name/uc/resources/taskinstance/clearexclusive
HTTP Method	POST
Description	Clears all exclusive dependencies of a task instance.

	Description
Authentication	HTTP Basic
Example URI	http://localhost:8080/uc/resources/taskinstance/clearexclusive
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Clear Exclusive Dependencies: XML and JSON Examples .
Request Properties	See Clear Exclusive Dependencies: Request Properties .
Example Response	See Clear Exclusive Dependencies: XML and JSON Examples .

4.32.4.1 Clear Exclusive Dependencies: XML and JSON Examples

Examples	XML	JSON
Example Request	XML <pre><task-instance> <id>1464817327170011848D633V6106ENQ7</id> </task-instance></pre> or <pre><task-instance> <name>Timer 60</name> <criteria>Newest Instance</criteria> <workflowInstanceName>test</workflowInstanceName> </task-instance></pre>	JSON <pre>{ "name": "Timer 60", "criteria": "Newest Instance", "workflowInstanceName": "Test" }</pre>
Example Response	XML <pre><command-response> <type>clear_exclusive</type> <success>true</success> <info>Command Clear Exclusive executed successfully against task instance "Timer 60".</info> <errors /> </command-response></pre>	JSON <pre>{ "type": "clear_exclusive", "success": true, "info": "Command Clear Exclusive executed successfully against task instance \"Timer 60\".", "errors": "" }</pre>

4.32.4.2 Clear Exclusive Dependencies: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
criteria	n/a	Specific task instance with this task instance name for which you want to clear exclusive dependencies.	Valid values: - As String = Oldest Active Instance, As Value = 1 - As String = Newest Active Instance, As Value = 2 - As String = Oldest Instance, As Value = 3 - As String = Newest Instance, As Value = 4 Default is Oldest Active Instance (1). Note Values with an underscore characters (_) instead of spaces also are supported (for example, oldest_active_instance).	N	
id	n/a	sys_id used within the Controller to identify this task instance.		Y (unless name is specified)	name
name	Instance Name	Name of the task instance.		Y (unless id is specified)	id
operationalMemo	Operational Memo	User-defined operational memo.		N	
workflowInstanceName	Workflow	Name of the parent Workflow of the task instance.	You can select to display the Workflow field on the Activity Monitor and/or Task Instances List; it is not displayed in the Task Instance Details.	N	

4.32.5 Clear Instance Wait Dependencies

	Description
URI	http://host_name/uc/resources/taskinstance/clearinstancewait
HTTP Method	POST
Description	Clears the previous instance wait condition of a task instance.

	Description
Example URI	http://localhost:8080/uc/resources/taskinstance/clearinstancewait
Authentication	HTTP Basic
Produces Content-Type	application/xml, application/json
Consumes Content-Type	application/xml, application/json
Example Request	
Example Response	

4.32.5.1 Clear Instance Wait Dependencies: XML and JSON Examples

Examples	XML	JSON
Example Request	XML <pre> <task-instance> <id>1464817327170011848D633V6106 ENQ7</id> </task-instance> or <task-instance> <name>Test task</name> <criteria>Newest Instance< / criteria> <workflowInstanceName>test</ workflowInstanceName> </task-instance> </pre>	JSON <pre> { "name": "Timer 60", "criteria": "Newest Instance", "workflowInstanceName": "Test", } </pre>
Example Response	XML <pre> <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <command-response> <type>clear_instance_wait</ type> <success>true</success> <info>Command Clear Instance Wait executed successfully against task instance "Sleep 60".</info> <errors></errors> </command-response> </pre>	JSON <pre> { "type": "clear_instance_wait", "success": true, "info": "Command Clear Instance Wait executed successfully against task instance \"Sleep 60\".", "errors": "" } </pre>

4.32.5.2 Clear Instance Wait Dependencies: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
criteria	n/a	Specific task instance with this task instance name for which you want to clear time dependency.	Valid values: - As String = Oldest Active Instance, As Value = 1 - As String = Newest Active Instance, As Value = 2 - As String = Oldest Instance, As Value = 3 - As String = Newest Instance, As Value = 4 Default is Oldest Active Instance (1). Note Values with an underscore characters (_) instead of spaces also are supported (for example, oldest_active_instance).	N	
id	n/a	sys_id used within the Controller to identify this task instance.		Y (unless name is specified)	name
name	Instance Name	Name of the task instance.		Y (unless id is specified)	id
operationalMemo	Operational Memo	User-defined operational memo.		N	
workflowInstanceName	Workflow	Name of the parent Workflow of the task instance.	You can select to display the Workflow field on the Activity Monitor and/or Task Instances List; it is not displayed in the Task Instance Details.	N	

4.32.6 Clear Predecessor Dependencies

	Description
URI	http://host_name/uc/resources/taskinstance/clearpredecessors
HTTP Method	POST
Description	Clears all predecessor dependencies of a task instance in a Workflow.

	Description
Authentication	HTTP Basic
Example URI	http://localhost:8080/uc/resources/taskinstance/clearpredecessors
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Clear Predecessor Dependencies: XML and JSON Examples .
Request Properties	See Clear Predecessor Dependencies: Request Properties .
Example Response	See Clear Predecessor Dependencies: XML and JSON Examples .

4.32.6.1 Clear Predecessor Dependencies: XML and JSON Examples

Examples	XML	JSON
Example Request	XML <pre> <task-instance> <id>1464817327170011848D633V6 106ENQ7</id> <predecessorName>*</ predecessorName> </task-instance> or <task-instance> <name>Timer 60</name> <criteria>Newest Instance</ criteria> <workflowInstanceName>test</ workflowInstanceName> <predecessorName>*</ predecessorName> </task-instance> </pre>	JSON <pre> { "name": "Timer 60", "criteria": "Newest Instance", "workflowInstanceName": "Test", "predecessorName": "Task 1" } </pre>
Example Response	XML <pre> <command-response> <type>set_edges_satisfied</ type> <success>true</success> <info>Command Clear Predecessors executed successfully against task instance "Timer 60".</ info> <errors /> </command-response> </pre>	JSON <pre> { "type": "set_edge_satisfied", "success": true, "info": "Successfully marked the dependency as satisfied.", "errors": "" } </pre>

4.32.6.2 Clear Predecessor Dependencies: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>criteria</code>	n/a	Specific task instance with this task instance <code>name</code> for which you want to clear predecessor dependencies.	Valid values: - As String = Oldest Active Instance, As Value = 1 - As String = Newest Active Instance, As Value = 2 - As String = Oldest Instance, As Value = 3 - As String = Newest Instance, As Value = 4 Default is Oldest Active Instance (1). Note Values with an underscore characters (<code>_</code>) instead of spaces also are supported (for example, <code>oldest_active_instance</code>).	N	
<code>id</code>	n/a	<code>sys_id</code> used within the Controller to identify this task instance.		Y (unless <code>name</code> is specified)	<code>name</code>
<code>name</code>	Instance Name	Name of the task instance.		Y (unless <code>id</code> is specified)	<code>id</code>
<code>predecessorName</code>	n/a	Name of the predecessor task instance for which you want to clear dependency.	* = Clears dependencies from all predecessor task instances.	Y	
<code>operationalMemo</code>	Operational Memo	User-defined operational memo.		N	
<code>workflowInstanceName</code>	Workflow	Name of the parent Workflow of the task instance.	You can select to display the Workflow field on the Activity Monitor and/or Task Instances List; it is not displayed in the Task Instance Details.	N	

4.32.7 Clear Time Dependency

	Description
URI	http://host_name/uc/resources/taskinstance/cleartimewait

	Description
HTTP Method	POST
Description	Clears the time dependency of a task instance.
Authentication	HTTP Basic
Example URI	http://localhost:8080/uc/resources/taskinstance/cleartimewait
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Clear Time Dependency: XML and JSON Examples .
Request Properties	See Clear Time Dependency : Request Properties .
Example Response	See Clear Time Dependency: XML and JSON Examples .

4.32.7.1 Clear Time Dependency: XML and JSON Examples

Examples	XML	JSON
Example Request	<pre> XML <task-instance> <id>1464817327170011848D633V 6106ENQ7</id> </task-instance> or <task-instance> <name>Test task</name> <criteria>Newest Instance</ criteria> <workflowInstanceName>test</ workflowInstanceName> </task-instance> </pre>	<pre> JSON { "name": "Task 1", "criteria": "Newest Instance", "workflowInstanceName": "Test" } </pre>
Example Response	<pre> XML <command-response> <type>clear_timewait</type> <success>true</success> <info>Command Clear Time Wait/Delay executed successfully against task instance "Test task".</info> <errors /> </command-response> </pre>	<pre> JSON { "type": "clear_timewait", "success": true, "info": "Command Clear Time Wait/Delay executed successfully against task instance \"Task 1\".", "errors": "" } </pre>

4.32.7.2 Clear Time Dependency: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
criteria	n/a	Specific task instance with this task instance name for which you want to clear time dependency.	Valid values: - As String = Oldest Active Instance, As Value = 1 - As String = Newest Active Instance, As Value = 2 - As String = Oldest Instance, As Value = 3 - As String = Newest Instance, As Value = 4 Default is Oldest Active Instance (1). Note Values with an underscore characters (_) instead of spaces also are supported (for example, oldest_active_instance).	N	
id	n/a	sys_id used within the Controller to identify this task instance.		Y (unless name is specified)	name
name	Instance Name	Name of the task instance.		Y (unless id is specified)	id
operationalMemo	Operational Memo	User-defined operational memo.		N	
workflowInstanceName	Workflow	Name of the parent Workflow of the task instance.	You can select to display the Workflow field on the Activity Monitor and/or Task Instances List; it is not displayed in the Task Instance Details.	N	

4.32.8 Clear Virtual Resource Dependencies

	Description
URI	http://host_name/uc/resources/taskinstance/clearresources
HTTP Method	POST
Description	Clears virtual resource dependencies of a task instance.

	Description
Authentication	HTTP Basic
Example URI	http://localhost:8080/uc/resources/taskinstance/clearresources
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Clear Virtual Resource Dependencies: XML and JSON Examples .
Request Properties	See Clear Virtual Resource Dependencies: Request Properties .
Example Response	See Clear Virtual Resource Dependencies: XML and JSON Examples .

4.32.8.1 Clear Virtual Resource Dependencies: XML and JSON Examples

Examples	XML	JSON
Example Request	XML <pre><task-instance> <id>1464817327170011848D633V 6106ENQ7</id> <resourceName>V1</ resourceName> </task-instance></pre> or <pre><task-instance> <name>Timer 60</name> <criteria>Newest Instance</ criteria> <workflowInstanceName>test</ workflowInstanceName> <resourceName>V1</ resourceName> </task-instance></pre>	JSON <pre>{ "name": "Task 1", "criteria": "Newest Instance", "workflowInstanceName": "Test", "resourceName": "V1" }</pre>
Example Response	XML <pre><command-response> <type>clear_resources</type> <success>true</success> <info>Command Clear Resources executed successfully against task instance "Timer 60".</info> <errors /> </command-response></pre>	JSON <pre>{ "type": "clear_resources", "success": true, "info": "Command Clear Resources executed successfully against task instance \"Task 1\".", "errors": "" }</pre>

4.32.8.2 Clear Virtual Resource Dependencies: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
criteria	n/a	Specific task instance with this task instance <code>name</code> for which you want to clear virtual resource dependencies.	Valid values: - As String = Oldest Active Instance, As Value = 1 - As String = Newest Active Instance, As Value = 2 - As String = Oldest Instance, As Value = 3 - As String = Newest Instance, As Value = 4 Default is Oldest Active Instance (1). Note Values with an underscore characters (<code>_</code>) instead of spaces also are supported (for example, <code>oldest_active_instance</code>).	N	
id	n/a	<code>sys_id</code> used within the Controller to identify this task instance.		Y (unless <code>name</code> is specified)	<code>name</code>
name	Instance Name	Name of the task instance.		Y (unless <code>id</code> is specified)	<code>id</code>
operationalMemo	Operational Memo	User-defined operational memo.		N	
resourceName	n/a	Name of the virtual resource for which you want to clear dependency.	* = Clears dependencies from all virtual resources.	Y	
workflowInstanceName	Workflow	Name of the parent Workflow of the task instance.	You can select to display the Workflow field on the Activity Monitor and/or Task Instances List; it is not displayed in the Task Instance Details.	N	

4.32.9 Delete a Task Instance

	Description
URI	http://host_name/uc/resources/taskinstance

	Description
HTTP Method	DELETE
Description	Deletes the specified task instance . For Workflow task instances, if the <code>recursive</code> property is set to true, all children task instances will be removed.
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Example URI	http://localhost:8080/uc/resources/taskinstance
Example Request	See Delete a Task Instance: XML and JSON Examples .
Request Properties	See Delete a Task Instance: Request Properties .
Example Response	- Status 200 /OK - Task instance(s) deleted successfully.

4.32.9.1 Delete a Task Instance: XML and JSON Examples

XML	JSON
XML Delete Task instance by task instance id. <pre><task-instance> <id>1464817327170011848D633V6106ENQ7</id> </task-instance></pre> Delete Task instance and all of its children by task instance id. <pre><task-instance> <id>14483224900880190549PGHP23IR12M0</id> <recursive>true</recursive> </task-instance></pre> Delete Task instance by task instance name. <pre><task-instance> <name>Timer 60</name> <criteria>Newest Instance</criteria> </task-instance></pre>	JSON <pre>{ "name": "Task 1", "criteria": "Newest Instance" }</pre>

4.32.9.2 Delete a Task Instance: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>criteria</code>	n/a	Specific task instance with this task instance <code>name</code> which you want to delete.	Valid values: - As String = Oldest Instance, As Value = 3 - As String = Newest Instance, As Value = 4 Default is Oldest Instance (3). Note Values with an underscore characters (<code>_</code>) instead of spaces also are supported (for example, <code>oldest_instance</code>).	N	
<code>id</code>	n/a	<code>sys_id</code> used within the Controller to identify this task instance.		Y (unless <code>name</code> is specified)	<code>name</code>
<code>name</code>	Instance Name	Name of the task instance.		Y (unless <code>id</code> is specified)	<code>id</code>
<code>recursive</code>	n/a	For Workflow task instances only; Specification for whether or not to delete all children task instances of the task instance.	Boolean; Valid values: true/false. Default is false.	N	

4.32.10 Force Finish a Task Instance

	Description
URI	http://host_name/uc/resources/taskinstance/forcefinish
HTTP Method	POST
Description	Force Finish a task instance. (To Force Finish (Halt) a task instance, set the <code>halt</code> property to true.)
Example URI	http://localhost:8080/uc/resources/taskinstance/forcefinish
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json

	Description
Produces Content-Type	application/xml, application/json
Example Request	See Force Finish a Task Instance: XML and JSON Examples .
Request Properties	See Force Finish a Task Instance: Request Properties .
Example Response	See Force Finish a Task Instance: XML and JSON Examples .

4.32.10.1 Force Finish a Task Instance: XML and JSON Examples

Examples	XML	JSON
Example Request	<pre>XML <task-instance> <id>1464817327170011848D633V 6106ENQ7</id> </task-instance> or <task-instance> <name>Timer 60</name> <halt>true</halt> <criteria>Newest Instance</ criteria> <workflowInstanceName>test</ workflowInstanceName> </task-instance></pre>	<pre>JSON { "name": "Task 1", "halt": "True", "criteria": "Newest Instance", "workflowInstanceName": "Test" }</pre>
Example Response	<pre>XML <command-response> <type>force_finish</type> <success>true</success> <info>Command Force Finish executed successfully against task instance "test".</info> <errors /> </command-response></pre>	<pre>JSON { "type": "force_finish", "success": true, "info": "Command Force Finish executed successfully against task instance \"Task 1\".", "errors": "" }</pre>

4.32.10.2 Force Finish a Task Instance: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>criteria</code>	n/a	Specific task instance with this task instance <code>name</code> that you want to force finish.	Valid values: - As String = Oldest Active Instance, As Value = 1 - As String = Newest Active Instance, As Value = 2 - As String = Oldest Instance, As Value = 3 - As String = Newest Instance, As Value = 4 Default is Oldest Active Instance (1). Note Values with an underscore characters (<code>_</code>) instead of spaces also are supported (for example, <code>oldest_active_instance</code>).	N	
<code>halt</code>	n/a	Prevents successor task instances of the specified task instance in a Workflow from being run.	Boolean. Valid values: true/false. Default is false.	N	
<code>id</code>	n/a	sys_id used within the Controller to identify this task instance.		Y (unless <code>name</code> is specified)	<code>name</code>
<code>name</code>	Instance Name	Name of the task instance.		Y (unless <code>id</code> is specified)	<code>id</code>
<code>operationalMemo</code>	Operational Memo	User-defined operational memo.		N	
<code>workflowInstanceName</code>	Workflow	Name of the parent Workflow of the task instance.	You can select to display the Workflow field on the Activity Monitor and/or Task Instances List; it is not displayed in the Task Instance Details.	N	

4.32.11 Force Finish/Cancel a Task Instance

	Description
URI	http://host_name/uc/resources/taskinstance/forcefinishcancel
HTTP Method	POST
Description	Force Finish/Cancel a task instance. (To Force Finish/Cancel (Halt) a task instance, set the halt property to true.)
Example URI	http://localhost:8080/uc/resources/taskinstance/forcefinishcancel
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Force Finish Cancel a Task Instance: XML and JSON Examples .
Request Properties	See Force Finish/Cancel a Task Instance: Request Properties .
Example Response	See Force Finish Cancel a Task Instance: XML and JSON Examples .

4.32.11.1 Force Finish/Cancel a Task Instance: XML and JSON Examples

Examples	XML	JSON
Example Request	<pre> XML <task-instance> <id>1464817327170011848D633V 6106ENQ7</id> </task-instance> or <task-instance> <name>Timer 60</name> <halt>true</halt> <criteria>Newest Instance</ criteria> <workflowInstanceName>test</ workflowInstanceName> </task-instance> </pre>	<pre> JSON { "name": "Task 1", "halt": "True", "criteria": "Newest Instance", "workflowInstanceName": "Test" } </pre>

Examples	XML	JSON
Example Response	<pre> XML <command-response> <type>force_finish_cancel</type> <success>true</success> <info>Command Force Finish/Cancel executed successfully against task instance "test".</info> <errors /> </command-response> </pre>	<pre> JSON { "type": "force_finish_cancel", "success": true, "info": "Command Force Finish/Cancel executed successfully against task instance \"Task 1\".", "errors": "" } </pre>

4.32.11.2 Force Finish/Cancel a Task Instance: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>criteria</code>	n/a	Specific task instance with this task instance name that you want to force finish/cancel.	Valid values: - As String = Oldest Active Instance, As Value = 1 - As String = Newest Active Instance, As Value = 2 - As String = Oldest Instance, As Value = 3 - As String = Newest Instance, As Value = 4 Default is Oldest Active Instance (1). Note Values with an underscore characters (<code>_</code>) instead of spaces also are supported (for example, <code>oldest_active_instance</code>).	N	
<code>halt</code>	n/a	Prevents successor task instances of the specified task instance in a Workflow from being run.	Boolean. Valid values: true/false. Default is false.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
id	n/a	sys_id used within the Controller to identify this task instance.		Y (unless <code>name</code> is specified)	<code>name</code>
<code>name</code>	Instance Name	Name of the task instance.		Y (unless <code>id</code> is specified)	<code>id</code>
<code>operationalMemo</code>	Operational Memo	User-defined operational memo.		N	
<code>workflowInstanceName</code>	Workflow	Name of the parent Workflow of the task instance.	You can select to display the Workflow field on the Activity Monitor and/or Task Instances List; it is not displayed in the Task Instance Details.	N	

4.32.12 Hold a Task Instance

	Description
URI	http://host_name/uc/resources/taskinstance/hold
HTTP Method	POST
Description	Hold a task instance.
Example URI	http://localhost:8080/uc/resources/taskinstance/hold
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Hold a Task Instance: XML and JSON Examples .
Request Properties	See Hold a Task Instance: Request Properties .
Example Response	See Hold a Task Instance: XML and JSON Examples .

4.32.12.1 Hold a Task Instance: XML and JSON Examples

Examples	XML	JSON
Example Request	XML <task-instance> <id>410d6c0bc0a801c901838d8a c43b3279</id> </task-instance> or <task-instance> <name>Timer 60</name> <holdReason>Example Reason</ holdReason> <criteria>Newest Instance</ criteria> <workflowInstanceName>test</ workflowInstanceName> </task-instance>	JSON { "name": "Task 1", "criteria": "Newest Instance", "workflowInstanceName": "Test" "holdReason": "Example Reason", }
Example Response	XML <command-response> <type>hold</type> <success>true</success> <info>Command Hold executed successfully against task instance "test".</info> <errors /> </command-response>	JSON { "type": "hold", "success": true, "info": "Command Hold executed successfully against task instance \"Task 1\".", "errors": "" }

4.32.12.2 Hold a Task Instance: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
criteria	n/a	Specific task instance with this task instance <code>name</code> that you want to hold.	Valid values: - As String = Oldest Active Instance, As Value = 1 - As String = Newest Active Instance, As Value = 2 - As String = Oldest Instance, As Value = 3 - As String = Newest Instance, As Value = 4 Default is Oldest Active Instance (1). Note Values with an underscore characters (<code>_</code>) instead of spaces also are supported (for example, <code>oldest_active_instance</code>).	N	
holdReason	Hold Reason	Add hold reason.		N	
id	n/a	<code>sys_id</code> used within the Controller to identify this task instance.		Y (unless <code>name</code> is specified)	<code>name</code>
name	Instance Name	Name of the task instance.		Y (unless <code>id</code> is specified)	<code>id</code>
operationalMemo	Operational Memo	User-defined operational memo.		N	
workflowInstanceName	Workflow	Name of the parent Workflow of the task instance.	You can select to display the Workflow field on the Activity Monitor and/or Task Instances List; it is not displayed in the Task Instance Details.	N	

4.32.13 Issue Set Completed Command for a Manual Task Instance

	Description
URI	http://host_name/uc/resources/taskinstance/setcompleted
HTTP Method	POST

	Description
Description	Issues a Set Completed command for a Manual Task instance.
Example URI	http://localhost:8080/uc/resources/taskinstance/setcompleted
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Issue Set Completed Command for a Manual Task Instance: XML and JSON Examples .
Request Properties	See Issue Set Completed Command for a Manual Task Instance: Request Properties .
Example Response	See Issue Set Completed Command for a Manual Task Instance: XML and JSON Examples .

4.32.13.1 Issue Set Completed Command for a Manual Task Instance: XML and JSON Examples

Examples	XML	JSON
Example Request	XML <pre> <task-instance> <id>1464817327170011848D633V 6106ENQ7</id> </task-instance> or <task-instance> <name>test manual</name> <criteria>Newest Instance</ criteria> <workflowInstanceName>test</ workflowInstanceName> </task-instance> </pre>	JSON <pre> { "name": "Task 1", "criteria": "Newest Instance", "workflowInstanceName": "Test" } </pre>
Example Response	XML <pre> <command-response> <type>set_manual_completed</ type> <success>true</success> <info>Command Set Completed executed successfully against task instance "test".</info> <errors /> </command-response> </pre>	JSON <pre> { "type": "set_manual_completed", "success": true, "info": "Command Set Completed executed successfully against task instance \"Task 1\".", "errors": "" } </pre>

4.32.13.2 Issue Set Completed Command for a Manual Task Instance: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
criteria	n/a	Specific task instance with this task instance name that you want to issue a Set Completed command for.	Valid values: - As String = Oldest Active Instance, As Value = 1 - As String = Newest Active Instance, As Value = 2 - As String = Oldest Instance, As Value = 3 - As String = Newest Instance, As Value = 4 Default is Oldest Active Instance (1). Note Values with an underscore characters (_) instead of spaces also are supported (for example, oldest_active_instance).	N	
id	n/a	sys_id used within the Controller to identify this task instance.		Y (unless name is specified)	name
name	Instance Name	Name of the task instance.		Y (unless id is specified)	id
operationalMemo	Operational Memo	User-defined operational memo.		N	
workflowInstanceName	Workflow	Name of the parent Workflow of the task instance.	You can select to display the Workflow field on the Activity Monitor and/or Task Instances List; it is not displayed in the Task Instance Details.	N	

4.32.14 Issue Set Started Command for a Manual Task Instance

	Description
URI	http://host_name/uc/resources/taskinstance/setstarted
HTTP Method	POST
Description	Issues a Set Started command for a Manual Task instance.

	Description
Example URI	http://localhost:8080/uc/resources/taskinstance/setstarted
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Issue Set Started Command for a Manual Task Instance: XML and JSON Examples .
Request Properties	See Issue Set Started Command for a Manual Task Instance: Request Properties
Example Response	See Issue Set Started Command for a Manual Task Instance: XML and JSON Examples .

4.32.14.1 Issue Set Started Command for a Manual Task Instance: XML and JSON Examples

Examples	XML	JSON
Example Request	XML <pre> <task-instance> <id>1464817327170011848D633V 6106ENQ7</id> </task-instance> or <task-instance> <name>test manual</name> <criteria>Newest Instance</ criteria> <workflowInstanceName>test</ workflowInstanceName> </task-instance> </pre>	JSON <pre> { "name": "Task 1", "criteria": "Newest Instance", "workflowInstanceName": "Test" } </pre>
Example Response	XML <pre> <command-response> <type>set_manual_started</ type> <success>true</success> <info>Command Set Started executed successfully against task instance "test".</info> <errors /> </command-response> </pre>	JSON <pre> { "type": "set_manual_started", "success": true, "info": "Command Set Started executed successfully against task instance \"Task 1\".", "errors": "" } </pre>

4.32.14.2 Issue Set Started Command for a Manual Task Instance: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
criteria	n/a	Specific task instance with this task instance name that you want to issue a Set Started command for.	Valid values: - As String = Oldest Active Instance, As Value = 1 - As String = Newest Active Instance, As Value = 2 - As String = Oldest Instance, As Value = 3 - As String = Newest Instance, As Value = 4 Default is Oldest Active Instance (1). Note Values with an underscore characters (_) instead of spaces also are supported (for example, oldest_active_instance).	N	
id	n/a	sys_id used within the Controller to identify this task instance.		Y (unless name is specified)	name
name	Instance Name	Name of the task instance.		Y (unless id is specified)	id
operationalMemo	Operational Memo	User-defined operational memo.		N	
workflowInstanceName	Workflow	Name of the parent Workflow of the task instance.	You can select to display the Workflow field on the Activity Monitor and/or Task Instances List; it is not displayed in the Task Instance Details.	N	

4.32.15 List Task Instances

	Description
URI	http://host_name/uc/resources/taskinstance/list
HTTP Method	POST
Description	Retrieves information on task instances matching specific search criteria.

	Description
Authentication	HTTP Basic
Example URI	http://localhost:8080/uc/resources/taskinstance/list
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See List Task Instances: XML and JSON Request Examples .
Request Properties	See List Task Instances: Request Properties .
Example Response	See List Task Instances: XML and JSON Response Examples .

4.32.15.1 List Task Instances: XML and JSON Examples

Examples	XML	JSON
Example Request	Task instance with multiple query criteria. <pre> <task-instance-query-filter> <name>B-06884*</name> <status>!45</status> <customField1>My*</customField1> <customField2>*Custom*</ customField2> <workflowDefinitionId>36551ed56630 42c2b79975ad6a23915e</ workflowDefinitionId> <taskName>B-06884 - Timer - END - \${B_08477_WKFLW_ID}</taskName> </task-instance-query-filter> </pre>	Task instance with multiple query criteria. <pre> { "name": "*", "status": "!45", "instanceNumber": 2, "businessServices": "Rgr A", "customField2": "*Custom*" } </pre>
	All task instances in the last three minutes. <pre> <task-instance-query-filter> <name>*</name> <updatedAtType>Offset</ updatedAtType> <updatedAt>-3mn</updatedAt> </task-instance-query-filter> </pre>	All task instances in the last three minutes. <pre> { "name": "*", "type": "Timer", "updatedAtType": "offset", "updatedAt": "-3mn" } </pre>
	Task instance with the specified id. <pre> <task-instance-query-filter> <sysId>1448396297341015141TB2QF51J BYM8V</sysId> </task-instance-query-filter> </pre>	Task instance with the specified id. <pre> { "sysId": "1513644026115413351LS9ACL ESSKLXZ" } </pre>
	Task instance with multiple query criteria.	Task instance with multiple query criteria.

Examples	XML	JSON
	<pre> <task-instance-query-filter> <name>*</name> <status>110</status> <type>windows</type> <agentName>test agent</agentName> <lateStart>true</lateStart> <lateFinish>true</lateFinish> <earlyFinish>>false</earlyFinish> </task-instance-query-filter> </pre> All task instances that either started late or finished late. <pre> <task-instance-query-filter> <name>*</name> <late>true</late> </task-instance-query-filter> </pre> All task instances that either started late, finished late, or finished early. <pre> <task-instance-query-filter> <name>*</name> <lateEarly>true</lateEarly> </task-instance-query-filter> </pre> All task instances that neither started late nor finished late. <pre> <task-instance-query-filter> <name>*</name> <late>>false</late> </task-instance-query-filter> </pre> All task instances that neither started late, finished late, nor finished early. <pre> <task-instance-query-filter> <name>*</name> <lateEarly>>false</lateEarly> </task-instance-query-filter> </pre> Task instance with the specified template name.	<pre> { "name": "*", "status": "200", "type": "windows", "agentName": "Mark-4 - AGNT0002", "lateStart": true, "lateFinish": false, "earlyFinish": false } </pre> All task instances that either started late or finished late. <pre> { "name": "*", "late": true } </pre> All task instances that either started late, finished late, or finished early. <pre> { "name": "*", "lateEarly": true } </pre> All task instances that neither started late nor finished late. <pre> { "name": "*", "late": false } </pre> All task instances that neither started late, finished late, nor finished early.

Examples	XML	JSON
	<pre><task-instance-query-filter> <name>*</name> <templateName>Demo_Ext_1</ templateName> </task-instance-query-filter></pre> Task instance with updated time type: between. <pre><task-instance-query-filter> <name>*</name> <updatedAtType>between</updatedAtType> <updatedAt>2022-08-08 10:56:00 -0400,2022-08-10 10:56:00 -0400</updatedAt> </task-instance-query-filter></pre>	<pre>{ "name": "*", "lateEarly": false }</pre> Task instance with the specified template name. <pre>{ "name": "*" "templateName": Demo_Ext_1 }</pre> Task instance with updated time type: between. <pre>{ "name": "*", "type": "Timer", "updatedAtType": "between", "updatedAt": "2022-08-08 10:56:00 -0400,2022-08-10 10:56:00 -0400" }</pre>

Examples	XML	JSON
Example Response	<pre><taskInstance> <agent /> <credentials /> <customField1 label="Custom 1">My Custom Field #1</customField1> <customField2 label="Custom 2">My Other Custom Field #2</customField2> <earlyFinish>false</earlyFinish> <endTime></endTime> <executionUser>ops.admin</ executionUser> <exitCode>0</exitCode> <finishedEarly>false</ finishedEarly> <finishedLate>false</finishedLate> <instanceNumber>6</instanceNumber> <lateFinish>false</lateFinish> <lateStart>false</lateStart> <launchTime>2019-06-27 11:18:41 -0400</launchTime> <name>B-06884 - Timer - END - 15616456627821537077YBESF7H0KELV</ name></pre>	<pre>{ "agent": null, "businessServices": ["Accounting", "QA Department"], "credentials": null, "customField1": { "label": "Custom 1", "value": "My Custom Field #1" }, "customField2": { "label": "Custom 2", "value": "My Other Custom Field #2" }, "earlyFinish": "false", "endTime": "2019-06-27 11:20:11 -0400", "executionUser": "ops.admin", "exitCode": "0", "finishedEarly": "false", "finishedLate": "false", "instanceNumber": 6, "lateFinish": "false", "lateStart": "false", "launchTime": "2019-06-27 11:18:41 -0400", "name": "B-06884 - Timer - END - 15616456627821537077YB ESF7H0KELV",</pre>

Examples	XML	JSON
	<pre> <operationalMemo>Test1</operationalMemo> <progress>100</progress> <queuedTime></queuedTime> <startTime>2019-06-27 11:18:41-0400</startTime> <startedLate>false</startedLate> <status>RUNNING</status> <statusDescription /> <sysId>15616456627821537077YBESF7H0KELV</sysId> <taskId>05564cd1f6c4484997cfb66782feb0d0</taskId> <taskName>B-06884 - Timer - END - \${B_08477_WKFLW_ID}</taskName> <templateId /> <templateName /> <triggerId /> <triggerName /> <triggerTime>2019-06-27 11:18:41-0400</triggerTime> <triggeredBy>Workflow: B-06884 - Main \${ops_task_ref_count}</triggeredBy> <type>Timer</type> <updatedAt>2019-06-27 11:18:41-0400</updatedAt> <workflowDefinitionId>36551ed5663042c2b79975ad6a23915e</workflowDefinitionId> <workflowDefinitionName>B-06884 - Main \${ops_task_ref_count}</workflowDefinitionName> <workflowInstanceId>15616456627821077078N9HWVH7SLHVT</workflowInstanceId> <workflowInstanceName>B-06884 - Main 3</workflowInstanceName> <businessServices> <businessService>Accounting</businessService> <businessService>QA Department</businessService> </businessServices> </taskInstance> </taskInstance> </pre>	<pre> "operationalMemo": "Test1", "progress": "100", "queuedTime": "", "startTime": "2019-06-27 11:18:41-0400", "startedLate": "false", "status": "SUCCESS", "statusDescription": null, "sysId": "15616456627821537077YBESF7H0KELV", "taskId": "05564cd1f6c4484997cfb66782feb0d0", "taskName": "B-06884 - Timer - END - \${B_08477_WKFLW_ID}", "templateId": null, "templateName": null, "triggerId": null, "triggerName": null, "triggerTime": "2019-06-27 11:18:41-0400", "triggeredBy": "Workflow: B-06884 - Main \${ops_task_ref_count}", "type": "Timer", "updatedAt": "2019-06-27 11:20:11-0400", "workflowDefinitionId": : "36551ed5663042c2b79975ad6a23915e", "workflowDefinitionName": "B-06884 - Main \${ops_task_ref_count}", "workflowInstanceId": "15616456627821077078N9HWVH7SLHVT", "workflowInstanceName": "B-06884 - Main 3" } </pre>

4.32.15.2 List Task Instances: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agentName	Agent	Name of the agent that this task instances is assigned to run on.		N	
businessServices	Member of Business Services	Business Services that this task instance belongs to.	Comma-separated list.	N	
customField1	Custom 1 (default, which you can change in the User Defined Task Field Label 1 Universal Controller system property.)	User-defined task field 1.	Wildcards are supported.	N	
customField2	Custom 2 (default, which you can change in the User Defined Task Field Label 2 Universal Controller system property.)	User-defined task field 2.	Wildcards are supported.	N	
executionUser	Execution User	Execution User of a task instance that determines the security context under which the task instance runs.	System-supplied.	N	
instanceNumber	Instance Number	Sequentially assigned number, maintained per task, representing the creation order of the instance.	Integer value.	N	
late	Started Late / Finished Late	Indication of whether or not to list all task instances that started late or finished late.	Valid values: true/false.	N	
lateEarly	Started Late / Finished Late / Finished Early	Indication of whether or not to list all task instances that started late, finished late, or finished early.	Valid values: true/false.	N	
name	Instance name	Name or partial name of one or more task instances.	Wildcards are supported.	Y (unless <code>sysId</code> is specified)	<code>sysId</code>
operationalMemo	Operational Memo	User-defined operational memo.		N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
status	Status	List of comma-separated task instance status codes and/or names (not case sensitive).	Specifying one or more statuses automatically excludes task instances in all other statuses. To list task instances for all statuses, enter <code><status></status></code> in the request. To list task instances for all statuses except one or more specific statuses, enter the status code or name for each status to be excluded with a preceding exclamation mark (!). For example, !200.	N	
statusDescription	Status Description	Description (if any) of the current status of the Task Instance.	Wildcards are supported.	N	
sysId	n/a	<code>sys_id</code> used within the Controller to identify a task instance.		Y (unless name is specified)	name
taskId	n/a	<code>sys_id</code> of the task definition that this Task Instance was created from.		N	taskName
taskName	n/a	Name of the task definition that this Task Instance was created from.		N	taskId
templateId	n/a	ID used within the controller to identify a template.	If a <code>templateId</code> or <code>templateName</code> is specified, List task returns a list of tasks associated with the Universal template.	N	templateName
templateName	Template Name	Name of a template.	If a <code>templateId</code> or <code>templateName</code> is specified, List task returns a list of tasks associated with the Universal template.	N	templateId
triggerId	n/a	<code>sys_id</code> of the Trigger that launched the Task Instance (if it was invoked from a Trigger).		N	triggerName
triggerName	n/a	Name of the Trigger that launched the Task Instance (if it was invoked from a Trigger.)		N	triggerId

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
type	n/a	Task type of this task instance.	Valid values: One of the following (not case sensitive): application_control, email, email_monitor, agent_file_monitor, ftp, remote_file_monitor, indesca / universal_command / ucmd, manual, sap, sql, stored_procedure, system_monitor, task_monitor, timer, universal, unix, variable_monitor, web_service, windows, workflow, zos. To list task instances for all task types, enter <type></type> in the request.	N	
updatedAtTime	n/a	If updatedAtTimeType = Offset; -offset period.	Valid values: • mn (minutes) • h (hours) • d (days) Default is d. Examples: -5d (last 5 days), -30mn (last 30 minutes), -6h (last 6 hours), -7 (last 7 days). If updatedAtTimeType is Since; date/time value (yyyy-MM-dd [HH:mm:ss]) If updatedAtTimeType is Between; date/time values (start date/time inclusive, end date/time exclusive) (yyyy-MM-dd [HH:mm:ss], yyyy-MM-dd [HH:mm:ss]) Note The time is relative to the Time Zone specified for the User.	Y (if updatedAtTimeType is Offset, Since, or Older Than.)	
updatedAtTimeType	n/a	Type of updatedAtTime.	Valid values: • As String = Today, As Value = 1 • As String = Offset, As Value = 2 • As String = Since, As Value = 3 • As String = Older Than, As Value = 4 • As String = Between, As Value = 5	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
workflowDefinitionId	n/a	sys_id of the parent workflow task definition for the Task Instance (if it was invoked from a Workflow).		N	workflowDefinitionName
workflowDefinitionName	n/a	Name of the parent workflow task definition for the Task Instance (if it was invoked from a Workflow).		N	workflowDefinitionId
workflowInstanceCriteria	n/a	Specification for how workflowInstanceName finds the matching workflow.	Valid values: - As String = Oldest Active Instance, As Value = 1 - As String = Newest Active Instance, As Value = 2 - As String = Oldest Instance, As Value = 3 - As String = Newest Instance, As Value = 4 Default is Oldest Active Instance (1). Note Values with an underscore characters (_) instead of spaces also are supported (for example, oldest_active_instance).	N	
workflowInstanceId	n/a	sys_id of the parent workflow task instance. Only task instances within this workflow task instance will be listed.		N	workflowInstanceName
workflowInstanceName	Workflow	Name of the parent workflow task instance. Only task instances within this workflow task instance will be listed.		N	workflowInstanceId

4.32.16 List Task Instances: Advanced

	Description
URI	http://host_name/uc/resources/taskinstance/listadv http://host_name/uc/resources/taskinstance/listAdv
HTTP Method	POST
Description	List Task instance output details

	Description
Example URI	http://localhost:8080/uc/resources/taskinstance/listadv http://localhost:8080/uc/resources/taskinstance/listAdv
Authentication	HTTP Basic
Produces Content-Type	
Consumes Content-Type	Application/XML & Application/JSON
Example Request	See List Task Instances - Advanced: XML and JSON Request Examples .
Example Response	See List Task Instances - Advanced: XML and JSON Response Examples .
Request Properties	See List Task Instances - Advanced: Request Properties .

4.32.16.1 List Task Instances - Advanced: XML and JSON Request Examples

Examp les	XML	JSON
Example Request	<pre><task- instance -query- filter> <name>*< /name> <instanc eOutputT ype>STD0 UT</ instance OutputTy pe> <respons eFields> type,sta tus</ response Fields> </task- instance -query- filter> <task- instance -query- filter> <name>*<</pre>	<pre>{ "name": "*", "instanceOutputType": "STDOUT", "responseFields": "type,status" } { "name": "*", "type": "Timer", "updatedAtType": "between", "updatedAt": "2022-08-08 10:56:00 -0400,2022-08-10 10:56:00 -0400" } { "name": "*", "instanceOutputType": "STDOUT", "responseFields": "*" }</pre>

Examp les	XML	JSON
	<pre>/name> <updated TimeType >between </ updatedT imeType> <updated Time>202 2-08-08 10:56:00 -0400,20 22-08-10 10:56:00 -0400</ updatedT ime> </task- instance -query- filter></pre>	

Examp les	XML	JSON
	<pre><task- instance -query- filter> <name>*< /name> <instanc eOutputT ype>STD0 UT</ instance OutputTy pe> <respons eFields> *</ response Fields> </task- instance -query- filter></pre>	
Example Response	<pre><? xml vers ion="1.0 " encodi ng="UTF- 8" stand alone="y es"> <taskIns</pre>	<pre>[{ "name": "Demo_exit_1", "output": [{ "attemptCount": 1, "commandName": null, "outputData": "Extension1 instantiated!" }] } </taskInstance> \n*****\nState variab</pre>

Examples	XML	JSON
	<pre> tances> <taskInstance> <name>Demo_exit_1</name> <taskInstanceOutput> <taskInstanceOutput> <attemptCount>1</attemptCount> <attemptCount> <outputData>Extension1 instantiated!</outputData> <outputType>STDOUT</outputType> </pre>	<pre> le types: \nf2: <class 'float'>\ncred1: <class 'dict'>\ncred1.token: <class 'str'> \ncred1.user: <class 'str'>\ncred1.keyLocation: <class 'str'>\nchoice_ 3: <class 'list'>\nprint_types: <class 'bool'>\ncred1.pasphrase: <class 'str'>\nscr1: <class 'str'>\narray1: <class 'list'>\ncred1.password: < class 'str'>\narray2: <class 'list'>\n***** *****\nState variables & Values: \nf2 = 123.45\ncred1 = {'token': '', 'user': 'B-09028_Pwd_40', 'keyLoca tion': '', 'pasphrase': '', 'password': 'o*I\\\K7/lYxf[0\\ \\wD*wDsX^akVU=uZO+;G;lHfNz'} \ncred1.token = \ncred1.user = B-09028_Pwd_40\ncred1.keyLocation = \nch oice_3 = []\nprint_types = True\ncred1.pasphrase = \nscr1 = C:\ \Program Files\\Universal\\tmp\\a05909b7-868b-495f-84a7-a3893952f2de. \narray1 = []\ncred1.password = ****\narray2 = [] \n*****\n", "outputFileName": null, "outputType": "STDOUT" }, { "name": "Demo_exit_1", "output": [{ "attemptCount": 1, "commandName": null, "outputData": "Extension1 instantiated!" }] }], "status": "SUCCESS", "sysId": "1656255075614055024S5Y1Y9WQJD87I", "type": "Universal" }, { "name": "Demo_exit_1", "output": [{ "attemptCount": 1, "commandName": null, "outputData": "Extension1 instantiated!" }] } \n*****\nState variab le types: \nf2: <class 'float'>\ncred1: <class 'dict'>\ncred1.token: <class 'str'> \ncred1.user: <class 'str'>\ncred1.keyLocation: <class 'str'>\nchoice_ 3: <class 'list'>\nprint_types: <class 'bool'>\ncred1.pasphrase: <class 'str'>\nscr1: <class 'str'>\narray1: <class 'list'>\ncred1.password: < class 'str'>\narray2: <class 'list'>\n***** </pre>

Examp les	XML	JSON
	<pre> pe> </ taskInst anceOutp ut> </ taskInst anceOutp uts> <status> SUCCESS< /status> <sysId>1 65625507 56140550 24S5Y1Y9 WQJD87I< /sysId> <type>Un iversal< /type> </ taskInst ance> <tas kInstanc e> <name>De mo_exit_ 1</name> <taskIns </pre>	<pre> *****\n***** *****\nState variables & Values: \nf2 = 123.45\ncred1 = {'token': '', 'user': 'B-09028_Pwd_40', 'keyLoca tion': '', 'pasphrase': '', 'password': 'o*I\\\K7/lYxf[0\\ \ncred1.token = \ncred1.user = B-09028_Pwd_40\ncred1.keyLocation = \nch oice_3 = []\nprint_types = True\ncred1.pasphrase = \nscr1 = C:\ \nProgram Files\\Universal\\tmp\\79c7b74f-a413-46b1- a6ec-0a526804b3a1.\narray1 = []\ncred1.password = ****\narray2 = [] \n*****\n", "outputFileName": null, "outputType": "STDOUT" }], "status": "SUCCESS", "sysId": "1656255075614085024ZDREC02XNVXYF", "type": "Universal" }] </pre>

Examp les	XML	JSON
	<pre> tance0u tputs> <tas kInstanc eOutput> <attempt Count>1< / attemptC ount> <outputD ata>Exte nsion1 i nstantia ted!</ outputDa ta> <outputT ype>STD0 UT</ outputTy pe> </ taskInst ance0utp ut> </ taskInst ance0utp </pre>	

Examples	XML	JSON
	<pre> <uts> <status> SUCCESS< /status> <sysId>1 65625507 56140850 24ZDRECO 2XNVXYF< /sysId> <type>Un iversal< /type> </ taskInst ance> </ taskInst ances> </pre>	

4.32.16.2 List Task Instances - Advanced: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agentName	Agent	Name of the agent that this task instances is assigned to run on.		N	
businessServices	Member of Business Services	Business Services that this task instance belongs to.	Comma-separated list.	N	
customField1	Custom 1 (default, which you can change in the User Defined Task Field Label 1 Universal Controller system property.)	User-defined task field 1.	Wildcards are supported.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
customField2	Custom 2 (default, which you can change in the User Defined Task Field Label 2 Universal Controller system property.)	User-defined task field 2.	Wildcards are supported.	N	
executionUser	Execution User	Execution User of a task instance that determines the security context under which the task instance runs.	System-supplied.	N	
instanceNumber	Instance Number	Sequentially assigned number, maintained per task, representing the creation order of the instance.	Integer value.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
instanceOutput Type	Output Type	Type of task instance output to retrieve.	String; Valid values: • As String = STDOUT, As Value = 1 • As String = STDERR, As Value = 2 • As String = FILE, As Value = 3 • As String = JOBLOG, As Value = 4 • As String = SCRIPT, As Value = 5 • As String = SAP JOBDEF, As Value = 6 • As String = SAP JOBSTAT, As Value = 7 • As String = SAP JOBLOG, As Value = 8 • As String = SAP SPOOLLIST, As Value = 9 • As String = SAP PURGE, As Value = 10 • As String = SAP ABORT, As Value = 11 • As String = SAP INTERRUPT, As Value = 12 • As String = SAP CHAIN - PLAN, As Value = 13 • As String = SAP CHAIN - INSTANCE, As Value = 14 • As String = SAP CHAINSTAT, As Value = 15 • As String = SAP CHAINLOG, As Value = 16 • As String = SAP CHAIN RESTART, As Value = 17 • As String = WEB SERVICE, As Value = 18 • As String = EXTENSION, As Value = 19 • As String = COMMAND, As Value = 20 • As String = SQL, As Value = 21 • As String = STOREDPROC, As Value = 22 • Default is All	N	
late	Started Late / Finished Late	Indication of whether or not to list all task instances that started late or finished late.	Valid values: true/false.	N	
lateEarly	Started Late / Finished Late / Finished Early	Indication of whether or not to list all task instances that started late, finished late, or finished early.	Valid values: true/false.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
name	Instance name	Name or partial name of one or more task instances.	Wildcards are supported.	Y (unless sysId is specified)	sysId
operationalMemo	Operational Memo	User-defined operational memo.		N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
responseFields	N/A	Allowed Response fields	Comma separated list of any of the following fields can be viewed. "*" returns all fields listed below. If left empty, the default fields will be returned. • sysId - Default • name - Default • type • status • operationalMemo • triggerTime • launchTime • queuedTime • startTime • endTime • updateTime • triggeredBy • lateStart • lateFinish • earlyFinish • startedLate • finishedLate • finishedEarly • exitCode • executionUser • agent • credentials • instanceNumber • taskId • taskName • sourceVersion • triggerId • triggerName • workflowDefinitionId • workflowDefinitionName • workflowInstanceId • workflowInstanceName • statusDescription • businessServices • customField1 • customField2 • progress • extensionStatus	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
status	Status	List of comma-separated task instance status codes and/or names (not case sensitive).	Specifying one or more statuses automatically excludes task instances in all other statuses. To list task instances for all statuses, enter <code><status></status></code> in the request. To list task instances for all statuses except one or more specific statuses, enter the status code or name for each status to be excluded with a preceding exclamation mark (!). For example, !200.	N	
statusDescription	Status Description	Description (if any) of the current status of the Task Instance.	Wildcards are supported.	N	
sysId	n/a	<code>sys_id</code> used within the Controller to identify a task instance.		Y (unless name is specified)	name
taskId	n/a	<code>sys_id</code> of the task definition that this Task Instance was created from.		N	taskName
taskName	n/a	Name of the task definition that this Task Instance was created from.		N	taskId
templateId	n/a	ID used within the controller to identify a template.	If a <code>templateId</code> or <code>templateName</code> is specified, List task returns a list of tasks associated with the Universal template.	N	templateName
templateName	Template Name	Name of a template.	If a <code>templateId</code> or <code>templateName</code> is specified, List task returns a list of tasks associated with the Universal template.	N	templateId
triggerId	n/a	<code>sys_id</code> of the Trigger that launched the Task Instance (if it was invoked from a Trigger).		N	triggerName
triggerName	n/a	Name of the Trigger that launched the Task Instance (if it was invoked from a Trigger.)		N	triggerId

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
type	n/a	Task type of this task instance.	Valid values: One of the following (not case sensitive): application_control, email, email_monitor, agent_file_monitor, ftp, remote_file_monitor, indesca / universal_command / ucmd, manual, sap, sql, stored_procedure, system_monitor, task_monitor, timer, universal, unix, variable_monitor, web_service, windows, workflow, zos. To list task instances for all task types, enter <type></type> in the request.	N	
updatedAtTime	n/a	If updatedAtTimeType = Offset; -offset period.	Valid values: - mn (minutes) - h (hours) - d (days) Default is d. Examples: -5d (last 5 days), -30mn (last 30 minutes), -6h (last 6 hours), -7 (last 7 days). If updatedAtTimeType is Since; date/time value (yyyy-MM-dd [HH:mm:ss]) If updatedAtTimeType is Between; date/time values (start date/time inclusive, end date/time exclusive) (yyyy-MM-dd [HH:mm:ss], yyyy-MM-dd [HH:mm:ss]) Note The time is relative to the Time Zone specified for the User.	Y (if updatedAtTimeType is Offset, Since, or Older Than.)	
updatedAtTimeType	n/a	Type of updatedAtTime.	Valid values: - As String = Today, As Value = 1 - As String = Offset, As Value = 2 - As String = Since, As Value = 3 - As String = Older Than, As Value = 4 - As String = Between, As Value = 5	N	
workflowDefinitionId	n/a	sys_id of the parent workflow task definition for the Task Instance (if it was invoked from a Workflow).		N	workflowDefinitionName

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
workflowDefinitionName	n/a	Name of the parent workflow task definition for the Task Instance (if it was invoked from a Workflow).		N	workflowDefinitionId
workflowInstanceCriteria	n/a	Specification for how workflowInstanceName finds the matching workflow.	Valid values: - As String = Oldest Active Instance, As Value = 1 - As String = Newest Active Instance, As Value = 2 - As String = Oldest Instance, As Value = 3 - As String = Newest Instance, As Value = 4 Default is Oldest Active Instance (1). Note Values with an underscore characters (_) instead of spaces also are supported (for example, oldest_active_instance).	N	
workflowInstanceId	n/a	sys_id of the parent workflow task instance. Only task instances within this workflow task instance will be listed.		N	workflowInstanceName
workflowInstanceName	Workflow	Name of the parent workflow task instance. Only task instances within this workflow task instance will be listed.		N	workflowInstanceId

4.32.17 List Task Instance Variables (Show Variables)

	Description
URI	http://host_name/uc/resources/taskinstance/showvariables
HTTP Method	GET
Description	Retrieve the variables for a specific task instance. (Comparable to the Show Variables functionality in the user interface.)
Authentication	HTTP Basic

	Description
Example URI	http://host_name/uc/resources/taskinstance/showvariables?taskinstancename=Complete_Order http://host_name/uc/resources/taskinstance/showvariables?taskinstancename=Complete_Order&fetchglobal=true http://host_name/uc/resources/taskinstance/showvariables?taskinstanceid=1540493193934844131JT6DW8IKYH2MM
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example URI Properties	See List Task Instance Variables (Show Variables): Example URI Properties .
Example Response	See List Task Instance Variables (Show Variables): XML and JSON Response Examples .

4.32.17.1 List Task Instance Variables (Show Variables): Example URI Properties

	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
criteria	n/a	Used if <code>taskinstancename</code> is specified; Specific task instance with this <code>taskinstancename</code> .	String; URI parameter. Valid values: - As String = Oldest Active Instance, As Value = 1 - As String = Newest Active Instance, As Value = 2 - As String = Oldest Instance, As Value = 3 - As String = Newest Instance, As Value = 4 Default is Oldest Active Instance (1).	N	
taskinstanceid	UUID	UUID of the task instance for which you want to list variables.	String; URI parameter.	Y (unless <code>taskinstancename</code> is specified.)	<code>taskinstancename</code>
taskinstancename	Instance Name	Name of the task instance for which you want to list variables.	String; URI parameter.	Y (unless <code>taskinstanceid</code> is specified.)	<code>taskinstanceid</code>
workflowInstanceName	Workflow	Name of the parent Workflow of the task instance.	You can select to display the Workflow field on the Activity Monitor and/or Task Instances List; it is not displayed in the Task Instance Details.	N	

4.32.17.2 List Task Instance Variables (Show Variables): XML and JSON Response Examples

XML	JSON
<pre> XML <showVariables> <instanceName>Complete_Order</instanceName> <instanceId>1540493193934844131JT6DW8IKYH2MM</instanceId> <status>Running</status> <statusDescription></statusDescription> <invokedBy>Workflow: Submit_Order_Sub_Workflow</invokedBy> <executionUser>ops.admin</executionUser> <variables> <variable> <name>ops_agent_id</name> <value>c140722e9a744fcfb648388aa1d7f733</value> <instanceName>Complete_Order</instanceName> </variable> <variable> <name>ops_attempt</name> <value>1</value> <instanceName>Complete_Order</instanceName> </variable> <variable> <name>ops_avg_estimated_end_time</name> <value>2018-10-25 16:49:30-0400</value> <instanceName>Complete_Order</instanceName> </variable> <variable> <name>ops_cluster_hostname</name> <value>jmwin7</value> <instanceName>Complete_Order</instanceName> </variable> </variables> </showVariables> </pre>	<pre> JSON { "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM", "status": "Running", "statusDescription": "", "invokedBy": "Workflow: Submit_Order_Sub_Workflow", "executionUser": "ops.admin", "variables": [{ "name": "ops_agent_id", "value": "c140722e9a744fcfb648388aa1d7f733", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_attempt", "value": "1", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_avg_estimated_end_time", "value": "2018-10-25 16:49:30-0400", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_cluster_hostname", "value": "jmwin7", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_cluster_id", "value": "jmwin7:9081-ops6204", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }] } </pre>

XML	JSON
<pre> instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_cluster_id</name> <value>jmwin7:9081-ops6204</ value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_cluster_ipaddr</name> <value>10.253.1.49</value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_cluster_mode</name> <value>Active</value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_cluster_name</name> <value>jmwin7:9081-ops6204</ value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_cluster_start_time</ name> <value>2018-10-25 14:46:33 -0400</value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_cluster_uptime</ name> <value>2 Hours 2 Minutes 5 Seconds</value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_cmd</name> <value>C:\\orders\\bin\\ do_order.bat</value> <instanceName>Complete_Order</ instanceName> </pre>	<pre> "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_cluster_ipaddr", "value": "10.253.1.49", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_cluster_mode", "value": "Active", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_cluster_name", "value": "jmwin7:9081-ops6204", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_cluster_start_time", "value": "2018-10-25 14:46:33 -0400", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_cluster_uptime", "value": "2 Hours 2 Minutes 5 Seconds", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_cmd", "value": "C:\\orders\\bin\\ do_order.bat", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" } } } } } } } } } } } } } </pre>

XML	JSON
<pre> <name>ops_cluster_uptime</name> <value>2 Hours 1 Minute 5 Seconds</value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_cmd</name> <value>C: \orders\bin\do_order.bat</value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_cmd_parms</name> <value>C:\orders\342\67.csv</ value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_custom_field1</name> <value></value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_custom_field2</name> <value></value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_description</name> <value></value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M </pre>	<pre> }, { "name": "ops_cmd_parms", "value": "C:\\orders\\342\\ 67.csv", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_custom_field1", "value": "", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_custom_field2", "value": "", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_description", "value": "", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_execution_user", "value": "ops.admin", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_exit_code", "value": "0", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_highest_estimated_end_time", "value": "2018-10-25 16:53:00 </pre>

XML	JSON
<pre> M</instanceId> </variable> <variable> <name>ops_execution_user</name> <value>ops.admin</value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_exit_code</name> <value>0</value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_highest_estimated_end_time</name> <value>2018-10-25 16:53:00 -0400</value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_launch_time</name> <value>2018-10-25 16:48:00 -0400</value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_lowest_estimated_end_time</name> <value>2018-10-25 16:48:00 -0400</value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_queued_time</name> <value>2018-10-25 16:48:00 </pre>	<pre> -0400", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_launch_time", "value": "2018-10-25 16:48:00 -0400", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_lowest_estimated_end_time", "value": "2018-10-25 16:48:00 -0400", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_queued_time", "value": "2018-10-25 16:48:00 -0400", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_retry_count", "value": "0", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_retry_interval", "value": "60", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_retry_maximum", "value": "0", "instanceName": "Complete_Order", </pre>

XML	JSON
<pre> -0400</value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_retry_count</name> <value>0</value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_retry_interval</name> <value>60</value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_retry_maximum</name> <value>0</value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_script_id</name> <value></value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_script_name</name> <value></value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_script_parms</name> <value></value> </pre>	<pre> "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_script_id", "value": "", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_script_name", "value": "", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_script_parms", "value": "", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_start_time", "value": "2018-10-25 16:48:00 -0400", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_status", "value": "RUNNING", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_status_description", "value": "", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { </pre>

XML	JSON
<pre> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_start_time</name> <value>2018-10-25 16:48:00 -0400</value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_status</name> <value>RUNNING</value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_status_description</ name> <value></value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_system_identifider</ name> <value>DEV</value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_task_id</name> <value>1540493193934844131JT6DW8IKYH2MM</ value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M </pre>	<pre> "name": "ops_system_identifider", "value": "DEV", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_task_id", "value": "1540493193934844131JT6DW8IKYH2MM", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_task_name", "value": "Complete_Order", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_task_ref_count", "value": "2", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_task_time_zone", "value": "America/New_York", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_task_type", "value": "Windows", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_task_type_value", "value": "3", "instanceName": "Complete_Order", </pre>

XML	JSON
<pre> M</instanceId> </variable> <variable> <name>ops_task_name</name> <value>Complete_Order</value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_task_ref_count</name> <value>2</value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_task_time_zone</name> <value>America/New_York</value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_task_type</name> <value>Windows</value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_task_type_value</ name> <value>3</value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_top_level_workflow_id</name> <value>1540493193934840131AAC49YBBVB4BB</ value> <instanceName>Complete_Order</ </pre>	<pre> "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_top_level_workflow_id", "value": "1540493193934840131AAC49YBBVB4BB", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_vertex_id", "value": "2", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_workflow_id", "value": "1540493193934842131RCD2RVA60QX9G", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "ops_workflow_name", "value": "Submit_Order_Sub_Workflow", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "order_file", "value": "C:\\orders\\\$ {client_no}\\\${order_no}.csv", "valueResolved": "\\orders\\ \\342\\67.csv", "instanceName": "Complete_Order", "instanceId": "1540493193934844131JT6DW8IKYH2MM" }, { "name": "order_no", "value": "67", "instanceName": </pre>

XML	JSON
<pre> instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_vertex_id</name> <value>2</value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_workflow_id</name> <value>1540493193934842131RCD2RVA60QX9G</ value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>ops_workflow_name</name> <value>Submit_Order_Sub_Workflow</value> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>order_file</name> <value>C:\orders\\${client_no}\\$ {order_no}.csv</value> <valueResolved>\orders\342\67.csv</ valueResolved> <instanceName>Complete_Order</ instanceName> <instanceId>1540493193934844131JT6DW8IKYH2M M</instanceId> </variable> <variable> <name>order_no</name> <value>67</value> <instanceName>Submit_Order_Sub_Workflow</ instanceName> </pre>	<pre> "Submit_Order_Sub_Workflow", "instanceId": "1540493193934842131RCD2RVA60QX9G", "inherited": true }, { "name": "recipients", "value": "\$ {client_contact},orders@stonebranch.com", "valueResolved": "client@stonebranch.com,orders@stonebranch. com", "instanceName": "Submit_Order_Sub_Workflow", "instanceId": "1540493193934842131RCD2RVA60QX9G", "inherited": true }, { "name": "client_contact", "value": "client@stonebranch.com", "instanceName": "Client_Workflow", "instanceId": "1540493193934840131AAC49YBBVB4BB", "inherited": true }, { "name": "client_no", "value": "342", "instanceName": "Client_Workflow", "instanceId": "1540493193934840131AAC49YBBVB4BB", "inherited": true }, { "name": "ops_time_zone", "value": "America/New_York", "instanceName": "Client_Workflow", "instanceId": "1540493193934840131AAC49YBBVB4BB", "inherited": true }, { "name": "ops_trigger_name", "value": "Client_Workflow #TRIGGER#", "instanceName": "Client_Workflow", "instanceId": "1540493193934840131AAC49YBBVB4BB", "inherited": true </pre>

XML	JSON
<pre> <instanceId>1540493193934842131RCD2RVA60QX9 G</instanceId> <inherited>true</inherited> </variable> <variable> <name>recipients</name> <value>\${client_contact},orders@stonebranch.com</ value> <valueResolved>client@stonebranch.com,order s@stonebranch.com</valueResolved> <instanceName>Submit_Order_Sub_Workflow</ instanceName> <instanceId>1540493193934842131RCD2RVA60QX9 G</instanceId> <inherited>true</inherited> </variable> <variable> <name>client_contact</name> <value>client@stonebranch.com</ value> <instanceName>Client_Workflow</ instanceName> <instanceId>1540493193934840131AAC49YBBVB4B B</instanceId> <inherited>true</inherited> </variable> <variable> <name>client_no</name> <value>342</value> <instanceName>Client_Workflow</ instanceName> <instanceId>1540493193934840131AAC49YBBVB4B B</instanceId> <inherited>true</inherited> </variable> <variable> <name>ops_time_zone</name> <value>America/New_York</value> <instanceName>Client_Workflow</ instanceName> <instanceId>1540493193934840131AAC49YBBVB4B B</instanceId> <inherited>true</inherited> </variable> <variable> <name>ops_trigger_name</name> <value>Client_Workflow #TRIGGER#</value> </pre>	<pre> }, { "name": "ops_trigger_time", "value": "2018-10-25 16:48:00 -0400", "instanceName": "Client_Workflow", "instanceId": "1540493193934840131AAC49YBBVB4BB", "inherited": true }, { "name": "ops_trigger_time_tz", "value": "2018-10-25 16:48:00 -0400", "instanceName": "Client_Workflow", "instanceId": "1540493193934840131AAC49YBBVB4BB", "inherited": true }, { "name": "recipients", "value": "\${client_contact}", "valueResolved": "client@stonebranch.com", "instanceName": "Client_Workflow", "instanceId": "1540493193934840131AAC49YBBVB4BB", "inherited": false }, { "name": "DATE_YYYY_MM_DD", "value": "\${_date('yyyy-MM- dd')}}", "valueResolved": "2018-10-25", "inherited": true }] } </pre>

XML	JSON
<pre> <instanceName>Client_Workflow</ instanceName> <instanceId>1540493193934840131AAC49YBBVB4B B</instanceId> <inherited>true</inherited> </variable> <variable> <name>ops_trigger_time</name> <value>2018-10-25 16:48:00 -0400</value> <instanceName>Client_Workflow</ instanceName> <instanceId>1540493193934840131AAC49YBBVB4B B</instanceId> <inherited>true</inherited> </variable> <variable> <name>ops_trigger_time_tz</ name> <value>2018-10-25 16:48:00 -0400</value> <instanceName>Client_Workflow</ instanceName> <instanceId>1540493193934840131AAC49YBBVB4B B</instanceId> <inherited>true</inherited> </variable> <variable> <name>recipients</name> <value>\${client_contact}</ value> <valueResolved>client@stonebranch.com</ valueResolved> <instanceName>Client_Workflow</ instanceName> <instanceId>1540493193934840131AAC49YBBVB4B B</instanceId> <inherited>false</inherited> </variable> <variable> <name>DATE_YYYY_MM_DD</name> <value>\${_date('yyyy-MM-dd')}</ value> <valueResolved>2018-10-25</ valueResolved> <inherited>true</inherited> </variable> </variables> </showVariables> </pre>	

XML	JSON

4.32.18 Release a Task Instance from Hold

	Description
URI	http://host_name/uc/resources/taskinstance/release
HTTP Method	POST
Description	Releases the specified task instance from hold. For Workflow task instances, if the <code>recursive</code> property is set to true, all children task instances will be released from hold. See Releasing a Task Instance from Hold for a description of behavior and restrictions.
Authentication	HTTP Basic
Example URI	http://localhost:8080/uc/resources/taskinstance/release
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Release a Task Instance from Hold: XML and JSON Examples .
Request Properties	See Release a Task Instance from Hold: Request Properties
Example Response	See Release a Task Instance from Hold: XML and JSON Examples .

4.32.18.1 Release a Task Instance from Hold: XML and JSON Examples

Examples	XML	JSON
Example Request	XML <pre><task-instance> <id>1464817327170011848D633V 6106ENQ7</id> <recursive>true</recursive> </task-instance> or <task-instance> <name>Timer 60</name> <criteria>Newest Instance</ criteria> <workflowInstanceName>test</ workflowInstanceName> </task-instance></pre>	JSON <pre>{ "name": "Task 1", "criteria": "Newest Instance", "workflowInstanceName": "Test" }</pre>
Example Response	XML <pre><command-response> <type>release</type> <success>true</success> <info>Command Release executed successfully against task instance "Timer 60".</info> <errors /> </command-response></pre>	JSON <pre>{ "type": "release", "success": true, "info": "Command Release executed successfully against task instance \"Task 1\".", "errors": "" }</pre>

4.32.18.2 Release a Task Instance from Hold: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
criteria	n/a	Specific task instance with this task instance name which you want to release from hold.	Valid values: - As String = Oldest Active Instance, As Value = 1 - As String = Newest Active Instance, As Value = 2 - As String = Oldest Instance, As Value = 3 - As String = Newest Instance, As Value = 4 Default is Oldest Active Instance (1). Note Values with an underscore characters (_) instead of spaces also are supported (for example, oldest_active_instance).	N	
id	n/a	sys_id used within the Controller to identify this task instance.		Y (unless name is specified)	name
name	Instance Name	Name of the task instance		Y (unless id is specified)	id
operationalMemo	Operational Memo	User-defined operational memo.		N	
recursive	n/a	For Workflow task instances only; Specification for whether or not to release from hold all children task instances of the task instance.	Boolean; Valid values: true/false. Default is false.	N	
workflowInstanceName	Workflow	Name of the parent Workflow of the task instance.	You can select to display the Workflow field on the Activity Monitor and/or Task Instances List; it is not displayed in the Task Instance Details.	N	

4.32.19 Rerun a Task Instance

	Description
URI	http://host_name/uc/resources/taskinstance/rerun
HTTP Method	POST
Description	Rerun a task instance.
Example URI	http://localhost:8080/uc/resources/taskinstance/rerun
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Rerun a Task Instance: XML and JSON Examples .
Request Properties	See Rerun a Task Instance: Request Properties .
Example Response	See Rerun a Task Instance: XML and JSON Examples .

4.32.19.1 Rerun a Task Instance: XML and JSON Examples

Examples	XML	JSON
Example Request	XML <pre> <task-instance> <id>1464817327170011848D633V 6106ENQ7</id> </task-instance> or <task-instance> <name>Timer 60</name> <criteria>Newest Instance</ criteria> <workflowInstanceName>test</ workflowInstanceName> </task-instance> or <task-instance> <id>1464817327170011848D633V 6106ENQ7</id> <taskStatus>Success</ taskStatus> <recursive>true</recursive> </task-instance> </pre>	JSON <pre> { "name": "Task 1", "criteria": "Newest Instance", "workflowInstanceName": "Test" } </pre>
Example Response	XML <pre> <command-response> <type>rerun</type> <success>true</success> <info>Command Re-run executed successfully against task instance "test".</info> <errors /> </command-response> </pre>	JSON <pre> { "type": "rerun", "success": true, "info": "Command Re-run executed successfully against task instance \"Task 1\".", "errors": "" } </pre>

4.32.19.2 Rerun a Task Instance: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
criteria	n/a	Specific task instance with this task instance <code>name</code> that you want to rerun.	Valid values: - As String = Oldest Active Instance, As Value = 1 - As String = Newest Active Instance, As Value = 2 - As String = Oldest Instance, As Value = 3 - As String = Newest Instance, As Value = 4 Default is Oldest Active Instance (1). Note Values with an underscore characters (<code>_</code>) instead of spaces also are supported (for example, <code>oldest_active_instance</code>).	N	
id	n/a	<code>sys_id</code> used within the Controller to identify this task instance.		Y (unless <code>name</code> is specified)	<code>name</code>
name	Instance Name	Name of the task instance.		Y (unless <code>id</code> is specified)	<code>id</code>
operationalMemo	Operational Memo	User-defined operational memo.		N	
recursive	n/a	Indication of whether or not tasks within sub-workflows will qualify for rerun.	Valid values: true/false. Default is false.	N	
taskStatus	Status	If matched task instance is workflow type; List of comma-separated status codes or case-insensitive status names. All tasks within the matching workflow with a matching status will be queued for rerun.	Valid statuses: - Start_Failure (120) - Cancelled (130) - Failed (140) - Finished (190) - Success (200)	Y	
workflowInstanceName	Workflow	Name of the parent Workflow of the task instance.	You can select to display the Workflow field on the Activity Monitor and/or Task Instances List; it is not displayed in the Task Instance Details.	N	

4.32.20 Retrieve Task Instance Output

	Description
URI	http://host_name/uc/resources/taskinstance/retrieveoutput
HTTP Method	GET
Description	Retrieves the output of a task instance. Note When Universal Controller requests the output from the associated Agent, only the output type specified by the outputtype property will be requested. However, the Universal Controller response will also include any output previously associated with the task instance in the database, regardless of output type.
Example URI	http://localhost:8080/uc/resources/taskinstance/retrieveoutput?taskinstanceid=14573966811010045745MXV75CR7QE8G&outputtype=STDOUT&numlines=10&startline=2&scantext=test&operationalMemo=test http://localhost:8080/uc/resources/taskinstance/retrieveoutput?taskinstancename=testZosTask&workflowinstancename=testWorkflow&operationalMemo=test
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example URI Properties	See Retrieve Task Instance Output: Example URI Properties .
Example Response	See Retrieve Task Instance Output: XML and JSON Response Examples .

4.32.20.1 Retrieve Task Instance Output: XML and JSON Response Examples

XML	JSON
<pre>XML <taskInstanceOutputs> <taskInstanceOutput> <attemptCount>1</attemptCount> <outputData> test output data </outputData> <outputType>STDOUT</outputType> </taskInstanceOutput> <taskInstanceOutput> <attemptCount>1</attemptCount> <outputData>[empty]</outputData> <outputType>STDERR</outputType> </taskInstanceOutput> </taskInstanceOutputs></pre>	<pre>JSON [{ "attemptCount": 1, "outputData": "This is the output.", "outputFileName": null, "outputType": "STDOUT" }, { "attemptCount": 1, "outputData": "[empty]", "outputFileName": null, "outputType": "STDERR" }]</pre>

4.32.20.2 Retrieve Task Instance Output: Example URI Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
criteria	n/a	Used if taskinstancename is specified; Specific task instance with this taskinstancename .	String; URI parameter. Valid values: - As String = Oldest Active Instance, As Value = 1 - As String = Newest Active Instance, As Value = 2 - As String = Oldest Instance, As Value = 3 - As String = Newest Instance, As Value = 4 Default is Oldest Active Instance (1). Note Values with an underscore characters (_) instead of spaces also are supported (for example, oldest_active_instance).	N	
numlines	Number of Lines	Number of lines to retrieve.	Integer	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
outputtype	Output Type	Type of task instance output to retrieve.	String; URI parameter. Valid values: - As String = OUTERR, As Value = 0 - As String = STDOUT, As Value = 1 - As String = STDERR, As Value = 2 Default is OUTERR (0).	Y (except for z/OS task instances: output defaults to z/OS joblog)	
scantext	Scan Text	Scan the data for the text specified and retrieve only that.	String; URI parameter.	N	
startline	Start Line	Retrieve data beginning at the line indicated.	Integer; URI parameter. Default is 1.	N	
taskinstanceid	UUID	UUID of the task instance for which you want to retrieve output.	String; URI parameter.	Y (unless taskinstancename is specified.)	taskinstancename
taskinstancename	Instance Name	Name of the task instance for which you want to retrieve output.	String; URI parameter.	Y (unless taskinstanceid is specified.)	taskinstanceid
workflowInstanceName	Workflow	Name of the parent Workflow of the task instance.	You can select to display the Workflow field on the Activity Monitor and/or Task Instances List; it is not displayed in the Task Instance Details.	N	

4.32.21 Set or Modify Wait Time/Duration for Task Instance

	Description
URI	http://host_name/uc/resources/taskinstance/settimewait
HTTP Method	POST
Description	Sets or modifies a wait time/duration for a task instance.
Authentication	HTTP Basic
Example URI	http://localhost:8080/uc/resources/taskinstance/settimewait
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Set or Modify Wait Time/Duration for Task Instance: XML and JSON Examples .
Request Properties	See Set or Modify Wait Time/Duration for Task Instance: Request Properties .

	Description
Example Response	See Set or Modify Wait Time/Duration for Task Instance: XML and JSON Examples .

4.32.21.1 Set or Modify Wait Time/Duration for Task Instance: XML and JSON Examples

Examples	XML	JSON
Example Request	<pre><task-instance> <id>1464817327170011848D633V 6106ENQ7</id> <waitType>time</waitType> <waitTime>00:33</waitTime> <delayType>duration</ delayType> <delayDuration>00:00:00:33</ delayDuration> </task-instance></pre>	<pre>{ "id": "15137106032955949535QDWAU9IA700 W", "waitType": "Time", "waitTime": "00:33", "delayType": "duration", "delayDuration": "00:00:00:33" }</pre>
Example Response	<pre><command-response> <type>set_timewait</type> <success>true</success> <info>Successfully set timewait for task instance "test task".</info> <errors /> </command-response></pre>	<pre>{ "type": "set_timewait", "success": true, "info": "Successfully set timewait for task instance \"Task 1\".", "errors": "" }</pre>

4.32.21.2 Set or Modify Wait Time/Duration for Task Instance: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
criteria	n/a	Specific task instance with this task instance name which you want to release from hold.	Valid values: - As String = Oldest Active Instance, As Value = 1 - As String = Newest Active Instance, As Value = 2 - As String = Oldest Instance, As Value = 3 - As String = Newest Instance, As Value = 4 Default is Oldest Active Instance (1). Note Values with an underscore characters (_) instead of spaces also are supported (for example, oldest_active_instance).	N	
delayDuration	Delay Duration	If waitType is duration; Number of days, hours, minutes, and seconds to delay after starting the task.	Format: DD:HH:MM:SS	Y (if delayType is duration)	
delaySeconds	Delay Duration In Seconds	If delayType is seconds; Number of seconds to delay after starting the task.	Format: SS	Y (if delayType is seconds)	
delayType	Delay On Start	Amount of time to delay the start of a task once it is eligible to start.	Valid values: - As String = none, As Value = 0 - As String = duration, As Value = 2 - As String = seconds, As Value = 3	Y (unless waitType is specified.)	
id	n/a	sys_id used within the Controller to identify this task instance.		Y (unless name is specified)	name

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
name	Instance Name	Name of the task instance		Y (unless id is specified)	id
operationalMemo	Operational Memo	User-defined operational memo.		N	
waitDayConstraint	Wait Day Constraint	If waitTime is time or relative time; Specification for whether or not to advance the wait time to another day.	Valid values: - As String = none, As Value = 0 - If waitType is time; Advance to the next day if calculated wait time is before the current time. - If waitType is relative time; Advance to the next day if calculated wait time is before the Trigger/Launch Time. - As String = same day/same_day, As Value = 1 (Do not advance day.) - As String = next day/next_day, As Value = 2 (Advance to the next day.) - As String = next business day/next_business_day, As Value = 3 (Advance to the next business day.) - As String = sunday, As Value = 4 (If today is not Sunday, advance to next Sunday.) - As String = monday, As Value = 5 (If today is not Monday, advance to next Monday.) - As String = tuesday, As Value = 6 (If today is not Tuesday, advance to next Tuesday.) - As String = wednesday, As Value = 7 (If today is not Wednesday, advance to next Wednesday.) - As String = thursday, As Value = 8 (If today is not Thursday, advance to next Thursday.) - As String = friday, As Value = 9 (If today is not Friday, advance to next Friday.) - As String = saturday, As Value = 10 (If today is not Saturday, advance to next Saturday.)	N	
waitDuration	Wait Duration	If waitType is duration; Number of days, hours, minutes, and seconds to wait before starting the task.	Format: DD:HH:MM:SS	Y (if {{waitType is duration})	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>waitSeconds</code>	Wait Duration In Seconds	If <code>waitType</code> is seconds; Number of seconds to wait before starting the task.	Format: SS	Y (if <code>waitType</code> is seconds)	
<code>waitTime</code>	Wait Time	If <code>waitType</code> is time or relative time; Number of hours and minutes to wait before starting the task.	Format: HH:MM	Y (if <code>waitType</code> is time or relative time)	
<code>waitType</code>	Wait To Start	Amount of time to wait before starting a task after it has been launched.	Valid values: - As String = none, As Value = 0 - As String = time, As Value = 1 - As String = duration, As Value = 2 - As String = seconds, As Value = 3 - As String = relative time, As Value = 4	Y (unless <code>delayType</code> is specified.)	
<code>workflowInstanceName</code>	Workflow	Name of the parent Workflow of the task instance.	You can select to display the Workflow field on the Activity Monitor and/or Task Instances List; it is not displayed in the Task Instance Details.	N	

4.32.22 Set Priority for a Task Instance

	Description
URI	http://host_name/uc/resources/taskinstance/setpriority
HTTP Method	POST
Description	Set priority for a task instance (Linux/Unix, Windows, Universal, or z/OS). See Changing the Priority of a Task Instance for a description of behavior and restrictions.
Example URI	http://localhost:8080/uc/resources/taskinstance/setpriority
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Set Priority for a Task Instance: XML and JSON Examples .
Request Properties	See Set Priority for a Task Instance: Request Properties .
Example Response	See Set Priority for a Task Instance: XML and JSON Examples .

4.32.22.1 Set Priority for a Task Instance: XML and JSON Examples

Examples	XML	JSON
Example Request	XML <pre><task-instance> <id>1464817327170011848D633V 6106ENQ7</id> <priorityType>medium</ priorityType> </task-instance></pre> or <pre><task-instance> <name>Timer 60</name> <criteria>Newest Instance</ criteria> <workflowInstanceName>test</ workflowInstanceName> <priorityType>medium</ priorityType> </task-instance></pre>	JSON <pre>{ "name": "Task 1", "criteria": "Newest Instance", "workflowInstanceName": "Test", "priorityType": "High" }</pre>
Example Response	XML <pre><command-response> <type>set_priority_(low medium high)</type> <success>true</success> <info>Command Set Priority (low medium high) executed successfully against task instance "test".</info> <errors /> </command-response></pre>	JSON <pre>{ "type": "set_priority_high", "success": true, "info": "Command Set Priority High executed successfully against task instance \"Task 1\".", "errors": "" }</pre>

4.32.22.2 Set Priority for a Task Instance: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>criteria</code>	n/a	Specific task instance with this task instance <code>name</code> that you want to set a priority for.	Valid values: - As String = Oldest Active Instance, As Value = 1 - As String = Newest Active Instance, As Value = 2 - As String = Oldest Instance, As Value = 3 - As String = Newest Instance, As Value = 4 Default is Oldest Active Instance (1). Note Values with an underscore characters (<code>_</code>) instead of spaces also are supported (for example, <code>oldest_active_instance</code>).	N	
<code>id</code>	n/a	<code>sys_id</code> used within the Controller to identify this task instance.		Y (unless <code>name</code> is specified)	<code>name</code>
<code>name</code>	Instance Name	Name of the task instance.		Y (unless <code>id</code> is specified)	<code>id</code>
<code>operationalMemo</code>	Operational Memo	User-defined operational memo.		N	
<code>priorityType</code>	n/a	Sets the priority for this task instance.	Valid values: low, medium, high; Case-insensitive.	Y	
<code>workflowInstanceName</code>	Workflow	Name of the parent Workflow of the task instance.	You can select to display the Workflow field on the Activity Monitor and/or Task Instances List; it is not displayed in the Task Instance Details.	N	

4.32.23 Skip a Task Instance

	Description
URI	http://host_name/uc/resources/taskinstance/skip
HTTP Method	POST
Description	Skip a task instance.
Example URI	http://localhost:8080/uc/resources/taskinstance/skip
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Skip a Task Instance: XML and JSON Examples .
Request Properties	See Skip a Task Instance: Request Properties .
Example Response	See Skip a Task Instance: XML and JSON Examples .

4.32.23.1 Skip a Task Instance: XML and JSON Examples

Examples	XML	JSON
Example Request	XML <pre><task-instance> <id>1464817327170011848D633V 6106ENQ7</id> </task-instance></pre> or <pre><task-instance> <name>Timer 60</name> <criteria>Newest Instance</ criteria> <workflowInstanceName>test</ workflowInstanceName> </task-instance></pre>	JSON <pre>{ "name": "Task 1", "criteria": "Newest Instance", "workflowInstanceName": "Test" }</pre>

Examples	XML	JSON
Example Response	<pre> XML <command-response> <type>skip</type> <success>true</success> <info>Command Skip executed successfully against task instance "test".</info> <errors /> </command-response </pre>	<pre> JSON { "type": "skip", "success": true, "info": "Command Skip executed successfully against task instance \"Task 1\".", "errors": "" } </pre>

4.32.23.2 Skip a Task Instance: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
criteria	n/a	Specific task instance with this task instance <code>name</code> that you want to skip.	Valid values: - As String = Oldest Active Instance, As Value = 1 - As String = Newest Active Instance, As Value = 2 - As String = Oldest Instance, As Value = 3 - As String = Newest Instance, As Value = 4 Default is Oldest Active Instance (1). Note Values with an underscore characters (<code>_</code>) instead of spaces also are supported (for example, oldest_active_instance).	N	
id	n/a	sys_id used within the Controller to identify this task instance.		Y (unless <code>name</code> is specified)	<code>name</code>
name	Instance Name	Name of the task instance.		Y (unless <code>id</code> is specified)	<code>id</code>

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>operationalMemo</code>	Operational Memo	User-defined operational memo.		N	
<code>workflowInstanceName</code>	Workflow	Name of the parent Workflow of the task instance.	You can select to display the Workflow field on the Activity Monitor and/or Task Instances List; it is not displayed in the Task Instance Details.	N	

4.32.24 Skip a Task Instance Path

	Description
URI	http://host_name/uc/resources/taskinstance/skippath
HTTP Method	POST
Description	Skip a task instance and all of its dependent task instances.
Example URI	http://localhost:8080/uc/resources/taskinstance/skippath
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Skip a Task Instance Path: XML and JSON Examples .
Request Properties	See Skip a Task Instance Path: Request Properties .
Example Response	See Skip a Task Instance Path: XML and JSON Examples .

4.32.24.1 Skip a Task Instance Path: XML and JSON Examples

Examples	XML	JSON
Example Request	XML <pre><task-instance> <id>1464817327170011848D633V 6106ENQ7</id> </task-instance> or <task-instance> <name>Timer 60</name> <criteria>Newest Instance</ criteria> <workflowInstanceName>test</ workflowInstanceName> </task-instance></pre>	JSON <pre>{ "name": "Task 1", "criteria": "Newest Instance", "workflowInstanceName": "Test" }</pre>
Example Response	XML <pre><command-response> <type>skip</type> <success>true</success> <info>Command Skip Path executed successfully against task instance "test".</info> <errors /> </command-response></pre>	JSON <pre>{ "type": "skip", "success": true, "info": "Command Skip Path executed successfully against task instance \"Task 1\".", "errors": "" }</pre>

4.32.24.2 Skip a Task Instance Path: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
criteria	n/a	Specific task instance with this task instance <code>name</code> whose path you want to skip.	Valid values: - As String = Oldest Active Instance, As Value = 1 - As String = Newest Active Instance, As Value = 2 - As String = Oldest Instance, As Value = 3 - As String = Newest Instance, As Value = 4 Default is Oldest Active Instance (1). Note Values with an underscore characters (<code>_</code>) instead of spaces also are supported (for example, oldest_active_instance).	N	
id	n/a	<code>sys_id</code> used within the Controller to identify this task instance.		Y (unless <code>name</code> is specified)	<code>name</code>
name	Instance Name	Name of the task instance.		Y (unless <code>id</code> is specified)	<code>id</code>
operationalMemo	Operational Memo	User-defined operational memo.		N	
workflowInstanceName	Workflow	Name of the parent Workflow of the task instance.	You can select to display the Workflow field on the Activity Monitor and/or Task Instances List; it is not displayed in the Task Instance Details.	N	

4.32.25 Unskip a Task Instance

	Description
URI	http://host_name/uc/resources/taskinstance/unskip
HTTP Method	POST
Description	Unskip a task instance.
Example URI	http://localhost:8080/uc/resources/taskinstance/unskip
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Unskip a Task Instance: XML and JSON Examples .
Request Properties	See Unskip a Task Instance: Request Properties .
Example Response	See Unskip a Task Instance: XML and JSON Examples .

4.32.25.1 Unskip a Task Instance: XML and JSON Examples

Examples	XML	JSON
Example Request	XML <pre><task-instance> <id>1464817327170011848D633V 6106ENQ7</id> </task-instance></pre> or <pre><task-instance> <name>Timer 60</name> <criteria>Newest Instance</ criteria> <workflowInstanceName>test</ workflowInstanceName> </task-instance></pre>	JSON <pre>{ "name": "Task 1", "criteria": "Newest Instance", "workflowInstanceName": "Test" }</pre>

Examples	XML	JSON
Example Response	<pre> XML <command-response> <type>unskip</type> <success>true</success> <info>Command Unskip Path executed successfully against task instance "test".</info> <errors /> </command-response </pre>	<pre> JSON { "type": "unskip", "success": true, "info": "Command Unskip executed successfully against task instance \"Task 1\".", "errors": "" } </pre>

4.32.25.2 Unskip a Task Instance: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
criteria	n/a	Specific task instance with this task instance name that you want to unskip.	Valid values: - As String = Oldest Active Instance, As Value = 1 - As String = Newest Active Instance, As Value = 2 - As String = Oldest Instance, As Value = 3 - As String = Newest Instance, As Value = 4 Default is Oldest Active Instance (1). Note Values with an underscore characters (_) instead of spaces also are supported (for example, oldest_active_instance).	N	
id	n/a	sys_id used within the Controller to identify this task instance.		Y (unless name is specified)	name
name	Instance Name	Name of the task instance.		Y (unless id is specified)	id

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>operationalMemo</code>	Operational Memo	User-defined operational memo.		N	
<code>workflowInstanceName</code>	Workflow	Name of the parent Workflow of the task instance.	You can select to display the Workflow field on the Activity Monitor and/or Task Instances List; it is not displayed in the Task Instance Details.	N	

4.32.26 Update a Task Instance Operational Memo

	Description
URI	http://host_name/uc/resources/taskinstance/updatememo
HTTP Method	PUT
Description	Update the operational memo for a task instance record.
Example URI	http://localhost:8080/uc/resources/taskinstance/updatememo?taskinstancename=win-task-1&criteria=3 http://localhost8080/uc/resources/taskinstance/updatememo?taskinstanceid=3760d406e5b64e66b1c7117f22e570a1&criteria=2
Authentication	HTTP Basic
Consumes Content-Type	text/plain
Produces Content-Type	text/plain
Example URI Properties	See Update a Task Instance Operational Memo: Example URI Properties .
Example Request Body	See Update a Task Instance Operational Memo: Text/Plain Examples .
Example Response Body	See Update a Task Instance Operational Memo: Text/Plain Examples .

4.32.26.1 Update a Task Instance Operational Memo: Text/Plain Examples

Examples	Text/Plain
Example Request Body	Ticket# 15243
Example Response Body	Updated the operational memo for record with task instance id 15832561207058159886SCGSSDF53H7Q.

4.32.26.2 Update a Task Instance Operational Memo: Example URI Properties

	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>criteria</code>	n/a	Used if <code>taskinstancename</code> is specified; Specific task instance with this <code>taskinstancename</code> .	String; URI parameter. Valid values: - As String = Oldest Active Instance, As Value = 1 - As String = Newest Active Instance, As Value = 2 - As String = Oldest Instance, As Value = 3 - As String = Newest Instance, As Value = 4 Default is Oldest Active Instance (1).	N	
<code>taskinstanceid</code>	UUID	UUID of the task instance for which you want to update the Operational Memo.	String; URI parameter.	Y (unless <code>taskinstancename</code> is specified.)	<code>taskinstancename</code>
<code>taskinstancename</code>	Instance Name	Name of the task instance for which you want to update the Operational Memo.	String; URI parameter.	Y (unless <code>taskinstanceid</code> is specified.)	<code>taskinstanceid</code>
<code>workflowInstanceName</code>	Workflow	Name of the parent Workflow of the task instance.	You can select to display the Workflow field on the Activity Monitor and/or Task Instances List; it is not displayed in the Task Instance Details.	N	

4.32.27 Workflow Task Instance Web Services

- [Overview](#)
- [Insert a Task into a Workflow with Dependencies](#)
- [List Predecessors / Successors of a Task Instance in a Workflow](#)

4.32.27.1 Overview

Universal Controller supports the following RESTful-based web services for Workflow Task Instance operations, which are listed alphabetically on this page.

- [Insert a Task into a Workflow with Dependencies](#)
- [List Predecessors / Successors of a Task Instance in a Workflow](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

4.32.27.2 Insert a Task into a Workflow with Dependencies

	Description
URI	http://host_name/uc/resources/taskinstance/ops-task-insert
HTTP Method	POST
Description	Insert a task into a Workflow with dependencies.
Authentication	HTTP Basic
Example URI	http://localhost:8080/uc/resources/taskinstance/ops-task-insert
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Request Example	See Insert a Task into a Workflow with Dependencies: XML and JSON Examples .
Request Properties	See Insert a Task into a Workflow with Dependencies: Request Properties .
Response Example	See Insert a Task into a Workflow with Dependencies: XML and JSON Examples .

4.32.27.2.1 Insert a Task into a Workflow with Dependencies: XML and JSON Examples

Examples	XML	JSON
Example Request	<pre> XML <task-insert> <name>Sleep 30</name> <alias>Test</alias> <workflowInstanceId>ac2cfdd14c 8c4238a4a6ecd03db41e87</ workflowInstanceId> <predecessors> <predecessor>Sleep 30</ predecessor> </predecessors> <successors> <successor>Sleep 60</ successor> </successors> <vertexX>25</vertexX> <inheritTriggerTime>true</ inheritTriggerTime> <vertexY>25</vertexY> </task-insert> </pre>	<pre> JSON { "name": "Sleep 10", "alias": "Test", "workflowInstanceId": "1513717759915306953T5FNZB71S60UF", "predecessors": ["Task 1"], "successors": ["Sleep 60"], "vertexX": "25", "inheritTriggerTime": "true", "vertexY": "25" } </pre>
Example Response	<pre> XML <command-response> <type>create_task</type> <success>true</success> <info>Command Insert Task executed successfully against task instance "test workflow".</info> <errors /> </command-response> </pre>	<pre> JSON { "type": "create_task", "success": true, "info": "Command Insert Task executed successfully against task instance \"Test Workflow\".", "errors": "" } </pre>

4.32.27.2.2 Insert a Task into a Workflow with Dependencies: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
alias	n/a	Alias used for the task within the Workflow; specifically, the value of ops_exec_workflow_vertex.name .		N	
id	n/a	sys_id of the task to be inserted.		Y (unless name is specified)	name

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
name	Task Name	Name of the task to be inserted.		Y (unless id is specified)	id
predecessors	Predecessors	Comma-separated list of predecessor task instances within the workflow for the task to be inserted.		N	
successors	Successors	Comma-separated list of successor task instances within the workflow for the task to be inserted.		N	
vertexX	n/a	x-coordinate of the task to be inserted within the workflow.	Default is 0.	N	
vertexY	n/a	y-coordinate of the task to be inserted within the workflow.	Default is 0.	N	
inheritTriggerTime	n/a	Specification for whether or not the inserted task will inherit the Trigger Time of the Workflow task instance.	Boolean; Valid values (not case-sensitive): • Yes, Y, true • No, N, false Default is Yes, Y, true.	N	
workflowInstanceCriteria	n/a	If search is by workflowInstanceName ; Specific Workflow task instance with this task instance name which you want to insert the task into.	Valid values: • As String = oldest active instance, As Value = 1 • As String = newest active instance, As Value = 2 • As String = oldest instance, As Value = 3 • As String = newest instance, As Value = 4 Default is oldest active instance (1). Note Values with an underscore characters (_) instead of spaces also are supported (for example, oldest_active_instance).	N	
workflowInstanceId	n/a	sys_id of the Workflow to insert the task into.		Y (unless workflowInstanceName is specified)	workflowInstanceName

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
workflowInstance Name	Instance Name	Name of the Workflow to insert the task into.		Y (unless workflowInstanc eId is specified)	workflowInstance Id

Note

- If both `predecessors` and `successors` lists are empty, the task is inserted without dependencies.
- If there is a task name in a `predecessors` or `successors` list that does not exist, the operation will fail with error **Cannot find vertex with the name ...**
- If a `predecessors` or `successors` list contains a task name with multiple occurrences in the workflow, the operation will fail with error **Multiple vertices found for the name...** (For example, the workflow contains two tasks named **Sleep 30** and you are trying to insert **Task ABC** with predecessor **Sleep 30**).

4.32.27.3 List Predecessors / Successors of a Task Instance in a Workflow

	Description
URI	http://host_name/uc/resources/taskinstance/dependency/list
HTTP Method	GET
Description	Returns the list of task instance dependencies.
URI Parameters	See List Predecessors / Successors of a Task Instance in a Workflow: URI Parameters .
Example URI	• To list all dependencies for the task instance id: http://localhost:8080/uc/resources/taskinstance/dependency/list?taskinstanceid=431191ad05e6483c8cfa71380947268c • To list all successors for the task instance name X: http://localhost:8080/uc/resources/taskinstance/dependency/list?taskinstancename=X&dependencytype=successors • To list all predecessors for the oldest task instance named X in workflow Y: http://localhost:8080/uc/resources/taskinstance/dependency/list?taskinstancename=X&workflowinstancename=Y&criteria=oldest_instance&dependencytype=predecessors
Authentication	HTTP Basic
Produces Content-Type	application/xml, application/json
Example Response	See List Predecessors / Successors of a Task Instance in a Workflow: XML and JSON Examples .
Response Properties	See List Predecessors / Successors of a Task Instance in a Workflow: Response Properties .

4.32.27.3.1 List Predecessors / Successors of a Task Instance in a Workflow: XML and JSON Examples

XML	JSON
<pre> XML <task-dependencies> <task-dependency> <condition>Success</condition> <name>Sleep 30</name> <satisfied>>false</satisfied> <taskInstanceId>1471465078487 058257PY97G57T09HKB</taskInstanceId> <type>predecessors</type> <vertexId>20</vertexId> <vertexName>Sleep 30</ vertexName> </task-dependency> <task-dependency> <condition>Success</condition> <name>uc - Sleep 60</name> <satisfied>>false</satisfied> <taskInstanceId>1513717759915 31795355TV2GX49AWD6</taskInstanceId> <type>successors</type> <vertexId>2</vertexId> <vertexName>Sleep 60</ vertexName> </task-dependency> </pre>	<pre> JSON [{ "condition": { "value": "Success" }, "name": "Sleep 30", "satisfied": false, "taskInstanceId": "1471465078487058257PY97G57T09HKB", "type": "Predecessor", "vertexId": "20", "vertexName": "Sleep 30" }, { "condition": { "value": "Success" }, "name": "Sleep 60", "satisfied": false, "taskInstanceId": "151371775991531795355TV2GX49AWD6", "type": "Successor", "vertexId": "2", "vertexName": "Sleep 60" }] </pre>

4.32.27.3.2 List Predecessors / Successors of a Task Instance in a Workflow: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
criteria	If <code>taskinstancename</code> is specified; Specific task instance with this task instance name for which you want to list predecessors and successors.	Valid values: - As String = oldest active instance, As Value = 1 - As String = newest active instance, As Value = 2 - As String = oldest instance, As Value = 3 - As String = newest instance, As Value = 4 Default is oldest active instance (1). Note Values with an underscore characters (_) instead of spaces also are supported (for example, oldest_active_instance).	N	
dependencytype	Type of dependency to list for the task instance.	Valid values: predecessors, successors, * (all predecessors and successors).	N	
taskinstanceid	sys_id of the task instance for which you want to list predecessors and successors.		Y (unless <code>taskinstancename</code> is specified)	<code>taskinstancename</code>
taskinstancename	Name of the task instance for which you want to list predecessors and successors.		Y (unless <code>taskinstanceid</code> is specified)	<code>taskinstanceid</code>
workflowinstancename	If <code>taskinstancename</code> is specified; Name of the Workflow task instance containing the task instance for which you want to list predecessors and successors.		N	

4.32.27.3.3 List Predecessors / Successors of a Task Instance in a Workflow: Response Properties

Property	UI Field Name	Description
condition	n/a	Dependency condition between the task instance and the listed Predecessor / Successor task instance.

Property	UI Field Name	Description
<code>name</code>	n/a	Resolved name of the Predecessor / Successor task instance.
<code>satisfied</code>	n/a	Indication of whether the <code>condition</code> was satisfied or not satisfied.
<code>taskInstanceId</code>	n/a	<code>sys_id</code> of the task instance for which the Predecessor / Successor task instance is listed.
<code>type</code>	n/a	Type of dependency for the Predecessor / Successor task instance.
<code>vertexId</code>	n/a	Vertex ID of the Predecessor / Successor task instance. Each task instance within a Workflow has a unique Vertex ID to distinguish it from other tasks, if any, of the same name.
<code>vertexName</code>	n/a	Name of the Predecessor / Successor task instance.

4.33 Task Web Services

- [Overview](#)
- [Delete a Task](#)
- [Launch a Task](#)
- [List All Workflows That a Task Belongs To](#)
- [List Tasks](#)
- [List Tasks - Advanced](#)

4.33.1 Overview

Universal Controller supports the following RESTful-based web services for Task operations.

Formatting specifications for each web service, including details about parameter requirements, are provided.

4.33.1.1 Common Web Services

The following web services are common to all Task types:

- [Delete a Task](#)
- [Launch a Task](#)
- [List All Workflows That a Task Belongs To](#)
- [List Tasks](#)
- [List Tasks - Advanced](#)

Detailed information for each of these web services is provided on this page.

4.33.1.2 Task-Specific Web Services

The following web services are specific for each Task type:

- Create a Task
- Modify a Task
- Read a Task

For detail information about these task-specific web services, see:

- [Application Control Task Web Services](#)
- [Agent File Monitor Task Web Services](#)
- [Email Task Web Services](#)
- [Email Monitor Task Web Services](#)
- [IBM i Task Web Services](#)
- [File Transfer Task Web Services](#)
- [Linux Unix Task Web Services](#)
- [Manual Task Web Services](#)
- [PeopleSoft Task Web Services](#)
- [Recurring Task Web Services](#)
- [Remote File Monitor Task Web Services](#)
- [SAP Task Web Services](#)
- [SQL Task Web Services](#)
- [Stored Procedure Task Web Services](#)
- [System Monitor Task Web Services](#)
- [Task Monitor Task Web Services](#)
- [Timer Task Web Services](#)
- [Universal Command Task Web Services](#)
- [Universal Monitor Task Web Services](#)
- [Universal Task Web Services](#)
- [Variable Monitor Task Web Services](#)
- [Web Service Task Web Services](#)
- [Windows Task Web Services](#)
- [Workflow Task Web Services](#)
- [z/OS Task Web Services](#)
- [z/OS Monitor Task Web Services](#)

4.33.2 Delete a Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	DELETE
Description	Deletes the specified task .
URI Parameters	See Delete a Task: URI Parameters , below.

	Description
Example URI	http://localhost:8080/uc/resources/task?taskname=testTask http://localhost:8080/uc/resources/task?taskid=d26265a2c4f345359d9b356f18a462c1
Authentication	HTTP Basic
Example Response	- Status 200 /OK Task deleted successfully. - Status 400 /Bad Request Mutual exclusion violation. Cannot specify taskname and taskid at the same time. - Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

4.33.2.1 Delete a Task: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
taskid	ID used within the Controller to identify this task.	String; URI parameter.	Y (unless taskname is specified)	taskname
taskname	Name used within the Controller to identify this task.	String; URI parameter.	Y (unless taskid is specified)	taskid

4.33.3 Launch a Task

	Description
URI	http://host_name/uc/resources/task/ops-task-launch
HTTP Method	POST
Description	Launches the specified task .
Example URI	http://localhost:8080/uc/resources/task/ops-task-launch
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Launch a Task: XML and JSON Examples .
Example Request for Task-Related Records	See Launch a Task: XML and JSON Examples .
Request Properties	See Launch a Task: Request Properties .
Request Task-Related Records Properties	- See Task-Related Records Properties: Variables. - See Task-Related Records Properties: Virtual Resources.

	Description
Example Response	See Launch a Task: XML and JSON Examples .

4.33.3.1 Launch a Task: XML and JSON Examples

Examples	XML	JSON
Example Request for Task	<pre><task-launch> <variables /> <virtual-resources /> <name>Timer 0</name> <timeZone>America/Halifax</ timeZone> <virtualResourcePriority>10</ virtualResourcePriority> <hold>yes</hold> <holdReason>Waiting for input</holdReason> <launchReason>Testing</ launchReason> </task-launch></pre>	<pre>{ "variables": null, "virtual-resources": null, "name": "Timer 0", "timeZone": "America/ Halifax", "virtualResourcePriority": 10, "hold": "yes", "holdReason": "Waiting for input", "launchReason": "test" }</pre>
Example Request for Task-Related Records	Variables <pre><variables> <variable> <name>testVar</name> <value>value</value> </variable> </variables></pre> Virtual Resources <pre><virtual-resources> <virtual-resource> <name>uc - Solo</name> <limit>2</limit> </virtual-resource> </virtual-resources></pre>	<pre>{ "variables": [{ "name": "testvar", "value": "abc" }], "virtualResources": [{ "name": "aaaaa", "limit": 2 }], "name": "Timer 0", "virtualResourcePriority": 10, "hold": "yes" }</pre>

Examples	XML	JSON
Example Response	<pre> XML <command-response> <type>launch</type> <success>true</success> <info>Successfully launched the Timer task Timer 0.</info> <sysId>1484021712811013671DQNR5 P2F9846</sysId> <errors /> </command-response> </pre>	<pre> JSON { "type": "launch", "success": true, "info": "Successfully launched the Timer task "Timer 0" with task instance sys_id 15136440261151733518FCQUD1BNHIT A with hold on start.", "errors": "", "sysId": "15136440261151733518FCQUD1BNHI TA" } </pre>

4.33.3.2 Launch a Task: Request Properties

Property	UI Field Name	Description	Specifications	Required
hold	Hold on Start	Indicates that when the task is launched, it appears in the Activity Monitor with a status of Held . The task runs when the user releases it.	Valid values = Yes,Y,true	N
holdReason	Hold Reason	Information about why the task will be put on hold when it starts.		N
launchReason	Launch Reason	Reason for the task launch		N (Y if Task Launch Reason Required system property is True.)
name	Task Name	Name of the task.		Y
simulate	Simulate	Specifies if the workflow should execute under simulation mode.	Boolean; Valid values: true/false. Default is false.	N
timeZone	Time Zone	Time Zone in the which the task is launched.		N

Property	UI Field Name	Description	Specifications	Required
vertices	Vertex Selection	Specifies Root Vertices and/or Specific Vertices to be included in the triggered workflow. A vertex can be specified by <code>taskName</code> , <code>vertexName</code> , or <code>vertexId</code> . If you specify a <code>vertexId</code> , then only a single vertex will match, whereas, if you leave <code>vertexId</code> unspecified, any vertex matching by <code>taskName</code> or <code>vertexName</code> , will be selected. To indicate a vertex selection is a Root Vertex, set the vertex root attribute to true. If vertex root attribute is unspecified or false, it indicates a vertex selection is a Specific Vertex. Duplicate vertex specifications are ignored and do not prevent the operation from completing.	XML <pre><vertices> <vertex root="true"> <taskName>JOB_A</taskName> </vertex> <vertex> <vertexName>JOB_B</vertexName> </vertex> <vertex root="false"> <vertexId>10</vertexId> </vertex> </vertices></pre> JSON	N

Property	UI Field Name	Description	Specifications	Required
			<pre> "vertices": [{ "taskName": "JOB_A", "root": true }, { "vertexName": "JOB_B" }, { "vertexId": "10", "root": false }] </pre>	
<code>virtualResourcePriority</code>	Virtual Resource Priority	Priority for acquiring a resource when two or more tasks are waiting for the resource; applies to all resources required by the task.	Integer; Valid values: 1 (high) to 20 (low). Default is 10.	N

4.33.3.3 Task-Related Records Properties: Variables

Property	UI Field Name	Description	Specifications	Required
<code>name</code>	Name	Name of the variable.		Y
<code>value</code>	Value	Value of the variable.		Y

4.33.3.4 Task-Related Records Properties: Virtual Resources

The virtual resource dependencies specified in `virtual-resources` are merged with the default virtual resource dependencies:

- If a default virtual resource dependency already exists for a specified virtual resource amount, the virtual resource dependency is updated.
- Any virtual resource specified with an amount of **0** is dropped from the default virtual resource dependencies; if the virtual resource did not exist as a default dependency, the command will fail.

- If a default virtual resource dependency does not already exist for a specified virtual resource amount, the virtual resource dependency is added. |

Property	UI Field Name	Description	Specifications	Required
<code>description</code>	Resource Description	Description of the virtual resource.		N
<code>name</code>	Resource Name	Name of the virtual resource.		Y
<code>limit</code>	Resource Limit	Maximum number of units for this resource.		Y

4.33.4 List All Workflows That a Task Belongs To

	Description
URI	http://host_name/uc/resources/task/parent/list
HTTP Method	GET
Description	Retrieves a list of parent workflows that a task belongs to.
URI Parameters	See List All Workflows That a Task Belongs To: URI Parameters , below.
Example URI	• http://localhost:8080/uc/resources/task/parent/list?taskname=SB_JOB • http://localhost:8080/uc/resources/task/parent/list?taskid=fcd85a9c486845139bee49cbd5af3d98
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See List All Workflows That a Task Belongs To: XML and JSON Examples .
Response Properties	See List All Workflows That a Task Belongs To: Response Properties .

4.33.4.1 List All Workflows That a Task Belongs To: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
<code>taskid</code>	ID used within the Controller to identify this task.	String; URI parameter.	Y (unless <code>taskname</code> is specified)	<code>taskname</code>
<code>taskname</code>	Name used within the Controller to identify this task.	String; URI parameter.	Y (unless <code>taskid</code> is specified)	<code>taskid</code>

4.33.4.2 List All Workflows That a Task Belongs To: XML and JSON Examples

Examples	XML	JSON
Example Response	<pre> XML <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <workflows> <workflow> <name>WF_A</name> <sysId>2be1385324ab410995fda3f0292c0 7ee</sysId> <description /> <version>2</version> <vertexName>SB_JOB</ vertexName> <vertexId>2</vertexId> </workflow> <workflow> <name>WF_B</name> <sysId>c8d5ad7cee3f46288482872dbd637 70c</sysId> <description /> <version>43</version> <vertexName>SB_JOB</ vertexName> <vertexId>2</vertexId> </workflow> <workflow> <name>WF_C</name> <sysId>830105616cc74d7d8d394bedc1c47 a43</sysId> <description /> <version>6</version> <vertexName>SB_JOB.1</ vertexName> <vertexId>2</vertexId> </workflow> <workflow> <name>WF_C</name> <sysId>830105616cc74d7d8d394bedc1c47 a43</sysId> <description /> <version>6</version> <vertexName>SB_JOB.2</ vertexName> <vertexId>3</vertexId> </workflow> </workflows> </pre>	<pre> JSON [{ "name": "WF_A", "sysId": "2be1385324ab410995fda3f0292c07ee" , "description": null, "version": 2, "vertexName": "SB_JOB", "vertexId": "2" }, { "name": "WF_B", "sysId": "c8d5ad7cee3f46288482872dbd63770c" , "description": null, "version": 43, "vertexName": "SB_JOB", "vertexId": "2" }, { "name": "WF_C", "sysId": "830105616cc74d7d8d394bedc1c47a43" , "description": null, "version": 6, "vertexName": "SB_JOB.1", "vertexId": "2" }, { "name": "WF_C", "sysId": "830105616cc74d7d8d394bedc1c47a43" , "description": null, "version": 6, "vertexName": "SB_JOB.2", "vertexId": "3" }] </pre>

4.33.4.3 List All Workflows That a Task Belongs To: Response Properties

Property	UI Field Name	Description
description	Task Description	User-defined description of this workflow.
name	Task Name	Name of this workflow.
sysId	UUID	sys_id used within the Controller to identify this workflow.
version	Version	Version number of this workflow.
vertexId	n/a	Vertex ID of the task within this workflow.
vertexName	n/a	Name (or alias) of the task within this workflow.

4.33.5 List Tasks

	Description
URI	http://host_name/uc/resources/task/list
HTTP Method	POST
Description	Retrieves information on tasks matching specific search criteria.
Example URI	http://localhost:8080/uc/resources/task/list
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See List Tasks: XML and JSON Examples .
Request Properties	See List Tasks: Request Properties .
Example Response	See List Tasks: XML and JSON Examples .

4.33.5.1 List Tasks: XML and JSON Examples

Examples	XML	JSON
Example Request	XML <pre><generic-query-filter> <name>*</name> <type>Timer</type> <updatedAtType>offset</ updatedAtType> <updatedAt>-10d</ updatedAt> <agentName>SBUS30 - AGNT0005< /agentName> <businessServices>bService1,bServic e2</businessServices> </generic-query-filter> or <generic-query-filter> <name>*</name> <templateId>16467DFG47231012663T243 4FSAW342F</templateId> <workflowid>1463438057231012663TP5J P5EA801YS</workflowid> </generic-query-filter></pre>	JSON All tasks in the last three minutes. <pre>{ "name": "*", "updatedAtType": "offset", "updatedAt": "-3mn", "agentName": "SBUS30 - AGNT0005" }</pre> Or <pre>{ "name": "*", "templateId": "b21c68bba02c43919d5a6d6042a3f082 " "workflowid": "a21c68bba02c43919d5a6d6042a3f082 " }</pre>

Examples	XML	JSON
Example Response	<pre> XML <tasks> <task> <description>description</description> <name>test task 1</name> <sysID>410d6c0bc0a801c901838d8ac43b3279</sysID> <type>Windows</type> <version>2</version> </task> <task> <description>description</description> <name>test task 2</name> <sysID>410d6880c0a801c90196685fcc1ecb47</sysID> <type>Windows</type> <version>9</version> </task> </tasks> </pre>	<pre> JSON [{ "description": "Description", "name": "test task 1", "sysId": "371be743130a4b18a9fc49961650593c", "type": "Timer", "version": 23 }, { "description": "Description", "name": "test task 2", "sysId": "10d58f96ab2b42e69d7e9bdde2ed21a7", "type": "Timer", "version": 2 }] </pre>

4.33.5.2 List Tasks: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agentName	Agent	Agent on which this task was run.		N	
businessServices	Member of Business Services	Business Services that this task belongs to.	Comma-separated list.	N	
name	Task Name	Name or partial name of one or more tasks.	Wildcards are supported.	N	
templateId	n/a	ID used within the controller to identify a template.	If a <code>templateId</code> or <code>templateName</code> is specified, List task returns a list of tasks associated with the Universal template.	N	templateName

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
templateName	Template Name	Name of a template.	If a <code>templateId</code> or <code>templateName</code> is specified, List task returns a list of tasks associated with the Universal template.	N	templateId
type	n/a	Task Type of tasks to list.	Valid values: One of the following (not case sensitive): • As String = Workflow, As Value = 1 • As String = Timer, As Value = 2 • As String = Windows, As Value = 3 • As String = Linux/Unix, As Value = 4 • As String = z/OS, As Value = 5 • As String = Agent File Monitor, As Value = 6 • As String = Manual, As Value = 7 • As String = Email, As Value = 8 • As String = File Transfer, As Value = 9 • As String = SQL, As Value = 10 • As String = Remote File Monitor, As Value = 11 • As String = Task Monitor, As Value = 12 • As String = Stored Procedure, As Value = 13 • As String = Universal Command, As Value = 14 • As String = System Monitor, As Value = 15 • As String = Application Control, As Value = 16 • As String = SAP, As Value = 17 • As String = Variable Monitor, As Value = 18 • As String = Web Service, As Value = 19 • As String = Email Monitor, As Value = 20 • As String = PeopleSoft, As Value = 21 • As String = Recurring, As Value = 22 • As String = Universal Monitor, As Value = 23 • As String = IBM i, As Value = 24 • As String = z/OS Monitor, As Value = 25 • As String = Universal, As Value = 99 To list tasks for all task types, enter <code><type></type></code> in the request.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
updatedTime	n/a	If <code>updatedTimeType</code> = Offset; -offset period.	Valid values: • mn (minutes) • h (hours) • d (days) Default is d. Examples: -5d (last 5 days), -30mn (last 30 minutes), -6h (last 6 hours), -7 (last 7 days). If <code>updatedTimeType</code> is Since; date/time value (yyyy-MM-dd [HH:mm:ss]) If <code>updatedTimeType</code> is Today; <code>updatedTime</code> is ignored. Note The time is relative to the Time Zone specified for the User.	Y (if <code>updatedTimeType</code> is Offset, Since, or Older Than.)	
updatedTimeType	n/a	Type of <code>updateTime</code> .	Valid values: • As String = Today, As Value = 1 • As String = Offset, As Value = 2 • As String = Since, As Value = 3 • As String = Older Than, As Value = 4	N	
workflowid	n/a	ID used within the Controller to identify a workflow.	If <code>workflowid</code> or <code>workflowname</code> is specified, List Tasks returns a list of tasks within that workflow.	N	workflowname
workflowname	Task Name	Name of a workflow.	If <code>workflowid</code> or <code>workflowname</code> is specified, List Tasks returns a list of tasks within that workflow.	N	workflowid

4.33.6 List Tasks - Advanced

	Description
URI	• http://host_name/uc/resources/task/listadv • http://host_name/uc/resources/tasks/listadv

Examples	XML	JSON
	<pre> efDayConstraint> <efDuration>00:00:00:00</ efDuration> <efEnabled>>false</efEnabled> <efNthAmount>5</efNthAmount> <efOffsetDuration /> <efOffsetDurationUnit>Minutes</ efOffsetDurationUnit> <efOffsetPercentage>0</ efOffsetPercentage> <efOffsetType>Percentage</ efOffsetType> <efTime>00:00</efTime> <efType>Time</efType> <executionRestriction>None</ executionRestriction> <firstRun></firstRun> <holdResources>>false</ holdResources> <lastRun></lastRun> <lfDayConstraint>None</ lfDayConstraint> <lfDuration>00:00:00:00</ lfDuration> <lfEnabled>>false</lfEnabled> <lfNthAmount>5</lfNthAmount> <lfOffsetDuration /> <lfOffsetDurationUnit>Minutes</ lfOffsetDurationUnit> <lfOffsetPercentage>0</ lfOffsetPercentage> <lfOffsetType>Percentage</ lfOffsetType> <lfTime>00:00</lfTime> <lfType>Time</lfType> <logLevel>Inherited</logLevel> </pre>	<pre> "cpDuration": null, "cpDurationUnit": "Minutes", "customField1": { "label": null, "value": null }, "customField2": { "label": null, "value": null }, "efDayConstraint": "None", "efDuration": "00:00:00:00", "efEnabled": false, "efNthAmount": 5, "efOffsetDuration": null, "efOffsetDurationUnit": "Minutes", "efOffsetPercentage": 0, "efOffsetType": "Percentage", "efTime": "00:00", "efType": "Time", "exclusiveTasks": [], "executionRestriction": "None", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_task_sleep", "firstRun": "", </pre>

Examples	XML	JSON
	<pre> <lsDayConstraint>None</ lsDayConstraint> <lsDuration>00:00:00:00</ lsDuration> <lsEnabled>>false</lsEnabled> <lsNthAmount>5</lsNthAmount> <lsTime>00:00</lsTime> <lsType>Time</lsType> <name>Sleep 0</name> <actions/> <opswiseGroups/> <resPriority>10</resPriority> </> <resolveNameImmediately>>false</ resolveNameImmediately> <restrictionPeriod>None</ restrictionPeriod> <restrictionPeriodAfterDate /> <restrictionPeriodAfterTime /> <restrictionPeriodBeforeDate / > <restrictionPeriodBeforeTime / > <restrictionPeriodDateList/> <runCount>0</runCount> <runTime>0</runTime> <sleepAmount>0</sleepAmount> <sleepDayConstraint>None</ sleepDayConstraint> <sleepDuration>00:00:00:00</ sleepDuration> <sleepTime>00:00</sleepTime> <sleepType>Seconds</sleepType> <startHeld>>false</startHeld> <startHeldReason /> <summary>Sleep for 0 seconds.</summary> </pre>	<pre> "holdResources": false, "lastRun": "", "lfDayConstraint": "None", "lfDuration": "00:00:00:00", "lfEnabled": false, "lfNthAmount": 5, "lfOffsetDuration": null, "lfOffsetDurationUnit": "Minutes", "lfOffsetPercentage": 0, "lfOffsetType": "Percentage", "lfTime": "00:00", "lfType": "Time", "logLevel": "Inherited", "lsDayConstraint": "None", "lsDuration": "00:00:00:00", "lsEnabled": false, "lsNthAmount": 5, "lsTime": "00:00", "lsType": "Time", "name": "Sleep 0", "notes": [], "opswiseGroups": [], "resPriority": 10, "resolveNameImmediately": false, </pre>

Examples	XML	JSON
	<pre> <sysId>410d6c0bc0a801c901838d8ac43b327 9</sysId> <exclusiveTasks/> <virtualResources/> <timeZonePref>-- System Default --</timeZonePref> <userEstimatedDuration /> </taskSleep> <taskSleep exportReleaseLevel="7.2.0.0" exportTable="ops_task_sleep" retainSysIds="true" version="1"> <variables/> <notes/> <cpDuration /> <cpDurationUnit>Minutes</ cpDurationUnit> <customField1/> <customField2/> <efDayConstraint>None</ efDayConstraint> <efDuration>00:00:00:00</ efDuration> <efEnabled>>false</efEnabled> <efNthAmount>5</efNthAmount> <efOffsetDuration /> <efOffsetDurationUnit>Minutes</ efOffsetDurationUnit> <efOffsetPercentage>0</ efOffsetPercentage> <efOffsetType>Percentage</ efOffsetType> <efTime>00:00</efTime> <efType>Time</efType> <executionRestriction>None</ </pre>	<pre> "restrictionPeriod": "None", "restrictionPeriodAfterDate": null, "restrictionPeriodAfterTime": null, "restrictionPeriodBeforeDate" : null, "restrictionPeriodBeforeTime" : null, "restrictionPeriodDateList": [], "retainSysIds": true, "runCount": 0, "runTime": 0, "sleepAmount": "0", "sleepDayConstraint": "None", "sleepDuration": "00:00:00:00", "sleepTime": "00:00", "sleepType": "Seconds", "startHeld": false, "startHeldReason": null, "summary": "Sleep for 0 seconds.", "sysId": "410d6c0bc0a801c901838d8ac43b 3279", "timeZonePref": "-- </pre>

Examples	XML	JSON
	<pre> executionRestriction> <firstRun></firstRun> <holdResources>false</ holdResources> <lastRun></lastRun> <lfDayConstraint>None</ lfDayConstraint> <lfDuration>00:00:00:00</ lfDuration> <lfEnabled>false</lfEnabled> <lfNthAmount>5</lfNthAmount> <lfOffsetDuration /> <lfOffsetDurationUnit>Minutes</ lfOffsetDurationUnit> <lfOffsetPercentage>0</ lfOffsetPercentage> <lfOffsetType>Percentage</ lfOffsetType> <lfTime>00:00</lfTime> <lfType>Time</lfType> <logLevel>Inherited</logLevel> <lsDayConstraint>None</ lsDayConstraint> <lsDuration>00:00:00:00</ lsDuration> <lsEnabled>false</lsEnabled> <lsNthAmount>5</lsNthAmount> <lsTime>00:00</lsTime> <lsType>Time</lsType> <name>Sleep 30</name> <actions/> <opswiseGroups/> <resPriority>10</resPriority> <resolveNameImmediately>false</ resolveNameImmediately> <restrictionPeriod>None</ </pre>	<pre> System Default --", "userEstimatedDuration": null, "variables": [], "version": 1, "virtualResources": [] }, { "type": "taskWindows", "actions": { "abortActions": [], "emailNotifications": [], "setVariableActions": [], "snmpNotifications": [], "systemOperations": [] }, "agent": "SBUS30 - AGNT0005", "agentCluster": null, "agentClusterVar": null, "agentVar": null, "avgRunTime": 0, "avgRunTimeDisplay": "0 Seconds", "broadcastCluster": null, "broadcastClusterVar": null, </pre>

Examples	XML	JSON
	<pre> restrictionPeriod> <restrictionPeriodAfterDate /> <restrictionPeriodAfterTime /> <restrictionPeriodBeforeDate / > <restrictionPeriodBeforeTime / > <restrictionPeriodDateList/> <runCount>0</runCount> <runTime>0</runTime> <sleepAmount>30</sleepAmount> <sleepDayConstraint>None</ sleepDayConstraint> <sleepDuration>00:00:00:00</ sleepDuration> <sleepTime>00:00</sleepTime> <sleepType>Seconds</sleepType> <startHeld>false</startHeld> <startHeldReason /> <summary>Sleep for 30 seconds.</summary> <sysId>410d696bc0a801c9017e5dbf756ecbd 5</sysId> <exclusiveTasks/> <virtualResources/> <timeZonePref>-- System Default --</timeZonePref> <userEstimatedDuration /> </taskSleep> <taskSleep exportReleaseLevel="7.2.0.0" exportTable="ops_task_sleep" retainSysIds="true" version="1"> <variables/> <notes/> <cpDuration /> <cpDurationUnit>Minutes</ </pre>	<pre> "command": "echo", "commandOrScript": "Command", "cpDuration": null, "cpDurationUnit": "Minutes", "createConsole": false, "credentials": null, "credentialsVar": null, "customField1": { "label": null, "value": null }, "customField2": { "label": null, "value": null }, "desktopInteract": false, "efDayConstraint": "None", "efDuration": "00:00:00:00", "efEnabled": false, "efNthAmount": 5, "efOffsetDuration": null, "efOffsetDurationUnit": "Minutes", "efOffsetPercentage": 0, "efOffsetType": "Percentage", "efTime": "00:00", </pre>

Examples	XML	JSON
	<pre> cpDurationUnit> <customField1/> <customField2/> <efDayConstraint>None</ efDayConstraint> <efDuration>00:00:00:00</ efDuration> <efEnabled>>false</efEnabled> <efNthAmount>5</efNthAmount> <efOffsetDuration /> <efOffsetDurationUnit>Minutes</ efOffsetDurationUnit> <efOffsetPercentage>0</ efOffsetPercentage> <efOffsetType>Percentage</ efOffsetType> <efTime>00:00</efTime> <efType>Time</efType> <executionRestriction>None</ executionRestriction> <firstRun></firstRun> <holdResources>>false</ holdResources> <lastRun></lastRun> <lfDayConstraint>None</ lfDayConstraint> <lfDuration>00:00:00:00</ lfDuration> <lfEnabled>>false</lfEnabled> <lfNthAmount>5</lfNthAmount> <lfOffsetDuration /> <lfOffsetDurationUnit>Minutes</ lfOffsetDurationUnit> <lfOffsetPercentage>0</ lfOffsetPercentage> <lfOffsetType>Percentage</ </pre>	<pre> "efType": "Time", "elevateUser": false, "environment": [], "exclusiveTasks": [], "executionRestriction": "None", "exitCodeOutput": null, "exitCodeProcessing": "Success Exitcode Range", "exitCodeText": null, "exitCodes": "0", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_task_windows", "firstRun": "2021-04-19 13:22:20 -0400", "holdResources": false, "lastRun": "2021-04-28 14:39:56 -0400", "lastRunTime": 0, "lastRunTimeDisplay": "0 Seconds", "lfDayConstraint": "None", "lfDuration": "00:00:00:00", "lfEnabled": false, "lfNthAmount": 5, "lfOffsetDuration": null, "lfOffsetDurationUnit": "Minutes", </pre>

Examples	XML	JSON
	<pre> lfOffsetType> <lfTime>00:00</lfTime> <lfType>Time</lfType> <logLevel>Inherited</logLevel> <lsDayConstraint>None</ lsDayConstraint> <lsDuration>00:00:00:00</ lsDuration> <lsEnabled>>false</lsEnabled> <lsNthAmount>5</lsNthAmount> <lsTime>00:00</lsTime> <lsType>Time</lsType> <name>Sleep 60</name> <actions/> <opswiseGroups/> <resPriority>10</resPriority> <resolveNameImmediately>>false</ resolveNameImmediately> <restrictionPeriod>None</ restrictionPeriod> <restrictionPeriodAfterDate /> <restrictionPeriodAfterTime /> <restrictionPeriodBeforeDate / > <restrictionPeriodBeforeTime / > <restrictionPeriodDateList/> <runCount>0</runCount> <runTime>0</runTime> <sleepAmount /> <sleepDayConstraint>None</ sleepDayConstraint> <sleepDuration>00:00:01:00</ sleepDuration> <sleepTime>00:00</sleepTime> <sleepType>Duration</ sleepType> </pre>	<pre> "lfOffsetPercentage": 0, "lfOffsetType": "Percentage", "lfTime": "00:00", "lfType": "Time", "logLevel": "Inherited", "lsDayConstraint": "None", "lsDuration": "00:00:00:00", "lsEnabled": false, "lsNthAmount": 5, "lsTime": "00:00", "lsType": "Time", "maxRunTime": 0, "maxRunTimeDisplay": "0 Seconds", "minRunTime": 0, "minRunTimeDisplay": "0 Seconds", "name": "task-1", "notes": [], "opswiseGroups": ["A", "C"], "outputFailureOnly": false, "outputReturnFile": null, "outputReturnNline": "100", "outputReturnSline": "1", "outputReturnText": </pre>

Examples	XML	JSON
	<pre> <startHeld>false</startHeld> <startHeldReason /> <summary>Sleep for 60 seconds.</summary> <sysId>410d6880c0a801c90196685fcc1ecb4 7</sysId> <exclusiveTasks/> <virtualResources/> <timeZonePref>-- System Default --</timeZonePref> <userEstimatedDuration /> </taskSleep> <taskWindows exportReleaseLevel="7.2.0.0" exportTable="ops_task_windows" retainSysIds="true" version="10"> <variables> <variable> <description>task test 1</description> <name>task_var_1</ name> <sysId>f7482cdb83264483ae45c372b6f4c28 4</sysId> <value>task 1</value> </variable> <variable> <description>test 2</ description> <name>task_var_2</ name> <sysId>bc2e3edd9125433c8dcc00ffc3560fd 0</sysId> <value>var 2</value> </pre>	<pre> null, "outputReturnType": "NONE", "outputType": "STDOUT", "parameters": null, "resPriority": 10, "resolveNameImmediately": false, "restrictionPeriod": "None", "restrictionPeriodAfterDate": null, "restrictionPeriodAfterTime": null, "restrictionPeriodBeforeDate" : null, "restrictionPeriodBeforeTime" : null, "restrictionPeriodDateList": [], "retainSysIds": true, "retryExitCodes": null, "retryIndefinitely": false, "retryInterval": 60, "retryMaximum": 0, "retrySuppressFailure": false, "runCount": 6, </pre>

Examples	XML	JSON
	<pre> </variable> </variables> </notes> <agent>SBUS30 - AGNT0005</ agent> <agentCluster /> <agentClusterVar /> <agentVar /> <avgRunTime>0</avgRunTime> <avgRunTimeDisplay>0 Seconds</ avgRunTimeDisplay> <broadcastCluster /> <broadcastClusterVar /> <cpDuration /> <cpDurationUnit>Minutes</ cpDurationUnit> <credentials /> <credentialsVar /> <customField1/> <customField2/> <efDayConstraint>None</ efDayConstraint> <efDuration>00:00:00:00</ efDuration> <efEnabled>false</efEnabled> <efNthAmount>5</efNthAmount> <efOffsetDuration /> <efOffsetDurationUnit>Minutes</ efOffsetDurationUnit> <efOffsetPercentage>0</ efOffsetPercentage> <efOffsetType>Percentage</ efOffsetType> <efTime>00:00</efTime> <efType>Time</efType> <executionRestriction>None</ </pre>	<pre> "runTime": 0, "runtimeDir": null, "script": null, "startHeld": true, "startHeldReason": null, "summary": null, "sysId": "3bf2471eea8f4ec0b765d5ada2c8 f02c", "timeZonePref": "-- System Default --", "twDelayAmount": null, "twDelayDuration": "00:00:00:00", "twDelayType": "None", "twWaitAmount": null, "twWaitDayConstraint": "None", "twWaitDuration": "00:00:00:00", "twWaitTime": "00:00", "twWaitType": "None", "twWorkflowOnly": "-- System Default --", "userEstimatedDuration": null, "variables": [{ "description": "task test 1", "name": </pre>

Examples	XML	JSON
	<pre> executionRestriction> <firstRun>2021-04-19 13:22:20 -0400</firstRun> <holdResources>>false</ holdResources> <lastRun>2021-04-28 14:39:56 -0400</lastRun> <lastRunTime>0</lastRunTime> <lastRunTimeDisplay>0 Seconds</lastRunTimeDisplay> <lfDayConstraint>None</ lfDayConstraint> <lfDuration>00:00:00:00</ lfDuration> <lfEnabled>>false</lfEnabled> <lfNthAmount>5</lfNthAmount> <lfOffsetDuration /> <lfOffsetDurationUnit>Minutes</ lfOffsetDurationUnit> <lfOffsetPercentage>0</ lfOffsetPercentage> <lfOffsetType>Percentage</ lfOffsetType> <lfTime>00:00</lfTime> <lfType>Time</lfType> <logLevel>Inherited</logLevel> <lsDayConstraint>None</ lsDayConstraint> <lsDuration>00:00:00:00</ lsDuration> <lsEnabled>>false</lsEnabled> <lsNthAmount>5</lsNthAmount> <lsTime>00:00</lsTime> <lsType>Time</lsType> <maxRunTime>0</maxRunTime> <maxRunTimeDisplay>0 Seconds</ maxRunTimeDisplay> </pre>	<pre> "task_var_1", "sysId": "f7482cdb83264483ae45c372b6f4 c284", "value": "task 1" }, { "description": "test 2", "name": "task_var_2", "sysId": "bc2e3edd9125433c8dcc00ffc356 0fd0", "value": "var 2" }, "version": 10, "virtualResources": [{ "amount": 2, "resource": "VR-3", "resourceVar": null, "sysId": "9cc6002db09445cb956454a72523 add2" }, { "amount": 2, "resource": "VR-1", "resourceVar": null, "sysId": </pre>

Examples	XML	JSON
	<pre> <minRunTime>0</minRunTime> <minRunTimeDisplay>0 Seconds</ minRunTimeDisplay> <name>task-1</name> <actions/> <opswiseGroups> <opswiseGroup>A</ opswiseGroup> <opswiseGroup>C</ opswiseGroup> </opswiseGroups> <resPriority>10</resPriority> <resolveNameImmediately>>false</ resolveNameImmediately> <restrictionPeriod>None</ restrictionPeriod> <restrictionPeriodAfterDate /> <restrictionPeriodAfterTime /> <restrictionPeriodBeforeDate / > <restrictionPeriodBeforeTime / > <restrictionPeriodDateList/> <retryIndefinitely>>false</ retryIndefinitely> <retryInterval>60</ retryInterval> <retryMaximum>0</retryMaximum> <retrySuppressFailure>>false</ retrySuppressFailure> <runCount>6</runCount> <runTime>0</runTime> <startHeld>true</startHeld> <startHeldReason /> <summary /> </pre>	<pre> "b3b5d664b7b54202a0439361a154 b53d" },], "waitForOutput": false }, { "type": "taskWindows", "actions": { "abortActions": [], "emailNotifications": [], "setVariableActions": [], "snmpNotifications": [], "systemOperations": [] }, "agent": "SBUS30 - AGNT0005", "agentCluster": null, "agentClusterVar": null, "agentVar": null, "avgRunTime": 0, "avgRunTimeDisplay": "0 Seconds", "broadcastCluster": null, "broadcastClusterVar": null, "command": "echo", "commandOrScript": "Command", </pre>

Examples	XML	JSON
	<pre> <sysId>3bf2471eea8f4ec0b765d5ada2c8f0 2c</sysId> <exclusiveTasks/> <virtualResources> <virtualResource> <amount>2</amount> <resource>VR-3</ resource> <resourceVar /> </virtualResource> <virtualResource> <amount>2</amount> <resource>VR-1</ resource> <resourceVar /> </virtualResource> </virtualResources> <timeZonePref>-- System Default --</timeZonePref> <twDelayAmount /> <twDelayDuration>00:00:00:00</ twDelayDuration> <twDelayType>None</ twDelayType> <twWaitAmount /> <twWaitDayConstraint>None</ twWaitDayConstraint> <twWaitDuration>00:00:00:00</ twWaitDuration> <twWaitTime>00:00</twWaitTime> <twWaitType>None</twWaitType> <twWorkflowOnly>-- System </pre>	<pre> "cpDuration": null, "cpDurationUnit": "Minutes", "createConsole": false, "credentials": null, "credentialsVar": null, "customField1": { "label": null, "value": null }, "customField2": { "label": null, "value": null }, "desktopInteract": false, "efDayConstraint": "None", "efDuration": "00:00:00:00", "efEnabled": false, "efNthAmount": 5, "efOffsetDuration": null, "efOffsetDurationUnit": "Minutes", "efOffsetPercentage": 0, "efOffsetType": "Percentage", "efTime": "00:00", "efType": "Time", "elevateUser": false, "environment": [], </pre>

Examples	XML	JSON
	<pre> Default --</twWorkflowOnly> <userEstimatedDuration /> <command>echo</command> <commandOrScript>Command</ commandOrScript> <createConsole>>false</ createConsole> <desktopInteract>>false</ desktopInteract> <elevateUser>>false</ elevateUser> <environment/> <exitCodeOutput /> <exitCodeProcessing>Success Exitcode Range</exitCodeProcessing> <exitCodeText /> <exitCodes>0</exitCodes> <outputFailureOnly>>false</ outputFailureOnly> <outputReturnFile /> <outputReturnNline>100</ outputReturnNline> <outputReturnSline>1</ outputReturnSline> <outputReturnText /> <outputReturnType>NONE</ outputReturnType> <outputType>STDOUT</ outputType> <parameters /> <retryExitCodes /> <runtimeDir /> <script /> <waitForOutput>>false</ waitForOutput> </taskWindows> <taskWindows exportReleaseLevel="7.2.0.0" </pre>	<pre> "exclusiveTasks": [], "executionRestriction": "None", "exitCodeOutput": null, "exitCodeProcessing": "Success Exitcode Range", "exitCodeText": null, "exitCodes": "0", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_task_windows", "firstRun": "2021-04-28 13:26:01 -0400", "holdResources": false, "lastRun": "2021-04-28 14:39:56 -0400", "lastRunTime": 0, "lastRunTimeDisplay": "0 Seconds", "lfDayConstraint": "None", "lfDuration": "00:00:00:00", "lfEnabled": false, "lfNthAmount": 5, "lfOffsetDuration": null, "lfOffsetDurationUnit": "Minutes", "lfOffsetPercentage": 0, "lfOffsetType": </pre>

Examples	XML	JSON
	<pre> exportTable="ops_task_windows" retainSysIds="true" version="8"> <variables> <variable> <description>task test 1</description> <name>task_var_1</ name> <sysId>cfebdcc6608cc4df9b2753d42f0e7186 4</sysId> <value>task 1</value> </variable> <variable> <description>test 2</ description> <name>task_var_2</ name> <sysId>19493279e1114b06b79bb8e0c00664b 5</sysId> <value>var 2</value> </variable> </variables> <notes/> <agent>SBUS30 - AGNT0005</ agent> <agentCluster /> <agentClusterVar /> <agentVar /> <avgRunTime>0</avgRunTime> <avgRunTimeDisplay>0 Seconds</ avgRunTimeDisplay> <broadcastCluster /> <broadcastClusterVar /> <cpDuration /> <cpDurationUnit>Minutes</ cpDurationUnit> </pre>	<pre> "Percentage", "lfTime": "00:00", "lfType": "Time", "logLevel": "Inherited", "lsDayConstraint": "None", "lsDuration": "00:00:00:00", "lsEnabled": false, "lsNthAmount": 5, "lsTime": "00:00", "lsType": "Time", "maxRunTime": 0, "maxRunTimeDisplay": "0 Seconds", "minRunTime": 0, "minRunTimeDisplay": "0 Seconds", "name": "task-2", "notes": [], "opswiseGroups": ["A"], "outputFailureOnly": false, "outputReturnFile": null, "outputReturnNline": "100", "outputReturnSline": "1", "outputReturnText": null, "outputReturnType": "NONE", "outputType": "STDOUT", </pre>

Examples	XML	JSON
	<pre> <credentials /> <credentialsVar /> <customField1/> <customField2/> <efDayConstraint>None</ efDayConstraint> <efDuration>00:00:00:00</ efDuration> <efEnabled>>false</efEnabled> <efNthAmount>5</efNthAmount> <efOffsetDuration /> <efOffsetDurationUnit>Minutes</ efOffsetDurationUnit> <efOffsetPercentage>0</ efOffsetPercentage> <efOffsetType>Percentage</ efOffsetType> <efTime>00:00</efTime> <efType>Time</efType> <executionRestriction>None</ executionRestriction> <firstRun>2021-04-28 13:26:01 -0400</firstRun> <holdResources>>false</ holdResources> <lastRun>2021-04-28 14:39:56 -0400</lastRun> <lastRunTime>0</lastRunTime> <lastRunTimeDisplay>0 Seconds</lastRunTimeDisplay> <lfDayConstraint>None</ lfDayConstraint> <lfDuration>00:00:00:00</ lfDuration> <lfEnabled>>false</lfEnabled> <lfNthAmount>5</lfNthAmount> </pre>	<pre> "parameters": null, "resPriority": 10, "resolveNameImmediately": false, "restrictionPeriod": "None", "restrictionPeriodAfterDate": null, "restrictionPeriodAfterTime": null, "restrictionPeriodBeforeDate" : null, "restrictionPeriodBeforeTime" : null, "restrictionPeriodDateList": [], "retainSysIds": true, "retryExitCodes": null, "retryIndefinitely": false, "retryInterval": 60, "retryMaximum": 0, "retrySuppressFailure": false, "runCount": 3, "runTime": 0, "runtimeDir": null, "script": null, "startHeld": false, </pre>

Examples	XML	JSON
	<pre> <lfOffsetDuration /> <lfOffsetDurationUnit>Minutes</lfOffsetDurationUnit> <lfOffsetPercentage>0</lfOffsetPercentage> <lfOffsetType>Percentage</lfOffsetType> <lfTime>00:00</lfTime> <lfType>Time</lfType> <logLevel>Inherited</logLevel> <lsDayConstraint>None</lsDayConstraint> <lsDuration>00:00:00:00</lsDuration> <lsEnabled>false</lsEnabled> <lsNthAmount>5</lsNthAmount> <lsTime>00:00</lsTime> <lsType>Time</lsType> <maxRunTime>0</maxRunTime> <maxRunTimeDisplay>0 Seconds</maxRunTimeDisplay> <minRunTime>0</minRunTime> <minRunTimeDisplay>0 Seconds</minRunTimeDisplay> <name>task-2</name> <actions/> <opswiseGroups> <opswiseGroup>A</opswiseGroup> </opswiseGroups> <resPriority>10</resPriority> <resolveNameImmediately>false</resolveNameImmediately> <restrictionPeriod>None</restrictionPeriod> </pre>	<pre> "startHeldReason": null, "summary": null, "sysId": "6d982646fd8348f8af22edcad25c8051", "timeZonePref": "-- System Default --", "twDelayAmount": null, "twDelayDuration": "00:00:00:00", "twDelayType": "None", "twWaitAmount": null, "twWaitDayConstraint": "None", "twWaitDuration": "00:00:00:00", "twWaitTime": "00:00", "twWaitType": "None", "twWorkflowOnly": "-- System Default --", "userEstimatedDuration": null, "variables": [{ "description": "task test 1", "name": "task_var_1", "sysId": "cfebd6c6608cc4df9b2753d42f0e71864", </pre>

Examples	XML	JSON
	<pre> <restrictionPeriodAfterDate /> <restrictionPeriodAfterTime /> <restrictionPeriodBeforeDate / > <restrictionPeriodBeforeTime / > <restrictionPeriodDateList/> <retryIndefinitely>>false</ retryIndefinitely> <retryInterval>60</ retryInterval> <retryMaximum>0</retryMaximum> <retrySuppressFailure>>false</ retrySuppressFailure> <runCount>3</runCount> <runTime>0</runTime> <startHeld>>false</startHeld> <startHeldReason /> <summary /> <sysId>6d982646fd8348f8af22edcad25c805 1</sysId> <exclusiveTasks/> <virtualResources> <virtualResource> <amount>2</amount> <resource>VR-1</ resource> <resourceVar /> <sysId>09e4b42858fb4930b8a13f5b036bac4 2</sysId> </virtualResource> <virtualResource> <amount>2</amount> <resource>VR-2</ resource> </pre>	<pre> "value": "task 1" }, { "description": "test 2", "name": "task_var_2", "sysId": "19493279e1114b06b79bb8e0c006 64b5", "value": "var 2" }, { "version": 8, "virtualResources": [{ "amount": 2, "resource": "VR-1", "resourceVar": null, "sysId": "09e4b42858fb4930b8a13f5b036b ac42" }, { "amount": 2, "resource": "VR-2", "resourceVar": null, "sysId": "86ca6beb4d20490dbea690151550 1087" }, </pre>

Examples	XML	JSON
	<pre> <resourceVar /> <sysId>86ca6beb4d20490dbea6901515501087</sysId> </virtualResource> <virtualResource> <amount>2</amount> <resource>VR-3</resource> <resourceVar /> <sysId>aeaf3ce2b1ad4e9aae92c7d5eb475ab0</sysId> </virtualResource> </virtualResources> <timeZonePref>-- System Default --</timeZonePref> <twDelayAmount /> <twDelayDuration>00:00:00:00</twDelayDuration> <twDelayType>None</twDelayType> <twWaitAmount /> <twWaitDayConstraint>None</twWaitDayConstraint> <twWaitDuration>00:00:00:00</twWaitDuration> <twWaitTime>00:00</twWaitTime> <twWaitType>None</twWaitType> <twWorkflowOnly>-- System Default --</twWorkflowOnly> <userEstimatedDuration /> <command>echo</command> <commandOrScript>Command</commandOrScript> <createConsole>>false</createConsole> </pre>	<pre> { "amount": 2, "resource": "VR-3", "resourceVar": null, "sysId": "aeaf3ce2b1ad4e9aae92c7d5eb475ab0" }, { "waitForOutput": false }, { "type": "taskUniversal", "actions": { "abortActions": [], "emailNotifications": [], "setVariableActions": [], "snmpNotifications": [], "systemOperations": [] }, "agent": "SBUS30 - AGNT0005", "agentCluster": null, "agentClusterVar": null, "agentVar": null, "autoCleanup": false, "broadcastCluster": </pre>

Examples	XML	JSON
	<pre> <desktopInteract>>false</ desktopInteract> <elevateUser>>false</ elevateUser> <environment/> <exitCodeOutput /> <exitCodeProcessing>Success Exitcode Range</exitCodeProcessing> <exitCodeText /> <exitCodes>0</exitCodes> <outputFailureOnly>>false</ outputFailureOnly> <outputReturnFile /> <outputReturnNline>100</ outputReturnNline> <outputReturnSline>1</ outputReturnSline> <outputReturnText /> <outputReturnType>NONE</ outputReturnType> <outputType>STDOUT</ outputType> <parameters /> <retryExitCodes /> <runtimeDir /> <script /> <waitForOutput>>false</ waitForOutput> </taskWindows> <taskUniversal exportReleaseLevel="7.2.0.0" exportTable="ops_task_universal" retainSysIds="true" version="1"> <variables/> <notes/> <agent>SBUS30 - AGNT0005</ agent> </pre>	<pre> null, "broadcastClusterVar": null, "cpDuration": null, "cpDurationUnit": "Minutes", "createConsole": false, "credentials": null, "credentialsVar": null, "customField1": { "label": null, "value": null }, "customField2": { "label": null, "value": null }, "desktopInteract": false, "efDayConstraint": "None", "efDuration": "00:00:00:00", "efEnabled": false, "efNthAmount": 5, "efOffsetDuration": null, "efOffsetDurationUnit": "Minutes", "efOffsetPercentage": 0, "efOffsetType": "Percentage", "efTime": "00:00", "efType": "Time", </pre>

Examples	XML	JSON
	<pre> <agentCluster /> <agentClusterVar /> <agentVar /> <broadcastCluster /> <broadcastClusterVar /> <cpDuration /> <cpDurationUnit>Minutes</cpDurationUnit> <credentials /> <credentialsVar /> <customField1/> <customField2/> <efDayConstraint>None</efDayConstraint> <efDuration>00:00:00:00</efDuration> <efEnabled>false</efEnabled> <efNthAmount>5</efNthAmount> <efOffsetDuration /> <efOffsetDurationUnit>Minutes</efOffsetDurationUnit> <efOffsetPercentage>0</efOffsetPercentage> <efOffsetType>Percentage</efOffsetType> <efTime>00:00</efTime> <efType>Time</efType> <executionRestriction>None</executionRestriction> <firstRun></firstRun> <holdResources>false</holdResources> <lastRun></lastRun> <lfDayConstraint>None</lfDayConstraint> <lfDuration>00:00:00:00</lfDuration> </pre>	<pre> "elevateUser": false, "environment": [], "exclusiveTasks": [], "executionRestriction": "None", "exitCodeOutput": null, "exitCodeProcessing": "Success Exitcode Range", "exitCodeText": null, "exitCodes": "0", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_task_universal", "firstRun": "", "holdResources": false, "lastRun": "", "lfDayConstraint": "None", "lfDuration": "00:00:00:00", "lfEnabled": false, "lfNthAmount": 5, "lfOffsetDuration": null, "lfOffsetDurationUnit": "Minutes", "lfOffsetPercentage": 0, "lfOffsetType": "Percentage", "lfTime": "00:00", "lfType": "Time", </pre>

Examples	XML	JSON
	<pre> lfDuration> <lfEnabled>>false</lfEnabled> <lfNthAmount>5</lfNthAmount> <lfOffsetDuration /> <lfOffsetDurationUnit>Minutes</ lfOffsetDurationUnit> <lfOffsetPercentage>0</ lfOffsetPercentage> <lfOffsetType>Percentage</ lfOffsetType> <lfTime>00:00</lfTime> <lfType>Time</lfType> <logLevel>Inherited</logLevel> <lsDayConstraint>None</ lsDayConstraint> <lsDuration>00:00:00:00</ lsDuration> <lsEnabled>>false</lsEnabled> <lsNthAmount>5</lsNthAmount> <lsTime>00:00</lsTime> <lsType>Time</lsType> <name>uni1-task-1</name> <actions/> <opswiseGroups/> <resPriority>10</resPriority> <resolveNameImmediately>>false</ resolveNameImmediately> <restrictionPeriod>None</ restrictionPeriod> <restrictionPeriodAfterDate /> <restrictionPeriodAfterTime /> <restrictionPeriodBeforeDate / > <restrictionPeriodBeforeTime / > <restrictionPeriodDateList/> </pre>	<pre> "logLevel": "Inherited", "lsDayConstraint": "None", "lsDuration": "00:00:00:00", "lsEnabled": false, "lsNthAmount": 5, "lsTime": "00:00", "lsType": "Time", "name": "uni1- task-1", "notes": [], "opswiseGroups": [], "outputConditionOperator": "=", "outputConditionStrategy": "Match Any", "outputConditionValue": null, "outputContentType": null, "outputFailureOnly": false, "outputPathExpression": null, "outputReturnFile": null, "outputReturnNline": "100", "outputReturnSline": "1", "outputReturnText": null, "outputReturnType": </pre>

Examples	XML	JSON
	<pre> <retryIndefinitely>false</ retryIndefinitely> <retryInterval>60</ retryInterval> <retryMaximum>0</retryMaximum> <retrySuppressFailure>false</ retrySuppressFailure> <runCount>0</runCount> <runTime>0</runTime> <startHeld>false</startHeld> <startHeldReason /> <summary /> </sysId>3ec6a8aa962042e599011536d48d433 5</sysId> <exclusiveTasks/> <virtualResources/> <timeZonePref>-- System Default --</timeZonePref> <twDelayAmount /> <twDelayDuration>00:00:00:00</ twDelayDuration> <twDelayType>None</ twDelayType> <twWaitAmount /> <twWaitDayConstraint>None</ twWaitDayConstraint> <twWaitDuration>00:00:00:00</ twWaitDuration> <twWaitTime>00:00</twWaitTime> <twWaitType>None</twWaitType> <twWorkflowOnly>-- System Default --</twWorkflowOnly> <userEstimatedDuration /> <autoCleanup>false</ autoCleanup> <createConsole>false</ </pre>	<pre> "NONE", "outputType": "STDOUT", "resPriority": 10, "resolveNameImmediately": false, "restrictionPeriod": "None", "restrictionPeriodAfterDate": null, "restrictionPeriodAfterTime": null, "restrictionPeriodBeforeDate" : null, "restrictionPeriodBeforeTime" : null, "restrictionPeriodDateList": [], "retainSysIds": true, "retryExitCodes": null, "retryIndefinitely": false, "retryInterval": 60, "retryMaximum": 0, "retrySuppressFailure": false, "runCount": 0, "runTime": 0, "runtimeDir": null, "startHeld": false, </pre>

Examples	XML	JSON
	<pre> createConsole> <desktopInteract>>false</ desktopInteract> <elevateUser>>false</ elevateUser> <environment/> <exitCodeOutput /> <exitCodeProcessing>Success Exitcode Range</exitCodeProcessing> <exitCodeText /> <exitCodes>0</exitCodes> <outputConditionOperator>=</ outputConditionOperator> <outputConditionStrategy>Match Any</outputConditionStrategy> <outputConditionValue /> <outputContentType /> <outputFailureOnly>>false</ outputFailureOnly> <outputPathExpression /> <outputReturnFile /> <outputReturnNline>100</ outputReturnNline> <outputReturnSline>1</ outputReturnSline> <outputReturnText /> <outputReturnType>NONE</ outputReturnType> <outputType>STDOUT</ outputType> <retryExitCodes /> <runtimeDir /> <template>uni-1</template> <textField1 name="txt1" label="txt1"/> <waitForOutput>>false</ waitForOutput> </taskUniversal> </pre>	<pre> "startHeldReason": null, "summary": null, "sysId": "3ec6a8aa962042e599011536d48d 4335", "template": "uni-1", "textField1": { "label": "txt1", "name": "txt1", "value": null }, "timeZonePref": "-- System Default --", "twDelayAmount": null, "twDelayDuration": "00:00:00:00", "twDelayType": "None", "twWaitAmount": null, "twWaitDayConstraint": "None", "twWaitDuration": "00:00:00:00", "twWaitTime": "00:00", "twWaitType": "None", "twWorkflowOnly": "-- System Default --", "userEstimatedDuration": null, "variables": [], "version": 1, "virtualResources": </pre>

Examples	XML	JSON
	<pre> <taskUnix exportReleaseLevel="7.2.0.0" exportTable="ops_unix" retainSysIds="true" version="1"> <variables/> <notes/> <agent /> <agentCluster /> <agentClusterVar /> <agentVar>\${agent_var}</ agentVar> <broadcastCluster /> <broadcastClusterVar /> <cpDuration /> <cpDurationUnit>Minutes</ cpDurationUnit> <credentials /> <credentialsVar /> <customField1/> <customField2/> <efDayConstraint>None</ efDayConstraint> <efDuration>00:00:00:00</ efDuration> <efEnabled>>false</efEnabled> <efNthAmount>5</efNthAmount> <efOffsetDuration /> <efOffsetDurationUnit>Minutes</ efOffsetDurationUnit> <efOffsetPercentage>0</ efOffsetPercentage> <efOffsetType>Percentage</ efOffsetType> <efTime>00:00</efTime> <efType>Time</efType> <executionRestriction>None</ </pre>	<pre> [], "waitForOutput": false }, { "type": "taskUnix", "actions": { "abortActions": [], "emailNotifications": [], "setVariableActions": [], "snmpNotifications": [], "systemOperations": [] }, "agent": null, "agentCluster": null, "agentClusterVar": null, "agentVar": "\${ agent_var}", "broadcastCluster": null, "broadcastClusterVar": null, "command": "echo", "commandOrScript": "Command", "cpDuration": null, "cpDurationUnit": "Minutes", "credentials": null, "credentialsVar": null, "customField1": { </pre>

Examples	XML	JSON
	<pre> executionRestriction> <firstRun></firstRun> <holdResources>false</ holdResources> <lastRun></lastRun> <lfDayConstraint>None</ lfDayConstraint> <lfDuration>00:00:00:00</ lfDuration> <lfEnabled>false</lfEnabled> <lfNthAmount>5</lfNthAmount> <lfOffsetDuration /> <lfOffsetDurationUnit>Minutes</ lfOffsetDurationUnit> <lfOffsetPercentage>0</ lfOffsetPercentage> <lfOffsetType>Percentage</ lfOffsetType> <lfTime>00:00</lfTime> <lfType>Time</lfType> <logLevel>Inherited</logLevel> <lsDayConstraint>None</ lsDayConstraint> <lsDuration>00:00:00:00</ lsDuration> <lsEnabled>false</lsEnabled> <lsNthAmount>5</lsNthAmount> <lsTime>00:00</lsTime> <lsType>Time</lsType> <name>unix-task-1</name> <actions/> <opswiseGroups> <opswiseGroup>A</ opswiseGroup> </opswiseGroups> <resPriority>10</resPriority> </pre>	<pre> "label": null, "value": null }, "customField2": { "label": null, "value": null }, "efDayConstraint": "None", "efDuration": "00:00:00:00", "efEnabled": false, "efNthAmount": 5, "efOffsetDuration": null, "efOffsetDurationUnit": "Minutes", "efOffsetPercentage": 0, "efOffsetType": "Percentage", "efTime": "00:00", "efType": "Time", "environment": [], "exclusiveTasks": [], "executionRestriction": "None", "exitCodeOutput": null, "exitCodeProcessing": "Success Exitcode Range", "exitCodeText": null, "exitCodes": "0", "exportReleaseLevel": "7.2.0.0", </pre>

Examples	XML	JSON
	<pre> <resolveNameImmediately>false</ resolveNameImmediately> <restrictionPeriod>None</ restrictionPeriod> <restrictionPeriodAfterDate /> <restrictionPeriodAfterTime /> <restrictionPeriodBeforeDate / > <restrictionPeriodBeforeTime / > <restrictionPeriodDateList/> <retryIndefinitely>false</ retryIndefinitely> <retryInterval>60</ retryInterval> <retryMaximum>0</retryMaximum> <retrySuppressFailure>false</ retrySuppressFailure> <runCount>0</runCount> <runTime>0</runTime> <startHeld>false</startHeld> <startHeldReason /> <summary /> <sysId>4b1fb4c2a8e5427290022411aea206f 5</sysId> <exclusiveTasks/> <virtualResources/> <timeZonePref>-- System Default --</timeZonePref> <twDelayAmount /> <twDelayDuration>00:00:00:00</ twDelayDuration> <twDelayType>None</ twDelayType> <twWaitAmount /> <twWaitDayConstraint>None</ twWaitDayConstraint> </pre>	<pre> "exportTable": "ops_task_unix", "firstRun": "", "holdResources": false, "lastRun": "", "lfDayConstraint": "None", "lfDuration": "00:00:00:00", "lfEnabled": false, "lfNthAmount": 5, "lfOffsetDuration": null, "lfOffsetDurationUnit": "Minutes", "lfOffsetPercentage": 0, "lfOffsetType": "Percentage", "lfTime": "00:00", "lfType": "Time", "logLevel": "Inherited", "lsDayConstraint": "None", "lsDuration": "00:00:00:00", "lsEnabled": false, "lsNthAmount": 5, "lsTime": "00:00", "lsType": "Time", "name": "unix- task-1", "notes": [], "opswiseGroups": ["A" </pre>

Examples	XML	JSON
	<pre> <twWaitDuration>00:00:00:00</ twWaitDuration> <twWaitTime>00:00</twWaitTime> <twWaitType>None</twWaitType> <twWorkflowOnly>-- System Default --</twWorkflowOnly> <userEstimatedDuration /> <command>echo</command> <commandOrScript>Command</ commandOrScript> <environment/> <exitCodeOutput /> <exitCodeProcessing>Success Exitcode Range</exitCodeProcessing> <exitCodeText /> <exitCodes>0</exitCodes> <outputFailureOnly>>false</ outputFailureOnly> <outputReturnFile /> <outputReturnNline>100</ outputReturnNline> <outputReturnSline>1</ outputReturnSline> <outputReturnText /> <outputReturnType>NONE</ outputReturnType> <outputType>STDOUT</ outputType> <parameters /> <retryExitCodes /> <runAsSudo>>false</runAsSudo> <runtimeDir /> <script /> <waitForOutput>>false</ waitForOutput> </taskUnix> <taskWorkflow </pre>	<pre>], "outputFailureOnly": false, "outputReturnFile": null, "outputReturnNline": "100", "outputReturnSline": "1", "outputReturnText": null, "outputReturnType": "NONE", "outputType": "STDOUT", "parameters": null, "resPriority": 10, "resolveNameImmediately": false, "restrictionPeriod": "None", "restrictionPeriodAfterDate": null, "restrictionPeriodAfterTime": null, "restrictionPeriodBeforeDate" : null, "restrictionPeriodBeforeTime" : null, "restrictionPeriodDateList": [], </pre>

Examples	XML	JSON
	<pre> exportReleaseLevel="7.2.0.0" exportTable="ops_task_workflow" retainSysIds="true" version="2"> <variables/> <notes/> <stepConditions/> <stepActions/> <runCriteria/> <workflowVertices> <workflowVertex> <alias /> <task>task-1</task> <vertexId>2</vertexId> <vertexX>110</vertexX> <vertexY>80</vertexY> </workflowVertex> <workflowVertex> <alias /> <task>Sleep 30</task> <vertexId>3</vertexId> <vertexX>270</vertexX> <vertexY>70</vertexY> </workflowVertex> <workflowVertex> <alias /> <task>task-2</task> <vertexId>7</vertexId> <vertexX>290</vertexX> <vertexY>220</vertexY> </workflowVertex> <workflowVertex> <alias /> <task>Sleep 60</task> <vertexId>9</vertexId> <vertexX>140</vertexX> <vertexY>260</vertexY> </workflowVertex> </workflowVertices> </pre>	<pre> "retainSysIds": true, "retryExitCodes": null, "retryIndefinitely": false, "retryInterval": 60, "retryMaximum": 0, "retrySuppressFailure": false, "runAsSudo": false, "runCount": 0, "runTime": 0, "runtimeDir": null, "script": null, "startHeld": false, "startHeldReason": null, "summary": null, "sysId": "4b1fb4c2a8e5427290022411aea2 06f5", "timeZonePref": "-- System Default --", "twDelayAmount": null, "twDelayDuration": "00:00:00:00", "twDelayType": "None", "twWaitAmount": null, "twWaitDayConstraint": "None", "twWaitDuration": "00:00:00:00", "twWaitTime": </pre>

Examples	XML	JSON
	<pre> <workflowEdges> <workflowEdge> <condition>Success</ condition> <sourceId taskName="task-1">2</sourceId> <straightEdge>true</ straightEdge> <targetId taskName="Sleep 30">3</targetId> </workflowEdge> <workflowEdge> <condition>Success</ condition> <sourceId taskName="Sleep 30">3</sourceId> <straightEdge>true</ straightEdge> <targetId taskName="task-2">7</targetId> </workflowEdge> <workflowEdge> <condition>Success</ condition> <sourceId taskName="task-2">7</sourceId> <straightEdge>true</ straightEdge> <targetId taskName="Sleep 60">9</targetId> </workflowEdge> </workflowEdges> <calculateCp>false</ calculateCp> <calendar /> <cpDuration /> <cpDurationUnit>Minutes</ </pre>	<pre> "00:00", "twWaitType": "None", "twWorkflowOnly": "-- System Default --", "userEstimatedDuration": null, "variables": [], "version": 1, "virtualResources": [], "waitForOutput": false }, { "type": "taskWorkflow", "actions": { "abortActions": [], "emailNotifications": [], "setVariableActions": [], "snmpNotifications": [], "systemOperations": [] }, "calculateCp": false, "calendar": null, "cpDuration": null, "cpDurationUnit": "Minutes", "customField1": { "label": null, "value": null }, </pre>

Examples	XML	JSON
	<pre> cpDurationUnit> <customField1/> <customField2/> <efDayConstraint>None</ efDayConstraint> <efDuration>00:00:00:00</ efDuration> <efEnabled>>false</efEnabled> <efNthAmount>5</efNthAmount> <efOffsetDuration /> <efOffsetDurationUnit>Minutes</ efOffsetDurationUnit> <efOffsetPercentage>0</ efOffsetPercentage> <efOffsetType>Percentage</ efOffsetType> <efTime>00:00</efTime> <efType>Time</efType> <executionRestriction>None</ executionRestriction> <firstRun></firstRun> <holdResources>>false</ holdResources> <lastRun></lastRun> <layoutOption>-- None --</ layoutOption> <lfDayConstraint>None</ lfDayConstraint> <lfDuration>00:00:00:00</ lfDuration> <lfEnabled>>false</lfEnabled> <lfNthAmount>5</lfNthAmount> <lfOffsetDuration /> <lfOffsetDurationUnit>Minutes</ lfOffsetDurationUnit> <lfOffsetPercentage>0</ </pre>	<pre> "customField2": { "label": null, "value": null }, "efDayConstraint": "None", "efDuration": "00:00:00:00", "efEnabled": false, "efNthAmount": 5, "efOffsetDuration": null, "efOffsetDurationUnit": "Minutes", "efOffsetPercentage": 0, "efOffsetType": "Percentage", "efTime": "00:00", "efType": "Time", "exclusiveTasks": [], "executionRestriction": "None", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_task_workflow", "firstRun": "", "holdResources": false, "lastRun": "", "layoutOption": "-- None --", "lfDayConstraint": "None", </pre>

Examples	XML	JSON
	<pre> lfOffsetPercentage> <lfOffsetType>Percentage</ lfOffsetType> <lfTime>00:00</lfTime> <lfType>Time</lfType> <logLevel>Inherited</logLevel> <lsDayConstraint>None</ lsDayConstraint> <lsDuration>00:00:00:00</ lsDuration> <lsEnabled>>false</lsEnabled> <lsNthAmount>5</lsNthAmount> <lsTime>00:00</lsTime> <lsType>Time</lsType> <name>work-task-1</name> <actions/> <numberOfTasks>4</ numberOfTasks> <opwiseGroups> <opwiseGroup>A</ opwiseGroup> <opwiseGroup>B</ opwiseGroup> </opwiseGroups> <overrideCalendar>>false</ overrideCalendar> <resPriority>5</resPriority> <resolveNameImmediately>>true</ resolveNameImmediately> <restrictionPeriod>None</ restrictionPeriod> <restrictionPeriodAfterDate /> <restrictionPeriodAfterTime /> <restrictionPeriodBeforeDate / > <restrictionPeriodBeforeTime / > <restrictionPeriodDateList/> </pre>	<pre> "lfDuration": "00:00:00:00", "lfEnabled": false, "lfNthAmount": 5, "lfOffsetDuration": null, "lfOffsetDurationUnit": "Minutes", "lfOffsetPercentage": 0, "lfOffsetType": "Percentage", "lfTime": "00:00", "lfType": "Time", "logLevel": "Inherited", "lsDayConstraint": "None", "lsDuration": "00:00:00:00", "lsEnabled": false, "lsNthAmount": 5, "lsTime": "00:00", "lsType": "Time", "name": "work- task-1", "notes": [], "numberOfTasks": 4, "opwiseGroups": ["A", "B"], "overrideCalendar": false, "resPriority": 5, </pre>

Examples	XML	JSON
	<pre> <runCount>0</runCount> <runTime>0</runTime> <skippedOption>Show Skipped</ skippedOption> <startHeld>false</startHeld> <startHeldReason /> <summary>Workflow 1</summary> <sysId>846157d645fe4f989a03483685c91a0 8</sysId> <exclusiveTasks/> <virtualResources/> <timeZonePref>-- System Default --</timeZonePref> <twDelayAmount /> <twDelayDuration>00:00:00:00</ twDelayDuration> <twDelayType>None</ twDelayType> <twWaitAmount /> <twWaitDayConstraint>None</ twWaitDayConstraint> <twWaitDuration>00:00:00:00</ twWaitDuration> <twWaitTime>00:00</twWaitTime> <twWaitType>None</twWaitType> <twWorkflowOnly>-- System Default --</twWorkflowOnly> <userEstimatedDuration /> </taskWorkflow> </tasks> </pre>	<pre> "resolveNameImmediately": true, "restrictionPeriod": "None", "restrictionPeriodAfterDate": null, "restrictionPeriodAfterTime": null, "restrictionPeriodBeforeDate" : null, "restrictionPeriodBeforeTime" : null, "restrictionPeriodDateList": [], "retainSysIds": true, "runCount": 0, "runCriteria": [], "runTime": 0, "skippedOption": "Show Skipped", "startHeld": false, "startHeldReason": null, "stepActions": [], "stepConditions": [], "summary": "Workflow 1", "sysId": "846157d645fe4f989a03483685c9 1a08", "timeZonePref": "-- System Default --", "twDelayAmount": </pre>

Examples	XML	JSON
		<pre>null, "twDelayDuration": "00:00:00:00", "twDelayType": "None", "twWaitAmount": null, "twWaitDayConstraint": "None", "twWaitDuration": "00:00:00:00", "twWaitTime": "00:00", "twWaitType": "None", "twWorkflowOnly": "-- System Default --", "userEstimatedDuration": null, "variables": [], "version": 2, "virtualResources": [], "workflowEdges": [{ "condition": { "value": "Success" }, "sourceId": { "taskName": "task-1", "value": "2" }, "straightEdge": true,</pre>

Examples	XML	JSON
		<pre>[{ "targetId": { "id": "1", "name": "Task 1", "value": "1" }, "taskName": "Sleep 30", "value": "3" }, { "condition": { "value": "Success" }, "sourceId": { "id": "2", "name": "Task 2", "value": "2" }, "taskName": "Sleep 30", "value": "3" }, { "straightEdge": true, "targetId": { "id": "3", "name": "Task 3", "value": "3" }, "taskName": "task-2", "value": "7" }, { "condition": { "value": "Success" }, "sourceId": { "id": "4", "name": "Task 4", "value": "4" }, "taskName": "task-2", "value": "7" }]</pre>

Examples	XML	JSON
		<pre>{ "value": "7", }, "straightEdge": true, "targetId": { "taskName": "Sleep 60", "value": "9", } }, "workflowVertices": [{ "alias": null, "task": { "value": "task-1", }, "vertexId": "2", "vertexX": "110", "vertexY": "80", }, { "alias": null, "task": { "value": "Sleep 30", }, "vertexId": "3", },] }</pre>

Examples	XML	JSON
		<pre>[{ "vertexX": "270", "vertexY": "70" }, { "alias": null, "task": { "value": "task-2" }, "vertexId": "7", "vertexX": "290", "vertexY": "220" }, { "alias": null, "task": { "value": "Sleep 60" }, "vertexId": "9", "vertexX": "140", "vertexY": "260" }]</pre>

Examples	XML	JSON

4.33.6.2 List Tasks - Advanced: URI Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agentname	Agent	Agent on which this task was run.		N	
businessServices	Member of Business Services	Business Services that this task belongs to.	Comma-separated list.	N	
taskname	Task Name	Name or partial name of one or more tasks.	Wildcards are supported.	N	
templateId	n/a	ID used within the controller to identify a template.	If a <code>templateId</code> or <code>templateName</code> is specified, List task returns a list of tasks associated with the Universal template.	N	templateName
templateName	Template Name	Name of a template.	If a <code>templateId</code> or <code>templateName</code> is specified, List task returns a list of tasks associated with the Universal template.	N	templateId

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
type	n/a	Task Type of tasks to list.	Valid values: One of the following (not case sensitive): • As String = Workflow, As Value = 1 • As String = Timer, As Value = 2 • As String = Windows, As Value = 3 • As String = Linux/Unix, As Value = 4 • As String = z/OS, As Value = 5 • As String = Agent File Monitor, As Value = 6 • As String = Manual, As Value = 7 • As String = Email, As Value = 8 • As String = File Transfer, As Value = 9 • As String = SQL, As Value = 10 • As String = Remote File Monitor, As Value = 11 • As String = Task Monitor, As Value = 12 • As String = Stored Procedure, As Value = 13 • As String = Universal Command, As Value = 14 • As String = System Monitor, As Value = 15 • As String = Application Control, As Value = 16 • As String = SAP, As Value = 17 • As String = Variable Monitor, As Value = 18 • As String = Web Service, As Value = 19 • As String = Email Monitor, As Value = 20 • As String = PeopleSoft, As Value = 21 • As String = Recurring, As Value = 22 • As String = Universal Monitor, As Value = 23 • As String = IBM i, As Value = 24 • As String = z/OS Monitor, As Value = 25 • As String = Universal, As Value = 99 To list tasks for all task types, enter <code><type></type></code> in the request.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
updatedTime	n/a	If <code>updatedTimeType</code> = Offset; -offset period.	Valid values: • mn (minutes) • h (hours) • d (days) Default is d. Examples: -5d (last 5 days), -30mn (last 30 minutes), -6h (last 6 hours), -7 (last 7 days) • If <code>updatedTimeType</code> is Since; date/time value (yyyy-MM-dd [HH:mm:ss]) • If <code>updatedTimeType</code> is Today; <code>updatedTime</code> is ignored. Note The time is relative to the Time Zone specified for the User.	Y (if <code>updatedTimeType</code> is Offset, Since, or Older Than.)	
updatedTimeType	n/a	Type of <code>updateTime</code> .	Valid values: • As String = Today, As Value = 1 • As String = Offset, As Value = 2 • As String = Since, As Value = 3 • As String = Older Than, As Value = 4	N	
workflowid	n/a	ID used within the Controller to identify a workflow.	If <code>workflowid</code> or <code>workflowname</code> is specified, List Tasks returns a list of tasks within that workflow.	N	workflowname
workflowname	Task Name	Name of a workflow.	If <code>workflowid</code> or <code>workflowname</code> is specified, List Tasks returns a list of tasks within that workflow.	N	workflowid

4.33.7 Agent File Monitor Task Web Services

- [Overview](#)
- [Create an Agent File Monitor Task](#)
- [Modify an Agent File Monitor Task](#)

- [Read an Agent File Monitor Task](#)
- [Agent File Monitor Task: XML and JSON Examples](#)
- [Properties](#)

4.33.7.1 Overview

Universal Controller supports the following RESTful-based web services for Agent File Monitor Task operations, which are listed alphabetically on this page.

- [Create an Agent File Monitor Task](#)
- [Modify an Agent File Monitor Task](#)
- [Read an Agent File Monitor Task](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Links to detailed information about the [properties](#) used in these web services also is located on this page.

For information on Task web services that are applicable to all task types, see:

- [Delete a Task](#)
- [Launch a Task](#)
- [List Tasks](#)

4.33.7.2 Create an Agent File Monitor Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	POST
Description	Creates a new Agent File Monitor task. To persist sysIds , use the retainSysIds property.
Example URI	http://localhost:8080/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See Agent File Monitor Task: XML and JSON Examples , below.
Properties	See Agent File Monitor Task Properties .
Example Response	• Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

4.33.7.3 Modify an Agent File Monitor Task

	Description
URI	http://host_name/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	Modifies the task specified by the sysId in the request. To modify Agent File Monitor Task properties without modifying related records, use the excludeRelated property.
Example	See Agent File Monitor Task: XML and JSON Examples .
Properties	See Properties .
Example Response	Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.

4.33.7.4 Read an Agent File Monitor Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task .
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>
Example URI	http://localhost:8080/uc/resources/task?taskname=testTask http://localhost:8080/uc/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	- Status 200 /OK (See Agent File Monitor Task: XML and JSON Examples.) - Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
Properties	See Agent File Monitor Task Properties .

4.33.7.5 Agent File Monitor Task: XML and JSON Examples

The

`retainSysIds`

and

`version`

properties are specified as attributes in XML.

The

`exportReleaseLevel`

and `exportTable` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	XML <pre> <taskFileMonitor exportReleaseLevel="7.2.0.0" exportTable="ops_task_file_monitor" retainSysIds="true" version="1"> <actions /> <variables /> <notes /> <virtualResources /> <exclusiveTasks /> <agent /> <agentCluster>uc Demo Cluster</agentCluster> <agentClusterVar /> <agentVar /> <avgRunTime>3</avgRunTime> <avgRunTimeDisplay>3 Seconds</ avgRunTimeDisplay> <broadcastCluster /> <broadcastClusterVar /> <cpDuration /> <cpDurationUnit>Minutes</ cpDurationUnit> <credentials /> <credentialsVar /> <customField1 label="Domain">w eb.com</customField1> <customField2 /> <efDayConstraint>Nth</ efDayConstraint> <efDuration>00:00:00:00</ efDuration> <efEnabled>false</efEnabled> <efNthAmount>10</efNthAmount> <efOffsetDuration/> <efOffsetDurationUnit>Minutes</ efOffsetDurationUnit> <efOffsetPercentage>0</ efOffsetPercentage> <efOffsetType>Percentage<\efOffsetTyp e> <efTime>00:00</efTime> <efType>Time</efType> <executionRestriction>Run</ executionRestriction> <firstRun>2021-03-15 13:59:37 -0400</firstRun> </pre>	JSON <pre> { "type": "taskFileMonitor", "actions": { "abortActions": [], "emailNotifications": [], "setVariableActions": [], "snmpNotifications": [], "systemOperations": [] }, "agent": null, "agentCluster": "uc Demo Cluster", "agentClusterVar": null, "agentVar": null, "avgRunTime": 3, "avgRunTimeDisplay": "3 Seconds", "broadcastCluster": null, "broadcastClusterVar": null, "byPercentage": null, "byScale": "1024", "bySize": null, "cpDuration": null, "cpDurationUnit": "Minutes", "credentials": null, "credentialsVar": null, "customField1": { "label": "Domain", "value": "http://qa-cntlr- mssql:8080/uc/" }, "customField2": { "label": null, "value": null }, "efDayConstraint": "Nth Day", "efDuration": "00:00:00:00", "efEnabled": false, "efNthAmount": 10, "efOffsetDuration": null, "efOffsetDurationUnit": "Minutes", "efOffsetPercentage": 1, "efOffsetType": "Percentage", "efTime": "00:00", "efType": "Time", "excludeRelated": false, "exclusiveTasks": [], "executionRestriction": "Run", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_task_file_monitor", </pre>

Examples	XML	JSON
	<pre> <holdResources>false</holdResources> <lastRun>2021-03-16 17:12:42 -0400</lastRun> <lastRunTime>9</lastRunTime> <lastRunTimeDisplay>9 seconds</lastRunTimeDisplay> <lfDayConstraint>Nth</lfDayConstraint> <lfDuration>00:00:00:00</lfDuration> <lfEnabled>false</lfEnabled> <lfNthAmount>1</lfNthAmount> <lfOffsetDuration/> <lfOffsetDurationUnit>Minutes</lfOffsetDurationUnit> <lfOffsetPercentage>0</lfOffsetPercentage> <lfOffsetType>Percentage<\lfOffsetType> e> <lfTime>00:00</lfTime> <lfType>Time</lfType> <lsDayConstraint>Nth</lsDayConstraint> <lsDuration>00:00:00:00</lsDuration> <lsEnabled>false</lsEnabled> <lsNthAmount>7</lsNthAmount> <lsTime>00:00</lsTime> <lsType>Time</lsType> <maxRunTime>9</maxRunTime> <maxRunTimeDisplay>9 Seconds</maxRunTimeDisplay> <minRunTime>3</minRunTime> <minRunTimeDisplay>3 Seconds</minRunTimeDisplay> <name>uc - Test Email</name> <opswiseGroups /> <resolveNameImmediately>false</resolveNameImmediately> <resPriority>10</resPriority> <restrictionPeriod>Span</restrictionPeriod> <restrictionPeriodAfterDate>2017-11-10</restrictionPeriodAfterDate> <restrictionPeriodAfterTime>10:30</restrictionPeriodAfterTime> <restrictionPeriodBeforeDate>2017-11-20</restrictionPeriodBeforeDate> </pre>	<pre> "fileName": "\$ {demo_ops_download_dir}", "fileOwner": "file owner", "firstRun": "2021-03-15 13:59:37-0400", "fmtype": "Exist", "holdResources": false, "lastRun": "2021-03-16 17:12:42-0400", "lastRunTime": 9, "lastRunTimeDisplay": "9 Seconds", "lfDayConstraint": "Nth Day", "lfDuration": "00:00:00:00", "lfEnabled": false, "lfNthAmount": 1, "lfOffsetDuration": null, "lfOffsetDurationUnit": "Minutes", "lfOffsetPercentage": 0, "lfOffsetType": "Percentage", "lfTime": "00:00", "lfType": "Time", "lsDayConstraint": "Nth Day", "lsDuration": "00:00:00:00", "lsEnabled": false, "lsNthAmount": 7, "lsTime": "00:00", "lsType": "Time", "maxFiles": null, "maxRunTime": 9, "maxRunTimeDisplay": "9 Seconds", "minFileScale": "KB", "minFileSize": null, "minRunTime": 3, "minRunTimeDisplay": "3 Seconds", "name": "uc - Test Email", "notes": [], "opswiseGroups": null, "recursive": true, "resolveNameImmediately": false, "resPriority": 10, "restrictionPeriod": "Span", "restrictionPeriodAfterDate": "2017-11-10", "restrictionPeriodAfterTime": "10:30", "restrictionPeriodBeforeDate": "2017-11-20", "restrictionPeriodBeforeTime": "15:00", "restrictionPeriodDateList": [], "retainSysIds": true, "runCount": 32, "runTime": 108, "scanForward": false, </pre>

Examples	XML	JSON
	<pre> <restrictionPeriodBeforeTime>15:00</restrictionPeriodBeforeTime> <restrictionPeriodDateList /> <runCount>32</runCount> <runTime>108</runTime> <startHeld>false</startHeld> <startHeldReason /> <summary>Test Email</summary> <sysId>fb59a227517a421a92c15ff5aefe3b66</sysId> <timeZonePref>-- System Default --</timeZonePref> <twDelayAmount /> <twDelayDuration>00:00:00:00</twDelayDuration> <twDelayType>None</twDelayType> <twWaitAmount /> <twWaitDayConstraint>NONE</twWaitDayConstraint> <twWaitDuration>00:00:00:00</twWaitDuration> <twWaitTime>00:00</twWaitTime> <twWaitType>None</twWaitType> <twWorkflowOnly>-- System Default --</twWorkflowOnly> <userEstimatedDuration /> <byPercentage /> <byScale>1024</byScale> <bySize /> <fileName>\${demo_ops_download_dir}</fileName> <fileOwner>file owner</fileOwner> <fmttype>Exist</fmttype> <maxFiles /> <minFileScale>KB</minFileScale> <minFileSize /> <recursive>true</recursive> <scanForward>false</scanForward> <scanText /> <stableSeconds /> <toScale>1024</toScale> <toSize /> <triggerOnCreate>false</triggerOnCreate> <triggerOnExist>false</triggerOnExist> <useRegex>true</useRegex> </taskFileMonitor> </pre>	<pre> "scanText": null, "stableSeconds": null, "startHeld": false, "startHeldReason": null, "summary": "Test Email", "sysId": "fb59a227517a421a92c15ff5aefe3b66", "timeZonePref": "-- System Default --", "toScale": 1024, "toSize": null, "triggerOnCreate": false, "triggerOnExist": false, "twDelayAmount": null, "twDelayDuration": "00:00:00:00", "twDelayType": "None", "twWaitAmount": null, "twWaitDayConstraint": "NONE", "twWaitDuration": "00:00:00:00", "twWaitTime": "00:00", "twWaitType": "None", "twWorkflowOnly": "-- System Default --", "useRegex": true, "userEstimatedDuration": null, "variables": [], "version": 1 } </pre>

See [Task Web Services - Task Actions](#) for XML and JSON examples of task actions.

See [Task Web Services - Task-Related Records](#) for XML and JSON examples of task-related records.

4.33.7.6 Properties

- See [All Tasks Properties](#)
- See [Agent File Monitor Task Properties](#)

4.33.8 Application Control Task Web Services

- [Overview](#)
- [Create an Application Control Task](#)
- [Modify an Application Control Task](#)
- [Read an Application Control Task](#)
- [Application Control Task: XML and JSON Examples](#)
- [Properties](#)

4.33.8.1 Overview

Universal Controller supports the following RESTful-based web services for Application Control Task operations, which are listed alphabetically on this page.

- [Create an Application Control Task](#)
- [Modify an Application Control Task](#)
- [Read an Application Control Task](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Links to detailed information about the [properties](#) used in these web services also is located on this page.

For information on Task web services that are applicable to all task types, see:

- [Delete a Task](#)
- [Launch a Task](#)
- [List Tasks](#)

4.33.8.2 Create an Application Control Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	POST

	Description
Description	Creates a new Application Control task. To persist syslds , use the retainSyslds property.
Example URI	http://localhost:8080/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See Application Control Task: XML and JSON Examples , below.
Properties	See Properties .
Example Response	Status 200 /OK Successfully created the <task type> task with sysld <sysld>.

4.33.8.3 Modify an Application Control Task

	Description
URI	http://host_name/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	Modifies the task specified by the sysld in the request . To modify Application Control Task properties without modifying related records, use the excludeRelated property.
Example	See Application Control Task: XML and JSON Examples .
Properties	See Properties .
Example Response	Status 200 /OK Successfully updated the <task type> task with sysld <sysld> to version <version>.

4.33.8.4 Read an Application Control Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task .

	Description
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>
Example URI	http://localhost:8080/uc/resources/task?taskname=testTask http://localhost:8080/uc/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	- Status 200 /OK (See Application Control Task: XML and JSON Examples .) - Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
Properties	See Properties .

4.33.8.5 Application Control Task: XML and JSON Examples

The `retainSysIds` and `version` properties are specified as attributes in XML.

The `exportReleaseLevel` and `exportTable` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	XML <pre> <taskApplicationControl exportReleaseLevel="7.2.0.0" exportTable="ops_task_application_control" retainSysIds="true" version="1"> <actions /> <variables /> <notes /> <virtualResources /> <exclusiveTasks /> <avgRunTime>3</avgRunTime> <avgRunTimeDisplay>3 Seconds</avgRunTimeDisplay> <cpDuration /> <cpDurationUnit>Minutes</cpDurationUnit> <credentials /> <credentialsVar /> <customField1 label="Domain">web.com</ customField1> <customField2 /> <efDayConstraint>Nth</efDayConstraint> <efDuration>00:00:00:00</efDuration> <efEnabled>false</efEnabled> <efNthAmount>10</efNthAmount> <efOffsetDuration /> <efOffsetDurationUnit>Minutes</ efOffsetDurationUnit> <efOffsetPercentage>0</efOffsetPercentage> <efOffsetType>Percentage</efOffsetType> <efTime>00:00</efTime> <efType>Time</efType> <executionRestriction>Run</executionRestriction> <firstRun>2021-03-15 13:59:37 -0400</firstRun> <holdResources>false</holdResources> <lastRun>2021-03-16 17:12:42 -0400</lastRun> <lastRunTime>9</lastRunTime> <lastRunTimeDisplay>9 seconds</ lastRunTimeDisplay> <lfDayConstraint>Nth</lfDayConstraint> <lfDuration>00:00:00:00</lfDuration> <lfEnabled>false</lfEnabled> <lfNthAmount>1</lfNthAmount> <lfOffsetDuration /> <lfOffsetDurationUnit>Minutes</ lfOffsetDurationUnit> <lfOffsetPercentage>0</lfOffsetPercentage> <lfOffsetType>Percentage</lfOffsetType> <lfTime>00:00</lfTime> <lfType>Time</lfType> <lsDayConstraint>Nth</lsDayConstraint> <lsDuration>00:00:00:00</lsDuration> <lsEnabled>false</lsEnabled> </pre>	JSON <pre> { "type": "taskApplicationContr ol", "actions": { "abortActions": [], "emailNotifications": [], "setVariableActions": [], "snmpNotifications": [], "systemOperations": [] }, "avgRunTime": 3, "avgRunTimeDisplay": "3 Seconds", "application": "test", "command": "QUERY", "cpDuration": null, "cpDurationUnit": "Minutes", "credentials": null, "credentialsVar": null, "customField1": { "label": "Domain", "value": "http:// qa-cntlr-mssql:8080/ uc/" }, "customField2": { "label": null, "value": null }, "efDayConstraint": "Nth Day", "efDuration": "00:00:00:00", </pre>

Examples	XML	JSON
	<pre> <lsNthAmount>7</lsNthAmount> <lsTime>00:00</lsTime> <lsType>Time</lsType> <maxRunTime>9</maxRunTime> <maxRunTimeDisplay>9 Seconds</maxRunTimeDisplay> <minRunTime>3</minRunTime> <minRunTimeDisplay>3 Seconds</minRunTimeDisplay> <name>uc - Test Email</name> <opswiseGroups /> <resolveNameImmediately>false</ resolveNameImmediately> <resPriority>10</resPriority> <restrictionPeriod>Span</restrictionPeriod> <restrictionPeriodAfterDate>2017-11-10</ restrictionPeriodAfterDate> <restrictionPeriodAfterTime>10:30</ restrictionPeriodAfterTime> <restrictionPeriodBeforeDate>2017-11-20</ restrictionPeriodBeforeDate> <restrictionPeriodBeforeTime>15:00</ restrictionPeriodBeforeTime> <restrictionPeriodDateList /> <runCount>32</runCount> <runTime>108</runTime> <startHeld>false</startHeld> <startHeldReason /> <summary>Test Email</summary> <sysId>fb59a227517a421a92c15ff5aefe3b66</sysId> <timeZonePref>-- System Default --</timeZonePref> <twDelayAmount /> <twDelayDuration>00:00:00:00</twDelayDuration> <twDelayType>None</twDelayType> <twWaitAmount /> <twWaitDayConstraint>NONE</twWaitDayConstraint> <twWaitDuration>00:00:00:00</twWaitDuration> <twWaitTime>00:00</twWaitTime> <twWaitType>None</twWaitType> <twWorkflowOnly>-- System Default --</ twWorkflowOnly> <userEstimatedDuration /> <application>test app</application> <command>QUERY</command> </taskApplicationControl> </pre>	<pre> "efEnabled": false, "efNthAmount": 10, "efOffsetDuration": null, "efOffsetDurationUnit ": "Minutes", "efOffsetPercentage": 0, "efOffsetType": "Percentage", "efTime": "00:00", "efType": "Time", "excludeRelated": false, "exclusiveTasks": [], "executionRestriction ": "Run", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_task_application _control", "firstRun": "2021-03-15 13:59:37 -0400", "holdResources": false, "lastRun": "2021-03-16 17:12:42 -0400", "lastRunTime": 9, "lastRunTimeDisplay": "9 Seconds", "lfDayConstraint": "Nth Day", "lfDuration": "00:00:00:00", "lfEnabled": false, "lfNthAmount": 1, "lfOffsetDuration": null, "lfOffsetDurationUnit ": "Minutes", "lfOffsetPercentage": 0, </pre>

Examples	XML	JSON
		<pre> "lfOffsetType": "Percentage", "lfTime": "00:00", "lfType": "Time", "lsDayConstraint": "Nth Day", "lsDuration": "00:00:00:00", "lsEnabled": false, "lsNthAmount": 7, "lsTime": "00:00", "lsType": "Time", "maxRunTime": 9, "maxRunTimeDisplay": "9 Seconds", "minRunTime": 3, "minRunTimeDisplay": "3 Seconds", "name": "uc - Test Email", "notes": [], "opswiseGroups": null, "resolveNameImmediate ly": false, "resPriority": 10, "restrictionPeriod": "Span", "restrictionPeriodAft erDate": "2017-11-10", "restrictionPeriodAft erTime": "10:30", "restrictionPeriodBef oreDate": "2017-11-20", "restrictionPeriodBef oreTime": "15:00", "restrictionPeriodDat eList": [], "retainSysIds": true, "runCount": 32, "runTime": 108, "startHeld": false, </pre>

Examples	XML	JSON
		<pre>"startHeldReason": null, "summary": "Test Email", "sysId": "fb59a227517a421a92c1 5ff5aefe3b66", "timeZonePref": "-- System Default --", "twDelayAmount": null, "twDelayDuration": "00:00:00:00", "twDelayType": "None", "twWaitAmount": null, "twWaitDayConstraint" : "NONE", "twWaitDuration": "00:00:00:00", "twWaitTime": "00:00", "twWaitType": "None", "twWorkflowOnly": "-- System Default --", "userEstimatedDuratio n": null, "variables": [], "version": 1, "virtualResources": [] }</pre>

See [Task Web Services - Task Actions](#) for XML and JSON examples of task actions.

See [Task Web Services - Task-Related Records](#) for XML and JSON examples of task-related records.

4.33.8.6 Properties

- See [All Tasks Properties](#)
- See [Application Control Task Properties](#)

4.33.9 Email Task Web Services

- [Overview](#)
- [Create an Email Task](#)
- [Modify an Email Task](#)
- [Read an Email Task](#)
- [Email Task: XML and JSON Examples](#)
- [Properties](#)

4.33.9.1 Overview

Universal Controller supports the following RESTful-based web services for Email Task operations, which are listed alphabetically on this page.

- [Create an Email Task](#)
- [Modify an Email Task](#)
- [Read an Email Task](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Links to detailed information about the [properties](#) used in these web services also is located on this page.

For information on Task web services that are applicable to all task types, see:

- [Delete a Task](#)
- [Launch a Task](#)
- [List Tasks](#)

4.33.9.2 Create an Email Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	POST
Description	Creates a new Email task. To persist syslds , use the retainSyslds property.
Example URI	http://localhost:8080/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See Email Task: XML and JSON Examples , below.
Properties	See Properties .

	Description
Example Response	Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

4.33.9.3 Modify an Email Task

	Description
URI	http://host_name/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	Modifies the task specified by the sysId in the request . To modify Email Task properties without modifying related records, use the excludeRelated property.
Example	See Email Task: XML and JSON Examples .
Properties	See Properties .
Example Response	Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.

4.33.9.4 Read an Email Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task .
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>
Example URI	http://localhost:8080/uc/resources/task?taskname=testTask http://localhost:8080/uc/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json

	Description
Example Response	• Status 200 /OK (See Email Task: XML and JSON Examples .) • Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
Properties	See Properties .

4.33.9.5 Email Task: XML and JSON Examples

The `taskEmail` properties are specified as attributes in XML.

The `taskEmail` and `exportTable` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<pre>XML <taskEmail exportReleaseLevel= "7.2.0.0" exportTable="ops_tas k_email" retainSysIds="true" version="1"> <actions /> <variables /> <notes /> <virtualResources /> <exclusiveTasks /> <avgRunTime>3</ avgRunTime> <avgRunTimeDisplay>3 Seconds</avgRunTimeDisplay> <cpDuration /> <cpDurationUnit>Minutes </cpDurationUnit> <credentials /> </taskEmail></pre>	<pre>JSON { "type": "taskEmail", "actions": { "abortActions": [], "emailNotifications": [], "setVariableActions": [], "snmpNotifications": [], "systemOperations": [] }, "attachLocalFile": true, "avgRunTime": 3, "avgRunTimeDisplay": "3 Seconds", "bccRecipients": null, "body": "This is a test.", "ccRecipients": null,</pre>

Examples	XML	JSON
	<pre> <credentialsVar /> <customField1 label="Domain">web.com</ customField1> <customField2 /> <efDayConstraint>Nth</ efDayConstraint> <efDuration>00:00:00:00 </efDuration> <efEnabled>false</ efEnabled> <efNthAmount>10</ efNthAmount> <efOffsetDuration/> <efOffsetDurationUnit>M inutes</efOffsetDurationUnit> <efOffsetPercentage>0</ efOffsetPercentage> <efOffsetType>Percentag e<\efOffsetType> <efTime>00:00</efTime> <efType>Time</efType> <executionRestriction>R un</executionRestriction> <firstRun>2021-03-15 13:59:37 -0400</firstRun> <holdResources>false</ holdResources> <lastRun>2021-03-16 17:12:42 -0400</lastRun> <lastRunTime>9</ lastRunTime> <lastRunTimeDisplay>9 seconds</lastRunTimeDisplay> <lfDayConstraint>Nth</ lfDayConstraint> <lfDuration>00:00:00:00 </lfDuration> <lfEnabled>false</ lfEnabled> <lfNthAmount>1</ lfNthAmount> <lfOffsetDuration/> <lfOffsetDurationUnit>M inutes</lfOffsetDurationUnit> <lfOffsetPercentage>0</ lfOffsetPercentage> <lfOffsetType>Percentag e<\lfOffsetType> <lfTime>00:00</lfTime> <lfType>Time</lfType> <lsDayConstraint>Nth</ lsDayConstraint> <lsDuration>00:00:00:00 </pre>	<pre> "connection": "Gmail Account", "cpDuration": null, "cpDurationUnit": "Minutes", "credentials": null, "credentialsVar": null, "customField1": { "label": "Domain", "value": "http://qa-cntlr- mssql:8080/uc/" }, "customField2": { "label": null, "value": null }, "efDayConstraint": "Nth Day", "efDuration": "00:00:00:00", "efEnabled": false, "efNthAmount": 10, "efOffsetDuration": null, "efOffsetDurationUnit": "Minutes", "efOffsetDurationPercentage": 0, "efOffsetType": "Percentage", "efTime": "00:00", "efType": "Time", "excludeRelated": false, "exclusiveTasks": [], "executionRestriction": "Run", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_task_email", "firstRun": "2021-03-15 13:59:37 -0400", "holdResources": false, "lastRun": "2021-03-16 17:12:42 -0400", "lastRunTime": 9, "lastRunTimeDisplay": "9 Seconds", "lfDayConstraint": "Nth Day", "lfDuration": "00:00:00:00", "lfEnabled": false, "lfNthAmount": 1, "lfOffsetDuration": null, "lfOffsetDurationUnit": "Minutes", "lfOffsetPercentage": 0, "lfOffsetType": "Percentage", "lfTime": "00:00", "lfType": "Time", "listReportFormat": "CSV", "localAttachment": </pre>

Examples	XML	JSON
	<pre> </lsDuration> <lsEnabled>>false</ lsEnabled> <lsNthAmount>7</ lsNthAmount> <lsTime>00:00</lsTime> <lsType>Time</lsType> <maxRunTime>9</ maxRunTime> <maxRunTimeDisplay>9 Seconds</maxRunTimeDisplay> <minRunTime>3</ minRunTime> <minRunTimeDisplay>3 Seconds</minRunTimeDisplay> <name>Test Email</name> <opswiseGroups /> <resolveNameImmediately> false</resolveNameImmediately> <resPriority>10</ resPriority> <restrictionPeriod>Span </restrictionPeriod> <restrictionPeriodAfterDate>20 17-11-10</ restrictionPeriodAfterDate> <restrictionPeriodAfterTime>10 :30</ restrictionPeriodAfterTime> <restrictionPeriodBeforeDate>2 017-11-20</ restrictionPeriodBeforeDate> <restrictionPeriodBeforeTime>1 5:00</ restrictionPeriodBeforeTime> <restrictionPeriodDateList /> <runCount>32</runCount> <runTime>108</runTime> <startHeld>>false</ startHeld> <startHeldReason /> <summary>Test Email</ summary> <sysId>fb59a227517a421a 92c15ff5aefe3b66</sysId> <timeZonePref>-- System Default --</timeZonePref> <twDelayAmount /> <twDelayDuration>00:00: 00:00</twDelayDuration> </pre>	<pre> "report.pdf", "localAttachmentsPath": "E: \temp", "lsDayConstraint": "Nth Day", "lsDuration": "00:00:00:00", "lsEnabled": false, "lsNthAmount": 7, "lsTime": "00:00", "lsType": "Time", "maxRunTime": 9, "maxRunTimeDisplay": "9 Seconds", "minRunTime": 3, "minRunTimeDisplay": "3 Seconds", "name": "Test Email", "notes": [], "opswiseGroups": null, "replyTo": null, "report": null, "reportVar": null, "resolveNameImmediately": false, "resPriority": 10, "restrictionPeriod": "Span", "restrictionPeriodAfterDate": "2017-11-10", "restrictionPeriodAfterTime": "10:30", "restrictionPeriodBeforeDate": "2017-11-20", "restrictionPeriodBeforeTime": "15:00", "restrictionPeriodDateList": [], "retainSysIds": true, "runCount": 32, "runTime": 108, "startHeld": false, "startHeldReason": null, "subject": "Test Email sent from \${_hostname()} (\${ _ipaddress()})", "summary": "Test Email", "sysId": "fb59a227517a421a92c15ff5aefe3b66", "template": "Test Template", "templateVar": null, "timeZonePref": "-- System Default --", "twDelayAmount": null, "twDelayDuration": "00:00:00:00", "twDelayType": "None", </pre>

Examples	XML	JSON
	<pre> <twDelayType>None</twDelayType> <twWaitAmount /> <twWaitDayConstraint>NONE</twWaitDayConstraint> <twWaitDuration>00:00:00</twWaitDuration> <twWaitTime>00:00</twWaitTime> <twWaitType>None</twWaitType> <twWorkflowOnly>-- System Default --</twWorkflowOnly> <userEstimatedDuration /> <attachLocalFile>true</attachLocalFile> <bccRecipients /> <body>This is a test.</body> <ccRecipients /> <connection>Gmail Account</connection> <listReportFormat>CSV</listReportFormat> <localAttachment>report.pdf</localAttachment> <localAttachmentsPath>E:\temp</localAttachmentsPath> <replyTo /> <report /> <reportVar /> <subject>Test Email sent from \${_hostname()} (\${_ipaddress()})</subject> <template>Test Template</template> <templateVar /> </taskEmail> </pre>	<pre> "twWaitAmount": null, "twWaitDayConstraint": "NONE", "twWaitDuration": "00:00:00:00", "twWaitTime": "00:00", "twWaitType": "None", "twWorkflowOnly": "-- System Default --", "userEstimatedDuration": null, "variables": [], "version": 1, "virtualResources": [] } </pre>

See [Task Web Services - Task Actions](#) for XML and JSON examples of task actions.

See [Task Web Services - Task-Related Records](#) for XML and JSON examples of task-related records.

4.33.9.6 Properties

- See [All Tasks Properties](#)
- See [Email Task Properties](#)

4.33.10 Email Monitor Task Web Services

- [Overview](#)
- [Create an Email Monitor Task](#)
- [Modify an Email Monitor Task](#)
- [Read an Email Monitor Task](#)
- [Email Monitor Task: XML and JSON Examples](#)
- [Properties](#)

4.33.10.1 Overview

Universal Controller supports the following RESTful-based web services for Email Monitor Task operations, which are listed alphabetically on this page.

- [Create an Email Monitor Task](#)
- [Modify an Email Monitor Task](#)
- [Read an Email Monitor Task](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Links to detailed information about the [properties](#) used in these web services also is located on this page.

For information on Task web services that are applicable to all task types, see:

- [Delete a Task](#)
- [Launch a Task](#)
- [List Tasks](#)

4.33.10.2 Create an Email Monitor Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	POST
Description	Creates a new Email Monitor task. To persist syslds , use the retainSyslds property.
Example URI	http://localhost:8080/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See Email Monitor Task: XML and JSON Examples , below.
Properties	See Properties .

	Description
Example Response	Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

4.33.10.3 Modify an Email Monitor Task

	Description
URI	http://host_name/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	Modifies the task specified by the sysId in the request . To modify Email Monitor Task properties without modifying related records, use the excludeRelated property.
Example	See Email Monitor Task: XML and JSON Examples .
Properties	See Properties .
Example Response	Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.

4.33.10.4 Read an Email Monitor Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task .
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>
Example URI	http://localhost:8080/uc/resources/task?taskname=testTask http://localhost:8080/uc/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json

	Description
Example Response	• Status 200 /OK (See Email Monitor Task: XML and JSON Examples .) • Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
Properties	See Properties .

4.33.10.5 Email Monitor Task: XML and JSON Examples

The `retainSysIds` and `version` properties are specified as attributes in XML.

The `exportReleaseLevel` and `exportTable` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<pre>XML <taskEmailMonitor exportReleaseLevel="7.2.0.0" exportTable="ops_task_email_monitor" retainSysIds="true" version="1"> <actions /> <variables /> <notes /> <virtualResources /> <exclusiveTasks /> <avgRunTime>3</avgRunTime> <avgRunTimeDisplay>3 Seconds</avgRunTimeDisplay> <cpDuration /> <cpDurationUnit>Minutes</cpDurationUnit></pre>	<pre>JSON { "type": "taskEmailMonitor", "actions": { "abortActions": [], "emailNotifications": [], "setVariableActions": [], "snmpNotifications": [], "systemOperations": [] }, "action": "Mark As Read", "avgRunTime": 3, "avgRunTimeDisplay": "3 Seconds", "body": null, "bodyBeginMarker": "TBD", "bodyEndMarker": "TBD", "bodyFilter": "None",</pre>

Examples	XML	JSON
	<pre> <credentials>outlook </credentials> <credentialsVar /> <customField1 label="Domain">web.com</ customField1> <customField2 /> <efDayConstraint>Nth </efDayConstraint> <efDuration>00:00:00 :00</efDuration> <efEnabled>>false</ efEnabled> <efNthAmount>10</ efNthAmount> <efOffsetDuration /> <efOffsetDurationUnit>Minut es</efOffsetDurationUnit> <efOffsetPercentage> 0</efOffsetPercentage> <efOffsetType>Percen tage</efOffsetType> <efTime>00:00</ efTime> <efType>Time</efType> <executionRestriction>Run</ executionRestriction> <firstRun>2021-03-15 13:59:37 -0400</firstRun> <holdResources>>false </holdResources> <lastRun>2021-03-16 17:12:42 -0400</lastRun> <lastRunTime>9</ lastRunTime> <lastRunTimeDisplay> 9 seconds</ lastRunTimeDisplay> <lfDayConstraint>Nth </lfDayConstraint> <lfDuration>00:00:00 :00</lfDuration> <lfEnabled>>false</ lfEnabled> <lfNthAmount>1</ lfNthAmount> <lfOffsetDuration /> <lfOffsetDurationUnit>Minut es</lfOffsetDurationUnit> <lfOffsetPercentage> 0</lfOffsetPercentage> </pre>	<pre> "bodyVariables": "None", "caseSensitive": false, "cc": null, "ccFilter": "None", "connection": "Test Email Connection", "connectionVar": null, "contentProcessingType": "None", "contentValue": null, "csContentProcessing": false, "cpDuration": null, "cpDurationUnit": "Minutes", "credentials": "outlook", "credentialsVar": null, "customField1": { "label": "Domain", "value": "http://qa-cntlr- mssql:8080/uc/" }, "customField2": { "label": null, "value": null }, "efDayConstraint": "Nth Day", "efDuration": "00:00:00:00", "efEnabled": false, "efNthAmount": 10, "efOffsetDuration": null, "efOffsetDurationUnit": "Minutes", "efOffsetPercentage": 0, "efOffsetType": "Percentage", "efTime": "00:00", "efType": "Time", "excludeRelated": false, "exclusiveTasks": [], "executionRestriction": "Run", "expirationAction": "failed", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_task_email_monitor", "filterLogic": "And", "firstRun": "2021-03-15 13:59:37 -0400", "from": null, "fromFilter": "None", "holdResources": false, "lastRun": "2021-03-16 17:12:42 -0400", "lastRunTime": 9, "lastRunTimeDisplay": "9 Seconds", "lfDayConstraint": "Nth Day", "lfDuration": "00:00:00:00", </pre>

Examples	XML	JSON
	<pre> <lfOffsetType>Percent tage</lfOffsetType> <lfTime>00:00</ lfTime> <lfType>Time</lfType> <lsDayConstraint>Nth </lsDayConstraint> <lsDuration>00:00:00 :00</lsDuration> <lsEnabled>>false</ lsEnabled> <lsNthAmount>7</ lsNthAmount> <lsTime>00:00</ lsTime> <lsType>Time</lsType> <maxRunTime>9</ maxRunTime> <maxRunTimeDisplay>9 Seconds</maxRunTimeDisplay> <minRunTime>3</ minRunTime> <minRunTimeDisplay>3 Seconds</minRunTimeDisplay> <name>uc - Test Email</name> <opswiseGroups /> <resolveNameImmediately>fal se</resolveNameImmediately> <resPriority>10</ resPriority> <restrictionPeriod>S pan</restrictionPeriod> <restrictionPeriodAfterDate >2017-11-10</ restrictionPeriodAfterDate> <restrictionPeriodAfterTime >10:30</ restrictionPeriodAfterTime> <restrictionPeriodBeforeDat e>2017-11-20</ restrictionPeriodBeforeDate > <restrictionPeriodBeforeTim e>15:00</ restrictionPeriodBeforeTime > <restrictionPeriodDateList /> </pre>	<pre> "lfEnabled": false, "lfNthAmount": 1, "lfOffsetDuration": null, "lfOffsetDurationUnit": "Minutes", "lfOffsetPercentage": 0, "lfOffsetType": "Percentage", "lfTime": "00:00", "lfType": "Time", "lsDayConstraint": "Nth Day", "lsDuration": "00:00:00:00", "lsEnabled": false, "lsNthAmount": 7, "lsTime": "00:00", "lsType": "Time", "mailboxFolder": true, "mailboxFolderDestination": null, "maxRunTime": 9, "maxRunTimeDisplay": "9 Seconds", "minRunTime": 3, "minRunTimeDisplay": "3 Seconds", "moveToTrash": true, "name": "uc - Test Email", "notes": [], "opswiseGroups": null, "receivedAfter": "Date", "receivedAfterDate": null, "receivedAfterOffset": "00:00", "receivedBefore": "Date", "receivedBeforeDate": null, "receivedBeforeOffset": "00:00", "receivedOn": "Date", "receivedOnDate": null, "receivedRestriction": "None", "resolveNameImmediately": false, "resPriority": 10, "restrictionPeriod": "Span", "restrictionPeriodAfterDate": "2017-11-10", "restrictionPeriodAfterTime": "10:30", "restrictionPeriodBeforeDate": "2017-11-20", "restrictionPeriodBeforeTime": "15:00", "restrictionPeriodDateList": [], "retainSysIds": true, "runCount": 32, "runTime": 108, "sentAfter": "Date", "sentAfterDate": null, </pre>

Examples	XML	JSON
	<pre> <runCount>32</runCount> <runTime>108</runTime> <startHeld>false</startHeld> <startHeldReason /> <summary>Test Email</summary> <sysId>fb59a227517a421a92c15ff5aefe3b66</sysId> <timeZonePref>-- System Default --</timeZonePref> <twDelayAmount /> <twDelayDuration>00:00:00</twDelayDuration> <twDelayType>None</twDelayType> <twWaitAmount /> <twWaitDayConstraint>NONE</twWaitDayConstraint> <twWaitDuration>00:00:00</twWaitDuration> <twWaitTime>00:00:00</twWaitTime> <twWaitType>None</twWaitType> <twWorkflowOnly>-- System Default --</twWorkflowOnly> <userEstimatedDuration /> <action>Mark As Read</action> <body /> <bodyBeginMarker>TBD</bodyBeginMarker> <bodyEndMarker>TBD</bodyEndMarker> <bodyFilter>None</bodyFilter> <bodyVariables>None</bodyVariables> <caseSensitive>false</caseSensitive> <cc /> <ccFilter>None</ccFilter> <connection>Test Email Connection</connection> <connectionVar /> <contentProcessingType>None </pre>	<pre> "sentAfterOffset": "00:00", "sentBefore": "Date", "sentBeforeDate": null, "sentBeforeOffset": "00:00", "sentOn": "Date", "sentOnDate": null, "sentRestriction": "None", "startHeld": false, "startHeldReason": null, "subject": null, "subjectFilter": "None", "summary": "Test Email", "sysId": "fb59a227517a421a92c15ff5aefe3b66" , "timeLimit": 12, "timeLimitUnit": "Hours", "timeZonePref": "-- System Default --", "to": null, "toFilter": "None", "twDelayAmount": null, "twDelayDuration": "00:00:00:00", "twDelayType": "None", "twWaitAmount": null, "twWaitDayConstraint": "NONE", "twWaitDuration": "00:00:00:00", "twWaitTime": "00:00", "twWaitType": "None", "twWorkflowOnly": "-- System Default --", "useAdvancedCriteria": false, "userEstimatedDuration": null, "variables": [], "version": 1, "virtualResources": [] } </pre>

Examples	XML	JSON
	<pre> </contentProcessingType> <contentValue /> <csContentProcessing> false</csContentProcessing> <expirationAction>fa iled</expirationAction> <filterLogic>And</ filterLogic> <from /> <fromFilter>None</ fromFilter> <includeReadEmail>tr ue</includeReadEmail> <mailboxFolder>true< /mailboxFolder> <mailboxFolderDestination / > <moveToTrash>true</ moveToTrash> <receivedAfter>Date< /receivedAfter> <receivedAfterDate / > <receivedAfterOffset> 00:00</receivedAfterOffset> <receivedBefore>Date </receivedBefore> <receivedBeforeDate /> <receivedBeforeOffset>00:00 </receivedBeforeOffset> <receivedOn>Date</ receivedOn> <receivedOnDate /> <receivedRestriction> None</receivedRestriction> <sentAfter>Date</ sentAfter> <sentAfterDate /> <sentAfterOffset>00: 00</sentAfterOffset> <sentBefore>Date</ sentBefore> <sentBeforeDate /> <sentBeforeOffset>00 :00</sentBeforeOffset> <sentOn>Date</sentOn> <sentOnDate /> <sentRestriction>Non e</sentRestriction> <subject /> <subjectFilter>None< /subjectFilter> </pre>	

Examples	XML	JSON
	<pre><timeLimit>12</timeLimit> <timeLimitUnit>Hours </timeLimitUnit> <to /> <toFilter>None</toFilter> <useAdvancedCriteria>false</useAdvancedCriteria> </taskEmailMonitor></pre>	

See [Task Web Services - Task Actions](#) for XML and JSON examples of task actions.

See [Task Web Services - Task-Related Records](#) for XML and JSON examples of task-related records.

4.33.10.6 Properties

- See [All Tasks Properties](#)
- See [Email Monitor Task Properties](#)

4.33.11 File Transfer Task Web Services

- [Overview](#)
- [Create a File Transfer Task](#)
- [Modify a File Transfer Task](#)
- [Read a File Transfer Task](#)
- [File Transfer Task: XML and JSON Examples](#)
- [Properties](#)

4.33.11.1 Overview

Universal Controller supports the following RESTful-based web services for File Transfer Task operations, which are listed alphabetically on this page.

- [Create a File Transfer Task](#)
- [Modify a File Transfer Task](#)
- [Read a File Transfer Task](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Links to detailed information about the [properties](#) used in these web services also is located on this page.

For information on Task web services that are applicable to all task types, see:

- [Delete a Task](#)

- [Launch a Task](#)
- [List Tasks](#)

4.33.11.2 Create a File Transfer Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	POST
Description	Creates a new File Transfer task.
Example URI	http://localhost:8080/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See File Transfer Task: XML and JSON Examples , below.
Properties	See Properties .
Example Response	• Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

4.33.11.3 Modify a File Transfer Task

	Description
URI	http://host_name/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	Modifies the task specified by the sysId in the request , below. To modify File Transfer Task properties without modifying related records, use the excludeRelated property.
Example	See File Transfer Task: XML and JSON Examples .
Properties	See Properties .
Example Response	• Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.

4.33.11.4 Read a File Transfer Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task .
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>
Example URI	http://localhost:8080/uc/resources/task?taskname=testTask http://localhost:8080/uc/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	- Status 200 /OK (See File Transfer Task: XML and JSON Examples .) - Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
Properties	See Properties .

4.33.11.5 File Transfer Task: XML and JSON Examples

The `retainSysIds` and `version` properties are specified as attributes in XML.

The `exportReleaseLevel` and `exportTable` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<pre> XML <taskFtp exportReleaseLevel= "7.2.0.0" exportTable="ops_t ask_ftp" retainSysIds="true" version="1"> <actions /> <variables /> <notes /> <virtualResources /> <exclusiveTasks /> <agent /> <agentCluster>uc Demo Cluster</agentCluster> <agentClusterVar /> <agentVar /> <avgRunTime>3</ avgRunTime> <avgRunTimeDisplay>3 Seconds</avgRunTimeDisplay> <broadcastCluster /> <broadcastClusterVar /> <cpDuration /> <cpDurationUnit>Minut es</cpDurationUnit> <credentials /> <credentialsVar /> <customField1 label="Domain">web.com</ customField1> <customField2 /> <efDayConstraint>Nth< /efDayConstraint> <efDuration>00:00:00: 00</efDuration> <efEnabled>>false</ efEnabled> <efNthAmount>10</ efNthAmount> <efOffsetDuration /> <efOffsetDurationUnit> Minutes</ efOffsetDurationUnit> <efOffsetPercentage>0 </efOffsetPercentage> <efOffsetType>Percent age</efOffsetType> <efTime>00:00</efTime> <efType>Time</efType> <executionRestriction> Run</executionRestriction> <firstRun>2021-03-15 13:59:37 -0400</firstRun> <holdResources>>false< </pre>	<pre> JSON { "type": "taskFtp", "actions": { "abortActions": [], "emailNotifications": [], "setVariableActions": [], "snmpNotifications": [], "systemOperations": [] }, "agent": null, "agentCluster": "uc Demo Cluster", "agentClusterVar": null, "agentVar": null, "authenticatePeer": true, "avgRunTime": 3, "avgRunTimeDisplay": "3 Seconds", "broadcastCluster": null, "broadcastClusterVar": null, "codepage" : "-- None --", "command": "GET", "compress": "NO", "cpDuration": null, "cpDurationUnit": "Minutes", "createop": "-- None --", "credentials": null, "credentialsVar": null, "customField1": { "label": "Domain", "value": "http://qa-cntlr- mssql:8080/uc/" }, "customField2": { "label": null, "value": null }, "encrypt": "NO", "efDayConstraint": "Nth Day", "efDuration": "00:00:00:00", "efEnabled": false, "efNthAmount": 10, "efOffsetDuration": null, "efOffsetDurationUnit": "Minutes", "efOffsetPercentage": 0, "efOffsetType": "Percentage", "efTime": "00:00", "efType": "Time", "excludeRelated": false, "exclusiveTasks": [], "executionRestriction": "Run", "exitCodeOutput": null, </pre>

Examples	XML	JSON
	<pre> /holdResources> <lastRun>2021-03-16 17:12:42 -0400</lastRun> <lastRunTime>9</ lastRunTime> <lastRunTimeDisplay>9 seconds</lastRunTimeDisplay> <lfDayConstraint>Nth< /lfDayConstraint> <lfDuration>00:00:00: 00</lfDuration> <lfEnabled>>false</ lfEnabled> <lfNthAmount>1</ lfNthAmount> <lfOffsetDuration /> <lfOffsetDurationUnit> Minutes</ lfOffsetDurationUnit> <lfOffsetPercentage>0 </lfOffsetPercentage> <lfOffsetType>Percent age</lfOffsetType> <lfTime>00:00</lfTime> <lfType>Time</lfType> <lsDayConstraint>Nth< /lsDayConstraint> <lsDuration>00:00:00: 00</lsDuration> <lsEnabled>>false</ lsEnabled> <lsNthAmount>7</ lsNthAmount> <lsTime>00:00</lsTime> <lsType>Time</lsType> <maxRunTime>9</ maxRunTime> <maxRunTimeDisplay>9 Seconds</maxRunTimeDisplay> <minRunTime>3</ minRunTime> <minRunTimeDisplay>3 Seconds</minRunTimeDisplay> <name>uc - Test Email</name> <opswiseGroups /> <resolveNameImmediately>false</resolveNameImmediately> <resPriority>10</ resPriority> <restrictionPeriod>Span</restrictionPeriod> <restrictionPeriodAfterDate> </pre>	<pre> "exitCodeProcessing": "Success Exitcode Range", "exitCodeText": null, "exitCodes": 0, "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_task_ftp", "firstRun": "2021-03-15 13:59:37 -0400", "formOrScript": "Form", "format": "ASCII", "ftpSubcommands": null, "holdResources": false, "lastRun": "2021-03-16 17:12:42 -0400", "lastRunTime": 9, "lastRunTimeDisplay": "9 Seconds", "lfDayConstraint": "Nth Day", "lfDuration": "00:00:00:00", "lfEnabled": false, "lfNthAmount": 1, "lfOffsetDuration": null, "lfOffsetDurationUnit": "Minutes", "lfOffsetPercentage": 0, "lfOffsetType": "Percentage'", "lfTime": "00:00", "lfType": "Time", "localFilename": "\$ {demo_ops_download_dir}/ welcome.msg", "lsDayConstraint": "Nth Day", "lsDuration": "00:00:00:00", "lsEnabled": false, "lsNthAmount": 7, "lsTime": "00:00", "lsType": "Time", "maxRunTime": 9, "maxRunTimeDisplay": "9 Seconds", "minRunTime": 3, "minRunTimeDisplay": "3 Seconds", "move": false, "name": "uc - Test Email", "nft": false, "notes": [], "opswiseGroups": null, "outputType": "STDOUT", "primaryBrokerChoice": "Agent Cluster", "primaryBrokerRef": "sbus43 - AGNT0001", "primaryCluster": "\${cluster}", </pre>

Examples	XML	JSON
	<pre> 2017-11-10</ restrictionPeriodAfterDate> <restrictionPeriodAfterTime> 10:30</ restrictionPeriodAfterTime> <restrictionPeriodBeforeDate >2017-11-20</ restrictionPeriodBeforeDate> <restrictionPeriodBeforeTime >15:00</ restrictionPeriodBeforeTime> <restrictionPeriodDateList / > <runCount>32</ runCount> <runTime>108</runTime> <startHeld>>false</ startHeld> <startHeldReason /> <summary>Test Email</ summary> <sysId>fb59a227517a42 1a92c15ff5aefe3b66</sysId> <timeZonePref>-- System Default --</ timeZonePref> <twDelayAmount /> <twDelayDuration>00:0 0:00:00</twDelayDuration> <twDelayType>None</ twDelayType> <twWaitAmount /> <twWaitDayConstraint> NONE</twWaitDayConstraint> <twWaitDuration>00:00 :00:00</twWaitDuration> <twWaitTime>00:00</ twWaitTime> <twWaitType>None</ twWaitType> <twWorkflowOnly>-- System Default --</ twWorkflowOnly> <userEstimatedDuration /> <authenticatePeer>tru e</authenticatePeer> <codepage>-- None --< /codepage> <command>GET</command> <compress>NO</ </pre>	<pre> "primaryClusterRef": null, "primaryCredVar": null, "primaryCredentials": null, "primaryFilesys": "-- None --", "primaryOpenOptions": null, "remoteCredVar": null, "remoteCredentials": "uc - Anonymous", "remoteFilename": "welcome.msg", "remoteServer": "ftp.winzip.com", "resolveNameImmediately": false, "resPriority": 10, "restrictionPeriod": "Span", "restrictionPeriodAfterDate": "2017-11-10", "restrictionPeriodAfterTime": "10:30", "restrictionPeriodBeforeDate": "2017-11-20", "restrictionPeriodBeforeTime": "15:00", "restrictionPeriodDateList": [], "retainSysIds": true, "retryExitCodes": null, "retryIndefinitely": false, "retryInterval": 60, "retryMaximum": 0, "retrySuppressFailure": false, "runCount": 32, "runTime": 108, "runtimeDir": null, "script": null, "secondaryBroker": "\${agent}", "secondaryBrokerChoice": "Agent Cluster", "secondaryBrokerRef": null, "secondaryCluster": null, "secondaryClusterRef": "Opswise - Default Windows Cluster", "secondaryCredVar": null, "secondaryCredentials": null, "secondaryFilesys": "-- None --", "secondaryOpenOptions": null, "serverType": "UDM", "showProgress": false, "startHeld": false, "startHeldReason": null, "summary": "Test Email", "sysId": "fb59a227517a421a92c15ff5aefe3b66" , "timeZonePref": "-- System Default --", </pre>

Examples	XML	JSON
	<pre> compress> <createop>-- None --< /crea teop> <encrypt>NO</encrypt> <exitCodeOutput /> <exitCodeProcessing>S uccess Exitcode Range</ exitCodeProcessing> <exitCodeText /> <exitCodes>0</ exitCodes> <formOrScript>Form</ formOrScript> <format>ASCII</format> <ftpSubcommands /> <jobcard /> <localFilename>\$ {demo_ops_download_dir}/ welcome.msg</localFilename> <move>false</move> <nft>false</nft> <outputType>STDOUT</ outputType> <primaryBroker /> <primaryBrokerChoice> Agent Cluster</ primaryBrokerChoice> <primaryBrokerRef>sbu s43 - AGNT0001</ primaryBrokerRef> <primaryCluster>\$ {cluster}</primaryCluster> <primaryClusterRef /> <primaryCredVar /> <primaryCredentials / > <primaryFilesys>-- None --</primaryFilesys> <primaryOpenOptions / > <remoteCredVar /> <remoteCredentials>uc - Anonymous</ remoteCredentials> <remoteFilename>welco me.msg</remoteFilename> <remoteServer>ftp.win zip.com</remoteServer> <retryExitCodes /> <retryIndefinitely>fa lse</retryIndefinitely> <retryInterval>60</ retryInterval> <retryMaximum>0</ retryMaximum> </pre>	<pre> "transferDirection": "GET", "transferMode": "Passive", "trimSpace": false, "twDelayAmount": null, "twDelayDuration": "00:00:00:00", "twDelayType": "None", "twWaitAmount": null, "twWaitDayConstraint": "NONE", "twWaitDuration": "00:00:00:00", "twWaitTime": "00:00", "twWaitType": "None", "twWorkflowOnly": "-- System Default --", "udmOperation": 1, "udmOptions": null, "useRegex": false, "userEstimatedDuration": null, "variables": [], "verifyHostName": true, "version": 1, "virtualResources": [] } </pre>

Examples	XML	JSON
	<pre> <retrySuppressFailure> false</retrySuppressFailure> <runtimeDir /> <script /> <secondaryBroker>\$ {agent}</secondaryBroker> <secondaryBrokerChoice>Agent Cluster</ secondaryBrokerChoice> <secondaryBrokerRef / > <secondaryCluster /> <secondaryClusterRef> Opwise - Default Windows Cluster</secondaryClusterRef> <secondaryCredVar /> <secondaryCredentials /> <secondaryFilesys>-- None --</secondaryFilesys> <secondaryOpenOptions /> <serverType>UDM</ serverType> <showProgress>>false</ showProgress> <transferDirection>GE T</transferDirection> <transferMode>Passive </transferMode> <trimSpace>>false</ trimSpace> <udmOperation>1</ udmOperation> <udmOptions /> <useRegex>>false</ useRegex> <verifyHostName>>true< /verifyHostName> </taskFtp> </pre>	

See [Task Web Services - Task Actions](#) for XML and JSON examples of task actions.

See [Task Web Services - Task-Related Records](#) for XML and JSON examples of task-related records.

4.33.11.6 Properties

- See [All Tasks Properties](#)
- See [File Transfer Task Properties](#)

4.33.12 IBM i Task Web Services

- [Overview](#)
- [Create a IBM i Task](#)
- [Modify a IBM i Task](#)
- [Read an IBM i Task](#)
- [IBM i Task: XML and JSON Examples](#)
- [Properties](#)

4.33.12.1 Overview

Universal Controller supports the following RESTful-based web services for IBM i Task operations, which are listed alphabetically on this page.

- [Create an IBM i Task](#)
- [Modify an IBM i Task](#)
- [Read an IBM i Task](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Links to detailed information about the [properties](#) used in these web services also is located on this page.

For information on Task web services that are applicable to all task types, see:

- [Delete a Task](#)
- [Launch a Task](#)
- [List Tasks](#)

4.33.12.2 Create a IBM i Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	POST
Description	Creates a new IBM i task.
Example URI	http://localhost:8080/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See IBM i Task: XML and JSON Examples , below.
Properties	See Properties .
Example Response	• Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

4.33.12.3 Modify a IBM i Task

	Description
URI	http://host_name/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	Modifies the task specified by the sysId in the request. To modify IBM i Task properties without modifying related records, use the excludeRelated property.
Example	See IBM i Task: XML and JSON Examples .
Properties	See Properties .
Example Response	Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.

4.33.12.4 Read an IBM i Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task .
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>
Example URI	http://localhost:8080/uc/resources/task?taskname=testTask http://localhost:8080/uc/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	- Status 200 /OK (See IBM i Task: XML and JSON Examples.) - Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

4.33.12.5 IBM i Task: XML and JSON Examples

The

`retainSysIds`

and

`version`

properties are specified as attributes in XML.

The

`exportReleaseLevel`

and `exportTable` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<pre> XML <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <tasklbmi exportReleaseLevel="7.7.1.0" exportTable="ops_task_ibmi" retainSysIds="true" version="2"> <variables/> <notes/> <agent /> <agentCluster>Opswise - Default IBM i Cluster</ agentCluster> <agentClusterVar /> <agentVar /> <broadcastCluster /> <broadcastClusterVar /> <cpDuration /> <cpDurationUnit>Minutes</cpDurationUnit> <credentials /> <credentialsVar /> <customField1/> <customField2/> <efDayConstraint>None</efDayConstraint> <efDuration>00:00:00:00</efDuration> <efEnabled>>false</efEnabled> <efNthAmount>5</efNthAmount> <efOffsetDuration /> <efOffsetDurationUnit>Minutes</efOffsetDurationUnit> <efOffsetPercentage>0</efOffsetPercentage> <efOffsetType>Percentage</efOffsetType> <efTime>00:00</efTime> <efType>Time</efType> <enforceVariables>>false</enforceVariables> <exclusiveWithSelf>>false</exclusiveWithSelf> <executionRestriction>None</executionRestriction> <firstRun></firstRun> <holdResources>>false</holdResources> <lastRun></lastRun> <IfDayConstraint>None</IfDayConstraint> <IfDuration>00:00:00:00</IfDuration> <IfEnabled>>false</IfEnabled> <IfNthAmount>5</IfNthAmount> <IfOffsetDuration /> <IfOffsetDurationUnit>Minutes</IfOffsetDurationUnit> <IfOffsetPercentage>0</IfOffsetPercentage> <IfOffsetType>Percentage</IfOffsetType> </pre>	<pre> JSON { "type": "tasklbmi", "actions": { "abortActions": [], "emailNotifications": [], "setVariableActions": [], "snmpNotifications": [], "systemOperations": [] }, "agent": null, "agentCluster": "Opswise - Default IBM i Cluster", "agentClusterVar": null, "agentVar": null, "broadcastCluster": null, "broadcastClusterVar": null, "command": "\${command}", "commandOrScript": "Command", "commandType": "SBMJOB", "cpDuration": null, "cpDurationUnit": "Minutes", "credentials": null, "credentialsVar": null, "customField1": { "label": null, "value": null }, "customField2": { "label": null, "value": null }, "efDayConstraint": "None", "efDuration": "00:00:00:00", "efEnabled": false, "efNthAmount": 5, "efOffsetDuration": null, "efOffsetDurationUnit": "Minutes", "efOffsetPercentage": 0, "efOffsetType": "Percentage", "efTime": "00:00", "efType": "Time", "endSeverity": 30, "enforceVariables": false, </pre>

Examples	XML	JSON
	<pre> <IfTime>00:00</IfTime> <IfType>Time</IfType> <lockVariables>>false</lockVariables> <logLevel>Inherited</logLevel> <IsDayConstraint>None</IsDayConstraint> <IsDuration>00:00:00:00</IsDuration> <IsEnabled>>false</IsEnabled> <IsNthAmount>5</IsNthAmount> <IsTime>00:00</IsTime> <IsType>Time</IsType> <name>stonebranch-ibmi-00</name> <actions/> <opswiseGroups/> <overrideInstanceWait>No</overrideInstanceWait> <resPriority>10</resPriority> <resolveNameImmediately>>false</ resolveNameImmediately> <restrictionPeriod>None</restrictionPeriod> <restrictionPeriodAfterDate /> <restrictionPeriodAfterTime /> <restrictionPeriodBeforeDate /> <restrictionPeriodBeforeTime /> <restrictionPeriodDateList/> <retryIndefinitely>>false</retryIndefinitely> <retryInterval>60</retryInterval> <retryMaximum>0</retryMaximum> <retrySuppressFailure>>false</retrySuppressFailure> <runCount>0</runCount> <runTime>0</runTime> <simulation>>false</simulation> <startHeld>>false</startHeld> <startHeldReason /> <summary /> <sysId>6e7386cfac5f4c36b758e9d46e23f4f2</sysId> <exclusiveTasks/> <virtualResources/> <timeZonePref>-- System Default --</timeZonePref> <twDelayAmount /> <twDelayDuration>00:00:00:00</twDelayDuration> <twDelayType>None</twDelayType> <twWaitAmount /> <twWaitDayConstraint>None</twWaitDayConstraint> <twWaitDuration>00:00:00:00</twWaitDuration> <twWaitTime>00:00</twWaitTime> <twWaitType>None</twWaitType> <twWorkflowOnly>-- System Default --</ twWorkflowOnly> <userEstimatedDuration /> <command>\${command}</command> <commandOrScript>Command</commandOrScript> <commandType>SBMJOB</commandType> <endSeverity>30</endSeverity> <environment/> <exitCodeOutput /> <exitCodeProcessing>Success Exitcode Range</ exitCodeProcessing> <exitCodeText /> <exitCodes>0</exitCodes> <jobDescription /> <jobName /> <jobPriority /> <jobQueue /> <outputFailureOnly>>false</outputFailureOnly> <outputPriority /> <outputQueue /> <outputReturnFile /> <outputReturnNline>100</outputReturnNline> <outputReturnSline>1</outputReturnSline> </pre>	<pre> "environment": [], "exclusiveTasks": [], "exclusiveWithSelf": false, "executionRestriction": "None", "exitCodeOutput": null, "exitCodeProcessing": "Success Exitcode Range", "exitCodeText": null, "exitCodes": "0", "exportReleaseLevel": "7.7.1.0", "exportTable": "ops_task_ibmi", "firstRun": "", "holdResources": false, "jobDescription": null, "jobName": null, "jobPriority": null, "jobQueue": null, "lastRun": "", "IfDayConstraint": "None", "IfDuration": "00:00:00:00", "IfEnabled": false, "IfNthAmount": 5, "IfOffsetDuration": null, "IfOffsetDurationUnit": "Minutes", "IfOffsetPercentage": 0, "IfOffsetType": "Percentage", "IfTime": "00:00", "IfType": "Time", "lockVariables": false, "logLevel": "Inherited", "IsDayConstraint": "None", "IsDuration": "00:00:00:00", "IsEnabled": false, "IsNthAmount": 5, "IsTime": "00:00", "IsType": "Time", "name": "stonebranch-ibmi-00", "notes": [], "opswiseGroups": [], "outputFailureOnly": false, "outputPriority": null, "outputQueue": null, "outputReturnFile": null, "outputReturnNline": "100", "outputReturnSline": "1", "outputReturnText": null, "outputReturnType": "NONE", "outputType": "STDOUT", "overrideInstanceWait": "No", "parameters": null, "printDevice": null, "resPriority": 10, "resolveNameImmediately": false, "restrictionPeriod": "None", "restrictionPeriodAfterDate": null, "restrictionPeriodAfterTime": null, "restrictionPeriodBeforeDate": null, "restrictionPeriodBeforeTime": null, "restrictionPeriodDateList": [], "retainSysIds": true, "retryExitCodes": null, "retryIndefinitely": false, "retryInterval": 60, "retryMaximum": 0, "retrySuppressFailure": false, "runAsSudo": false, "runCount": 0, "runTime": 0, </pre>

Examples	XML	JSON
	<pre> <outputReturnText /> <outputReturnType>NONE</outputReturnType> <outputType>STDOUT</outputType> <parameters /> <printDevice /> <retryExitCodes /> <runAsSudo>false</runAsSudo> <runtimeDir /> <script /> <waitForOutput>false</waitForOutput> </tasklbmi> </pre>	<pre> "runtimeDir": null, "script": null, "simulation": false, "startHeld": false, "startHeldReason": null, "summary": null, "sysId": "6e7386cfac5f4c36b758e9d46e23f4f2", "timeZonePref": "-- System Default --", "twDelayAmount": null, "twDelayDuration": "00:00:00:00", "twDelayType": "None", "twWaitAmount": null, "twWaitDayConstraint": "None", "twWaitDuration": "00:00:00:00", "twWaitTime": "00:00", "twWaitType": "None", "twWorkflowOnly": "-- System Default --", "userEstimatedDuration": null, "variables": [], "version": 2, "virtualResources": [], "waitForOutput": false } </pre>

See [Task Web Services - Task Actions](#) for XML and JSON examples of task actions.

See [Task Web Services - Task-Related Records](#) for XML and JSON examples of task-related records.

4.33.12.6 Properties

- See [All Tasks Properties](#)
- See [IBM i Task Properties](#)

4.33.13 Linux Unix Task Web Services

- [Overview](#)
- [Create a Linux/Unix Task](#)
- [Modify a Linux/Unix Task](#)
- [Read a Linux/Unix Task](#)
- [Linux/Unix Task: XML and JSON Examples](#)
- [Properties](#)

4.33.13.1 Overview

Universal Controller supports the following RESTful-based web services for Linux/Unix Task operations, which are listed alphabetically on this page.

- [Create a Linux/Unix Task](#)
- [Modify a Linux/Unix Task](#)
- [Read a Linux/Unix Task](#)

Formatting specifications for each web service, including details about parameter requirements, are provided. Links to detailed information about the [properties](#) used in these web services also is located on this page.

For information on Task web services that are applicable to all task types, see:

- [Delete a Task](#)
- [Launch a Task](#)
- [List Tasks](#)

4.33.13.2 Create a Linux/Unix Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	POST
Description	Creates a new Linux/Unix task.
Example URI	http://localhost:8080/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See Linux/Unix Task: XML and JSON Examples , below.
Properties	See Properties .
Example Response	• Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

4.33.13.3 Modify a Linux/Unix Task

	Description
URI	http://host_name/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	Modifies the task specified by the sysId in the request . To modify Linux/Unix Task properties without modifying related records, use the excludeRelated property.
Example	See Linux/Unix Task: XML and JSON Examples .
Properties	See Properties .

	Description
Example Response	Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.

4.33.13.4 Read a Linux/Unix Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task .
Request Parameters	<code>taskid</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskid</code> and <code>taskname</code>
Example URI	http://localhost:8080/uc/resources/task?taskname=testTask http://localhost:8080/uc/resources/task?taskid=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	- Status 200 /OK (See Linux/Unix Task: XML and JSON Examples .) - Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

4.33.13.5 Linux/Unix Task: XML and JSON Examples

The

`retainSysIds`

and

`version`

properties are specified as attributes in XML.

The

`exportReleaseLevel`

and `exportTable` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<pre> XML <taskUnix exportReleaseLevel="7.2.0.0" " exportTable="ops_task_uni x" retainSysIds="true" version="1"> <actions /> <variables /> <notes /> <virtualResources /> <exclusiveTasks /> <agent /> <agentCluster>uc - Demo Linux/Unix Cluster</ agentCluster> <agentClusterVar /> <agentVar /> <avgRunTime>3</ avgRunTime> <avgRunTimeDisplay>3 Seconds</avgRunTimeDisplay> <broadcastCluster /> <broadcastClusterVar /> <cpDuration /> <cpDurationUnit>Minu tes</cpDurationUnit> <credentials /> <credentialsVar /> <customField1 label="Domain">web.com</ customField1> <customField2 /> <efDayConstraint>Nth </efDayConstraint> <efDuration>00:00:00 :00</efDuration> <efEnabled>>false</ efEnabled> <efNthAmount>10</ efNthAmount> <efOffsetDuration/> <efOffsetDurationUnit>Minut es</efOffsetDurationUnit> <efOffsetPercentage> 0</efOffsetPercentage> </pre>	<pre> JSON { "type": "taskUnix", "actions": { "abortActions": [], "emailNotifications": [], "setVariableActions": [], "snmpNotifications": [], "systemOperations": [] }, "agent": null, "agentCluster": "uc Demo Cluster", "agentClusterVar": null, "agentVar": null, "avgRunTime": 3, "avgRunTimeDisplay": "3 Seconds", "broadcastCluster": null, "broadcastClusterVar": null, "command": null, "commandOrScript": "Script", "cpDuration": null, "cpDurationUnit": "Minutes", "credentials": null, "credentialsVar": null, "customField1": { "label": "Domain", "value": "http://qa-cntlr- mssql:8080/uc/" }, "customField2": { "label": null, "value": null }, "efDayConstraint": "Nth Day", "efDuration": "00:00:00:00", "efEnabled": false, "efNthAmount": 10, "efOffsetDuration": null, "efOffsetDurationUnit": "Minute", "efOffsetPercentage": 0, "efOffsetType": "Percentage", "efTime": "00:00", "efType": "Time", "environment": null, </pre>

Examples	XML	JSON
	<pre> <efOffsetType>Percen tage<\efOffsetType> <efTime>00:00</ efTime> <efType>Time</efType> <executionRestriction>Run</ executionRestriction> <firstRun>2021-03-15 13:59:37 -0400</firstRun> <holdResources>>false </holdResources> <lastRun>2021-03-16 17:12:42 -0400</lastRun> <lastRunTime>9</ lastRunTime> <lastRunTimeDisplay> 9 seconds</ lastRunTimeDisplay> <lfDayConstraint>Nth </lfDayConstraint> <lfDuration>00:00:00 :00</lfDuration> <lfEnabled>>false</ lfEnabled> <lfNthAmount>1</ lfNthAmount> <lfOffsetDuration /> <lfOffsetDurationUnit>Minut es</lfOffsetDurationUnit> <lfOffsetPercentage> 0</lfOffsetPercentage> <lfOffsetType>Percen tage</lfOffsetType> <lfTime>00:00</ lfTime> <lfType>Time</lfType> <lsDayConstraint>Nth </lsDayConstraint> <lsDuration>00:00:00 :00</lsDuration> <lsEnabled>>false</ lsEnabled> <lsNthAmount>7</ lsNthAmount> <lsTime>00:00</ lsTime> <lsType>Time</lsType> <maxRunTime>9</ maxRunTime> <maxRunTimeDisplay>9 Seconds</maxRunTimeDisplay> <minRunTime>3</ </pre>	<pre> "excludeRelated": false, "exclusiveTasks": [], "executionRestriction": "Run", "exitCodeOutput": null, "exitCodeProcessing": "Success Exitcode Range", "exitCodeText": null, "exitCodes": 0, "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_task_unix", "firstRun": "2021-03-15 13:59:37 -0400", "holdResources": false, "lfDayConstraint": "Nth Day", "lfDuration": "00:00:00:00", "lfEnabled": false, "lfNthAmount": 1, "lfOffsetDuration": null, "lfOffsetDurationUnit": "Minutes", "lfOffsetPercentage": 0, "lfOffsetType": "Percentage", "lfTime": "00:00", "lfType": "Time", "lsDayConstraint": "Nth Day", "lsDuration": "00:00:00:00", "lsEnabled": false, "lsNthAmount": 7, "lsTime": "00:00", "lsType": "Time", "maxRunTime": 9, "maxRunTimeDisplay": "9 Seconds", "minRunTime": 3, "minRunTimeDisplay": "3 Seconds", "name": "uc - Test Email", "notes": [], "opswiseGroups": null, "outputFailureOnly": true, "outputReturnFile": null, "outputReturnNline": 100, "outputReturnSline": 1, "outputReturnText": null, "outputReturnType": "STDERR", "outputType": "STDOUT", "parameters": "uc Demo", "resolveNameImmediately": false, "resPriority": 10, "restrictionPeriod": "Span", "restrictionPeriodAfterDate": "2017-11-10", "restrictionPeriodAfterTime": "10:30", </pre>

Examples	XML	JSON
	<pre> minRunTime> <minRunTimeDisplay>3 Seconds</minRunTimeDisplay> <name>uc - Test Email</name> <opswiseGroups /> <resolveNameImmediately>fal se</resolveNameImmediately> <resPriority>10</ resPriority> <restrictionPeriod>S pan</restrictionPeriod> <restrictionPeriodAfterDate >2017-11-10</ restrictionPeriodAfterDate> <restrictionPeriodAfterTime >10:30</ restrictionPeriodAfterTime> <restrictionPeriodBeforeDat e>2017-11-20</ restrictionPeriodBeforeDate > <restrictionPeriodBeforeTim e>15:00</ restrictionPeriodBeforeTime > <restrictionPeriodDateList /> <runCount>32</ runCount> <runTime>108</ runTime> <startHeld>true</ startHeld> <startHeldReason>hol d reason</startHeldReason> <summary /> <sysId>f87848b00a000 1037f43e7c81c8ec969</sysId> <timeZonePref>-- System Default --</ timeZonePref> <twDelayAmount /> <twDelayDuration>00: 00:01:00</twDelayDuration> <twDelayType>Duratio n</twDelayType> <twWaitAmount /> <twWaitDayConstraint </pre>	<pre> "restrictionPeriodBeforeDate": "2017-11-20", "restrictionPeriodBeforeTime": "15:00", "restrictionPeriodDateList": [], "retainSysIds": true, "retryExitCodes": null, "retryIndefinitely": true, "retryInterval": 60, "retryMaximum": 0, "retrySuppressFailure": false, "runAsSudo": false, "runCount": 32, "runTime": 108, "runtimeDir": null, "script": "test.bat", "startHeld": false, "startHeldReason": null, "summary": "Test Email", "sysId": "fb59a227517a421a92c15ff5aefe3b66" , "timeZonePref": "-- System Default --", "twDelayAmount": null, "twDelayDuration": "00:00:00:00", "twDelayType": "None", "twWaitAmount": null, "twWaitDayConstraint": "NONE", "twWaitDuration": "00:00:00:00", "twWaitTime": "00:00", "twWaitType": "None", "twWorkflowOnly": "-- System Default --", "userEstimatedDuration": null, "variables": [], "version": 1, "virtualResources": [], "waitForOutput": false } </pre>

Examples	XML	JSON
	<pre> /> <twWaitDuration>00:0 0:00:00</twWaitDuration> <twWaitTime>00:00</ twWaitTime> <twWaitType>Time</ twWaitType> <twWorkflowOnly>Yes< /twWorkflowOnly> <userEstimatedDuration>00:0 0:00:02</ userEstimatedDuration> <command /> <commandOrScript>Scr ipt</commandOrScript> <environment /> <exitCodeOutput /> <exitCodeProcessing> Success Exitcode Range</ exitCodeProcessing> <exitCodeText /> <exitCodes>0</ exitCodes> <outputFailureOnly>t rue</outputFailureOnly> <outputReturnFile /> <outputReturnNline>1 00</outputReturnNline> <outputReturnSline>1 </outputReturnSline> <outputReturnText /> <outputReturnType>ST DERR</outputReturnType> <outputType>STDOUT</ outputType> <parameters>uc Demo< /parameters> <retryExitCodes /> <retryIndefinitely>t rue</retryIndefinitely> <retryInterval>60</ retryInterval> <retryMaximum>0</ retryMaximum> <retrySuppressFailure>false </retrySuppressFailure> <runAsSudo>false</ runAsSudo> <runtimeDir /> <script>test.bat</ script> <waitForOutput>false </waitForOutput> </taskUnix> </pre>	

See [Task Web Services - Task Actions](#) for XML and JSON examples of task actions.

See [Task Web Services - Task-Related Records](#) for XML and JSON examples of task-related records.

4.33.13.6 Properties

- See [All Tasks Properties](#)
- See [Linux/Unix Task Properties](#)

4.33.14 Manual Task Web Services

- [Overview](#)
- [Create a Manual Task](#)
- [Modify a Manual Task](#)
- [Read a Manual Task](#)
- [Manual Task: XML and JSON Examples](#)
- [Properties](#)

4.33.14.1 Overview

Universal Controller supports the following RESTful-based web services for Manual Task operations, which are listed alphabetically on this page.

- [Create a Manual Task](#)
- [Modify a Manual Task](#)
- [Read a Manual Task](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Links to detailed information about the [properties](#) used in these web services also is located on this page.

For information on Task web services that are applicable to all task types, see:

- [Delete a Task](#)
- [Launch a Task](#)
- [List Tasks](#)

4.33.14.2 Create a Manual Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	POST
Description	Creates a new Manual task.

	Description
Example URI	http://localhost:8080/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See Manual Task: XML and JSON Examples , below.
Properties	See Properties .
Example Response	Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

4.33.14.3 Modify a Manual Task

	Description
URI	http://host_name/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	Modifies the task specified by the sysId in the request . To modify Manual Task properties without modifying related records, use the excludeRelated property.
Example	See Manual Task: XML and JSON Examples .
Properties	See Properties .
Example Response	Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.

4.33.14.4 Read a Manual Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task .
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>

	Description
Example URI	http://localhost:8080/uc/resources/task?taskname=testTask http://localhost:8080/uc/resources/task?taskid=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	- Status 200 /OK (See Manual Task: XML and JSON Examples .) - Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

4.33.14.5 Manual Task: XML and JSON Examples

The `retainSysIds` and `version` properties are specified as attributes in XML.

The `exportReleaseLevel` and `exportTable` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<pre>XML <taskManual exportReleaseLevel="7.2.0.0" exportTable="ops_task_manual" retainSysIds= "true" version="1"> <actions /> <variables /> <notes /> <virtualResources /> <exclusiveTasks /> <avgRunTime>3</avgRunTime> <avgRunTimeDisplay>3 Seconds</ avgRunTimeDisplay> <cpDuration /></pre>	<pre>JSON { "type": "taskManual", "actions": { "abortActions": [], "emailNotifications" : [], "setVariableActions" : [], "snmpNotifications": [], "systemOperations": []</pre>

Examples	XML	JSON
	<pre> <cpDurationUnit>Minutes</cpDurationUnit> <credentials /> <credentialsVar /> <customField1 label="Domain">web.com</customField1> <customField2 /> <efDayConstraint>Nth</efDayConstraint> <efDuration>00:00:00:00</efDuration> <efEnabled>>false</efEnabled> <efNthAmount>10</efNthAmount> <efOffsetDuration /> <efOffsetDurationUnit>Minutes</efOffsetDurationUnit> <efOffsetPercentage>0</efOffsetPercentage> <efOffsetType>Percentage</efOffsetType> <efTime>00:00</efTime> <efType>Time</efType> <executionRestriction>Run</executionRestriction> <firstRun>2021-03-15 13:59:37 -0400</firstRun> <holdResources>>false</holdResources> <lastRun>2021-03-16 17:12:42 -0400</lastRun> <lastRunTime>9</lastRunTime> <lastRunTimeDisplay>9 seconds</lastRunTimeDisplay> <lfDayConstraint>Nth</lfDayConstraint> <lfDuration>00:00:00:00</lfDuration> <lfEnabled>>false</lfEnabled> <lfNthAmount>1</lfNthAmount> <lfOffsetDuration /> <lfOffsetDurationUnit>Minutes</lfOffsetDurationUnit> <lfOffsetPercentage>0</lfOffsetPercentage> <lfOffsetType>Percentage</lfOffsetType> <lfTime>00:00</lfTime> <lfType>Time</lfType> <lsDayConstraint>Nth</lsDayConstraint> <lsDuration>00:00:00:00</lsDuration> <lsEnabled>>false</lsEnabled> <lsNthAmount>7</lsNthAmount> <lsTime>00:00</lsTime> <lsType>Time</lsType> <maxRunTime>9</maxRunTime> <maxRunTimeDisplay>9 Seconds</maxRunTimeDisplay> </pre>	<pre> }, "avgRunTime": 3, "avgRunTimeDisplay": "3 Seconds", "cpDuration": null, "cpDurationUnit": "Minutes", "credentials": null, "credentialsVar": null, "customField1": { "label": "Domain", "value": "http://qa- cntl-r-mssql:8080/uc/" }, "customField2": { "label": null, "value": null }, "efDayConstraint": "Nth Day", "efDuration": "00:00:00:00", "efEnabled": false, "efNthAmount": 10, "efOffsetDuration": null, "efOffsetDurationUnit" : "Minutes", "efOffsetPercentage": 0, "efOffsetType": "Percentage", "efTime": "00:00", "efType": "Time", "excludeRelated": false, "exclusiveTasks": [], "executionRestriction" : "Run", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_task_manual", "firstRun": "2021-03-15 13:59:37 -0400", "holdResources": false, "lastRun": "2021-03-16 17:12:42 -0400", "lastRunTime": 9, "lastRunTimeDisplay": "9 Seconds", </pre>

Examples	XML	JSON
	<pre> maxRunTimeDisplay> <minRunTime>3</minRunTime> <minRunTimeDisplay>3 Seconds</ minRunTimeDisplay> <name>uc - Test Email</name> <opswiseGroups /> <resolveNameImmediately>>false</ resolveNameImmediately> <resPriority>10</resPriority> <restrictionPeriod>Span</ restrictionPeriod> <restrictionPeriodAfterDate>2017-11-10</ restrictionPeriodAfterDate> <restrictionPeriodAfterTime>10:30</ restrictionPeriodAfterTime> <restrictionPeriodBeforeDate>2017-1 1-20</restrictionPeriodBeforeDate> <restrictionPeriodBeforeTime>15:00< /restrictionPeriodBeforeTime> <restrictionPeriodDateList /> <runCount>32</runCount> <runTime>108</runTime> <startHeld>>false</startHeld> <startHeldReason /> <summary>Test Email</summary> <sysId>fb59a227517a421a92c15ff5aefe 3b66</sysId> <timeZonePref>-- System Default --< /timeZonePref> <twDelayAmount /> <twDelayDuration>00:00:00:00</ twDelayDuration> <twDelayType>None</twDelayType> <twWaitAmount /> <twWaitDayConstraint>NONE</ twWaitDayConstraint> <twWaitDuration>00:00:00:00</ twWaitDuration> <twWaitTime>00:00</twWaitTime> <twWaitType>None</twWaitType> <twWorkflowOnly>-- System Default --</twWorkflowOnly> <userEstimatedDuration /> </taskManual> </pre>	<pre> "lfDayConstraint": "Nth Day", "lfDuration": "00:00:00:00", "lfEnabled": false, "lfNthAmount": 1, "lfOffsetDuration": null, "lfOffsetDurationUnit" : "Minutes", "lfOffsetPercentage": 0, "lfOffsetType": "Percentage", "lfTime": "00:00", "lfType": "Time", "lsDayConstraint": "Nth Day", "lsDuration": "00:00:00:00", "lsEnabled": false, "lsNthAmount": 7, "lsTime": "00:00", "lsType": "Time", "maxRunTime": 9, "maxRunTimeDisplay": "9 Seconds", "minRunTime": 3, "minRunTimeDisplay": "3 Seconds", "name": "uc - Test Email", "notes": [], "opswiseGroups": null, "resolveNameImmediately" : false, "resPriority": 10, "restrictionPeriod": "Span", "restrictionPeriodAfterD ate": "2017-11-10", "restrictionPeriodAfterT ime": "10:30", "restrictionPeriodBefore Date": "2017-11-20", "restrictionPeriodBefore Time": "15:00", </pre>

Examples	XML	JSON
		<pre>"restrictionPeriodDateList": [], "retainSysIds": true, "runCount": 32, "runTime": 108, "startHeld": false, "startHeldReason": null, "summary": "Test Email", "sysId": "fb59a227517a421a92c15ff 5aefe3b66", "timeZonePref": "-- System Default --", "twDelayAmount": null, "twDelayDuration": "00:00:00:00", "twDelayType": "None", "twWaitAmount": null, "twWaitDayConstraint": "NONE", "twWaitDuration": "00:00:00:00", "twWaitTime": "00:00", "twWaitType": "None", "twWorkflowOnly": "-- System Default --", "userEstimatedDuration" : null, "variables": [], "version": 1, "virtualResources": [] }</pre>

Examples	XML	JSON
Examples for Task Actions	XML Abort <pre><abortAction> <description /> <exitCodes /> <notifyOnEarlyFinish>>false</ notifyOnEarlyFinish> <notifyOnLateFinish>>false</ notifyOnLateFinish> <notifyOnLateStart>>false</ notifyOnLateStart> <status>Waiting</status> <sysId>ad42c3268468425db6e1580cd53f57f0</ sysId> <cancelProcess>>false</ cancelProcess> <haltOnFinish>>false</haltOnFinish> <overrideExitCode /> </abortAction></pre> Email Notification	JSON Abort <pre>"abortActions": [{ "cancelProcess": false, "description": null, "exitCodes": null, "haltOnFinish": true, "notifyOnEarlyFinish": false, "notifyOnLateFinish": false, "notifyOnLateStart": false, "overrideExitCode": null, "status": "Waiting", "sysId": "ad42c3268468425db6e1580 cd53f57f0" }],</pre> Email Notification

Examples	XML	JSON
	<pre> <emailNotification> <description /> <exitCodes /> <notifyOnEarlyFinish>>false</ notifyOnEarlyFinish> <notifyOnLateFinish>>false</ notifyOnLateFinish> <notifyOnLateStart>>false</ notifyOnLateStart> <status>Success</status> <sysId>2b72cdaaf3a145e4bbae5a7ddd24baff</ sysId> <attachFile>>false</attachFile> <attachJobLog>>false</attachJobLog> <attachStdError>>false</ attachStdError> <attachStdOut>>true</attachStdOut> <bcc /> <body>test body</body> <cc /> <emailConnection>uc - Gmail Account</emailConnection> <emailTemplate /> <emailTemplateVar /> <fileName /> <fileNumLines>100</fileNumLines> <fileScanText /> <fileStartLine>1</fileStartLine> <joblogNumLines>100</ joblogNumLines> <joblogScanText /> <joblogStartLine>1</ joblogStartLine> <replyTo>replyTo@test.com</replyTo> <report> <groupName /> <title>report1</title> <userName>ops.admin</ userName> </report> <stderrNumLines>100</ stderrNumLines> <stderrScanText /> <stderrStartLine>1</ stderrStartLine> <stdoutNumLines>100</ stdoutNumLines> <stdoutScanText /> <stdoutStartLine>1</ stdoutStartLine> <subject /> <to>test@test.com</to> </emailNotification> </pre>	<pre> "emailNotifications": [{ "attachFile": false, "attachJobLog": false, "attachStdError": false, "attachStdOut": true, "bcc": null, "body": "test body", "cc": null, "description": null, "emailConnection": "uc - Gmail Account", "emailTemplate": null, "emailTemplateVar": null, "exitCodes": null, "fileName": null, "fileNumLines": 100, "fileScanText": null, "fileStartLine": 1, "joblogNumLines": 100, "joblogScanText": null, "joblogStartLine": 1, "notifyOnEarlyFinish": false, "notifyOnLateFinish": false, "notifyOnLateStart": false, "replyTo": "replyTo@test.com", "report": { "groupName": null, "title": "report1", "userName": "ops.admin" }, "status": "Success", "stderrNumLines": 100, "stderrScanText": null, "stderrStartLine": 1, "stdoutNumLines": 100, "stdoutScanText": null, "stdoutStartLine": 1, "subject": null, "sysId": "2b72cdaaf3a145e4bbae5a7 ddd24baff", "to": "test@test.com" }], </pre>

Examples	XML	JSON
	Set Variable <pre> <setVariableAction> <description /> <exitCodes /> <notificationOption>Operation Failure</notificationOption> <notifyOnEarlyFinish>>false</ notifyOnEarlyFinish> <notifyOnLateFinish>>false</ notifyOnLateFinish> <notifyOnLateStart>>false</ notifyOnLateStart> <status>Waiting</status> <sysId>f7824e38add745c2bf41017b07697bdf</ sysId> <variableName>name</variableName> <variableScope>Self</variableScope> <variableValue /> </setVariableAction> </pre> SNMP Notification <pre> <snmpNotification> <description /> <exitCodes /> <notifyOnEarlyFinish>>false</ notifyOnEarlyFinish> <notifyOnLateFinish>>false</ notifyOnLateFinish> <notifyOnLateStart>>false</ notifyOnLateStart> <status>Resource Requested</status> <sysId>1a1ddf2fa7f7466db8b5fc7863fc 4ea3</sysId> <severity>Normal</severity> <snmpManager>test manager</ snmpManager> </snmpNotification> </pre> System Operation	Set Variable <pre> "setVariableActions": [{ "description": null, "exitCodes": null, "notificationOption": "Operation Failure", "notifyOnEarlyFinish": false, "notifyOnLateFinish": false, "notifyOnLateStart": false, "status": "Waiting", "sysId": "f7824e38add745c2bf41017 b07697bdf", "variableName": "name", "variableScope": "Self", "variableValue": null }], </pre> SNMP Notification <pre> "snmpNotifications": [{ "description": null, "exitCodes": null, "notifyOnEarlyFinish": false, "notifyOnLateFinish": false, "notifyOnLateStart": false, "severity": "Normal", "snmpManager": "test manager", "status": "Resource Requested", "sysId": "1a1ddf2fa7f7466db8b5fc7 863fc4ea3" }], </pre> System Operation

Examples	XML	JSON
	<pre> <systemOperation> <description /> <exitCodes /> <notifyOnEarlyFinish>>false</ notifyOnEarlyFinish> <notifyOnLateFinish>>false</ notifyOnLateFinish> <notifyOnLateStart>>false</ notifyOnLateStart> <status>Held</status> <sysId>742beaf652834054b1edc37e6423 700d</sysId> <agent /> <agentCluster /> <agentClusterVar /> <agentVar /> <execCommand>Cancel</execCommand> <execCriteria>Oldest Active Instance</execCriteria> <execId /> <execLookupOption>Task</ execLookupOption> <execName /> <execWorkflowNameCond /> <execWorkflowName /> <limit /> <notificationOption>Operation Failure</notificationOption> <operation>Run Task Instance Command</operation> <task>uc - B=\${B}</task> <taskLimitType>Unlimited</ taskLimitType> <taskVar /> <trigger /> <triggerVar /> <variables> <variable> <name>var1</name> <value>val1</value> </variable> <variable> <name>var2</name> <value>val2</value> </variable> </variables> <variablesUnresolved>>false</ variablesUnresolved> <variablesUnresolved /> <virtualResource /> <virtualResourceVar /> </systemOperation> </pre>	<pre> "systemOperations": [{ "agent": null, "agentCluster": null, "agentClusterVar": null, "agentVar": null, "description": null, "execCommand": "Cancel", "execCriteria": "Oldest Active Instance", "execId": null, "execLookupOption": "Task", "execName": null, "execWorkflowNameCond" : null, "execWorkflowName": null, "exitCodes": null, "limit": null, "notificationOption": "Operation Failure", "notifyOnEarlyFinish": false, "notifyOnLateFinish": false, "notifyOnLateStart": false, "operation": "Run Task Instance Command", "task": "uc - B=\${B}", "taskLimitType": "Unlimited", "taskVar": null, "trigger": null, "triggerVar": null, "status": "Held", "sysId": "742beaf652834054b1edc37 e6423700d", "variables": [{ "name": "var1", "value": "val1" }, { "name": "var2", "value": "val2" }], "variablesUnresolved": false, "virtualResource": null, "virtualResourceVar": null }] </pre>

Examples	XML	JSON
Examples for Task-Related Records	XML Mutually Exclusive Tasks <pre> exclusiveTasks> <exclusiveTask> <sysId>5d2c0886b69745aa916a755 602a1b77f</sysId> <task>Sleep 0</task> <type>Direct</type> </exclusiveTask> <exclusiveTask> <sysId>c1342b7597f9492e927ce24 c5126f9d4</sysId> <task>Sleep 30</task> <type>Direct</type> </exclusiveTask> </exclusiveTasks> Notes <notes> <note> <sysId>8122cc80fbdb4e12b2c7118 c172038fc</sysId> <text>note2 text</text> <title>note2</title> </note> <note> <sysId>eb95737f44664bd3bd40026 90e00d715</sysId> <text>note1 text</text> <title>note1</title> </note> </notes> Variables </pre>	JSON Mutually Exclusive Tasks <pre> "exclusiveTasks": [{ "sysId": "5d2c0886b69745aa916a755 602a1b77f", "task": "Sleep 0", "type": "Direct" }, { "sysId": "c1342b7597f9492e927ce24 c5126f9d4", "task": "Sleep 30", "type": "Direct" }] Notes "notes": [{ "sysId": "8122cc80fbdb4e12b2c7118 c172038fc", "text": "note2 text", "title": "note2" }, { "sysId": "eb95737f44664bd3bd40026 90e00d715", "text": "note1 text", "title": "note1" }] Variables </pre>

Examples	XML	JSON
	<pre> <variables> <variable> <description>description</ description> <name>var1</name> <sysId>76af48c246954c128ef90d a254044618</sysId> <value>value1</value> </variable> <variable> <description /> <name>var2</name> <sysId>899912878e4b4a36848269 dc8a75dc1c</sysId> <value>value2</value> </variable> </variables> Virtual Resources <virtualResources> <virtualResource> <amount>1</amount> <resource>uc - Solo</resource> <sysId>4f5bb3fda5874dac8bb189 7382d1317d</sysId> </virtualResource> </virtualResources> </pre>	<pre> "variables": [{ "description": "description", "name": "var1", "sysId": "76af48c246954c128ef90da 254044618", "value": "value1" }, { "description": null, "name": "var2", "sysId": "899912878e4b4a36848269d c8a75dc1c", "value": "value2" }] Virtual Resources "virtualResources": [{ "amount": 1, "resource": "uc - Solo", "sysId": "4f5bb3fda5874dac8bb1897 382d1317d" }] </pre>

4.33.14.6 Properties

Task Properties	• See All Tasks Properties
Task Action Properties	• See Abort Action Properties • See Email Notification Action Properties • See Set Variable Action Properties • See SNMP Notification Action Properties • See System Operation Action Properties
Task-Related Records Properties	• See Mutually Exclusive Tasks Properties • See Notes Properties • See Variables in Tasks Properties • See Virtual Resources Properties

4.33.15 PeopleSoft Task Web Services

- [Overview](#)
- [Create a PeopleSoft Task](#)
- [Modify a PeopleSoft Task](#)
- [Read a PeopleSoft Task](#)
- [PeopleSoft Task: XML and JSON Examples](#)
- [Properties](#)

4.33.15.1 Overview

Universal Controller supports the following RESTful-based web services for PeopleSoft Task operations, which are listed alphabetically on this page.

- [Create a PeopleSoft Task](#)
- [Modify a PeopleSoft Task](#)
- [Read a PeopleSoft Task](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Links to detailed information about the [properties](#) used in these web services also is located on this page.

For information on Task web services that are applicable to all task types, see:

- [Delete a Task](#)
- [Launch a Task](#)
- [List Tasks](#)

4.33.15.2 Create a PeopleSoft Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	POST
Description	Creates a new PeopleSoft task.
Example URI	http://localhost:8080/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See PeopleSoft Task: XML and JSON Examples , below.
Properties	See Properties .
Example Response	• Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

4.33.15.3 Modify a PeopleSoft Task

	Description
URI	http://host_name/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	Modifies the task specified by the sysId in the request . To modify PeopleSoft Task properties without modifying related records, use the excludeRelated property.
Example	See PeopleSoft Task: XML and JSON Examples .
Properties	See Properties .
Example Response	Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.

4.33.15.4 Read a PeopleSoft Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task .
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>
Example URI	http://localhost:8080/uc/resources/task?taskname=testTask http://localhost:8080/uc/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	- Status 200 /OK (See PeopleSoft Task: XML and JSON Examples .) - Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
Properties	See Properties .

4.33.15.5 PeopleSoft Task: XML and JSON Examples

The `retainSysIds` and `version` properties are specified as attributes in XML.

The `exportReleaseLevel` and `exportTable` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<pre>XML <taskPeopleSoft exportReleaseLevel=" 7.2.0.0" exportTable="ops_task_peopl esoft" retainSysIds="true" version=" 1"> <actions /> <variables /> <notes /> <runtimeParameters /> <virtualResources /> <exclusiveTasks /> <agent>AGNT0001</agent> <agentCluster /> <agentClusterVar /> <agentVar /> <avgRunTime>3</avgRunTime> <avgRunTimeDisplay>3 Seconds< /avgRunTimeDisplay> <broadcastCluster /> <cpDuration /> <cpDurationUnit>Minutes</ cpDurationUnit> <credentials /> <credentialsVar /> <customField1 label="Domain">web.com</ customField1></pre>	<pre>JSON { "type": "taskPeoplesoft", "actions": { "abortActions": [], "emailNotifications": [], "setVariableActions": [], "snmpNotifications": [], "systemOperations": [] }, "agent": null, "agentCluster": "uc Demo Cluster", "agentClusterVar": null, "agentVar": null, "avgRunTime": 3, "avgRunTimeDisplay": "3 Seconds", "broadcastCluster": null, "command": "Schedule Job", "connection": "PS_Connection 1", "connectionVar": null, "contentFilter": null, "cpDuration": null, "cpDurationUnit": "Minutes", "credentials": null,</pre>

Examples	XML	JSON
	<pre> <customField2 /> <efDayConstraint>Nth</ efDayConstraint> <efDuration>00:00:00:00</ efDuration> <efEnabled>>false</efEnabled> <efNthAmount>10</efNthAmount> <efOffsetDuration /> <efOffsetDurationUnit>Minutes </efOffsetDurationUnit> <efOffsetPercentage>0</ efOffsetPercentage> <efOffsetType>Percentage</ efOffsetType> <efTime>00:00</efTime> <efType>Time</efType> <executionRestriction>Run</ executionRestriction> <firstRun>2021-03-15 13:59:37 -0400</firstRun> <holdResources>>false</ holdResources> <lastRun>2021-03-16 17:12:42 -0400</lastRun> <lastRunTime>9</lastRunTime> <lastRunTimeDisplay>9 seconds</lastRunTimeDisplay> <lfDayConstraint>Nth</ lfDayConstraint> <lfDuration>00:00:00:00</ lfDuration> <lfEnabled>>false</lfEnabled> <lfNthAmount>1</lfNthAmount> <lfOffsetDuration /> <lfOffsetDurationUnit>Minutes </lfOffsetDurationUnit> <lfOffsetPercentage>0</ lfOffsetPercentage> <lfOffsetType>Percentage</ lfOffsetType> <lfTime>00:00</lfTime> <lfType>Time</lfType> <lsDayConstraint>Nth</ lsDayConstraint> <lsDuration>00:00:00:00</ lsDuration> <lsEnabled>>false</lsEnabled> <lsNthAmount>7</lsNthAmount> <lsTime>00:00</lsTime> <lsType>Time</lsType> <maxRunTime>9</maxRunTime> <maxRunTimeDisplay>9 Seconds< /maxRunTimeDisplay> <minRunTime>3</minRunTime> </pre>	<pre> "credentialsVar": null, "customField1": { "label": "Domain", "value": "http://qa-cntlr- mssql:8080/uc/" }, "customField2": { "label": null, "value": null }, "distributionOptions": [{ "distributionId": "PS_User_1", "distributionIdType": "User" }, { "distributionId": "PS_Role_1", "distributionIdType": "Role" }], "efDayConstraint": "Nth Day", "efDuration": "00:00:00:00", "efEnabled": false, "efNthAmount": 10, "efOffsetDuration": null, "efOffsetDurationUnit": "Minutes", "efOffsetPercentage": 0, "efOffsetType": "Percentage", "efTime": "00:00", "efType": "Time", "emailAddresses": "stone@qa.stone.branch", "emailAttachLog": false, "emailSubject": "Test Subject for \${ops_task_name}", "emailText": "Test Body for \$ \${ops_task_name} with id \$ \${ops_task_id}.", "emailWebReport": false, "excludeRelated": false, "exclusiveTasks": [], "executionRestriction": "Run", "exitCodeOutput": null, "exitCodeProcessing": "Success Exitcode Range", "exitCodes": 0, "exitCodeText": null, "exportReleaseLevel": </pre>

Examples	XML	JSON
	<pre> <minRunTimeDisplay>3 Seconds< /minRunTimeDisplay> <name>uc - Test Email</name> <opswiseGroups /> <resolveNameImmediately>>false </resolveNameImmediately> <resPriority>10</resPriority> <restrictionPeriod>Span</ restrictionPeriod> <restrictionPeriodAfterDate>2 017-11-10</ restrictionPeriodAfterDate> <restrictionPeriodAfterTime>1 0:30</restrictionPeriodAfterTime> <restrictionPeriodBeforeDate> 2017-11-20</ restrictionPeriodBeforeDate> <restrictionPeriodBeforeTime> 15:00</restrictionPeriodBeforeTime> <restrictionPeriodDateList /> <runCount>32</runCount> <runTime>108</runTime> <startHeld>true</startHeld> <startHeldReason>hold reason< /startHeldReason> <summary /> <sysId>f87848b00a0001037f43e7 c81c8ec969</sysId> <timeZonePref>-- System Default --</timeZonePref> <twDelayAmount /> <twDelayDuration>00:00:01:00< /twDelayDuration> <twDelayType>Duration</ twDelayType> <twWaitAmount /> <twWaitDayConstraint /> <twWaitDuration>00:00:00:00</ twWaitDuration> <twWaitTime>00:00</twWaitTime> <twWaitType>Time</twWaitType> <twWorkflowOnly>Yes</ twWorkflowOnly> <userEstimatedDuration>00:00: 00:02</userEstimatedDuration> <command>Schedule Job</ command> <connection>PS_Connection 1</ connection> <connectionVar /> <contentFilter /> <distributionOptions> <distributionOption> </distributionOption> </distributionOptions> <distributionIdType>User</ </pre>	<pre> "7.2.0.0", "exportTable": "ops_task_peoplesoft", "firstRun": "2021-03-15 13:59:37 -0400", "holdResources": false, "lastRun": "2021-03-16 17:12:42 -0400", "lastRunTime": 9, "lastRunTimeDisplay": "9 Seconds", "lfDayConstraint": "Nth Day", "lfDuration": "00:00:00:00", "lfEnabled": false, "lfNthAmount": 1, "lfOffsetDuration": null, "lfOffsetDurationUnit": "Minutes", "lfOffsetPercentage": 0, "lfOffsetType": "Percentage", "lfTime": "00:00", "lfType": "Time", "lsDayConstraint": "Nth Day", "lsDuration": "00:00:00:00", "lsEnabled": false, "lsNthAmount": 7, "lsTime": "00:00", "lsType": "Time", "mainJobName": null, "mainSchedName": null, "maxRunTime": 9, "maxRunTimeDisplay": "9 Seconds", "minRunTime": 3, "minRunTimeDisplay": "3 Seconds", "name": "uc - Test Email", "notes": [], "opswiseGroups": null, "outputDestFormat": 0, "outputDestString": null, "outputDestType": 0, "outputFailureOnly": true, "outputReturnFile": null, "outputReturnNline": 100, "outputReturnSline": 1, "outputReturnText": null, "outputReturnType": "OUTERR", "outputType": "STDOUT", "printAppMessage": false, "printDistList": false, "printJobTree": false, "printParamList": false, "printSystemMessage": false, </pre>

Examples	XML	JSON
	<pre> distributionIdType> <distributionId>PS_User_1</ distributionId> </distributionOption> <distributionOption> <distributionIdType>Role</ distributionIdType> <distributionId>PS_Role_1</ distributionId> </distributionOption> </distributionOptions> <emailAddresses>"stone@qa.sto ne.branch</emailAddresses> <emailAttachLog>false</ emailAttachLog> <emailSubject>Test Subject for \${ops_task_name}</emailSubject> <emailText>Test Body for \$ {ops_task_name} with id \$ {ops_task_id}.</emailText> <emailWebReport>false</ emailWebReport> <exitCodeOutput /> <exitCodeProcessing>Success Exitcode Range</exitCodeProcessing> <exitCodes>0</exitCodes> <exitCodeText /> <mainJobName /> <mainSchedName /> <outputDestFormat>0</ outputDestFormat> <outputDestString /> <outputDestType>0</ outputDestType> <outputFailureOnly>true</ outputFailureOnly> <outputReturnFile /> <outputReturnNline>100</ outputReturnNline> <outputReturnSline>1</ outputReturnSline> <outputReturnText /> <outputReturnType>OUTERR</ outputReturnType> <outputType>STDOUT</ outputType> <printAppMessage>false</ printAppMessage> <printDistList>false</ printDistList> <printJobTree>false</ printJobTree> </pre>	<pre> "processFileName": null, "processName": "TREEMOVER", "processType": PSJob, "psCredentials": "PeopleSoft", "report": false, "reportFolderName": null, "resolveNameImmediately": false, "resPriority": 10, "restrictionPeriod": "Span", "restrictionPeriodAfterDate": "2017-11-10", "restrictionPeriodAfterTime": "10:30", "restrictionPeriodBeforeDate" : "2017-11-20", "restrictionPeriodBeforeTime" : "15:00", "restrictionPeriodDateList": [], "retainSysIds": true, "retentionDays": null, "runControlId": ESS1A, "runCount": 32, "runTime": 108, "runtimeParameters": [], "serverName": null, "startHeld": false, "startHeldReason": null, "summary": "Test Email", "sysId": "fb59a227517a421a92c15ff5aefeb3b 66", "timeZonePref": "-- System Default --", "twDelayAmount": null, "twDelayDuration": "00:00:00:00", "twDelayType": "None", "twWaitAmount": null, "twWaitDayConstraint": "NONE", "twWaitDuration": "00:00:00:00", "twWaitTime": "00:00", "twWaitType": "None", "twWorkflowOnly": "-- System Default --", "userEstimatedDuration": null, "variables": [], "version": 1, "virtualResources": [], "waitForOutput": false } </pre>

Examples	XML	JSON
	<pre><printParamList>false</printParamList> <printSystemMessage>false</printSystemMessage> <processFileName /> <processName>TREEMOVER</processName> <processType>PSJob</processType> <psCredentials>PeopleSoft</psCredentials> <psCredentialsVar /> <report>false</report> <reportFolderName /> <retentionDays /> <runControlId>ESS1A</runControlId runControlId <serverName /> <waitForOutput>false</waitForOutput> </taskPeopleSoft></pre>	

See [Task Web Services - Task Actions](#) for XML and JSON examples of task actions.

See [Task Web Services - Task-Related Records](#) for XML and JSON examples of task-related records.

4.33.15.6 Properties

- See [All Tasks Properties](#)
- See [PeopleSoft Task Properties](#)

4.33.16 Recurring Task Web Services

- [Overview](#)
- [Create a Recurring Task](#)
- [Modify a Recurring Task](#)
- [Read a Recurring Task](#)
- [Recurring Task: XML and JSON Examples](#)
- [Properties](#)

4.33.16.1 Overview

Universal Controller supports the following RESTful-based web services for Recurring Task operations, which are listed alphabetically on this page.

- [Create a Recurring Task](#)

- [Modify a Recurring Task](#)
- [Read a Recurring Task](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Links to detailed information about the [properties](#) used in these web services also is located on this page.

For information on Task web services that are applicable to all task types, see:

- [Delete a Task](#)
- [Launch a Task](#)
- [List Tasks](#)

4.33.16.2 Create a Recurring Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	POST
Description	Creates a new Recurring task.
Example URI	http://localhost:8080/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See Recurring Task: XML and JSON Examples , below.
Properties	See Properties .
Example Response	• Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

4.33.16.3 Modify a Recurring Task

	Description
URI	http://host_name/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	Modifies the task specified by the sysId in the request , below. To modify Reecurring Task properties without modifying related records, use the excludeRelated property.

	Description
Example	See Recurring Task: XML and JSON Examples .
Properties	See Properties .
Example Response	Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.

4.33.16.4 Read a Recurring Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task .
Request Parameters	<code>taskid</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskid</code> and <code>taskname</code>
Example URI	http://localhost:8080/uc/resources/task?taskname=testTask http://localhost:8080/uc/resources/task?taskid=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	- Status 200 /OK (See Recurring Task: XML and JSON Examples .) - Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
Properties	See Properties .

4.33.16.5 Recurring Task: XML and JSON Examples

The

`retainSysIds`

and

`version`

properties are specified as attributes in XML.

The

`exportReleaseLevel`

and `exportTable` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<pre> <taskRecurring exportReleaseLevel="7.2.0.0" exportTable="ops_task_recurring" retainSysIds="true" version="1"> <actions /> <variables /> <notes /> <virtualResources /> <exclusiveTasks /> <avgRunTime>3</avgRunTime> <avgRunTimeDisplay>3 Seconds</avgRunTimeDisplay> <cpDuration /> <cpDurationUnit>Minutes</cpDurationUnit> <credentials /> <credentialsVar /> <customField1 label="Domain">web.com</customField1> <customField2 /> <efDayConstraint>Nth</efDayConstraint> <efDuration>00:00:00:00</efDuration> <efEnabled>false</efEnabled> <efNthAmount>10</efNthAmount> <efOffsetDuration /> <efOffsetDurationUnit>Minutes</efOffsetDurationUnit> <efOffsetPercentage>0</efOffsetPercentage> <efOffsetType>Percentage</efOffsetType> <efTime>00:00</efTime> <efType>Time</efType> <executionRestriction>Run</executionRestriction> <firstRun>2021-03-15 13:59:37 -0400</firstRun> <holdResources>false</holdResources> <indefiniteRecurrences>false</indefiniteRecurrences> <intervalEndTime>11:05</intervalEndTime> </pre>	<pre> { "type": "taskRecurring", "actions": { "abortActions": [], "emailNotifications": [], "setVariableActions": [], "snmpNotifications": [], "systemOperations": [] }, "avgRunTime": 3, "avgRunTimeDisplay": "3 Seconds", "cpDuration": null, "cpDurationUnit": "Minutes", "credentials": null, "credentialsVar": null, "customField1": { "label": "Domain", "value": "http://qa-cntlr-mssql:8080/uc/" }, "customField2": { "label": null, "value": null }, "efDayConstraint": "Nth Day", "efDuration": "00:00:00:00", "efEnabled": false, "efNthAmount": 10, "efOffsetDuration": null, "efOffsetDurationUnit": "Minutes", "efOffsetPercentage": 0, "efOffsetType": "Percentage", "efTime": "00:00", "efType": "Time", "exclusiveTasks": [], "executionRestriction": "Run", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_task_manual", "firstRun": "2021-03-15 13:59:37 -0400", "holdResources": false, "indefiniteRecurrences": false, </pre>

Examples	XML	JSON
	<pre> intervalEndTime> <intervalEndDayConstraint>none</ intervalEndDayConstraint > <intervalStartDayConstraint>none</ intervalStartDayConstraint > <intervalStartTime>10:06</ intervalStartTime > <lastRun>2021-03-16 17:12:42 -0400</ lastRun> <lastRunTime>9</lastRunTime> <lastRunTimeDisplay>9 seconds</ lastRunTimeDisplay> <lfDayConstraint>Nth</lfDayConstraint> <lfDuration>00:00:00:00</lfDuration> <lfEnabled>>false</lfEnabled> <lfNthAmount>1</lfNthAmount> <lfOffsetDuration /> <lfOffsetDurationUnit>Minutes</ lfOffsetDurationUnit> <lfOffsetPercentage>0</ lfOffsetPercentage> <lfOffsetType>Percentage</ lfOffsetType> <lfTime>00:00</lfTime> <lfType>Time</lfType> <lsDayConstraint>Nth</ lsDayConstraint> <lsDuration>00:00:00:00</lsDuration> <lsEnabled>>false</lsEnabled> <lsNthAmount>7</lsNthAmount> <lsTime>00:00</lsTime> <lsType>Time</lsType> <maxRunTime>9</maxRunTime> <maxRunTimeDisplay>9 Seconds</ maxRunTimeDisplay> <minRunTime>3</minRunTime> <minRunTimeDisplay>3 Seconds</ minRunTimeDisplay> <name>rec-Test3</name> < numberOfRecurrences >1</ numberOfRecurrences > </pre>	<pre> "intervalEndTime": "11:05", "intervalEndDayConstraint": "none", "intervalStartTime": "10:06", "intervalStartDayConstraint": "none", "lastRun": "2021-03-16 17:12:42 -0400", "lastRunTime": 9, "lastRunTimeDisplay": "9 Seconds", "lfDayConstraint": "Nth Day", "lfDuration": "00:00:00:00", "lfEnabled": false, "lfNthAmount": 1, "lfOffsetDuration": null, "lfOffsetDurationUnit": "Minutes", "lfOffsetPercentage": 0, "lfOffsetType": "Percentage", "lfTime": "00:00", "lfType": "Time", "lsDayConstraint": "Nth Day", "lsDuration": "00:00:00:00", "lsEnabled": false, "lsNthAmount": 7, "lsTime": "00:00", "lsType": "Time", "maxRunTime": 9, "maxRunTimeDisplay": "9 Seconds", "minRunTime": 3, "minRunTimeDisplay": "3 Seconds", "name": "rec-test3", "notes": [], " numberOfRecurrences ": 1, "opswiseGroups": null, "overrideVariables": [{ "name": "Summary", "resolution": "Disabled", "value": "Recurring Task </pre>

Examples	XML	JSON
	<pre> <opswiseGroups /> <overrideVariables> <variable> <name>Summary</name> <resolution>Disabled</ resolution> <value>Recurring Task Instance with id \${recurring_task_id}.</ value> </variable> <variable> <name>recurring_task_id</ name> <resolution>Enabled</ resolution> <value>\${ops_task_id}</value> </variable> <variable> <name>count</name> <resolution>Enabled Every Recurrence</resolution> <value>\${ ops_recurrence_count}</value> </variable> </overrideVariables> <recurrenceInterval>10</ recurrenceInterval> <recurrenceIntervalUnit>1</ recurrenceIntervalUnit> <recurrenceTimeList /> <recurrenceType>Interval</ recurrenceType> <resolveNameImmediately>false</ resolveNameImmediately> <resPriority>10</resPriority> <restrictionPeriod>Span</ restrictionPeriod> <restrictionPeriodAfterDate>2017-11- 10</restrictionPeriodAfterDate> </pre>	<pre> Instance with id \$ {recurring_task_id}." }, { "name": "recurring_task_id", "resolution": "Enabled", "value": "\${ops_task_id}" }, { "name": "count", "resolution": "Enabled Every Recurrence", "value": "\${ ops_recurrence_count}" }], "recurrenceInterval": "10", "recurrenceIntervalUnit": "1", "recurrenceTimeList": null, "recurrenceType": "Interval", "resPriority": 10, "restrictionPeriod": "Span", "restrictionPeriodAfterDate": "2017-11-10", "restrictionPeriodAfterTime": "10:30", "restrictionPeriodBeforeDate": "2017-11-20", "restrictionPeriodBeforeTime": "15:00", "restrictionPeriodDateList": [], "rdExcludeBackupRt": true, "retentionDurationRt": 1, "retentionDurationPurgeRt": true, "retentionDurationUnitRt": "Hours", "retainSysIds": true, "retryIndefinitely": false, "retryInterval": 60, </pre>

Examples	XML	JSON
	<pre> <restrictionPeriodAfterTime>10:30</restrictionPeriodAfterTime> <restrictionPeriodBeforeDate>2017-11-20</restrictionPeriodBeforeDate> <restrictionPeriodBeforeTime>15:00</restrictionPeriodBeforeTime> <restrictionPeriodDateList /> <rdExcludeBackupRt>true</rdExcludeBackupRt> <retentionDurationRt>1</retentionDurationRt> <retentionDurationPurgeRt>true</retentionDurationPurgeRt> <retentionDurationUnitRt>Hours</retentionDurationUnitRt> <retryIndefinitely>false</retryIndefinitely> <retryInterval>60</retryInterval> <retryMaximum>0</retryMaximum> <retrySuppressFailure>false</retrySuppressFailure> <runCount>32</runCount> <runTime>108</runTime> < skipCondition >None</ skipCondition > <startHeld>false</startHeld> <startHeldReason /> <summary /> <sysId>3309586343d26172001d662b049d90c8</sysId> <targetTask>win-1</targetTask> <targetTaskMonitorCondition>First Recurrence</targetTaskMonitorCondition> <targetTaskStatusText>Finished, Success</targetTaskStatusText> <timeWindow>true</timeWindow> <timeZonePref>-- System Default --</timeZonePref> <twDelayAmount /> <twDelayDuration>00:00:00:00</twDelayDuration> </pre>	<pre> "retryMaximum": 0, "retrySuppressFailure": false, "runCount": 32, "runTime": 108, "skipCondition": "None", "startHeld": false, "startHeldReason": null, "summary": null, "sysId": "fb59a227517a421a92c15ff5aefe3b66", "targetTask": "win-1", "targetTaskMonitorCondition": "First Recurrence", "targetTaskStatusText": "Finished,\nSuccess", "timeWindow": true, "timeZonePref": "-- System Default --", "twDelayAmount": null, "twDelayDuration": "00:00:00:00", "twDelayType": "None", "twWaitAmount": null, "twWaitDayConstraint": "None", "twWaitDuration": "00:00:00:00", "twWaitTime": "00:00", "twWaitType": "None", "twWorkflowOnly": "-- System Default --", "userEstimatedDuration": null, "variables": [], "version": 1, "virtualResources": [] } </pre>

Examples	XML	JSON
	<pre><twDelayType>None</twDelayType> <twWaitAmount /> <twWaitDayConstraint /> <twWaitDuration>00:00:00:00</twWaitDuration> <twWaitTime>00:00</twWaitTime> <twWaitType>None</twWaitType> <twWorkflowOnly>-- System Default -- </twWorkflowOnly> <userEstimatedDuration /> </taskRecurring></pre>	

See [Task Web Services - Task Actions](#) for XML and JSON examples of task actions.

See [Task Web Services - Task-Related Records](#) for XML and JSON examples of task-related records.

4.33.16.6 Properties

- See [All Tasks Properties](#)
- See [Recurring Task Properties](#)

4.33.17 Remote File Monitor Task Web Services

- [Overview](#)
- [Create a Remote File Monitor Task](#)
- [Modify a Remote File Monitor Task](#)
- [Read a Remote File Monitor Task](#)
- [Remote File Monitor Task: XML and JSON Examples](#)
- [Properties](#)

4.33.17.1 Overview

Universal Controller supports the following RESTful-based web services for Remote File Monitor Task operations, which are listed alphabetically on this page.

- [Create a Remote File Monitor Task](#)
- [Modify a Remote File Monitor Task](#)

- [Read a Remote File Monitor Task](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Links to detailed information about the [properties](#) used in these web services also is located on this page.

For information on Task web services that are applicable to all task types, see:

- [Delete a Task](#)
- [Launch a Task](#)
- [List Tasks](#)

4.33.17.2 Create a Remote File Monitor Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	POST
Description	Creates a new Remote File Monitor task.
Example URI	http://localhost:8080/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See Remote File Monitor Task: XML and JSON Examples , below.
Properties	See Properties .
Example Response	• Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

4.33.17.3 Modify a Remote File Monitor Task

	Description
URI	http://host_name/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	Modifies the task specified by the sysId in the request, below. To modify Remote File Monitor Task properties without modifying related records, use the excludeRelated property.
Example	See Remote File Monitor Task: XML and JSON Examples .

	Description
Properties	See Properties .
Example Response	Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.

4.33.17.4 Read a Remote File Monitor Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task .
Request Parameters	<code>taskid</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskid</code> and <code>taskname</code>
Example URI	http://localhost:8080/uc/resources/task?taskname=testTask http://localhost:8080/uc/resources/task?taskid=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	- Status 200 /OK (See Remote File Monitor Task: XML and JSON Examples.) - Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
Properties	See Properties .

4.33.17.5 Remote File Monitor Task: XML and JSON Examples

The

`retainSysIds`

and

`version`

properties are specified as attributes in XML.

The

`exportReleaseLevel`

and `exportTable` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<pre> <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <taskFtpFileMonitor exportReleaseLevel="7.4.0.0" exportTable="ops_task_ftp_file_monito r" retainSysIds="true" version="8"> <variables/> <notes/> <agent>SBUS30 - AGNT0005</agent> <agentCluster /> <agentClusterVar /> <agentVar /> <avgRunTime>2</avgRunTime> <avgRunTimeDisplay>2 Seconds</ avgRunTimeDisplay> <broadcastCluster /> <broadcastClusterVar /> <cpDuration /> <cpDurationUnit>Minutes</ cpDurationUnit> <credentials /> <credentialsVar /> <customField1/> <customField2/> <efDayConstraint>None</ efDayConstraint> <efDuration>00:00:00:00</ efDuration> <efEnabled>false</efEnabled> <efNthAmount>5</efNthAmount> <efOffsetDuration /> <efOffsetDurationUnit>Minutes</ efOffsetDurationUnit> <efOffsetPercentage>0</ efOffsetPercentage> <efOffsetType>Percentage</ efOffsetType> <efTime>00:00</efTime> <efType>Time</efType> <exclusiveWithSelf>false</ exclusiveWithSelf> <executionRestriction>None</ executionRestriction> <firstRun>2023-01-17 14:37:25 -0500</firstRun> <holdResources>false</ holdResources> <lastRun>2023-01-18 13:13:35 -0500</lastRun> <lastRunTime>1</lastRunTime> </pre>	<pre> { "type": "taskFtpFileMonitor", "actions": { "abortActions": [], "emailNotifications": [], "setVariableActions": [], "snmpNotifications": [], "systemOperations": [] }, "agent": "SBUS30 - AGNT0005", "agentCluster": null, "agentClusterVar": null, "agentVar": null, "authenticatePeer": false, "avgRunTime": 2, "avgRunTimeDisplay": "2 Seconds", "broadcastCluster": null, "broadcastClusterVar": null, "cpDuration": null, "cpDurationUnit": "Minutes", "credentials": null, "credentialsVar": null, "customField1": { "label": null, "value": null }, "customField2": { "label": null, "value": null }, "efDayConstraint": "None", "efDuration": "00:00:00:00", "efEnabled": false, "efNthAmount": 5, "efOffsetDuration": null, "efOffsetDurationUnit": "Minutes", "efOffsetPercentage": 0, "efOffsetType": "Percentage", "efTime": "00:00", "efType": "Time", "exclusiveTasks": [], "exclusiveWithSelf": false, "executionRestriction": "None", "exportReleaseLevel": "7.4.0.0", "exportTable": "ops_task_ftp_file_monitor", "firstRun": "2023-01-17 14:37:25 -0500", </pre>

Examples	XML	JSON
	<pre> <lastRunTimeDisplay>1 Seconds</ lastRunTimeDisplay> <lfDayConstraint>None</ lfDayConstraint> <lfDuration>00:00:00:00</ lfDuration> <lfEnabled>>false</lfEnabled> <lfNthAmount>5</lfNthAmount> <lfOffsetDuration /> <lfOffsetDurationUnit>Minutes</ lfOffsetDurationUnit> <lfOffsetPercentage>0</ lfOffsetPercentage> <lfOffsetType>Percentage</ lfOffsetType> <lfTime>00:00</lfTime> <lfType>Time</lfType> <logLevel>Inherited</logLevel> <lsDayConstraint>None</ lsDayConstraint> <lsDuration>00:00:00:00</ lsDuration> <lsEnabled>>false</lsEnabled> <lsNthAmount>5</lsNthAmount> <lsTime>00:00</lsTime> <lsType>Time</lsType> <maxRunTime>2</maxRunTime> <maxRunTimeDisplay>2 Seconds</ maxRunTimeDisplay> <minRunTime>1</minRunTime> <minRunTimeDisplay>1 Seconds</ minRunTimeDisplay> <name>ftp-mon-1</name> <actions/> <opswiseGroups/> <resPriority>10</resPriority> <resolveNameImmediately>>false</ resolveNameImmediately> <restrictionPeriod>None</ restrictionPeriod> <restrictionPeriodAfterDate /> <restrictionPeriodAfterTime /> <restrictionPeriodBeforeDate /> <restrictionPeriodBeforeTime /> <restrictionPeriodDateList/> <runCount>9</runCount> <runTime>14</runTime> <startHeld>>false</startHeld> <startHeldReason /> <summary /> <sysId>b0b026ac3a5747d3961d10a0e956f2 4a</sysId> <exclusiveTasks/> </pre>	<pre> "ftpFmttype": "Exist", "holdResources": false, "jobcard": null, "lastRun": "2023-01-18 13:13:35 -0500", "lastRunTime": 1, "lastRunTimeDisplay": "1 Seconds", "lfDayConstraint": "None", "lfDuration": "00:00:00:00", "lfEnabled": false, "lfNthAmount": 5, "lfOffsetDuration": null, "lfOffsetDurationUnit": "Minutes", "lfOffsetPercentage": 0, "lfOffsetType": "Percentage", "lfTime": "00:00", "lfType": "Time", "listOptions": null, "logLevel": "Inherited", "lsDayConstraint": "None", "lsDuration": "00:00:00:00", "lsEnabled": false, "lsNthAmount": 5, "lsTime": "00:00", "lsType": "Time", "maxRunTime": 2, "maxRunTimeDisplay": "2 Seconds", "minFileScale": "KB", "minFileSize": null, "minRunTime": 1, "minRunTimeDisplay": "1 Seconds", "name": "ftp-mon-1", "notes": [], "opswiseGroups": [], "outputFailureOnly": false, "outputReturnNline": "90", "outputReturnSline": "1", "outputReturnText": null, "outputReturnText": null, "outputReturnText": "OUTERR", "pollInterval": 30, "pollMaximum": null, "remoteCredVar": null, "remoteCredentials": "ftp- cred-1", "remoteFilename": "/home/qatest/ shammi_testing/test.txt", "remoteServer": "qa-sage", "resPriority": 10, "resolveNameImmediately": false, "restrictionPeriod": "None", </pre>

Examples	XML	JSON
	<pre> <virtualResources/> <timeZonePref>-- System Default --</timeZonePref> <twDelayAmount /> <twDelayDuration>00:00:00:00</ twDelayDuration> <twDelayType>None</twDelayType> <twWaitAmount /> <twWaitDayConstraint>None</ twWaitDayConstraint> <twWaitDuration>00:00:00:00</ twWaitDuration> <twWaitTime>00:00</twWaitTime> <twWaitType>None</twWaitType> <twWorkflowOnly>-- System Default --</twWorkflowOnly> <userEstimatedDuration /> <authenticatePeer>>false</ authenticatePeer> <ftpFmtype>Exist</ftpFmtype> <jobcard /> <listOptions /> <minFileScale>KB</minFileScale> <minFileSize /> <outputFailureOnly>>false</ outputFailureOnly> <outputReturnNline>90</ outputReturnNline> <outputReturnSline>1</ outputReturnSline> <outputReturnText /> <outputReturnType>OUTERR</ outputReturnType> <pollInterval>30</pollInterval> <pollMaximum /> <remoteCredVar /> <remoteCredentials>ftp-cred-1</ remoteCredentials> <remoteFilename>/home/qatest/ shammi_testing/test.txt</ remoteFilename> <remoteServer>qa-sage</ remoteServer> <servertype>FTP</servertype> <stableSeconds /> <transferMode>Passive</ transferMode> <useRegex>>false</useRegex> <verifyHostName>>false</ verifyHostName> <wait>>false</wait> <waitForOutput>>true</ waitForOutput> </taskFtpFileMonitor> </pre>	<pre> "restrictionPeriodAfterDate": null, "restrictionPeriodAfterTime": null, "restrictionPeriodBeforeDate": null, "restrictionPeriodBeforeTime": null, "restrictionPeriodDateList": [], "retainSysIds": true, "runCount": 9, "runTime": 14, "servertype": "FTP", "stableSeconds": null, "startHeld": false, "startHeldReason": null, "summary": null, "sysId": "b0b026ac3a5747d3961d10a0e956f24a", "timeZonePref": "-- System Default --", "transferMode": "Passive", "twDelayAmount": null, "twDelayDuration": "00:00:00:00", "twDelayType": "None", "twWaitAmount": null, "twWaitDayConstraint": "None", "twWaitDuration": "00:00:00:00", "twWaitTime": "00:00", "twWaitType": "None", "twWorkflowOnly": "-- System Default --", "useRegex": false, "userEstimatedDuration": null, "variables": [], "verifyHostName": false, "version": 8, "virtualResources": [], "wait": false, "waitForOutput": true } </pre>

See [Task Web Services - Task Actions](#) for XML and JSON examples of task actions.

See [Task Web Services - Task-Related Records](#) for XML and JSON examples of task-related records.

4.33.17.6 Properties

- See [All Tasks Properties](#)
- See [Remote File Monitor Task Properties](#)

4.33.18 SAP Task Web Services

- [Overview](#)
- [Create an SAP Task](#)
- [Modify an SAP Task](#)
- [Read an SAP Task](#)
- [SAP Task: XML and JSON Examples](#)
- [Properties](#)

4.33.18.1 Overview

Universal Controller supports the following RESTful-based web services for SAP Task operations, which are listed alphabetically on this page.

- [Create an SAP Task](#)
- [Modify an SAP Task](#)
- [Read an SAP Task](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Links to detailed information about the [properties](#) used in these web services also is located on this page.

For information on Task web services that are applicable to all task types, see:

- [Delete a Task](#)
- [Launch a Task](#)
- [List Tasks](#)

4.33.18.2 Create an SAP Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	POST
Description	Creates a new SAP task.

	Description
Example URI	http://localhost:8080/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See SAP Task: XML and JSON Examples , below.
Properties	See Properties .
Example Response	Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

4.33.18.3 Modify an SAP Task

	Description
URI	http://host_name/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	Modifies the task specified by the sysId in the request. To modify SAP Task properties without modifying related records, use the excludeRelated property.
Example	See SAP Task: XML and JSON Examples .
Properties	See Properties .
Example Response	Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.

4.33.18.4 Read an SAP Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task .
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>

	Description
Example URI	http://localhost:8080/uc/resources/task?taskname=testTask http://localhost:8080/uc/resources/task?taskid=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	- Status 200 /OK (See SAP Task: XML and JSON Examples.) - Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
Properties	See Properties.

4.33.18.5 SAP Task: XML and JSON Examples

The

`retainSysIds`

and

`version`

properties are specified as attributes in XML.

The

`exportReleaseLevel`

and `exportTable` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<pre> <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <taskSap exportReleaseLevel="7.7.0.0" exportTable="ops_task_sap" retainSys Ids="true" version="11"> <variables/> <notes/> <agent /> <agentCluster /> <agentClusterVar /> <agentVar>\${Agent}</agentVar> <broadcastCluster /> <broadcastClusterVar /> <cpDuration /> <cpDurationUnit>Minutes</ cpDurationUnit> <credentials /> <credentialsVar /> <customField1/> <customField2/> <efDayConstraint>None</ efDayConstraint> <efDuration>00:00:00:00</ efDuration> <efEnabled>false</efEnabled> <efNthAmount>5</efNthAmount> <efOffsetDuration /> <efOffsetDurationUnit>Minutes</ efOffsetDurationUnit> <efOffsetPercentage>0</ efOffsetPercentage> <efOffsetType>Percentage</ efOffsetType> <efTime>00:00</efTime> <efType>Time</efType> <enforceVariables>false</ enforceVariables> <exclusiveWithSelf>false</ exclusiveWithSelf> <executionRestriction>None</ executionRestriction> <firstRun></firstRun> <holdResources>false</ holdResources> <lastRun></lastRun> <lfDayConstraint>None</ lfDayConstraint> <lfDuration>00:00:00:00</ lfDuration> <lfEnabled>false</lfEnabled> </pre>	<pre> { "type": "taskSap", "actions": { "abortActions": [], "emailNotifications": [], "setVariableActions": [], "snmpNotifications": [], "systemOperations": [] }, "agent": null, "agentCluster": null, "agentClusterVar": null, "agentVar": "\${Agent}", "broadcastCluster": null, "broadcastClusterVar": null, "chainDesc": null, "chainId": null, "commandGroup": "Submit", "commandOptions": "-l audit - rawspool no", "cpDuration": null, "cpDurationUnit": "Minutes", "credentials": null, "credentialsVar": null, "customField1": { "label": null, "value": null }, "customField2": { "label": null, "value": null }, "dataSource": null, "defFile": null, "definitionOrModel": null, "definitionOrModelJobVar": null, "dispAbapName": null, "dispSapEventId": null, "dispSapEventParm": null, "dispVariant": null, "efDayConstraint": "None", "efDuration": "00:00:00:00", "efEnabled": false, "efNthAmount": 5, "efOffsetDuration": null, "efOffsetDurationUnit": "Minutes", "efOffsetPercentage": 0, "efOffsetType": "Percentage", "efTime": "00:00", </pre>

Examples	XML	JSON
	<pre> <lfNthAmount>5</lfNthAmount> <lfOffsetDuration /> <lfOffsetDurationUnit>Minutes</ lfOffsetDurationUnit> <lfOffsetPercentage>0</ lfOffsetPercentage> <lfOffsetType>Percentage</ lfOffsetType> <lfTime>00:00</lfTime> <lfType>Time</lfType> <lockVariables>false</ lockVariables> <logLevel>Inherited</logLevel> <lsDayConstraint>None</ lsDayConstraint> <lsDuration>00:00:00:00</ lsDuration> <lsEnabled>false</lsEnabled> <lsNthAmount>5</lsNthAmount> <lsTime>00:00</lsTime> <lsType>Time</lsType> <name>Demo</name> <actions/> <opswiseGroups/> <overrideInstanceWait>No</ overrideInstanceWait> <resPriority>10</resPriority> <resolveNameImmediately>false</ resolveNameImmediately> <restrictionPeriod>None</ restrictionPeriod> <restrictionPeriodAfterDate /> <restrictionPeriodAfterTime /> <restrictionPeriodBeforeDate /> <restrictionPeriodBeforeTime /> <restrictionPeriodDateList/> <retryIndefinitely>false</ retryIndefinitely> <retryInterval>60</retryInterval> <retryMaximum>0</retryMaximum> <retrySuppressFailure>false</ retrySuppressFailure> <runCount>0</runCount> <runTime>0</runTime> <simulation>false</simulation> <startHeld>false</startHeld> <startHeldReason /> <summary /> <sysId>ccfe7874d4c6446ea1fb8b4a4e e7dd0d</sysId> <exclusiveTasks/> <virtualResources/> <timeZonePref>-- System Default --</timeZonePref> </pre>	<pre> "efType": "Time", "emailNotification": { "language": "EN", "notifyType": "Status Cancel led", "recipient": "admin@stonebra nch.com" }, "enforceVariables": false, "environment": [], "exclusiveTasks": [], "exclusiveWithSelf": false, "executionRestriction": "None", "exitCodeOutput": null, "exitCodeProcessing": "Success E xitcode Range", "exitCodeText": null, "exitCodes": "0", "exportReleaseLevel": "7.7.0.0", "exportTable": "ops_task_sap", "firstRun": "", "holdResources": false, "immediate": false, "infoPackage": null, "infoPackageJobName": null, "infoSource": null, "jobClass": "Low Priority", "jobId": null, "jobLog": true, "jobLogChild": "Yes", "jobName": "SAP3", "jobStatus": null, "jobSteps": [{ "language": null, "printParameters": { "numberOfCopies": nu ll, "outputDevice": null , "pageArea": "Everyth ing", "pageFrom": null, "pageTo": null, "printTime": "SAP Sp ool Only" }, "programName": "RSCOLL00 ", "stepOrder": 1, "sysId": "1c3ff671d92d44 d79ba8e3495b3913eb", "temporaryVariant": [], "type": "ABAP Program", </pre>

Examples	XML	JSON
	<pre> <twDelayAmount /> <twDelayDuration>00:00:00:00</twDelayDuration> <twDelayType>None</twDelayType> <twWaitAmount /> <twWaitDayConstraint>None</twWaitDayConstraint> <twWaitDuration>00:00:00:00</twWaitDuration> <twWaitTime>00:00</twWaitTime> <twWaitType>None</twWaitType> <twWorkflowOnly>-- System Default --</twWorkflowOnly> <userEstimatedDuration /> <jobSteps> <jobStep> <language /> <printParameters> <numberOfCopies /> <outputDevice /> <pageArea>Everything</pageArea> <pageFrom /> <pageTo /> <printTime>SAP Spool Only</printTime> </printParameters> <programName>RSCOLL00</programName> <stepOrder>1</stepOrder> <sysId>1c3ff671d92d44d79ba8e3495b3913eb</sysId> <temporaryVariant/> <type>ABAP Program</type> <useTemporaryVariant>false</useTemporaryVariant> <userCredentials>SAP - PS5</userCredentials> <userCredentialsVar /> <username /> <variantName /> </jobStep> <jobStep> <language>EN</language> <printParameters> <numberOfCopies /> <outputDevice>LP01</outputDevice> <pageArea>Page</pageArea> <pageFrom>1</pageFrom> <pageTo>2</pageTo> </pre>	<pre> "useTemporaryVariant": false, "userCredentials": "SAP - PS5", "userCredentialsVar": null, "username": null, "variantName": null }, { "language": "EN", "printParameters": { "numberOfCopies": null, "outputDevice": "LP01", "pageArea": "Page", "pageFrom": 1, "pageTo": 2, "printTime": "SAP Spool Only" }, "programName": "ABAP_DOCU_LIST", "stepOrder": 0, "sysId": "58a8c8616aca4539803c04f11bb9cb6d", "temporaryVariant": [{ "high": "Z", "low": "A*", "technicalName": "NAME1", "option": "Between", "sign": "Include", "type": "Selection" }, { "high": null, "low": "ABC*", "technicalName": "NAME2", "option": "Contains Pattern", "sign": "Exclude", "type": "Parameter" }], "type": "ABAP Program", </pre>

Examples	XML	JSON
	<pre> <printTime>SAP Spool Only</printTime> </printParameters> <programName>ABAP_DOCU_LI ST</programName> <stepOrder>0</stepOrder> <sysId>58a8c8616aca453980 3c04f11bb9cb6d</sysId> <temporaryVariant> <variantParameter> <high>Z</high> <low>A*</low> <technicalName>NA ME1</technicalName> <option>Between</ option> <sign>Include</ sign> <type>Selection</ type> </variantParameter> <variantParameter> <high /> <low>ABC*</low> <technicalName>NA ME2</technicalName> <option>Contains Pattern</option> <sign>Exclude</ sign> <type>Parameter</ type> </variantParameter> </temporaryVariant> <type>ABAP Program</type> <useTemporaryVariant>true </useTemporaryVariant> <userCredentials>SAP - PS5</userCredentials> <userCredentialsVar /> <username /> <variantName /> </jobStep> </jobSteps> <chainDesc /> <chainId /> <commandGroup>Submit</ commandGroup> <commandOptions>-l audit - rawspool no</commandOptions> <dataSource /> <defFile /> <definitionOrModel /> <definitionOrModelJobVar /> </pre>	<pre> "useTemporaryVariant": t rue, "userCredentials": "SAP - PS5", "userCredentialsVar": null, "username": null, "variantName": null }], "lastRun": "", "lfDayConstraint": "None", "lfDuration": "00:00:00:00", "lfEnabled": false, "lfNthAmount": 5, "lfOffsetDuration": null, "lfOffsetDurationUnit": "Minutes ", "lfOffsetPercentage": 0, "lfOffsetType": "Percentage", "lfTime": "00:00", "lfType": "Time", "lockVariables": false, "logId": null, "logLevel": "Inherited", "lsDayConstraint": "None", "lsDuration": "00:00:00:00", "lsEnabled": false, "lsNthAmount": 5, "lsTime": "00:00", "lsType": "Time", "maxChildDepth": null, "name": "Demo", "notes": [], "opswiseGroups": [], "outputFailureOnly": false, "outputReturnFile": null, "outputReturnNline": "999", "outputReturnSline": "1", "outputReturnText": null, "outputReturnTextType": "OUTERR", "outputType": "STDOUT", "overrideInstanceWait": "No", "pcRestart": null, "printAppLog": true, "printAppRc": true, "purge": false, "purgeChild": false, "repositoryOrFilesys": null, "requestId": null, "resPriority": 10, "resolveNameImmediately": false, "restrictionPeriod": "None", </pre>

Examples	XML	JSON
	<pre> <dispAbapName /> <dispSapEventId /> <dispSapEventParm /> <dispVariant /> <emailNotification> <language>EN</language> <notifyType>Status Cancelled< /notifyType> <recipient>admin@stonebranch. com</recipient> </emailNotification> <environment/> <exitCodeOutput /> <exitCodeProcessing>Success Exitc ode Range</exitCodeProcessing> <exitCodeText /> <exitCodes>0</exitCodes> <immediate>false</immediate> <infoPackage /> <infoPackageJobName /> <infoSource /> <jobClass>Low Priority</jobClass> <jobId /> <jobLog>true</jobLog> <jobLogChild>Yes</jobLogChild> <jobName>SAP3</jobName> <jobStatus /> <logId /> <maxChildDepth /> <outputFailureOnly>false</ outputFailureOnly> <outputReturnFile /> <outputReturnNline>999</ outputReturnNline> <outputReturnSline>1</ outputReturnSline> <outputReturnText /> <outputReturnType>OUTERR</ outputReturnType> <outputType>STDOUT</outputType> <pcRestart /> <printAppLog>true</printAppLog> <printAppRc>true</printAppRc> <purge>false</purge> <purgeChild>false</purgeChild> <repositoryOrFilesys /> <requestId /> <runtimeDir /> <sapCmProfileId /> <sapCmProfileType /> <sapCmXmlFile /> <sapCommandMask /> <sapConnection>ps5</ sapConnection> </pre>	<pre> "restrictionPeriodAfterDate": nu ll, "restrictionPeriodAfterTime": nu ll, "restrictionPeriodBeforeDate": n ull, "restrictionPeriodBeforeTime": n ull, "restrictionPeriodDateList": [], "retainSysIds": true, "retryIndefinitely": false, "retryInterval": 60, "retryMaximum": 0, "retrySuppressFailure": false, "runCount": 0, "runTime": 0, "runtimeDir": null, "sapCmProfileId": null, "sapCmProfileType": null, "sapCmXmlFile": null, "sapCommandMask": null, "sapConnection": "ps5", "sapConnectionVar": null, "sapCred": "ps5", "sapCredVar": null, "sapDispConfirmEvents": null, "sapDispEventSelectState": null, "sapDisplayCommand": null, "sapEventId": null, "sapEventParm": null, "sapFromDate": null, "sapLang": null, "sapPrinterName": null, "sapToDate": null, "sapView": "Enhanced View", "script": null, "simulation": false, "sourceSystem": null, "spoolListRecipient": { "blindCopy": false, "copy": false, "deliver": "Always", "express": false, "mailStatus": "Always", "noForwarding": false, "recipient": null, "recipientType": "External A ddresses" }, "spoollist": true, "spoollistChild": false, "start": true, "startHeld": false, "startHeldReason": null, </pre>

Examples	XML	JSON
	<pre> <sapConnectionVar /> <sapCred>ps5</sapCred> <sapCredVar /> <sapDispConfirmEvents /> <sapDispEventSelectState /> <sapDisplayCommand /> <sapEventId /> <sapEventParm /> <sapFromDate /> <sapLang /> <sapPrinterName /> <sapToDate /> <sapView>Enhanced View</sapView> <script /> <sourceSystem /> <spoolListRecipient> <blindCopy>false</blindCopy> <copy>false</copy> <deliver>Always</deliver> <express>false</express> <mailStatus>Always</ mailStatus> <noForwarding>false</ noForwarding> <recipient /> <recipientType>External Addre sses</recipientType> </spoolListRecipient> <spoollist>true</spoollist> <spoollistChild>false</ spoollistChild> <start>true</start> <stepNum /> <targetJobName /> <targetServer /> <targetVariantName /> <useAppRc>false</useAppRc> <wait>true</wait> <waitChild>false</waitChild> <waitForOutput>false</ waitForOutput> </taskSap> </pre>	<pre> "stepNum": null, "summary": null, "sysId": "ccfe7874d4c6446ea1fb8b 4a4ee7dd0d", "targetJobName": null, "targetServer": null, "targetVariantName": null, "timeZonePref": "-- System Default --", "twDelayAmount": null, "twDelayDuration": "00:00:00:00" , "twDelayType": "None", "twWaitAmount": null, "twWaitDayConstraint": "None", "twWaitDuration": "00:00:00:00", "twWaitTime": "00:00", "twWaitType": "None", "twWorkflowOnly": "-- System Default --", "useAppRc": false, "userEstimatedDuration": null, "variables": [], "version": 11, "virtualResources": [], "wait": true, "waitChild": false, "waitForOutput": false } </pre>

See [Task Web Services - Task Actions](#) for XML and JSON examples of task actions.

See [Task Web Services - Task-Related Records](#) for XML and JSON examples of task-related records.

4.33.18.6 Properties

- See [All Tasks Properties](#)
- See [SAP Task Properties](#)

4.33.19 SQL Task Web Services

- [Overview](#)
- [Create a SQL Task](#)
- [Modify a SQL Task](#)
- [Read a SQL Task](#)
- [SQL Task: XML and JSON Examples](#)
- [Properties](#)

4.33.19.1 Overview

Universal Controller supports the following RESTful-based web services for SQL Task operations, which are listed alphabetically on this page.

- [Create a SQL Task](#)
- [Modify a SQL Task](#)
- [Read a SQL Task](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Links to detailed information about the [properties](#) used in these web services also is located on this page.

For information on Task web services that are applicable to all task types, see:

- [Delete a Task](#)
- [Launch a Task](#)
- [List Tasks](#)

4.33.19.2 Create a SQL Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	POST
Description	Creates a new SQL task.
Example URI	http://localhost:8080/uc/resources/task To persist sysIds , use the retainSysIds property.
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See SQL Task: XML and JSON Examples , below.
Properties	See Properties .

	Description
Example Response	Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

4.33.19.3 Modify a SQL Task

	Description
URI	http://host_name/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	Modifies the task specified by the sysId in the request . To modify SQL Task properties without modifying related records, use the excludeRelated property.
Example	See SQL Task: XML and JSON Examples .
Properties	See Properties .
Example Response	Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.

4.33.19.4 Read a SQL Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task .
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>
Example URI	http://localhost:8080/uc/resources/task?taskname=testTask http://localhost:8080/uc/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json

	Description
Example Response	• Status 200 /OK (See SQL Task: XML and JSON Examples.) • Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
Properties	See Properties .

4.33.19.5 SQL Task: XML and JSON Examples

The `retainSysIds` and `version` properties are specified as attributes in XML.

The `exportReleaseLevel` and `exportTable` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<pre>XML <taskSql exportReleaseLevel="7.2.0.0" exportTable="ops_task_sql" retainSysIds="true" version="1"> <actions /> <variables /> <notes /> <virtualResources /> <exclusiveTasks /> <avgRunTime>3</avgRunTime> <avgRunTimeDisplay>3 Seconds</avgRunTimeDisplay> <cpDuration /> <cpDurationUnit>Minutes</cpDurationUnit> <credentials /> </taskSql></pre>	<pre>JSON { "type": "taskSql", "actions": { "abortActions": [], "emailNotifications": [], "setVariableActions": [], "snmpNotifications": [], "systemOperations": [] }, "autoCleanup": true, "avgRunTime": 3, "avgRunTimeDisplay": "3 Seconds", "columnName": null, "columnOp": "=", "columnValue": null, "connection": "uc - Db"</pre>

Examples	XML	JSON
	<pre> <credentialsVar /> <customField1 label="Domain">web.com</ customField1> <customField2 /> <efDayConstraint>Nth</ efDayConstraint> <efDuration>00:00:00:00< /efDuration> <efEnabled>>false</ efEnabled> <efNthAmount>10</ efNthAmount> <efOffsetDuration /> <efOffsetDurationUnit>Mi nutes</efOffsetDurationUnit> <efOffsetPercentage>0</ efOffsetPercentage> <efOffsetType>Percentage </efOffsetType> <efTime>00:00</efTime> <efType>Time</efType> <executionRestriction>Ru n</executionRestriction> <firstRun>2021-03-15 13:59:37 -0400</firstRun> <holdResources>>false</ holdResources> <lastRun>2021-03-16 17:12:42 -0400</lastRun> <lastRunTime>9</ lastRunTime> <lastRunTimeDisplay>9 seconds</lastRunTimeDisplay> <lfDayConstraint>Nth</ lfDayConstraint> <lfDuration>00:00:00:00< /lfDuration> <lfEnabled>>false</ lfEnabled> <lfNthAmount>1</ lfNthAmount> <lfOffsetDuration /> <lfOffsetDurationUnit>MI nutes</lfOffsetDurationUnit> <lfOffsetPercentage>0</ lfOffsetPercentage> <lfOffsetType>Percentage </lfOffsetType> <lfTime>00:00</lfTime> <lfType>Time</lfType> <lsDayConstraint>Nth</ lsDayConstraint> <lsDuration>00:00:00:00< </pre>	<pre> Connection", "connectionVar": null, "cpDuration": null, "cpDurationUnit": "Minutes", "credentials": null, "credentialsVar": null, "customField1": { "label": "Domain", "value": "http://qa-cntlr- mssql:8080/uc/" }, "customField2": { "label": null, "value": null }, "efDayConstraint": "Nth Day", "efDuration": "00:00:00:00", "efEnabled": false, "efNthAmount": 10, "efOffsetDuration": null, "efOffsetDurationUnit": "Minutes", "efOffsetPercentage": 0, "efOffsetType": "Percentage", "efTime": "00:00", "efType": "Time", "excludeRelated": false, "exclusiveTasks": [], "executionRestriction": "Run", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_task_sql", "firstRun": "2021-03-15 13:59:37 -0400", "holdResources": false, "lastRun": "2021-03-16 17:12:42 -0400", "lastRunTime": 9, "lastRunTimeDisplay": "9 Seconds", "lfDayConstraint": "Nth Day", "lfDuration": "00:00:00:00", "lfEnabled": false, "lfNthAmount": 1, "lfOffsetDuration": null, "lfOffsetDurationUnit": "Minutes", "lfOffsetPercentage": 0, "lfOffsetType": "Percentage", "lfTime": "00:00", "lfType": "Time", "lsDayConstraint": "Nth Day", "lsDuration": "00:00:00:00", "lsEnabled": false, "lsNthAmount": 7, </pre>

Examples	XML	JSON
	<pre> /lsDuration> <lsEnabled>>false</ lsEnabled> <lsNthAmount>7</ lsNthAmount> <lsTime>00:00</lsTime> <lsType>Time</lsType> <maxRunTime>9</ maxRunTime> <maxRunTimeDisplay>9 Seconds</maxRunTimeDisplay> <minRunTime>3</ minRunTime> <minRunTimeDisplay>3 Seconds</minRunTimeDisplay> <name>uc - Test Email</ name> <opswiseGroups /> <resolveNameImmediately> false</resolveNameImmediately> <resPriority>10</ resPriority> <restrictionPeriod>Span< /restrictionPeriod> <restrictionPeriodAfterDate>201 7-11-10</ restrictionPeriodAfterDate> <restrictionPeriodAfterTime>10: 30</restrictionPeriodAfterTime> <restrictionPeriodBeforeDate>20 17-11-20</ restrictionPeriodBeforeDate> <restrictionPeriodBeforeTime>15 :00</ restrictionPeriodBeforeTime> <restrictionPeriodDateList /> <runCount>32</runCount> <runTime>108</runTime> <startHeld>>false</ startHeld> <startHeldReason /> <summary>Test Email</ summary> <sysId>fb59a227517a421a9 2c15ff5aefe3b66</sysId> <timeZonePref>-- System Default --</timeZonePref> <twDelayAmount /> <twDelayDuration>00:00:0 0:00</twDelayDuration> </pre>	<pre> "lsTime": "00:00", "lsType": "Time", "maxRows": null, "maxRunTime": 9, "maxRunTimeDisplay": "9 Seconds", "minRunTime": 3, "minRunTimeDisplay": "3 Seconds", "name": "uc - Test Email", "notes": [], "opswiseGroups": null, "resolveNameImmediately": false, "resPriority": 10, "restrictionPeriod": "Span", "restrictionPeriodAfterDate": "2017-11-10", "restrictionPeriodAfterTime": "10:30", "restrictionPeriodBeforeDate": "2017-11-20", "restrictionPeriodBeforeTime": "15:00", "restrictionPeriodDateList": [], "resultProcessing": "Skip Result Processing", "retainSysIds": true, "retryIndefinitely": false, "retryInterval": 60, "retryMaximum": 0, "retrySuppressFailure": false, "runCount": 32, "runTime": 108, "sqlCommand": "CREATE TABLE test (name varchar(128), value varchar(128));", "startHeld": false, "startHeldReason": null, "summary": "Test Email", "sysId": "fb59a227517a421a92c15ff5aefe3b6 6", "timeZonePref": "-- System Default --", "twDelayAmount": null, "twDelayDuration": "00:00:00:00", "twDelayType": "None", "twWaitAmount": null, "twWaitDayConstraint": "NONE", "twWaitDuration": "00:00:00:00", </pre>

Examples	XML	JSON
	<pre> <twDelayType>None</twDelayType> <twWaitAmount /> <twWaitDayConstraint>NONE</twWaitDayConstraint> <twWaitDuration>00:00:00</twWaitDuration> <twWaitTime>00:00</twWaitTime> <twWaitType>None</twWaitType> <twWorkflowOnly>-- System Default --</twWorkflowOnly> <userEstimatedDuration /> <autoCleanup>true</autoCleanup> <columnName /> <columnOp>=</columnOp> <columnValue /> <connection>uc - Db Connection</connection> <connectionVar /> <exitCodes>0</exitCodes> <maxRows /> <resultProcessing>Skip Result Processing</resultProcessing> <retryIndefinitely>>false</retryIndefinitely> <retryInterval>60</retryInterval> <retryMaximum>0</retryMaximum> <retrySuppressFailure>>false</retrySuppressFailure> <sqlCommand>CREATE TABLE test (name varchar(128), value varchar(128));</sqlCommand> </taskSql> </pre>	<pre> "twWaitTime": "00:00", "twWaitType": "None", "twWorkflowOnly": "-- System Default --", "userEstimatedDuration": null, "variables": [], "version": 1, "virtualResources": [] } </pre>

See [Task Web Services - Task Actions](#) for XML and JSON examples of task actions.

See [Task Web Services - Task-Related Records](#) for XML and JSON examples of task-related records.

4.33.19.6 Properties

- See [All Tasks Properties](#)

- See [SQL Task Properties](#)

4.33.20 Stored Procedure Task Web Services

- [Overview](#)
- [Create a Stored Procedure Task](#)
- [Modify a Stored Procedure Task](#)
- [Read a Stored Procedure Task](#)
- [Stored Procedure Task: XML and JSON Examples](#)
- [Properties](#)

4.33.20.1 Overview

Universal Controller supports the following RESTful-based web services for Stored Procedure Task operations, which are listed alphabetically on this page.

- [Create a Stored Procedure Task](#)
- [Modify a Stored Procedure Task](#)
- [Read a Stored Procedure Task](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Links to detailed information about the [properties](#) used in these web services also is located on this page.

For information on Task web services that are applicable to all task types, see:

- [Delete a Task](#)
- [Launch a Task](#)
- [List Tasks](#)

4.33.20.2 Create a Stored Procedure Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	POST
Description	Creates a new Stored Procedure task. To persist syslds , use the retainSyslds property.
Example URI	http://localhost:8080/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See Stored Procedure Task: XML and JSON Examples , below.

	Description
Properties	See Properties .
Example Response	Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

4.33.20.3 Modify a Stored Procedure Task

	Description
URI	http://host_name/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	Modifies the task specified by the sysId in the request . To modify Stored Procedure Task properties without modifying related records, use the excludeRelated property.
Example	See Stored Procedure Task: XML and JSON Examples .
Properties	See Properties .
Example Response	Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.

4.33.20.4 Read a Stored Procedure Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task .
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>
Example URI	http://localhost:8080/uc/resources/task?taskname=testTask http://localhost:8080/uc/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json

	Description
Example Response	• Status 200 /OK (See Stored Procedure Task: XML and JSON Examples.) • Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
Properties	See Properties .

4.33.20.5 Stored Procedure Task: XML and JSON Examples

The `retainSysIds` and `version` properties are specified as attributes in XML.

The `exportReleaseLevel` and `exportTable` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<pre><taskStoredProc exportReleaseLevel="7.2.0.0" exportTable="ops_task_stored_ proc" retainSysIds="true" version="1"> <actions /> <variables /> <notes /> <virtualResources /> <exclusiveTasks /> <storedProcParams> <storedProcParam> <description / > <isNull>>false< /isNull> <ivalue>13</</pre>	<pre>{ "type": "taskStoredProc", "actions": { "abortActions": [], "emailNotifications": [], "setVariableActions": [], "snmpNotifications": [], "systemOperations": [] }, "autoCleanup": false, "avgRunTime": 3, "avgRunTimeDisplay": "3 Seconds", "columnName": null, "connection": "uc - Db Connection", "connectionVar": null,</pre>

Examples	XML	JSON
	<pre> <value> <value /> <paramMode>Inp ut</paramMode> <paramType>INT EGER</paramType> <paramVar /> <pos>1</pos> <sysId>08e6825 8e82149b18b94d4f3527da80b</ sysId> <variableScope> Self</variableScope> </storedProcParam> <storedProcParam> <description / > <isNull>>false< /isNull> <value>Parame ter 3 Input</value> <value /> <paramMode>Inp ut/Output</paramMode> <paramType>VAR CHAR</paramType> <paramVar>Para m3Output</paramVar> <pos>3</pos> <sysId>8893777 c75634d68a056df3943f99931</ sysId> <variableScope> Self</variableScope> </storedProcParam> <storedProcParam> <description / > <isNull>>false< /isNull> <value /> <value /> <paramMode>Out put</paramMode> <paramType>TIM ESTAMP</paramType> <paramVar>Para meter2</paramVar> <pos>2</pos> <sysId>acf8c02 05eee4b3e816c448fd37ed048</ sysId> <variableScope> Self</variableScope> </storedProcParam> </pre>	<pre> "cpDuration": null, "cpDurationUnit": "Minutes", "credentials": null, "credentialsVar": null, "customField1": { "label": "Domain", "value": "http://qa-cntlr- mssql:8080/uc/" }, "customField2": { "label": null, "value": null }, "efDayConstraint": "Nth Day", "efDuration": "00:00:00:00", "efEnabled": false, "efNthAmount": 10, "efOffsetDuration": null, "efOffsetDurationUnit": "Minutes", "efOffsetPercentage": 0, "efOffsetType": "Percentage", "efTime": "00:00", "efType": "Time", "excludeRelated": false, "exclusiveTasks": [], "executionRestriction": "Run", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_task_stored_proc", "firstRun": "2021-03-15 13:59:37 -0400", "holdResources": false, "lastRun": "2021-03-16 17:12:42 -0400", "lastRunTime": 9, "lastRunTimeDisplay": "9 Seconds", "lfDayConstraint": "Nth Day", "lfDuration": "00:00:00:00", "lfEnabled": false, "lfNthAmount": 1, "lfOffsetDuration": null, "lfOffsetDurationUnit": "Minutes", "lfOffsetPercentage": 0, "lfOffsetType": "Percentage", "lfTime": "00:00", "lfType": "Time", "lsDayConstraint": "Nth Day", "lsDuration": "00:00:00:00", "lsEnabled": false, "lsNthAmount": 7, </pre>

Examples	XML	JSON
	<pre> </storedProcParams> <avgRunTime>3</ avgRunTime> <avgRunTimeDisplay>3 Seconds</avgRunTimeDisplay> <cpDuration /> <cpDurationUnit>Minute s</cpDurationUnit> <credentials /> <credentialsVar /> <customField1 label="Domain">web.com</ customField1> <customField2 /> <efDayConstraint>Nth</ efDayConstraint> <efDuration>00:00:00:0 0</efDuration> <efEnabled>>false</ efEnabled> <efNthAmount>10</ efNthAmount> <efOffsetDuration /> <efOffsetDurationUnit> Minutes</ efOffsetDurationUnit> <efOffsetPercentage>0< /efOffsetPercentage> <efOffsetType>Percenta ge</efOffsetType> <efTime>00:00</efTime> <efType>Time</efType> <executionRestriction> Run</executionRestriction> <firstRun>2021-03-15 13:59:37 -0400</firstRun> <holdResources>>false</ holdResources> <lastRun>2021-03-16 17:12:42 -0400</lastRun> <lastRunTime>9</ lastRunTime> <lastRunTimeDisplay>9 seconds</lastRunTimeDisplay> <lfDayConstraint>Nth</ lfDayConstraint> <lfDuration>00:00:00:0 0</lfDuration> <lfEnabled>>false</ lfEnabled> <lfNthAmount>1</ lfNthAmount> <lfOffsetDuration /> <lfOffsetDurationUnit> </pre>	<pre> "lsTime": "00:00", "lsType": "Time", "maxRows": null, "maxRunTime": 9, "maxRunTimeDisplay": "9 Seconds", "minRunTime": 3, "minRunTimeDisplay": "3 Seconds", "name": "uc - Test Email", "notes": [], "opswiseGroups": null, "parameterPosition": 1, "resolveNameImmediately": false, "resPriority": 10, "restrictionPeriod": "Span", "restrictionPeriodAfterDate": "2017-11-10", "restrictionPeriodAfterTime": "10:30", "restrictionPeriodBeforeDate": "2017-11-20", "restrictionPeriodBeforeTime": "15:00", "restrictionPeriodDateList": [], "resultOp": "=", "resultProcessing": "Skip Result Processing", "resultValue": null, "retainSysIds": true, "retryIndefinitely": false, "retryInterval": 60, "retryMaximum": 0, "retrySuppressFailure": false, "runCount": 32, "runTime": 108, "startHeld": false, "startHeldReason": null, "storedProcName": "sproc1", "storedProcParams": [{ "description": null, "isNull": false, "ivalue": "13", "ovalue": null, "paramMode": "Input", "paramType": "INTEGER", "paramVar": null, "pos": 1, "sysId": "08e68258e82149b18b94d4f3527da80b ", </pre>

Examples	XML	JSON
	<pre> Minutes</ lfOffsetDurationUnit> <lfOffsetPercentage>0< /lfOffsetPercentage> <lfOffsetType>Percenta ge</lfOffsetType> <lfTime>00:00</lfTime> <lfType>Time</lfType> <lsDayConstraint>Nth</ lsDayConstraint> <lsDuration>00:00:00:0 0</lsDuration> <lsEnabled>>false</ lsEnabled> <lsNthAmount>7</ lsNthAmount> <lsTime>00:00</lsTime> <lsType>Time</lsType> <maxRunTime>9</ maxRunTime> <maxRunTimeDisplay>9 Seconds</maxRunTimeDisplay> <minRunTime>3</ minRunTime> <minRunTimeDisplay>3 Seconds</minRunTimeDisplay> <name>uc - Test Email< /name> <opswiseGroups /> <resolveNameImmediately>>false </resolveNameImmediately> <resPriority>10</ resPriority> <restrictionPeriod>Spa n</restrictionPeriod> <restrictionPeriodAfterDate>2 017-11-10</ restrictionPeriodAfterDate> <restrictionPeriodAfterTime>1 0:30</ restrictionPeriodAfterTime> <restrictionPeriodBeforeDate> 2017-11-20</ restrictionPeriodBeforeDate> <restrictionPeriodBeforeTime> 15:00</ restrictionPeriodBeforeTime> <restrictionPeriodDateList /> <runCount>32</runCount> </pre>	<pre> "variableScope": "Self" }, { "description": null, "isNull": false, "ivalue": "Parameter 3 Input", "ovalue": null, "paramMode": "Input/Output", "paramType": "VARCHAR", "paramVar": Param3Output, "pos": 3, "sysId": "8893777c75634d68a056df3943f99931 ", "variableScope": "Self" }, { "description": null, "isNull": false, "ivalue": null, "ovalue": null, "paramMode": "Output", "paramType": "TIMESTAMP", "paramVar": Parameter2, "pos": 2, "sysId": "acf8c0205eee4b3e816c448fd37ed048 ", "variableScope": "Self" }], "summary": "Test Email", "sysId": "fb59a227517a421a92c15ff5aefe3b66 ", "timeZonePref": "-- System Default --", "twDelayAmount": null, "twDelayDuration": "00:00:00:00", "twDelayType": "None", "twWaitAmount": null, "twWaitDayConstraint": "NONE", "twWaitDuration": "00:00:00:00", "twWaitTime": "00:00", "twWaitType": "None", "twWorkflowOnly": "-- System Default --", "userEstimatedDuration": null, "variables": [], "version": 1, "virtualResources": [] } </pre>

Examples	XML	JSON
	<pre> <runTime>108</runTime> <startHeld>false</ startHeld> <startHeldReason /> <summary>Test Email</ summary> <sysId>fb59a227517a421 a92c15ff5ae3b66</sysId> <timeZonePref>-- System Default --</ timeZonePref> <twDelayAmount /> <twDelayDuration>00:00 :00:00</twDelayDuration> <twDelayType>None</ twDelayType> <twWaitAmount /> <twWaitDayConstraint>N ONE</twWaitDayConstraint> <twWaitDuration>00:00: 00:00</twWaitDuration> <twWaitTime>00:00</ twWaitTime> <twWaitType>None</ twWaitType> <twWorkflowOnly>-- System Default --</ twWorkflowOnly> <userEstimatedDuration /> <autoCleanup>false</ autoCleanup> <columnName /> <connection>uc - Db Connection</connection> <connectionVar /> <exitCodes /> <maxRows /> <parameterPosition>1</ parameterPosition> <resultOp>=</resultOp> <resultProcessing>Skip Result Processing</ resultProcessing> <resultValue /> <retryIndefinitely>fal se</retryIndefinitely> <retryInterval>60</ retryInterval> <retryMaximum>0</ retryMaximum> <retrySuppressFailure> false</retrySuppressFailure> <storedProcName>sproc1 </storedProcName> </taskStoredProc> </pre>	

See [Task Web Services - Task Actions](#) for XML and JSON examples of task actions.

See [Task Web Services - Task-Related Records](#) for XML and JSON examples of task-related records.

4.33.20.6 Properties

- See [All Tasks Properties](#)
- See [Stored Procedure Task Properties](#)

4.33.21 System Monitor Task Web Services

- [Overview](#)
- [Create a System Monitor Task](#)
- [Modify a System Monitor Task](#)
- [Read a System Monitor Task](#)
- [System Monitor Task: XML and JSON Examples](#)
- [Properties](#)

4.33.21.1 Overview

Universal Controller supports the following RESTful-based web services for System Monitor Task operations, which are listed alphabetically on this page.

- [Create a System Monitor Task](#)
- [Modify a System Monitor Task](#)
- [Read a System Monitor Task](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Links to detailed information about the [properties](#) used in these web services also is located on this page.

For information on Task web services that are applicable to all task types, see:

- [Delete a Task](#)
- [Launch a Task](#)
- [List Tasks](#)

4.33.21.2 Create a System Monitor Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	POST

	Description
Description	Creates a new System Monitor task. To persist syslds , use the retainSyslds property.
Example URI	http://localhost:8080/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See System Monitor Task: XML and JSON Examples , below.
Properties	See Properties .
Example Response	Status 200 /OK Successfully created the <task type> task with sysld <sysld>.

4.33.21.3 Modify a System Monitor Task

	Description
URI	http://host_name/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	Modifies the task specified by the sysld in the request . To modify System Monitor Task properties without modifying related records, use the excludeRelated property.
Example	See System Monitor Task: XML and JSON Examples .
Properties	See Properties .
Example Response	Status 200 /OK Successfully updated the <task type> task with sysld <sysld> to version <version>.

4.33.21.4 Read a System Monitor Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task .

	Description
Request Parameters	taskid or taskname
Mutually Exclusive Parameters	taskid and taskname
Example URI	- http://localhost:8080/uc/resources/task?taskname=testTask - http://localhost:8080/uc/resources/task?taskid=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	- Status 200 /OK (See System Monitor Task: XML and JSON Examples .) - Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
Properties	See Properties .

4.33.21.5 System Monitor Task: XML and JSON Examples

The `taskSystemMonitor` task has the following properties:

- `retainSysIds` (boolean)
- `version` (string)

properties are specified as attributes in XML.

The `taskSystemMonitor` task has the following properties:

- `exportReleaseLevel` (string)
- `exportTable` (string)

and `exportTable` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<pre><taskSystemMonitor exportReleaseLevel="7.2.0.0" exportTable="ops_task_system_monitor" retainSysIds="true" version="1"></pre>	<pre>{ "type": "taskSystemMonitor", "actions": { "abortActions": [], "emailNotifications": [],</pre>

Examples	XML	JSON
	<pre> <actions /> <variables /> <notes /> <virtualResources /> <exclusiveTasks /> <agent /> <agentCluster /> <agentClusterVar /> <agentVar>\$ {target_server}</agentVar> <avgRunTime>3</ avgRunTime> <avgRunTimeDisplay>3 Seconds</avgRunTimeDisplay> <broadcastCluster /> <broadcastClusterVar /> <cpDuration /> <cpDurationUnit>Minu tes</cpDurationUnit> <credentials /> <credentialsVar /> <customField1 label="Domain">web.com</ customField1> <customField2 /> <efDayConstraint>Nth </efDayConstraint> <efDuration>00:00:00 :00</efDuration> <efEnabled>>false</ efEnabled> <efNthAmount>10</ efNthAmount> <efOffsetDuration /> <efOffsetDurationUnit>Minut es</efOffsetDurationUnit> <efOffsetPercentage> 0</efOffsetPercentage> <efOffsetType>Percen tage</efOffsetType> <efTime>00:00</ efTime> <efType>Time</efType> <executionRestriction>Run</ executionRestriction> <firstRun>2021-03-15 13:59:37 -0400</firstRun> <holdResources>>false </holdResources> <lastRun>2021-03-16 17:12:42 -0400</lastRun> </pre>	<pre> "setVariableActions": [], "snmpNotifications": [], "systemOperations": [] }, "agent": null, "agentCluster": "uc Demo Cluster", "agentClusterVar": null, "agentVar": null, "avgRunTime": 3, "avgRunTimeDisplay": "3 Seconds", "broadcastCluster": null, "broadcastClusterVar": null, "byScale": "MB", "condition": ">", "cpDuration": null, "cpDurationUnit": "Minutes", "credentials": null, "credentialsVar": null, "customField1": { "label": "Domain", "value": "http://qa-cntlr- mssql:8080/uc/" }, "customField2": { "label": null, "value": null }, "drive": "c:\\", "efDayConstraint": "Nth Day", "efDuration": "00:00:00:00", "efEnabled": false, "efNthAmount": 10, "efOffsetDuration": null, "efOffsetDurationUnit": "Minutes", "efOffsetPercentage": 0, "efOffsetType": "Percentage", "efTime": "00:00", "efType": "Time", "excludeRelated": false, "exclusiveTasks": [], "executionRestriction": "Run", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_task_system_monitor", "firstRun": "2021-03-15 13:59:37 -0400", "freeSize": "1.0", "holdResources": false, "lastRun": "2021-03-16 17:12:42 -0400", "lastRunTime": 9, </pre>

Examples	XML	JSON
	<pre> <lastRunTime>9</ lastRunTime> <lastRunTimeDisplay> 9 seconds</ lastRunTimeDisplay> <lfDayConstraint>Nth </lfDayConstraint> <lfDuration>00:00:00 :00</lfDuration> <lfEnabled>>false</ lfEnabled> <lfNthAmount>1</ lfNthAmount> <lfOffsetDuration /> <lfOffsetDurationUnit>Minut es</lfOffsetDurationUnit> <lfOffsetPercentage> 0</lfOffsetPercentage> <lfOffsetType>Percen tage</lfOffsetType> <lfTime>00:00</ lfTime> <lfType>Time</lfType> <lsDayConstraint>Nth </lsDayConstraint> <lsDuration>00:00:00 :00</lsDuration> <lsEnabled>>false</ lsEnabled> <lsNthAmount>7</ lsNthAmount> <lsTime>00:00</ lsTime> <lsType>Time</lsType> <maxRunTime>9</ maxRunTime> <maxRunTimeDisplay>9 Seconds</maxRunTimeDisplay> <minRunTime>3</ minRunTime> <minRunTimeDisplay>3 Seconds</minRunTimeDisplay> <name>uc - Test Email</name> <opswiseGroups /> <resolveNameImmediately>fal se</resolveNameImmediately> <resPriority>10</ resPriority> <restrictionPeriod>S pan</restrictionPeriod> <restrictionPeriodAfterDate </pre>	<pre> "lastRunTimeDisplay": "9 Seconds", "lfDayConstraint": "Nth Day", "lfDuration": "00:00:00:00", "lfEnabled": false, "lfNthAmount": 1, "lfOffsetDuration": null, "lfOffsetDurationUnit": "Minutes", "lfOffsetPercentage": 0, "lfOffsetType": "Percentage", "lfTime": "00:00", "lfType": "Time", "lsDayConstraint": "Nth Day", "lsDuration": "00:00:00:00", "lsEnabled": false, "lsNthAmount": 7, "lsTime": "00:00", "lsType": "Time", "maxRunTime": 9, "maxRunTimeDisplay": "9 Seconds", "minRunTime": 3, "minRunTimeDisplay": "3 Seconds", "name": "uc - Test Email", "notes": [], "opswiseGroups": null, "resolveNameImmediately": false, "resPriority": 10, "restrictionPeriod": "Span", "restrictionPeriodAfterDate": "2017-11-10", "restrictionPeriodAfterTime": "10:30", "restrictionPeriodBeforeDate": "2017-11-20", "restrictionPeriodBeforeTime": "15:00", "restrictionPeriodDateList": [], "retainSysIds": true, "runCount": 32, "runTime": 108, "smtype": "DISKFREESPC", "startHeld": false, "startHeldReason": null, "summary": "Test Email", "sysId": "fb59a227517a421a92c15ff5aefe3b66" , "timeZonePref": "-- System Default --", "twDelayAmount": null, "twDelayDuration": "00:00:00:00", </pre>

Examples	XML	JSON
	<pre> <2017-11-10</ restrictionPeriodAfterDate> <restrictionPeriodAfterTime >10:30</ restrictionPeriodAfterTime> <restrictionPeriodBeforeDate>2017-11-20</ restrictionPeriodBeforeDate > <restrictionPeriodBeforeTime>15:00</ restrictionPeriodBeforeTime > <restrictionPeriodDateList /> <runCount>32</ runCount> <runTime>108</ runTime> <startHeld>false</ startHeld> <startHeldReason /> <summary>Test Email< /summary> <sysId>fb59a227517a4 21a92c15ff5aefe3b66</sysId> <timeZonePref>-- System Default --</ timeZonePref> <twDelayAmount /> <twDelayDuration>00: 00:00:00</twDelayDuration> <twDelayType>None</ twDelayType> <twWaitAmount /> <twWaitDayConstraint> NONE</twWaitDayConstraint> <twWaitDuration>00:0 0:00:00</twWaitDuration> <twWaitTime>00:00</ twWaitTime> <twWaitType>None</ twWaitType> <twWorkflowOnly>-- System Default --</ twWorkflowOnly> <userEstimatedDuration /> <byScale>MB</byScale> <condition>></ condition> </pre>	<pre> "twDelayType": "None", "twWaitAmount": null, "twWaitDayConstraint": "NONE", "twWaitDuration": "00:00:00:00", "twWaitTime": "00:00", "twWaitType": "None", "twWorkflowOnly": "-- System Default --", "userEstimatedDuration": null, "variables": [], "version": 1, "virtualResources": [] } </pre>

Examples	XML	JSON
	<pre><drive>c:\</drive> <freeSize>1.0</ freeSize> <smttype>DISKFREESPC< /smttype> </taskSystemMonitor></pre>	

See [Task Web Services - Task Actions](#) for XML and JSON examples of task actions.

See [Task Web Services - Task-Related Records](#) for XML and JSON examples of task-related records.

4.33.21.6 Properties

- See [All Tasks Properties](#)
- See [System Monitor Task Properties](#)

4.33.22 Task Monitor Task Web Services

- [Overview](#)
- [Create a Task Monitor Task](#)
- [Modify a Task Monitor Task](#)
- [Read a Task Monitor Task](#)
- [Task Monitor Task: XML and JSON Examples](#)
- [Properties](#)

4.33.22.1 Overview

Universal Controller supports the following RESTful-based web services for Task Monitor Task operations, which are listed alphabetically on this page.

- [Create a Task Monitor Task](#)
- [Modify a Task Monitor Task](#)
- [Read a Task Monitor Task](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Links to detailed information about the [properties](#) used in these web services also is located on this page.

For information on Task web services that are applicable to all task types, see:

- [Delete a Task](#)
- [Launch a Task](#)
- [List Tasks](#)

4.33.22.2 Create a Task Monitor Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	POST
Description	Creates a new Task Monitor task. To persist sysIds , use the retainSysIds property.
Example URI	http://localhost:8080/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See Task Monitor Task: XML and JSON Examples , below.
Properties	See Properties .
Example Response	Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

4.33.22.3 Modify a Task Monitor Task

	Description
URI	http://host_name/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	Modifies the task specified by the sysId in the request . To modify Task Monitor Task properties without modifying related records, use the excludeRelated property.
Example	See Task Monitor Task: XML and JSON Examples .
Properties	See Properties .
Example Response	Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.

4.33.22.4 Read a Task Monitor Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task .
Request Parameters	<code>taskid</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskid</code> and <code>taskname</code>
Example URI	http://localhost:8080/uc/resources/task?taskname=testTask http://localhost:8080/uc/resources/task?taskid=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	- Status 200 /OK (See Task Monitor Task: XML and JSON Examples.) - Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
Properties	See Properties .

4.33.22.5 Task Monitor Task: XML and JSON Examples

The

`retainSysIds`

and

`version`

properties are specified as attributes in XML.

The

`exportReleaseLevel`

and `exportTable` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<pre> <taskMonitor exportReleaseLevel="7.2.0.0" exportTable="ops_task_monitor" retainSysIds="true" version="1"> <actions /> <variables /> <notes /> <virtualResources /> <exclusiveTasks /> <avgRunTime>3</avgRunTime> <avgRunTimeDisplay>3 Seconds</ avgRunTimeDisplay> <cpDuration /> <cpDurationUnit>Minutes</ cpDurationUnit> <credentials /> <credentialsVar /> <customField1 /> <customField2 /> <efDayConstraint>Nth</ efDayConstraint> <efDuration>00:00:00:00</ efDuration> <efEnabled>>false</efEnabled> <efNthAmount>10</efNthAmount> <efOffsetDuration /> <efOffsetDurationUnit>Minutes</ efOffsetDurationUnit> <efOffsetPercentage>0</ efOffsetPercentage> <efOffsetType>Percentage</ efOffsetType> <efTime>00:00</efTime> <efType>Time</efType> <executionRestriction>Run</ executionRestriction> <firstRun>2021-03-15 13:59:37 -0400</firstRun> <holdResources>>false</ holdResources> <lastRun>2021-03-16 17:12:42 -0400</lastRun> <lastRunTime>9</lastRunTime> <lastRunTimeDisplay>9 seconds</ lastRunTimeDisplay> <lfDayConstraint>Nth</ lfDayConstraint> <lfDuration>00:00:00:00</ lfDuration> <lfEnabled>>false</lfEnabled> <lfNthAmount>1</lfNthAmount> </pre>	<pre> { "type": "taskMonitor", "actions": { "abortActions": [], "emailNotifications": [], "setVariableActions": [], "snmpNotifications": [], "systemOperations": [] }, "avgRunTime": 3, "avgRunTimeDisplay": "3 Seconds", "cpDuration": null, "cpDurationUnit": "Minutes", "credentials": null, "credentialsVar": null, "customField1": { "label": null, "value": null }, "customField2": { "label": null, "value": null }, "efDayConstraint": "Nth Day", "efDuration": "00:00:00:00", "efEnabled": false, "efNthAmount": 10, "efOffsetDuration": null, "efOffsetDurationUnit": "Minutes", "efOffsetPercentage": 0, "efOffsetType": "Percentage", "efTime": "00:00", "efType": "Time", "excludeRelated": false, "exclusiveTasks": [], "executionRestriction": "Run", "expirationAction": "Finished", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_task_monitor", "firstRun": "2021-03-15 13:59:37 -0400", "holdResources": false, "lastRun": "2021-03-16 17:12:42 -0400", "lastRunTime": 9, "lastRunTimeDisplay": "9 Seconds", "lfDayConstraint": "Nth Day", "lfDuration": "00:00:00:00", "lfEnabled": false, "lfNthAmount": 1, </pre>

Examples	XML	JSON
	<pre> <lfOffsetDuration/> <lfOffsetDurationUnit>Minutes</ lfOffsetDurationUnit> <lfOffsetPercentage>0</ lfOffsetPercentage> <lfOffsetType>Percentage</ lfOffsetType> <lfTime>00:00</lfTime> <lfType>Time</lfType> <lsDayConstraint>Nth</ lsDayConstraint> <lsDuration>00:00:00:00</ lsDuration> <lsEnabled>>false</lsEnabled> <lsNthAmount>7</lsNthAmount> <lsTime>00:00</lsTime> <lsType>Time</lsType> <maxRunTime>9</maxRunTime> <maxRunTimeDisplay>9 Seconds</ maxRunTimeDisplay> <minRunTime>3</minRunTime> <minRunTimeDisplay>3 Seconds</ minRunTimeDisplay> <monitorEarlyFinish>>false</ monitorEarlyFinish> <monitorLateFinish>>false</ monitorLateFinish> <monitorLateStart>>false</ monitorLateStart> <name>uc - Test Email</name> <opswiseGroups /> <resolveNameImmediately>>false</ resolveNameImmediately> <resPriority>10</resPriority> <restrictionPeriod>Span</ restrictionPeriod> <restrictionPeriodAfterDate>2017-11-10</ restrictionPeriodAfterDate> <restrictionPeriodAfterTime>10:30</ restrictionPeriodAfterTime> <restrictionPeriodBeforeDate>2017-11-20</ restrictionPeriodBeforeDate> <restrictionPeriodBeforeTime>15:00</ restrictionPeriodBeforeTime> <restrictionPeriodDateList /> <runCount>32</runCount> <runTime>108</runTime> <startHeldReason /> <summary>Test Email</summary> </pre>	<pre> "lfOffsetDuration": null, "lfOffsetDurationUnit": "Minutes", "lfOffsetPercentage": 0, "lfOffsetType": "Percentage", "lfTime": "00:00", "lfType": "Time", "lsDayConstraint": "Nth Day", "lsDuration": "00:00:00:00", "lsEnabled": false, "lsNthAmount": 7, "lsTime": "00:00", "lsType": "Time", "maxRunTime": 9, "maxRunTimeDisplay": "9 Seconds", "minRunTime": 3, "minRunTimeDisplay": "3 Seconds", "monitorEarlyFinish": false, "monitorLateFinish": false, "monitorLateStart": false, "monType": "General", "name": "uc - Test Email", "notes": [], "opswiseGroups": null, "relativeTimeFrom": "00:00", "relativeTimeTo": null, "resolveNameImmediately": false, "resPriority": 10, "restrictionPeriod": "Span", "restrictionPeriodAfterDate": "2017-11-10", "restrictionPeriodAfterTime": "10:30", "restrictionPeriodBeforeDate": "2017-11-20", "restrictionPeriodBeforeTime": "15:00", "restrictionPeriodDateList": [], "retainSysIds": true, "runCount": 32, "runTime": 108, "startHeld": false, "startHeldReason": null, "statusText": "Success", "summary": "Test Email", "sysId": "fb59a227517a421a92c15ff5aefe3b66", "taskNameLookup": "Contains", "timeScope": "Relative", "timeZonePref": "-- System Default --", "twDelayAmount": null, "twDelayDuration": "00:00:00:00", "twDelayType": "None", "twWaitAmount": null, </pre>

Examples	XML	JSON
	<pre> <sysId>fb59a227517a421a92c15ff5aefe3b66</sysId> <timeZonePref>-- System Default -- </timeZonePref> <twDelayAmount /> <twDelayDuration>00:00:00:00</twDelayDuration> <twDelayType>None</twDelayType> <twWaitAmount /> <twWaitDayConstraint>NONE</twWaitDayConstraint> <twWaitDuration>00:00:00:00</twWaitDuration> <twWaitTime>00:00</twWaitTime> <twWaitType>None</twWaitType> <twWorkflowOnly>-- System Default --</twWorkflowOnly> <userEstimatedDuration /> <expirationAction>Finished</expirationAction> <monType>General</monType> <relativeTimeFrom>00:00</relativeTimeFrom> <relativeTimeTo /> <statusText>Defined, Waiting, Time Wait, Held, Exclusive Requested, Exclusive Wait, Resource Requested, Resource Wait, Execution Wait, Undeliverable, Queued, Submitted, Action Required, Started, Running, Running/Problems, Cancel Pending, In Doubt, Start Failure, Confirmation Required, Cancelled, Failed, Skipped, Finished, Success </statusText> <taskNameLookup>Contains</taskNameLookup> <timeScope>Relative</timeScope> <typeText>Workflow, Timer, Windows, Linux/Unix, z/OS, File Monitor, Manual, Email, File Transfer, SQL, FTP File Monitor, Task Monitor, Variable Monitor, Stored Procedure, Universal Command, System Monitor, Application Control, SAP, Email Monitor, Web Service, Universal</typeText> <wfConditionType>Starts With</wfConditionType> </pre>	<pre> "twWaitDayConstraint": "NONE", "twWaitDuration": "00:00:00:00", "twWaitTime": "00:00", "twWaitType": "None", "twWorkflowOnly": "-- System Default --", "typeText": "Workflow, Timer, Windows, Linux/Unix, z/OS, File Monitor, Manual, Email, File Transfer, SQL, FTP File Monitor, Task Monitor, Variable Monitor, Stored Procedure, Universal Command, System Monitor, Application Control, SAP, Email Monitor, Web Service, Universal", "userEstimatedDuration": null, "variables": [], "version": 1, "virtualResources": [], "wfConditionType": "Starts With", "wfConditionValue": "test" } </pre>

Examples	XML	JSON
	<pre><wfConditionValue>test</wfConditionValue> </taskMonitor></pre>	

See [Task Web Services - Task Actions](#) for XML and JSON examples of task actions.

See [Task Web Services - Task-Related Records](#) for XML and JSON examples of task-related records.

4.33.22.6 Properties

- See [All Tasks Properties](#)
- See [Task Monitor Task Properties](#)

4.33.23 Timer Task Web Services

- [Overview](#)
- [Create a Timer Task](#)
- [Modify a Timer Task](#)
- [Read a Timer Task](#)
- [Timer Task: XML and JSON Examples](#)
- [Properties](#)

4.33.23.1 Overview

Universal Controller supports the following RESTful-based web services for Timer Task operations, which are listed alphabetically on this page.

- [Create a Timer Task](#)
- [Modify a Timer Task](#)
- [Read a Timer Task](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Links to detailed information about the [properties](#) used in these web services also is located on this page.

For information on Task web services that are applicable to all task types, see:

- [Delete a Task](#)
- [Launch a Task](#)
- [List Tasks](#)

4.33.23.2 Create a Timer Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	POST
Description	Creates a new Timer task. To persist syslds , use the retainSyslds property.
Example URI	http://localhost:8080/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See Timer Task: XML and JSON Examples , below.
Properties	See Properties .
Example Response	Status 200 /OK Successfully created the <task type> task with sysld <sysld>.

4.33.23.3 Modify a Timer Task

	Description
URI	http://host_name/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	Modifies the task specified by the sysld in the request . To modify Timer Task properties without modifying related records, use the excludeRelated property.
Example	See Timer Task: XML and JSON Examples .
Properties	See Properties .
Example Response	Status 200 /OK Successfully updated the <task type> task with sysld <sysld> to version <version>.

4.33.23.4 Read a Timer Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task .
Request Parameters	<code>taskid</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskid</code> and <code>taskname</code>
Example URI	http://localhost:8080/uc/resources/task?taskname=testTask http://localhost:8080/uc/resources/task?taskid=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	- Status 200 /OK (See Timer Task: XML and JSON Examples .) - Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
Properties	See Properties .

4.33.23.5 Timer Task: XML and JSON Examples

The

`retainSysIds`

and

`version`

properties are specified as attributes in XML.

The

`exportReleaseLevel`

and `exportTable` properties are specified as attributes in XML.

Example s	XML	JSON
Example for Task	<pre> XML <taskSleep exportReleaseLevel="7.2.0.0" exportTable=" ops_task_sleep" retainSysIds="true" version="1"> <actions /> <variables /> <notes /> <virtualResources /> <exclusiveTasks /> <avgRunTime>3</avgRunTime> <avgRunTimeDisplay>3 Seconds</ avgRunTimeDisplay> <cpDuration /> <cpDurationUnit>Minutes</cpDurationUnit> <credentials /> <credentialsVar /> <customField1 label="Domain">web.com</ customField1> <customField2 /> <efDayConstraint>Nth</efDayConstraint> <efDuration>00:00:00:00</efDuration> <efEnabled>false</efEnabled> <efNthAmount>10</efNthAmount> <efOffsetDuration /> <efOffsetDurationUnit>Minutes</ efOffsetDurationUnit> <efOffsetPercentage>0</efOffsetPercentage> <efOffsetType>Percentage</efOffsetType> <efTime>00:00</efTime> <efType>Time</efType> <executionRestriction>Run</ executionRestriction> <firstRun>2021-03-15 13:59:37 -0400</firstRun> <holdResources>false</holdResources> <lastRun>2021-03-16 17:12:42 -0400</lastRun> <lastRunTime>9</lastRunTime> <lastRunTimeDisplay>9 seconds</ lastRunTimeDisplay> <lfDayConstraint>Nth</lfDayConstraint> <lfDuration>00:00:00:00</lfDuration> <lfEnabled>false</lfEnabled> <lfNthAmount>1</lfNthAmount> <lfOffsetDuration /> <lfOffsetDurationUnit>Minutes</ lfOffsetDurationUnit> <lfOffsetPercentage>0</lfOffsetPercentage> <lfOffsetType>Percentage</lfOffsetType> <lfTime>00:00</lfTime> <lfType>Time</lfType> <lsDayConstraint>Nth</lsDayConstraint> <lsDuration>00:00:00:00</lsDuration> <lsEnabled>false</lsEnabled> <lsNthAmount>7</lsNthAmount> <lsTime>00:00</lsTime> </pre>	<pre> JSON { "type": "taskSleep", "actions": { "abortActions": [], "emailNotifications" : [], "setVariableActions" : [], "snmpNotifications": [], "systemOperations": [] }, "avgRunTime": 3, "avgRunTimeDisplay": "3 Seconds", "cpDuration": null, "cpDurationUnit": "Minutes", "credentials": null, "credentialsVar": null, "customField1": { "label": "Domain", "value": "http://qa- cntlr-mssql:8080/uc/" }, "customField2": { "label": null, "value": null }, "efDayConstraint": "Nth Day", "efDuration": "00:00:00:00", "efEnabled": false, "efNthAmount": 10, "efOffsetDuration": null, "efOffsetDurationUnit" : "Minutes", "efOffsetPercentage": 0, "efOffsetType": "Percentage", "efTime": "00:00", "efType": "Time", "excludeRelated": false, "exclusiveTasks": [], "executionRestriction" : "Run", </pre>

Examples	XML	JSON
	<pre> <lsType>Time</lsType> <maxRunTime>9</maxRunTime> <maxRunTimeDisplay>9 Seconds</ maxRunTimeDisplay> <minRunTime>3</minRunTime> <minRunTimeDisplay>3 Seconds</ minRunTimeDisplay> <name>uc - Test Email</name> <opswiseGroups /> <resolveNameImmediately>false</ resolveNameImmediately> <resPriority>10</resPriority> <restrictionPeriod>Span</restrictionPeriod> <restrictionPeriodAfterDate>2017-11-10</ restrictionPeriodAfterDate> <restrictionPeriodAfterTime>10:30</ restrictionPeriodAfterTime> <restrictionPeriodBeforeDate>2017-11-20</ restrictionPeriodBeforeDate> <restrictionPeriodBeforeTime>15:00</ restrictionPeriodBeforeTime> <restrictionPeriodDateList /> <runCount>32</runCount> <runTime>108</runTime> <startHeld>false</startHeld> <startHeldReason /> <summary>Test Email</summary> <sysId>fb59a227517a421a92c15ff5ae3b66</sysId> <timeZonePref>-- System Default --</ timeZonePref> <userEstimatedDuration /> <sleepAmount>0</sleepAmount> <sleepDayConstraint>None</sleepDayConstraint> <sleepDuration>00:00:00:00</sleepDuration> <sleepTime>00:00</sleepTime> <sleepType>Seconds</sleepType> </taskSleep> </pre>	<pre> "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_task_sleep", "firstRun": "2021-03-15 13:59:37 -0400", "holdResources": false, "lastRun": "2021-03-16 17:12:42 -0400", "lastRunTime": 9, "lastRunTimeDisplay": "9 Seconds", "lfDayConstraint": "Nth Day", "lfDuration": "00:00:00:00", "lfEnabled": false, "lfNthAmount": 1, "lfOffsetDuration": null, "lfOffsetDurationUnit" : "Minutes", "lfOffsetPercentage": 0, "lfOffsetType": "Percentage", "lfTime": "00:00", "lfType": "Time", "lsDayConstraint": "Nth Day", "lsDuration": "00:00:00:00", "lsEnabled": false, "lsNthAmount": 7, "lsTime": "00:00", "lsType": "Time", "maxRunTime": 9, "maxRunTimeDisplay": "9 Seconds", "minRunTime": 3, "minRunTimeDisplay": "3 Seconds", "name": "uc - Test Email", "notes": [], "opswiseGroups": null, "resolveNameImmediately" : false, "resPriority": 10, "restrictionPeriod": </pre>

Examples	XML	JSON
		<pre>"Span", "restrictionPeriodAfterDate": "2017-11-10", "restrictionPeriodAfterTime": "10:30", "restrictionPeriodBeforeDate": "2017-11-20", "restrictionPeriodBeforeTime": "15:00", "restrictionPeriodDateList": [], "retainSysIds": true, "runCount": 32, "runTime": 108, "sleepAmount": 0, "sleepDayConstraint": "None", "sleepDuration": "00:00:00:00", "sleepTime": "00:00", "sleepType": "Seconds", "startHeld": false, "startHeldReason": null, "summary": "Test Email", "sysId": "fb59a227517a421a92c15ff 5aefe3b66", "timeZonePref": "-- System Default --", "userEstimatedDuration" : null, "variables": [], "version": 1, "virtualResources": [] }</pre>

4.33.23.6 Properties

- See [All Tasks Properties](#)
- See [Timer Task Properties](#)

4.33.24 Universal Command Task Web Services

- [Overview](#)
- [Create a Universal Command Task](#)
- [Modify a Universal Command Task](#)
- [Read a Universal Command Task](#)
- [Universal Command Task: XML and JSON Examples](#)
- [Properties](#)

4.33.24.1 Overview

Universal Controller supports the following RESTful-based web services for Universal Command Task operations, which are listed alphabetically on this page.

- [Create a Universal Command Task](#)
- [Modify a Universal Command Task](#)
- [Read a Universal Command Task](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Links to detailed information about the [properties](#) used in these web services also is located on this page.

For information on Task web services that are applicable to all task types, see:

- [Delete a Task](#)
- [Launch a Task](#)
- [List Tasks](#)

4.33.24.2 Create a Universal Command Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	POST
Description	Creates a new Universal Command task. To persist syslds , use the retainSyslds property.
Example URI	http://localhost:8080/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See Universal Command Task: XML and JSON Examples , below.
Properties	See Properties .

	Description
Example Response	Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

4.33.24.3 Modify a Universal Command Task

	Description
URI	http://host_name/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	Modifies the task specified by the sysId in the request . To modify Universal Command Task properties without modifying related records, use the excludeRelated property.
Example	See Universal Command Task: XML and JSON Examples .
Properties	See Properties .
Example Response	Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.

4.33.24.4 Read a Universal Command Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task .
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>
Example URI	http://localhost:8080/uc/resources/task?taskname=testTask http://localhost:8080/uc/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json

	Description
Example Response	• Status 200 /OK (See Universal Command Task: XML and JSON Examples .) • Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
Properties	See Properties .

4.33.24.5 Universal Command Task: XML and JSON Examples

The `retainSysIds` and `version` properties are specified as attributes in XML.

The `exportReleaseLevel` and `exportTable` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<pre>XML <taskUcmd exportReleaseLevel="7.2.0.0" " exportTable="ops_task_ucm d" retainSysIds="true" version="1"> <actions /> <variables /> <notes /> <virtualResources /> <exclusiveTasks /> <agent /> <agentCluster>linux- cluster</agentCluster> <agentClusterVar /> <agentVar /> <avgRunTime>3</ avgRunTime></pre>	<pre>JSON { "type": "taskUcmd", "actions": { "abortActions": [], "emailNotifications": [], "setVariableActions": [], "snmpNotifications": [], "systemOperations": [] }, "agent": null, "agentCluster": "linux-cluster", "agentClusterVar": null, "agentVar": null, "avgRunTime": 3, "avgRunTimeDisplay": "3 Seconds", "broker": "\${ftp_server",</pre>

Examples	XML	JSON
	<pre> <avgRunTimeDisplay>3 Seconds</avgRunTimeDisplay> <cpDuration /> <cpDurationUnit>Minu tes</cpDurationUnit> <credentials /> <credentialsVar /> <customField1 label="Domain">web.com</ customField1> <customField2 /> <efDayConstraint>Nth </efDayConstraint> <efDuration>00:00:00 :00</efDuration> <efEnabled>>false</ efEnabled> <efNthAmount>10</ efNthAmount> <efOffsetDuration /> <efOffsetDurationUnit>Minut es</efOffsetDurationUnit> <efOffsetPercentage> 0</efOffsetPercentage> <efOffsetType>Percen tage</efOffsetType> <efTime>00:00</ efTime> <efType>Time</efType> <executionRestriction>Run</ executionRestriction> <firstRun>2021-03-15 13:59:37 -0400</firstRun> <holdResources>>false </holdResources> <lastRun>2021-03-16 17:12:42 -0400</lastRun> <lastRunTime>9</ lastRunTime> <lastRunTimeDisplay> 9 seconds</ lastRunTimeDisplay> <lfDayConstraint>Nth </lfDayConstraint> <lfDuration>00:00:00 :00</lfDuration> <lfEnabled>>false</ lfEnabled> <lfNthAmount>1</ lfNthAmount> <lfOffsetDuration /> <lfOffsetDurationUnit>Minut </pre>	<pre> "brokerChoice": "Agent Hostname", "brokerCred": null, "brokerCredVar": "\${ftp_cred}", "brokerRef": null, "command": "\"whoami\"", "commandOptions": "-G yes", "commandOrScript": "Command", "cpDuration": null, "cpDurationUnit": "Minutes", "credentials": null, "credentialsVar": null, "customField1": { "label": "Domain", "value": "http://qa-cntlr- mssql:8080/uc/" }, "customField2": { "label": null, "value": null }, "efDayConstraint": "Nth Day", "efDuration": "00:00:00:00", "efEnabled": false, "efNthAmount": 10, "efOffsetDuration": null, "efOffsetDurationUnit": "Minutes", "efOffsetPercentage": 0, "efOffsetType": "Percentage", "efTime": "00:00", "efType": "Time", "excludeRelated": false, "exclusiveTasks": [], "executionRestriction": "Run", "exitCodeOutput": null, "exitCodeProcessing": "Success Exitcode Range", "exitCodeText": null, "exitCodes": 0, "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_task_ucmd", "firstRun": "2021-03-15 13:59:37 -0400", "holdResources": false, "lastRun": "2021-03-16 17:12:42 -0400", "lastRunTime": 9, "lfDayConstraint": "Nth Day", "lfDuration": "00:00:00:00", "lfEnabled": false, "lfNthAmount": 1, "lfOffsetDuration": null, "lfOffsetDurationUnit": </pre>

Examples	XML	JSON
	<pre> es</lfOffsetDurationUnit> <lfOffsetPercentage> 0</lfOffsetPercentage> <lfOffsetType>Perce tage</lfOffsetType> <lfTime>00:00</ lfTime> <lfType>Time</lfType> <lsDayConstraint>Nth </lsDayConstraint> <lsDuration>00:00:00 :00</lsDuration> <lsEnabled>>false</ lsEnabled> <lsNthAmount>7</ lsNthAmount> <lsTime>00:00</ lsTime> <lsType>Time</lsType> <maxRunTime>9</ maxRunTime> <maxRunTimeDisplay>9 Seconds</maxRunTimeDisplay> <minRunTime>3</ minRunTime> <minRunTimeDisplay>3 Seconds</minRunTimeDisplay> <name>uc - Test Email</name> <opswiseGroups /> <resolveNameImmediately>fal se</resolveNameImmediately> <resPriority>10</ resPriority> <restrictionPeriod>S pan</restrictionPeriod> <restrictionPeriodAfterDate >2017-11-10</ restrictionPeriodAfterDate> <restrictionPeriodAfterTime >10:30</ restrictionPeriodAfterTime> <restrictionPeriodBeforeDat e>2017-11-20</ restrictionPeriodBeforeDate > <restrictionPeriodBeforeTim e>15:00</ restrictionPeriodBeforeTime > </pre>	<pre> "Minutes", "lfOffsetPercentage": 0, "lfOffsetType": "Percentage", "lfTime": "00:00", "lfType": "Time", "lsDayConstraint": "Nth Day", "lsDuration": "00:00:00:00", "lsEnabled": false, "lsNthAmount": 7, "lsTime": "00:00", "lsType": "Time", "maxRunTime": 9, "maxRunTimeDisplay": "9 Seconds", "minRunTime": 3, "minRunTimeDisplay": "3 Seconds", "name": "uc - Test Email", "notes": [], "opswiseGroups": null, "outputFailureOnly": true, "outputReturnFile": null, "outputReturnNline": 100, "outputReturnSline": 1, "outputReturnText": null, "outputReturnType": "OUTERR", "outputType": "STDOUT", "resolveNameImmediately": false, "resPriority": 10, "restrictionPeriod": "Span", "restrictionPeriodAfterDate": "2017-11-10", "restrictionPeriodAfterTime": "10:30", "restrictionPeriodBeforeDate": "2017-11-20", "restrictionPeriodBeforeTime": "15:00", "restrictionPeriodDateList": [], "retainSysIds": true, "retryExitCodes": null, "retryIndefinitely": false, "retryInterval": 60, "retryMaximum": 0, "retrySuppressFailure": false, "runCount": 32, "runTime": 108, "runtimeDir": null, "script": null, "scriptOptions": null, "startHeld": false, "startHeldReason": null, "summary": "Test Email", "sysId": "fb59a227517a421a92c15ff5aefe3b66" </pre>

Examples	XML	JSON
	<pre> <restrictionPeriodDateList /> <runCount>32</ runCount> <runTime>108</ runTime> <startHeld>>false</ startHeld> <startHeldReason /> <summary>Test Email< /summary> <sysId>fb59a227517a4 21a92c15ff5aefe3b66</sysId> <timeZonePref>-- System Default --</ timeZonePref> <twDelayAmount /> <twDelayDuration>00: 00:00:00</twDelayDuration> <twDelayType>None</ twDelayType> <twWaitAmount /> <twWaitDayConstraint> NONE</twWaitDayConstraint> <twWaitDuration>00:0 0:00:00</twWaitDuration> <twWaitTime>00:00</ twWaitTime> <twWaitType>None</ twWaitType> <twWorkflowOnly>-- System Default --</ twWorkflowOnly> <userEstimatedDuration /> <broker>\$ {ftp_server}</broker> <brokerChoice>Agent Hostname</brokerChoice> <brokerCred /> <brokerCredVar>\$ {ftp_cred}</brokerCredVar> <brokerRef /> <command>"whoami"</ command> <commandOptions>-G yes</commandOptions> <commandOrScript>Com mand</commandOrScript> <exitCodeOutput /> <exitCodeProcessing> Success Exitcode Range</ exitCodeProcessing> </pre>	<pre> ' "timeZonePref": "-- System Default --", "twDelayAmount": null, "twDelayDuration": "00:00:00:00", "twDelayType": "None", "twWaitAmount": null, "twWaitDayConstraint": "NONE", "twWaitDuration": "00:00:00:00", "twWaitTime": "00:00", "twWaitType": "None", "twWorkflowOnly": "-- System Default --", "userEstimatedDuration": null, "variables": [], "version": 1, "virtualResources": [], "waitForOutput": false } </pre>

Examples	XML	JSON
	<pre><exitCodeText /> <exitCodes>0</ exitCodes> <outputFailureOnly>t rue</outputFailureOnly> <outputReturnFile /> <outputReturnNline>1 00</outputReturnNline> <outputReturnSline>1 </outputReturnSline> <outputReturnText /> <outputReturnType>OU TERR</outputReturnType> <outputType>STDOUT</ outputType> <retryExitCodes /> <retryIndefinitely>f alse</retryIndefinitely> <retryInterval>60</ retryInterval> <retryMaximum>0</ retryMaximum> <retrySuppressFailure>>false </retrySuppressFailure> <runtimeDir /> <script /> <scriptOptions /> <waitForOutput>>false </waitForOutput> </taskUcmd></pre>	

See [Task Web Services - Task Actions](#) for XML and JSON examples of task actions.

See [Task Web Services - Task-Related Records](#) for XML and JSON examples of task-related records.

4.33.24.6 Properties

- See [All Tasks Properties](#)
- See [Universal Command Task Properties](#)

4.33.25 Universal Monitor Task Web Services

- [Overview](#)
- [Create a Universal Monitor Task](#)
- [Modify a Universal Monitor Task](#)

- [Read a Universal Monitor Task](#)
- [Universal Monitor Task: XML and JSON Examples](#)
- [Properties](#)

4.33.25.1 Overview

Universal Controller supports the following RESTful-based web services for Variable Monitor Task operations, which are listed alphabetically on this page.

- [Create a Universal Monitor Task](#)
- [Modify a Universal Monitor Task](#)
- [Read a Universal Monitor Task](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Links to detailed information about the [properties](#) used in these web services also is located on this page.

For information on Task web services that are applicable to all task types, see:

- [Delete a Task](#)
- [Launch a Task](#)
- [List Tasks](#)

4.33.25.2 Create a Universal Monitor Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	POST
Description	Creates a new Universal Monitor task. To persist sysIds , use the retainSysIds property.
Example URI	http://localhost:8080/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See Universal Monitor Task: XML and JSON Examples , below.
Properties	See Properties .
Example Response	• Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

4.33.25.3 Modify a Universal Monitor Task

	Description
URI	http://host_name/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	Modifies the task specified by the sysId in the request . To modify Universal Monitor Task properties without modifying related records, use the excludeRelated property.
Example	See Universal Monitor Task: XML and JSON Examples .
Properties	See Properties .
Example Response	Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.

4.33.25.4 Read a Universal Monitor Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task .
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>
Example URI	http://localhost:8080/uc/resources/task?taskname=testTask http://localhost:8080/uc/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	- Status 200 /OK (See Universal Monitor Task: XML and JSON Examples .) - Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
Properties	See Properties .

4.33.25.5 Universal Monitor Task: XML and JSON Examples

The

`retainSysIds`

and

`version`

properties are specified as attributes in XML.

The

`exportReleaseLevel`

and `exportTable` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<pre> <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <taskUniversalMonitor exportReleaseLevel="7.7.0.0" exportTable="ops_task_universal_monit or" retainSysIds="true" version="4"> <variables/> <notes/> <eventBusinessServiceCriteria>Member of Specific Business Services or Unassigned</ eventBusinessServiceCriteria> <eventBusinessServices> <businessService>X</ businessService> <businessService>Y</ businessService> <businessService>Z</ businessService> </eventBusinessServices> <cpDuration /> <cpDurationUnit>Minutes</ cpDurationUnit> <customField1/> <customField2/> <efDayConstraint>None</ efDayConstraint> <efDuration>00:00:00:00</ efDuration> <efEnabled>>false</efEnabled> <efNthAmount>5</efNthAmount> <efOffsetDuration /> <efOffsetDurationUnit>Minutes</ efOffsetDurationUnit> <efOffsetPercentage>0</ efOffsetPercentage> <efOffsetType>Percentage</ efOffsetType> <efTime>00:00</efTime> <efType>Time</efType> <enforceVariables>>false</ enforceVariables> <eventTemplate label="UAC - Agent Changed">uac_agent_changed</ eventTemplate> <eventType>Global</eventType> <exclusiveWithSelf>>false</ exclusiveWithSelf> <executionRestriction>None</ executionRestriction> </pre>	<pre> { "type": "taskUniversalMonitor", "actions": { "abortActions": [], "emailNotifications": [], "setVariableActions": [], "snmpNotifications": [], "systemOperations": [] }, "cpDuration": null, "cpDurationUnit": "Minutes", "customField1": { "label": null, "value": null }, "customField2": { "label": null, "value": null }, "efDayConstraint": "None", "efDuration": "00:00:00:00", "efEnabled": false, "efNthAmount": 5, "efOffsetDuration": null, "efOffsetDurationUnit": "Minutes", "efOffsetPercentage": 0, "efOffsetType": "Percentage", "efTime": "00:00", "efType": "Time", "enforceVariables": false, "eventBusinessServiceCriteria": "Member of Specific Business Services or Unassigned", "eventBusinessServices": ["X", "Y", "Z"], "eventTemplate": { "label": "UAC - Agent Changed", "value": "uac_agent_changed" }, "eventType": "Global", "exclusiveTasks": [], "exclusiveWithSelf": false, "executionRestriction": "None", "expirationAction": "Failed", "exportReleaseLevel": "7.7.0.0", "exportTable": "ops_task_universal_monitor", </pre>

Examples	XML	JSON
	<pre> <expirationAction>Failed</ expirationAction> <filter> <logicalOperator>And</ logicalOperator> </filter> <firstRun></firstRun> <holdResources>>false</ holdResources> <lastRun></lastRun> <lfDayConstraint>None</ lfDayConstraint> <lfDuration>00:00:00:00</ lfDuration> <lfEnabled>>false</lfEnabled> <lfNthAmount>5</lfNthAmount> <lfOffsetDuration /> <lfOffsetDurationUnit>Minutes</ lfOffsetDurationUnit> <lfOffsetPercentage>0</ lfOffsetPercentage> <lfOffsetType>Percentage</ lfOffsetType> <lfTime>00:00</lfTime> <lfType>Time</lfType> <lockVariables>>false</ lockVariables> <logLevel>Inherited</logLevel> <lsDayConstraint>None</ lsDayConstraint> <lsDuration>00:00:00:00</ lsDuration> <lsEnabled>>false</lsEnabled> <lsNthAmount>5</lsNthAmount> <lsTime>00:00</lsTime> <lsType>Time</lsType> <name>UM</name> <actions/> <opswiseGroups/> <relativeTimeFrom>00:00</ relativeTimeFrom> <relativeTimeTo /> <resPriority>10</resPriority> <resolveNameImmediately>>false</ resolveNameImmediately> <restrictionPeriod>None</ restrictionPeriod> <restrictionPeriodAfterDate /> <restrictionPeriodAfterTime /> <restrictionPeriodBeforeDate /> <restrictionPeriodBeforeTime /> <restrictionPeriodDateList/> <runCount>0</runCount> <runTime>0</runTime> </pre>	<pre> "filter": { "logicalOperator": "And" }, "firstRun": "", "holdResources": false, "lastRun": "", "lfDayConstraint": "None", "lfDuration": "00:00:00:00", "lfEnabled": false, "lfNthAmount": 5, "lfOffsetDuration": null, "lfOffsetDurationUnit": "Minutes", "lfOffsetPercentage": 0, "lfOffsetType": "Percentage", "lfTime": "00:00", "lfType": "Time", "lockVariables": false, "logLevel": "Inherited", "lsDayConstraint": "None", "lsDuration": "00:00:00:00", "lsEnabled": false, "lsNthAmount": 5, "lsTime": "00:00", "lsType": "Time", "name": "UM", "notes": [], "opswiseGroups": [], "relativeTimeFrom": "00:00", "relativeTimeTo": null, "resPriority": 10, "resolveNameImmediately": false, "restrictionPeriod": "None", "restrictionPeriodAfterDate": null, "restrictionPeriodAfterTime": null, "restrictionPeriodBeforeDate": null, "restrictionPeriodBeforeTime": null, "restrictionPeriodDateList": [], "retainSysIds": true, "runCount": 0, "runTime": 0, "simulation": false, "startHeld": false, "startHeldReason": null, "summary": null, "sysId": "36d6cd11669751098963c8f3eb2250ef", "taskUniversal": null, "taskUniversalVariables": [], "template": null, </pre>

Examples	XML	JSON
	<pre><simulation>false</simulation> <startHeld>false</startHeld> <startHeldReason /> <summary /> <sysId>36d6cd11669751098963c8f3eb2250ef</sysId> <exclusiveTasks/> <virtualResources/> <taskUniversal /> <taskUniversalVariables/> <template /> <templateEventTemplate /> <timeScope>-- None --</timeScope> <timeZonePref>-- System Default --</timeZonePref> <twDelayAmount /> <twDelayDuration>00:00:00:00</twDelayDuration> <twDelayType>None</twDelayType> <twWaitAmount /> <twWaitDayConstraint>None</twWaitDayConstraint> <twWaitDuration>00:00:00:00</twWaitDuration> <twWaitTime>00:00</twWaitTime> <twWaitType>None</twWaitType> <twWorkflowOnly>-- System Default --</twWorkflowOnly> <userEstimatedDuration /> </taskUniversalMonitor></pre>	<pre>"templateEventTemplate": null, "timeScope": "-- None --", "timeZonePref": "-- System Default --", "twDelayAmount": null, "twDelayDuration": "00:00:00:00", "twDelayType": "None", "twWaitAmount": null, "twWaitDayConstraint": "None", "twWaitDuration": "00:00:00:00", "twWaitTime": "00:00", "twWaitType": "None", "twWorkflowOnly": "-- System Default --", "userEstimatedDuration": null, "variables": [], "version": 4, "virtualResources": [] }</pre>

See [Task Web Services - Task Actions](#) for XML and JSON examples of task actions.

See [Task Web Services - Task-Related Records](#) for XML and JSON examples of task-related records.

4.33.25.6 Properties

- See [All Tasks Properties](#)
- See [Universal Monitor Task Properties](#)

4.33.26 Universal Task Web Services

- [Overview](#)
- [Create a Universal Task](#)
- [Modify a Universal Task](#)

- [Read a Universal Task](#)
- [Universal Task: XML and JSON Examples](#)
- [Properties](#)

4.33.26.1 Overview

Universal Controller supports the following RESTful-based web services for Universal Task operations, which are listed alphabetically on this page.

- [Create a Universal Task](#)
- [Modify a Universal Task](#)
- [Read a Universal Task](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Links to detailed information about the [properties](#) used in these web services also is located on this page.

For information on Task web services that are applicable to all task types, see:

- [Delete a Task](#)
- [Launch a Task](#)
- [List Tasks](#)

4.33.26.2 Create a Universal Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	POST
Description	Creates a new Universal task. To persist syslds , use the retainSyslds property.
Example URI	http://localhost:8080/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See Universal Task: XML and JSON Examples , below.
Properties	See Properties .
Example Response	• Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

4.33.26.3 Modify a Universal Task

	Description
URI	http://host_name/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	Modifies the task specified by the sysId in the request. To modify Universal Task properties without modifying related records, use the excludeRelated property.
Example	See Universal Task: XML and JSON Examples .
Properties	See Properties .
Example Response	Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.

4.33.26.4 Read a Universal Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task .
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>
Example URI	http://localhost:8080/uc/resources/task?taskname=testTask http://localhost:8080/uc/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	- Status 200 /OK (See Universal Task: XML and JSON Examples.) - Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
Properties	See Properties .

4.33.26.5 Universal Task: XML and JSON Examples

The

`retainSysIds`

and

`version`

properties are specified as attributes in XML.

The

`exportReleaseLevel`

and `exportTable` properties are specified as attributes in XML.

Example s	XML	JSON
Example for Task	<pre> XML <taskUniversal exportReleaseLevel="7.2.0.0" exportTable="ops_task_universal" retainSysIds="true" version="1"> <actions /> <variables /> <notes /> <virtualResources /> <exclusiveTasks /> <agent /> <agentCluster>uc Demo Cluster</agentCluster> <agentClusterVar /> <agentVar /> <avgRunTime>3</avgRunTime> <avgRunTimeDisplay>3 Seconds</avgRunTimeDisplay> <broadcastCluster /> <broadcastClusterVar /> <cpDuration /> <cpDurationUnit>Minutes</cpDurationUnit> <credentials /> <credentialsVar /> <customField1 label="Domain">web.com</ customField1> <customField2 /> <efDayConstraint>Nth</efDayConstraint> <efDuration>00:00:00:00</efDuration> <efEnabled>false</efEnabled> <efNthAmount>10</efNthAmount> <efOffsetDuration /> <efOffsetDurationUnit>Minutes</ efOffsetDurationUnit> <efOffsetPercentage>0</efOffsetPercentage> <efOffsetType>Percentage</efOffsetType> <efTime>00:00</efTime> <efType>Time</efType> </pre>	<pre> JSON { "type": "taskUniversal", "actions": { "abortActions": [], "emailNotifications" : [], "setVariableActions" : [], "snmpNotifications": [], "systemOperations": [] }, "agent": null, "agentCluster": "uc Demo Cluster", "agentClusterVar": null, "agentVar": null, "arrayField1":{ "fields":[{ "name": "John Doe Jr.", "value": "1234567" }, { "name": "Max", "value": "888888" }] } } </pre>

Examples	XML	JSON
	<pre> <executionRestriction>Run</executionRestriction> <firstRun>2021-03-15 13:59:37 -0400</firstRun> <holdResources>>false</holdResources> <lastRun>2021-03-16 17:12:42 -0400</lastRun> <lastRunTime>9</lastRunTime> <lastRunTimeDisplay>9 seconds</ lastRunTimeDisplay> <lfDayConstraint>Nth</lfDayConstraint> <lfDuration>00:00:00:00</lfDuration> <lfEnabled>>false</lfEnabled> <lfNthAmount>1</lfNthAmount> <lfOffsetDuration /> <lfOffsetDurationUnit>MInutes</ lfOffsetDurationUnit> <lfOffsetPercentage>0</lfOffsetPercentage> <lfOffsetType>Percentage</lfOffsetType> <lfTime>00:00</lfTime> <lfType>Time</lfType> <lsDayConstraint>Nth</lsDayConstraint> <lsDuration>00:00:00:00</lsDuration> <lsEnabled>>false</lsEnabled> <lsNthAmount>7</lsNthAmount> <lsTime>00:00</lsTime> <lsType>Time</lsType> <maxRunTime>9</maxRunTime> <maxRunTimeDisplay>9 Seconds</maxRunTimeDisplay> <minRunTime>3</minRunTime> <minRunTimeDisplay>3 Seconds</minRunTimeDisplay> <name>uc - Test Email</name> <opswiseGroups /> <resolveNameImmediately>>false</ resolveNameImmediately> <resPriority>10</resPriority> <restrictionPeriod>Span</restrictionPeriod> <restrictionPeriodAfterDate>2017-11-10</ restrictionPeriodAfterDate> <restrictionPeriodAfterTime>10:30</ restrictionPeriodAfterTime> <restrictionPeriodBeforeDate>2017-11-20</ restrictionPeriodBeforeDate> <restrictionPeriodBeforeTime>15:00</ restrictionPeriodBeforeTime> <restrictionPeriodDateList /> <runCount>32</runCount> <runTime>108</runTime> <startHeld>>false</startHeld> <startHeldReason /> <summary>Test Email</summary> <sysId>fb59a227517a421a92c15ff5ae5e3b66</sysId> <timeZonePref>-- System Default --</ timeZonePref> <twDelayAmount /> <twDelayDuration>00:00:00:00</twDelayDuration> </pre>	<pre>], "label": "Customers", "name": "array1", "nameTitle": "Custom Name", "valueTitle": "Custom Id" }, "arrayField2": { "fields": [{ "name": "A1", "value": "test1" }, { "name": "A2", "value": "test2" }], "label": "Array2", "name": "array2" }, "avgRunTime": 3, "avgRunTimeDisplay": "3 Seconds", "booleanField1": { "label": "Run Immediately", "name": "run_immediately", "value": false }, "broadcastCluster": null, "broadcastClusterVar": null, "choiceField1": { "label": "Program Name", "name": "programe", "value": "1" }, "cpDuration": null, "cpDurationUnit": "Minutes", "createConsole": </pre>

Example s	XML	JSON
	<pre> <twDelayType>None</twDelayType> <twWaitAmount /> <twWaitDayConstraint>NONE</twWaitDayConstraint> <twWaitDuration>00:00:00:00</twWaitDuration> <twWaitTime>00:00</twWaitTime> <twWaitType>None</twWaitType> <twWorkflowOnly>-- System Default --</twWorkflowOnly> <userEstimatedDuration /> <arrayField1 name="array1" label="Customers" nameTitle="Custom Name" valueTitle="Custom Id"> <field> <name>John Doe Jr.</name> <value>1234567</value> </field> <field> <name>Max</name> <value>888888</value> </field> </arrayField1> <arrayField2 name="array2" label="Array2"> <field> <name>A1</name> <value>test1</value> </field> <field> <name>A2</name> <value>test2</value> </field> </arrayField2> <booleanField1 name="run_immediately" label="Run Immediately">false</booleanField1> <choiceField1 name="programe" label="Program Name">val 1</choiceField1> <createConsole>false</createConsole> <credentialField1 name="credname" label="Credential Name">cred 1</credentialField1> <desktopInteract>false</desktopInteract> <elevateUser>false</elevateUser> <environment /> <exitCodeOutput /> <exitCodeProcessing>Success Exitcode Range</exitCodeProcessing> <exitCodes>0</exitCodes> <exitCodeText /> <floatField1 name="float1" label="float1">2.1274</floatField1> <intField1 name="error_level" label="Error Level">12</intField1> <largeTextField1 name="respapp" label="Responsibility Application">test text</largeTextField1> <outputFailureOnly>true</outputFailureOnly> </pre>	<pre> false, "credentialField1": { "label": "Credential Name", "name": "credname", "value": "A" }, "credentials": null, "credentialsVar": null, "customField1": { "label": "Domain", "value": "http://qa- cntl-r-mssql:8080/uc/" }, "customField2": { "label": null, "value": null }, "desktopInteract": false, "efDayConstraint": "Nth Day", "efDuration": "00:00:00:00", "efEnabled": false, "efNthAmount": 10, "efOffsetDuration": null, "efOffsetDurationUnit" : "Minutes", "efOffsetPercentage": 0, "efOffsetType": "Percentage", "efTime": "00:00", "efType": "Time", "elevateUser": false, "environment": null, "excludeRelated": false, "exclusiveTasks": [], "executionRestriction" : "Run", "exitCodeOutput": null, "exitCodeProcessing": "Success Exitcode Range", "exitCodes": 0, "exitCodeText": null, "exportReleaseLevel": "7.2.0.0", "exportTable": </pre>

Examples	XML	JSON
	<pre> <outputReturnFile /> <outputReturnNline>100</outputReturnNline> <outputReturnSline>1</outputReturnSline> <outputReturnText /> <outputReturnType>NONE</outputReturnType> <outputType>STDOUT</outputType> <retryExitCodes /> <retryIndefinitely>>false</retryIndefinitely> <retryInterval>60</retryInterval> <retryMaximum>0</retryMaximum> <retrySuppressFailure>>false</ retrySuppressFailure> <runtimeDir /> <scriptField1 name="s1" label="Script 1">Data3.txt</scriptField1> <template>test template</template> <textField1 name="username" label="Application User">test text</textField1> </taskUniversal> </pre>	<pre> "ops_task_universal", "firstRun": "2021-03-15 13:59:37 -0400", "floatField1": { "label": "float 1", "name": "float 1", "value": 2.1274 }, "holdResources": false, "intField1": { "label": "Error Level", "name": "error_level", "value": 12 }, "largeTextField1": { "label": "Responsibility Application", "name": "respapp", "value": "test text" }, "lastRun": "2021-03-16 17:12:42 -0400", "lastRunTime": 9, "lastRunTimeDisplay": "9 Seconds", "lfDayConstraint": "Nth Day", "lfDuration": "00:00:00:00", "lfEnabled": false, "lfNthAmount": 1, "lfOffsetDuration": null, "lfOffsetDurationUnit": "Minutes", "lfOffsetPercentage": 0, "lfOffsetType": "Percentage", "lfTime": "00:00", "lfType": "Time", "lsDayConstraint": "Nth Day", "lsDuration": "00:00:00:00", "lsEnabled": false, "lsNthAmount": 7, "lsTime": "00:00", "lsType": "Time", </pre>

Examples	XML	JSON
		<pre> "maxRunTime": 9, "maxRunTimeDisplay": "9 Seconds", "minRunTime": 3, "minRunTimeDisplay": "3 Seconds", "name": "uc - Test Email", "notes": [], "opswiseGroups": null, "outputFailureOnly": true, "outputReturnFile": null, "outputReturnNline": 100, "outputReturnSline": 1, "outputReturnText": null, "outputReturnType": "NONE", "outputType": "STDOUT", "resolveNameImmediately" : false, "resPriority": 10, "restrictionPeriod": "Span", "restrictionPeriodAfterD ate": "2017-11-10", "restrictionPeriodAfterT ime": "10:30", "restrictionPeriodBefore Date": "2017-11-20", "restrictionPeriodBefore Time": "15:00", "restrictionPeriodDateLi st": [], "retainSysIds": true, "retryExitCodes": null, "retryIndefinitely": false, "retryInterval": 60, "retryMaximum": 0, "retrySuppressFailure" </pre>

Examples	XML	JSON
		<pre>: false, "runCount": 32, "runTime": 108, "runtimeDir": null, "scriptField1": { "label": "Script 1", "name": "s1", "value": "Data3.txt" }, "startHeld": false, "startHeldReason": null, "summary": "Test Email", "sysId": "fb59a227517a421a92c15ff 5aefe3b66", "template": "test template", "textField1": { "label": "Application User", "name": "username", "value": "test text" }, "timeZonePref": "-- System Default --", "twDelayAmount": null, "twDelayDuration": "00:00:00:00", "twDelayType": "None", "twWaitAmount": null, "twWaitDayConstraint": "NONE", "twWaitDuration": "00:00:00:00", "twWaitTime": "00:00", "twWaitType": "None", "twWorkflowOnly": "-- System Default --", "userEstimatedDuration" : null, "variables": [], "version": 1, "virtualResources": [] }</pre>

See [Task Web Services - Task Actions](#) for XML and JSON examples of task actions.

See [Task Web Services - Task-Related Records](#) for XML and JSON examples of task-related records.

4.33.26.6 Properties

- See [All Tasks Properties](#)
- See [Universal Task Properties](#)

4.33.27 Variable Monitor Task Web Services

- [Overview](#)
- [Create a Variable Monitor Task](#)
- [Modify a Variable Monitor Task](#)
- [Read a Variable Monitor Task](#)
- [Variable Monitor Task: XML and JSON Examples](#)
- [Properties](#)

4.33.27.1 Overview

Universal Controller supports the following RESTful-based web services for Variable Monitor Task operations, which are listed alphabetically on this page.

- [Create a Variable Monitor Task](#)
- [Modify a Variable Monitor Task](#)
- [Read a Variable Monitor Task](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Links to detailed information about the [properties](#) used in these web services also is located on this page.

For information on Task web services that are applicable to all task types, see:

- [Delete a Task](#)
- [Launch a Task](#)
- [List Tasks](#)

4.33.27.2 Create a Variable Monitor Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	POST
Description	Creates a new Variable Monitor task. To persist sysIds , use the retainSysIds property.
Example URI	http://localhost:8080/uc/resources/task
Consumes Content-Type	application/xml, application/json

	Description
Produces Content-Type	n/a
Example	See Variable Monitor Task: XML and JSON Examples , below.
Properties	See Properties .
Example Response	Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

4.33.27.3 Modify a Variable Monitor Task

	Description
URI	http://host_name/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	Modifies the task specified by the sysId in the request . To modify Variable Monitor Task properties without modifying related records, use the excludeRelated property.
Example	See Variable Monitor Task: XML and JSON Examples .
Properties	See Properties .
Example Response	Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.

4.33.27.4 Read a Variable Monitor Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task .
Request Parameters	<code>taskid</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskid</code> and <code>taskname</code>
Example URI	http://localhost:8080/uc/resources/task?taskname=testTask http://localhost:8080/uc/resources/task?taskid=d26265a2c4f345359d9b356f18a462c1

	Description
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	• Status 200 /OK (See Variable Monitor Task: XML and JSON Examples.) • Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
Properties	See Properties .

4.33.27.5 Variable Monitor Task: XML and JSON Examples

The `retainSysIds` and `version` properties are specified as attributes in XML.

The `exportReleaseLevel` and `exportTable` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<pre>XML <taskVariableMonitor exportReleaseLevel="7.2.0.0" " exportTable="ops_task_var iable_monitor" retainSysIds= "true" version="1"> <actions /> <variables /> <notes /> <virtualResources /> <exclusiveTasks /> <avgRunTime>3</ avgRunTime> <avgRunTimeDisplay>3</pre>	<pre>JSON { "type": "taskVariableMonitor", "actions": { "abortActions": [], "emailNotifications": [], "setVariableActions": [], "snmpNotifications": [], "systemOperations": [] }, "avgRunTime": 3, "avgRunTimeDisplay": "3 Seconds", "cpDuration": null,</pre>

Examples	XML	JSON
	<pre> Seconds</avgRunTimeDisplay> <cpDuration /> <cpDurationUnit>Minutes</cpDurationUnit> <credentials /> <credentialsVar /> <customField1 label="Domain">web.com</customField1> <customField2 /> <efDayConstraint>Nth</efDayConstraint> <efDuration>00:00:00:00</efDuration> <efEnabled>>false</efEnabled> <efNthAmount>10</efNthAmount> <efOffsetDuration /> <efOffsetDurationUnit>Minutes</efOffsetDurationUnit> <efOffsetPercentage>0</efOffsetPercentage> <efOffsetType>Percentage</efOffsetType> <efTime>00:00</efTime> <efType>Time</efType> <executionRestriction>Run</executionRestriction> <expirationAction>failed</expirationAction> <firstRun>2021-03-15 13:59:37 -0400</firstRun> <holdResources>>false</holdResources> <lastRun>2021-03-16 17:12:42 -0400</lastRun> <lastRunTime>9</lastRunTime> <lastRunTimeDisplay>9 seconds</lastRunTimeDisplay> <lfDayConstraint>Nth</lfDayConstraint> <lfDuration>00:00:00:00</lfDuration> <lfEnabled>>false</lfEnabled> <lfNthAmount>1</lfNthAmount> <lfOffsetDuration /> </pre>	<pre> "cpDurationUnit": "Minutes", "credentials": null, "credentialsVar": null, "customField1": { "label": "Domain", "value": "http://qa-cntlr-mssql:8080/uc/" }, "customField2": { "label": null, "value": null }, "efDayConstraint": "Nth Day", "efDuration": "00:00:00:00", "efEnabled": false, "efNthAmount": 10, "efOffsetDuration": null, "efOffsetDurationUnit": "Minutes", "efOffsetPercentage": 0, "efOffsetType": "Percentage", "efTime": "00:00", "efType": "Time", "excludeRelated": false, "exclusiveTasks": [], "executionRestriction": "Run", "expirationAction": "regex", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_task_variable_monitor", "firstRun": "2021-03-15 13:59:37 -0400", "holdResources": false, "lastRun": "2021-03-16 17:12:42 -0400", "lastRunTime": 9, "lastRunTimeDisplay": "9 Seconds", "lfDayConstraint": "Nth Day", "lfDuration": "00:00:00:00", "lfEnabled": false, "lfNthAmount": 1, "lfOffsetDuration": null, "lfOffsetDurationUnit": "Minutes", "lfOffsetPercentage": 0, "lfOffsetType": "Percentage", "lfTime": "00:00", "lfType": "Time", "lsDayConstraint": "Nth Day", "lsDuration": "00:00:00:00", "lsEnabled": false, "lsNthAmount": 7, "lsTime": "00:00", </pre>

Examples	XML	JSON
	<pre> <lfOffsetDurationUnit>Minut es</lfOffsetDurationUnit> <lfOffsetPercentage> 0</lfOffsetPercentage> <lfOffsetType>Percen tage</lfOffsetType> <lfTime>00:00</ lfTime> <lfType>Time</lfType> <lsDayConstraint>Nth </lsDayConstraint> <lsDuration>00:00:00 :00</lsDuration> <lsEnabled>>false</ lsEnabled> <lsNthAmount>7</ lsNthAmount> <lsTime>00:00</ lsTime> <lsType>Time</lsType> <maxRunTime>9</ maxRunTime> <maxRunTimeDisplay>9 Seconds</maxRunTimeDisplay> <minRunTime>3</ minRunTime> <minRunTimeDisplay>3 Seconds</minRunTimeDisplay> <name>uc - Test Email</name> <opswiseGroups /> <resolveNameImmediately>fal se</resolveNameImmediately> <resPriority>10</ resPriority> <restrictionPeriod>S pan</restrictionPeriod> <restrictionPeriodAfterDate >2017-11-10</ restrictionPeriodAfterDate> <restrictionPeriodAfterTime >10:30</ restrictionPeriodAfterTime> <restrictionPeriodBeforeDat e>2017-11-20</ restrictionPeriodBeforeDate > <restrictionPeriodBeforeTim e>15:00</ restrictionPeriodBeforeTime </pre>	<pre> "lsType": "Time", "maxRunTime": 9, "maxRunTimeDisplay": "9 Seconds", "minRunTime": 3, "minRunTimeDisplay": "3 Seconds", "name": "uc - Test Email", "notes": [], "opswiseGroups": null, "resolveNameImmediately": false, "resPriority": 10, "restrictionPeriod": "Span", "restrictionPeriodAfterDate": "2017-11-10", "restrictionPeriodAfterTime": "10:30", "restrictionPeriodBeforeDate": "2017-11-20", "restrictionPeriodBeforeTime": "15:00", "restrictionPeriodDateList": [], "retainSysIds": true, "runCount": 32, "runTime": 108, "startHeld": false, "startHeldReason": null, "summary": "Test Email", "sysId": "fb59a227517a421a92c15ff5aefe3b66" , "timeLimit": 12, "timeLimitUnit": "Hours", "timeZonePref": "-- System Default --", "twDelayAmount": null, "twDelayDuration": "00:00:00:00", "twDelayType": "None", "twWaitAmount": null, "twWaitDayConstraint": "NONE", "twWaitDuration": "00:00:00:00", "twWaitTime": "00:00", "twWaitType": "None", "twWorkflowOnly": "-- System Default --", "userEstimatedDuration": null, "value": "val", "valueCondition": "regex", "valueMonitorType": "Current", "variableName": "demo_ops_global", "variables": [], "version": 1, "virtualResources": [] } </pre>

Examples	XML	JSON
	<pre> > <restrictionPeriodDateList /> <runCount>32</ runCount> <runTime>108</ runTime> <startHeld>>false</ startHeld> <startHeldReason /> <summary>Test Email< /summary> <sysId>fb59a227517a4 21a92c15ff5aefe3b66</sysId> <timeZonePref>-- System Default --</ timeZonePref> <twDelayAmount /> <twDelayDuration>00: 00:00:00</twDelayDuration> <twDelayType>None</ twDelayType> <twWaitAmount /> <twWaitDayConstraint> NONE</twWaitDayConstraint> <twWaitDuration>00:0 0:00:00</twWaitDuration> <twWaitTime>00:00</ twWaitTime> <twWaitType>None</ twWaitType> <twWorkflowOnly>-- System Default --</ twWorkflowOnly> <userEstimatedDuration /> <timeLimit>12</ timeLimit> <timeLimitUnit>Hours </timeLimitUnit> <value>val</value> <valueCondition>rege x</valueCondition> <valueMonitorType>Cu rrent</valueMonitorType> <variableName>demo_o ps_global</variableName> </taskVariableMonitor> </pre>	

See [Task Web Services - Task Actions](#) for XML and JSON examples of task actions.

See [Task Web Services - Task-Related Records](#) for XML and JSON examples of task-related records.

4.33.27.6 Properties

- See [All Tasks Properties](#)
- See [Variable Monitor Task Properties](#)

4.33.28 Web Service Task Web Services

- [Overview](#)
- [Create a Web Service Task](#)
- [Modify a Web Service Task](#)
- [Read a Web Service Task](#)
- [Web Service Task: XML and JSON Examples](#)
- [Properties](#)

4.33.28.1 Overview

Universal Controller supports the following RESTful-based web services for Web Service Task operations, which are listed alphabetically on this page.

- [Create a Web Service Task](#)
- [Modify a Web Service Task](#)
- [Read a Web Service Task](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Links to detailed information about the [properties](#) used in these web services also is located on this page.

For information on Task web services that are applicable to all task types, see:

- [Delete a Task](#)
- [Launch a Task](#)
- [List Tasks](#)

4.33.28.2 Create a Web Service Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	POST
Description	Creates a new Web Service task. To persist sysIds , use the retainSysIds property.
Example URI	http://localhost:8080/uc/resources/task
Consumes Content-Type	application/xml, application/json

	Description
Produces Content-Type	n/a
Example	See Web Service Task: XML and JSON Examples , below.
Properties	See Properties .
Example Response	Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

4.33.28.3 Modify a Web Service Task

	Description
URI	http://host_name/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	Modifies the task specified by the sysId in the request . To modify Web Service Task properties without modifying related records, use the excludeRelated property.
Example	See Web Service Task: XML and JSON Examples .
Properties	See Properties .
Example Response	Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.

4.33.28.4 Read a Web Service Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task .
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>
Example URI	http://localhost:8080/uc/resources/task?taskname=testTask http://localhost:8080/uc/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1

	Description
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	• Status 200 /OK (See Web Service Task: XML and JSON Examples .) • Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
Properties	See Properties .

4.33.28.5 Web Service Task: XML and JSON Examples

The `retainSysIds` and `version` properties are specified as attributes in XML.

The `exportReleaseLevel` and `exportTable` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<pre>XML <taskWebService exportReleaseLevel= "7.2.0.0" exportTable="ops_task_web _service" retainSysIds="true" version="1"> <actions /> <variables /> <notes /> <virtualResources /> <exclusiveTasks /> <avgRunTime>3</avgRunTime> <avgRunTimeDisplay>3 Seconds</avgRunTimeDisplay> <cpDuration /></pre>	<pre>JSON { "type": "taskWebService", "actions": { "abortActions": [], "emailNotifications": [], "setVariableActions": [], "snmpNotifications": [], "systemOperations": [] }, "autoCleanup": true, "avgRunTime": 3, "avgRunTimeDisplay": "3 Seconds",</pre>

Examples	XML	JSON
	<pre> <cpDurationUnit>Minutes</cpDurationUnit> <credentials>web-cred</credentials> <credentialsVar /> <customField1 label="Domain">web.com</customField1> <customField2 /> <efDayConstraint>Nth</efDayConstraint> <efDuration>00:00:00:00</efDuration> <efEnabled>>false</efEnabled> <efNthAmount>10</efNthAmount> <efOffsetDuration /> <efOffsetDurationUnit>Minutes</efOffsetDurationUnit> <efOffsetPercentage>0</efOffsetPercentage> <efOffsetType>Percentage</efOffsetType> <efTime>00:00</efTime> <efType>Time</efType> <executionRestriction>Run</executionRestriction> <firstRun>2021-03-15 13:59:37 -0400</firstRun> <holdResources>>false</holdResources> <lastRun>2021-03-16 17:12:42 -0400</lastRun> <lastRunTime>9</lastRunTime> <lastRunTimeDisplay>9 seconds</lastRunTimeDisplay> <lfDayConstraint>Nth</lfDayConstraint> <lfDuration>00:00:00:00</lfDuration> <lfEnabled>>false</lfEnabled> <lfNthAmount>1</lfNthAmount> <lfOffsetDuration /> <lfOffsetDurationUnit>Minutes</lfOffsetDurationUnit> <lfOffsetPercentage>0</lfOffsetPercentage> <lfOffsetType>Percentage</lfOffsetType> <lfTime>00:00</lfTime> <lfType>Time</lfType> <lsDayConstraint>Nth</lsDayConstraint> <lsDuration>00:00:00:00</lsDuration> </pre>	<pre> "cpDuration": null, "cpDurationUnit": "Minutes", "credentials": "web-cred", "credentialsVar": null, "customField1": { "label": "Domain", "value": "http://qa-cntlr-mssql:8080/uc/" }, "customField2": { "label": null, "value": null }, "efDayConstraint": "Nth Day", "efDuration": "00:00:00:00", "efEnabled": false, "efNthAmount": 10, "efOffsetDuration": null, "efOffsetDurationUnit": "Minutes", "efOffsetPercentage": 0, "efOffsetType": "Percentage", "efTime": "00:00", "efType": "Time", "excludeRelated": false, "exclusiveTasks": [], "executionRestriction": "Run", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_task_web_service", "firstRun": "2021-03-15 13:59:37 -0400", "formData": [{ "name": "field1", "value": "value1" }, { "name": "field2", "value": "value2" }], "holdResources": false, "httpAuth": "Basic", "httpHeaders": [{ "name": "header1", "value": "val1" }] </pre>

Examples	XML	JSON
	<pre> <lsEnabled>>false</lsEnabled> <lsNthAmount>7</lsNthAmount> <lsTime>00:00</lsTime> <lsType>Time</lsType> <maxRunTime>9</maxRunTime> <maxRunTimeDisplay>9 Seconds</maxRunTimeDisplay> <minRunTime>3</minRunTime> <minRunTimeDisplay>3 Seconds</minRunTimeDisplay> <name>uc - Test Email</name> <opswiseGroups /> <resolveNameImmediately>>false</resolveNameImmediately> <resPriority>10</resPriority> <restrictionPeriod>Span</restrictionPeriod> <restrictionPeriodAfterDate>2017-11-10</restrictionPeriodAfterDate> <restrictionPeriodAfterTime>10:30</restrictionPeriodAfterTime> <restrictionPeriodBeforeDate>2017-11-20</restrictionPeriodBeforeDate> <restrictionPeriodBeforeTime>15:00</restrictionPeriodBeforeTime> <restrictionPeriodDateList /> <runCount>32</runCount> <runTime>108</runTime> <startHeld>>false</startHeld> <startHeldReason /> <summary>Test Email</summary> <sysId>fb59a227517a421a92c15ff5aefe3b66</sysId> <timeZonePref>-- System Default --</timeZonePref> <twDelayAmount /> <twDelayDuration>00:00:00:00</twDelayDuration> <twDelayType>None</twDelayType> <twWaitAmount /> <twWaitDayConstraint>NONE</twWaitDayConstraint> <twWaitDuration>00:00:00:00</twWaitDuration> <twWaitTime>00:00</twWaitTime> <twWaitType>None</twWaitType> <twWorkflowOnly>-- System Default --</twWorkflowOnly> <userEstimatedDuration /> </pre>	<pre> "name": "header2", "value": "val2" }], "httpMethod": "PUT", "httpPayloadType": "FormData", "httpVersion": "1.1", "insecure": false, "lastRun": "2021-03-16 17:12:42 -0400", "lastRunTime": 9, "lastRunTimeDisplay": "9 Seconds", "lfDayConstraint": "Nth Day", "lfDuration": "00:00:00:00", "lfEnabled": false, "lfNthAmount": 1, "lfOffsetDuration": null, "lfOffsetDurationUnit": "Minutes", "lfOffsetPercentage": 0, "lfOffsetType": "Percentage", "lfTime": "00:00", "lfType": "Time", "lsDayConstraint": "Nth Day", "lsDuration": "00:00:00:00", "lsEnabled": false, "lsNthAmount": 7, "lsTime": "00:00", "lsType": "Time", "maxRunTime": 9, "maxRunTimeDisplay": "9 Seconds", "minRunTime": 3, "minRunTimeDisplay": "3 Seconds", "mime": null, "name": "uc - Test Email", "notes": [], "opswiseGroups": null, "outputConditionOperator": "=", "outputConditionStrategy": "Match Any", "outputConditionValue": null, "outputPathExpression": null, "outputType": "Text", "payload": null, </pre>

Examples	XML	JSON
	<pre> <autoCleanup>true</autoCleanup> <formData> <formField> <name>field1</name> <value>value1</value> </formField> <formField> <name>field2</name> <value>value2</value> </formField> </formData> <httpAuth>Basic</httpAuth> <httpHeaders> <httpHeader> <name>header1</name> <value>val1</value> </httpHeader> <httpHeader> <name>header2</name> <value>val2</value> </httpHeader> </httpHeaders> <httpMethod>PUT</httpMethod> <httpPayloadType>Form Data</httpPayloadType> <httpVersion>1.1</httpVersion> <insecure>>false</insecure> <mimeType /> <outputConditionOperator>=</outputConditionOperator> <outputConditionStrategy>Match Any</outputConditionStrategy> <outputConditionValue /> <outputPathExpression /> <outputType>Text</outputType> <payload /> <payloadScript /> <payloadSource>Form</payloadSource> <protocol>HTTP(S)/REST</protocol> <responseProcessingType>Default Success Status Code Range</responseProcessingType> <retryIndefinitely>>false</retryIndefinitely> <retryInterval>60</retryInterval> <retryMaximum>0</retryMaximum> <retrySuppressFailure>>false</retrySuppressFailure> </pre>	<pre> "payloadScript": null, "payloadSource": "Form", "protocol": "HTTP(S)/REST", "resolveNameImmediately": false, "responseProcessingType": "Default Success Status Code Range", "resPriority": 10, "restrictionPeriod": "Span", "restrictionPeriodAfterDate": "2017-11-10", "restrictionPeriodAfterTime": "10:30", "restrictionPeriodBeforeDate": "2017-11-20", "restrictionPeriodBeforeTime": "15:00", "restrictionPeriodDateList": [], "retainSysIds": true, "retryIndefinitely": false, "retryInterval": 60, "retryMaximum": 0, "retrySuppressFailure": false, "runCount": 32, "runTime": 108, "soapAction": null, "soapPayloadType": "Body", "soapResponseOutput": "Body/First Element", "soapVersion": "1.2", "startHeld": false, "startHeldReason": null, "statusCodeRange": null, "summary": "Test Email", "sysId": "fb59a227517a421a92c15ff5aefe3b66", "timeout": 20, "timeZonePref": "-- System Default --", "twDelayAmount": null, "twDelayDuration": "00:00:00:00", "twDelayType": "None", "twWaitAmount": null, "twWaitDayConstraint": "NONE", "twWaitDuration": "00:00:00:00", "twWaitTime": "00:00", "twWaitType": "None", </pre>

Examples	XML	JSON
	<pre><soapAction /> <soapPayloadType>Body</ soapPayloadType> <soapResponseOutput>Body/ First Element</soapResponseOutput> <soapVersion>1.2</ soapVersion> <statusCodeRange /> <timeout>20</timeout> <url>http://www.rest.com/ resources/users</url> <urlParameters> <urlParameter> <name>param1</name> <value>value1</value> </urlParameter> <urlParameter> <name>param2</name> <value>value2</value> </urlParameter> </urlParameters> </taskWebService></pre>	<pre>"twWorkflowOnly": "-- System Default --", "url": "http:// localhost:8080/uc/resources/ omsserver", "urlParameters": [{ "name": "param1", "value": "value1" }, { "name": "param2", "value": "value" }], "userEstimatedDuration": null, "variables": [], "version": 1, "virtualResources": [] }</pre>

See [Task Web Services - Task Actions](#) for XML and JSON examples of task actions.

See [Task Web Services - Task-Related Records](#) for XML and JSON examples of task-related records.

4.33.28.6 Properties

- See [All Tasks Properties](#)
- See [Web Service Task Properties](#)

4.33.29 Windows Task Web Services

- [Overview](#)
- [Create a Windows Task](#)
- [Modify a Windows Task](#)
- [Read a Windows Task](#)
- [Windows Task: XML and JSON Examples](#)
- [Properties](#)

4.33.29.1 Overview

Universal Controller supports the following RESTful-based web services for Windows Task operations, which are listed alphabetically on this page.

- [Create a Windows Task](#)
- [Modify a Windows Task](#)
- [Read a Windows Task](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Links to detailed information about the [properties](#) used in these web services also is located on this page.

For information on Task web services that are applicable to all task types, see:

- [Delete a Task](#)
- [Launch a Task](#)
- [List Tasks](#)

4.33.29.2 Create a Windows Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	POST
Description	Creates a new Windows task. To persist syslds , use the retainSyslds property.
Example URI	http://localhost:8080/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See Windows Task: XML and JSON Examples , below.
Properties	See Properties .
Example Response	• Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

4.33.29.3 Modify a Windows Task

	Description
URI	http://host_name/uc/resources/task
Consumes Content-Type	application/xml, application/json

	Description
Produces Content-Type	n/a
HTTP Method	PUT
Description	Modifies the task specified by the sysId in the request . To modify Windows Task properties without modifying related records, use the excludeRelated property.
Example	See Windows Task: XML and JSON Examples .
Properties	See Properties .
Example Response	Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.

4.33.29.4 Read a Windows Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task .
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>
Example URI	http://localhost:8080/uc/resources/task?taskname=testTask http://localhost:8080/uc/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	- Status 200 /OK (See Windows Task: XML and JSON Examples .) - Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
Properties	See Properties .

4.33.29.5 Windows Task: XML and JSON Examples

The

```
retainSysIds
```

and

version

properties are specified as attributes in XML.

The

exportReleaseLevel

and exportTable properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<pre>XML <taskWindows exportReleaseLevel="7.2.0.0" " exportTable="ops_task_win dows" retainSysIds="true" version="1"> <actions /> <variables /> <notes /> <virtualResources /> <exclusiveTasks /> <agent /> <agentCluster>uc - Demo Windows Cluster</ agentCluster> <agentClusterVar /> <agentVar /> <avgRunTime>3</ avgRunTime> <avgRunTimeDisplay>3 Seconds</avgRunTimeDisplay> <broadcastCluster /> <broadcastClusterVar /> <cpDuration /> <cpDurationUnit>Minu tes</cpDurationUnit> <credentials /> <credentialsVar /> <customField1 label="Domain">web.com</ customField1> <customField2 /> <efDayConstraint>Nth </efDayConstraint></pre>	<pre>JSON { "type": "taskWindows", "actions": { "abortActions": [], "emailNotifications": [], "setVariableActions": [], "snmpNotifications": [], "systemOperations": [] }, "agent": null, "agentCluster": "uc Demo Cluster", "agentClusterVar": null, "agentVar": null, "avgRunTime": 3, "avgRunTimeDisplay": "3 Seconds", "broadcastCluster": null, "broadcastClusterVar": null, "command": "\${demo_ops_snooze}", "commandOrScript": "Command", "cpDuration": null, "cpDurationUnit": "Minutes", "createConsole": false, "credentials": null, "credentialsVar": null, "customField1": { "label": "Domain", "value": "http://qa-cntlr- mssql:8080/uc/" }, "customField2": { "label": null, "value": null }</pre>

Examples	XML	JSON
	<pre> <efDuration>00:00:00 :00</efDuration> <efEnabled>>false</ efEnabled> <efNthAmount>10</ efNthAmount> <efOffsetDuration /> <efOffsetDurationUnit>Minut es</efOffsetDurationUnit> <efOffsetPercentage> 0</efOffsetPercentage> <efOffsetType>Percen tage</efOffsetType> <efTime>00:00</ efTime> <efType>Time</efType> <executionRestriction>Run</ executionRestriction> <firstRun>2021-03-15 13:59:37 -0400</firstRun> <holdResources>>false </holdResources> <lastRun>2021-03-16 17:12:42 -0400</lastRun> <lastRunTime>9</ lastRunTime> <lastRunTimeDisplay> 9 seconds</ lastRunTimeDisplay> <lfDayConstraint>Nth </lfDayConstraint> <lfDuration>00:00:00 :00</lfDuration> <lfEnabled>>false</ lfEnabled> <lfNthAmount>1</ lfNthAmount> <lfOffsetDuration /> <lfOffsetDurationUnit>Minut es</lfOffsetDurationUnit> <lfOffsetPercentage> 0</lfOffsetPercentage> <lfOffsetType>Percen tage</lfOffsetType> <lfTime>00:00</ lfTime> <lfType>Time</lfType> <lsDayConstraint>Nth </lsDayConstraint> <lsDuration>00:00:00 :00</lsDuration> </pre>	<pre> }, "desktopInteract": false, "efDayConstraint": "Nth Day", "efDuration": "00:00:00:00", "efEnabled": false, "efNthAmount": 10, "efOffsetDuration": null, "efOffsetDurationUnit": "Minutes", "efOffsetPercentage": 0, "efOffsetType": "Percentage", "efTime": "00:00", "efType": "Time", "elevateUser": false, "environment": null, "excludeRelated": false, "exclusiveTasks": [], "executionRestriction": "Run", "exitCodeOutput": null, "exitCodeProcessing": "Success Exitcode Range", "exitCodes": 0, "exitCodeText": null, "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_task_windows", "firstRun": "2021-03-15 13:59:37 -0400", "holdResources": false, "lastRun": "2021-03-16 17:12:42 -0400", "lastRunTime": 9, "lastRunTimeDisplay": "9 Seconds", "lfDayConstraint": "Nth Day", "lfDuration": "00:00:00:00", "lfEnabled": false, "lfNthAmount": 1, "lfOffsetDuration": null, "lfOffsetDurationUnit": "Minutes", "lfOffsetPercentage": 0, "lfOffsetType": "Percentage", "lfTime": "00:00", "lfType": "Time", "lsDayConstraint": "Nth Day", "lsDuration": "00:00:00:00", "lsEnabled": false, "lsNthAmount": 7, "lsTime": "00:00", "lsType": "Time", "maxRunTime": 9, "maxRunTimeDisplay": "9 Seconds", </pre>

Examples	XML	JSON
	<pre> <lsEnabled>>false</lsEnabled> <lsNthAmount>7</lsNthAmount> <lsTime>00:00</lsTime> <lsType>Time</lsType> <maxRunTime>9</maxRunTime> <maxRunTimeDisplay>9 Seconds</maxRunTimeDisplay> <minRunTime>3</minRunTime> <minRunTimeDisplay>3 Seconds</minRunTimeDisplay> <name>uc - Test Email</name> <opswiseGroups /> <resolveNameImmediately>>false</resolveNameImmediately> <resPriority>10</resPriority> <restrictionPeriod>Span</restrictionPeriod> <restrictionPeriodAfterDate>2017-11-10</restrictionPeriodAfterDate> <restrictionPeriodAfterTime>10:30</restrictionPeriodAfterTime> <restrictionPeriodBeforeDate>2017-11-20</restrictionPeriodBeforeDate> <restrictionPeriodBeforeTime>15:00</restrictionPeriodBeforeTime> <restrictionPeriodDateList /> <runCount>32</runCount> <runTime>108</runTime> <startHeld>>false</startHeld> <startHeldReason /> <summary>Test Email< </pre>	<pre> "minRunTime": 3, "minRunTimeDisplay": "3 Seconds", "name": "uc - Test Email", "notes": [], "opswiseGroups": null, "outputFailureOnly": true, "outputReturnFile": null, "outputReturnNline": 100, "outputReturnSline": 1, "outputReturnText": null, "outputReturnType": "NONE", "outputType": "STDOUT", "parameters": "\${_random(30,10)} 0", "resolveNameImmediately": false, "resPriority": 10, "restrictionPeriod": "Span", "restrictionPeriodAfterDate": "2017-11-10", "restrictionPeriodAfterTime": "10:30", "restrictionPeriodBeforeDate": "2017-11-20", "restrictionPeriodBeforeTime": "15:00", "restrictionPeriodDateList": [], "retainSysIds": true, "retryExitCodes": null, "retryIndefinitely": false, "retryInterval": 60, "retryMaximum": 0, "retrySuppressFailure": false, "runCount": 32, "runTime": 108, "runtimeDir": null, "script": null, "startHeld": false, "startHeldReason": null, "summary": "Test Email", "sysId": "fb59a227517a421a92c15ff5aefe3b66" , "timeZonePref": "-- System Default --", "twDelayAmount": null, "twDelayDuration": "00:00:00:00", "twDelayType": "None", "twWaitAmount": null, "twWaitDayConstraint": "NONE", "twWaitDuration": "00:00:00:00", "twWaitTime": "00:00", "twWaitType": "None", "twWorkflowOnly": "-- System </pre>

Examples	XML	JSON
	<pre> /summary> <sysId>fb59a227517a4 21a92c15ff5aefe3b66</sysId> <timeZonePref>-- System Default --</ timeZonePref> <twDelayAmount /> <twDelayDuration>00: 00:00:00</twDelayDuration> <twDelayType>None</ twDelayType> <twWaitAmount /> <twWaitDayConstraint> NONE</twWaitDayConstraint> <twWaitDuration>00:0 0:00:00</twWaitDuration> <twWaitTime>00:00</ twWaitTime> <twWaitType>None</ twWaitType> <twWorkflowOnly>-- System Default --</ twWorkflowOnly> <userEstimatedDuration /> <command>\$ {demo_ops_snooze}</command> <commandOrScript>Com mand</commandOrScript> <createConsole>>false </createConsole> <desktopInteract>fal se</desktopInteract> <elevateUser>>false</ elevateUser> <environment /> <exitCodeOutput /> <exitCodeProcessing> Success Exitcode Range</ exitCodeProcessing> <exitCodes>0</ exitCodes> <exitCodeText /> <outputFailureOnly>t rue</outputFailureOnly> <outputReturnFile /> <outputReturnNline>1 00</outputReturnNline> <outputReturnSline>1 </outputReturnSline> <outputReturnText /> <outputReturnType>NO NE</outputReturnType> <outputType>STDOUT</ outputType> </pre>	<pre> Default --", "userEstimatedDuration": null, "variables": [], "version": 1, "virtualResources": [], "waitForOutput": false } </pre>

Examples	XML	JSON
	<pre><parameters>\$ {_random(30,10)} 0</ parameters> <retryExitCodes /> <retryIndefinitely>f alse</retryIndefinitely> <retryInterval>60</ retryInterval> <retryMaximum>0</ retryMaximum> <retrySuppressFailure>false </retrySuppressFailure> <runtimeDir /> <script /> <waitForOutput>false </waitForOutput> </taskWindows></pre>	

See [Task Web Services - Task Actions](#) for XML and JSON examples of task actions.

See [Task Web Services - Task-Related Records](#) for XML and JSON examples of task-related records.

4.33.29.6 Properties

- See [All Tasks Properties](#)
- See [Windows Task Properties](#)

4.33.30 Workflow Task Web Services

- [Overview](#)
- [Create a Workflow Task](#)
- [List Workflow Forecast](#)
 - [List Workflow Forecast: URI Parameters](#)
 - [List Workflow Forecast: XML and JSON Examples](#)
- [Modify a Workflow Task](#)
- [Read a Workflow Task](#)
 - [Workflow Task: XML and JSON Examples](#)
- [Properties](#)

4.33.30.1 Overview

Universal Controller supports the following RESTful-based web services for Workflow Task operations.

- Create a Workflow Task
- List Workflow Forecast
- Modify a Workflow Task
- Read a Workflow Task

Formatting specifications for each web service, including details about parameter requirements, are provided.

Links to detailed information about the [properties](#) used in these web services also is located on this page.

For informaion on Workflow Task web services that are applicable to all task types, see:

- [Delete a Task](#)
- [Launch a Task](#)
- [List Tasks](#)

For a list of Workflow Vertex and Edge web services, see:

- [Workflow Task and Dependency Web Services](#)

4.33.30.2 Create a Workflow Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	POST
Description	Creates a new Workflow task.
Example URI	http://localhost:8080/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See Workflow Task: XML and JSON Examples , below.
Properties	See Workflow Task Web Services#Properties .
Example Response	• Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

4.33.30.3 List Workflow Forecast

	Description
URI	http://host_name/uc/resources/workflow/forecast
Authentication	HTTP Basic
HTTP Method	GET

	Description
Description	Get Forecast Details
Example URI	http://localhost:8080/uc/resources/workflow/forecast?workflowname=work_4 http://localhost:8080/uc/resources/workflow/forecast?workflowname=work_4&time=10:10&date=2022-01-06 http://localhost:8080/uc/resources/workflow/forecast?workflowname=work_4&calendarname=System Default&timezone=GMT-6&date=2022-01-08 http://localhost:8080/uc/resources/workflow/forecast?workflowname=work_4&calendarname=System Default&timezone=GMT-6&date=2022-01-08&triggername=trigger-1 http://localhost:8080/uc/resources/workflow/forecast?workflowname=work_4&exclude=Run&exclude=Skip http://localhost:8080/uc/resources/workflow/forecast?workflowname=work_4&variable=name1:value1&variable=name2:value2
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example	See List Workflow Forecast: XML and JSON Examples, below.
Properties	See List Workflow Forecast: URI Parameters, below.

4.33.30.3.1 List Workflow Forecast: URI Parameters

Property	Description	Specifications	Required	Mutually Exclusive With
<code>workflowid</code>	ID used within the Controller to identify the workflow.	String; URI parameter.	Y (unless workflowname is specified)	<code>workflowname</code>
<code>workflowname</code>	Name used within the Controller to identify the workflow.	String; URI parameter.	Y (unless workflowid is specified)	<code>workflowid</code>
<code>calendarid</code>	Unique ID for the Calendar.		N (unless calendarname is specified)	<code>calendarname</code>
<code>calendarname</code>	Name used within the Controller to identify the Calendar.	Maximum 100 alphanumeric.	N (unless calendarid is specified)	<code>calendarid</code>
<code>triggerid</code>	Unique ID for this trigger.		N (unless triggername is specified)	<code>triggername</code>
<code>triggername</code>	Name used within the Controller to identify this trigger.	Maximum 255 alphanumeric.	N (unless triggerid is specified)	<code>triggerid</code>
<code>date</code>	Date of the forecast.	Date (yyyy-mm-dd)	N	
<code>time</code>	Time of the forecast.	Time(HH:mm)	N	

Property	Description	Specifications	Required	Mutually Exclusive With
timezone	Timezone.		N	
forecastTimezone	Forecast Timezone.		N	
exclude	Exclude the forecast types in the response.	Valid values: • As String = Not Evaluated, As Value = 1 • As String = Run, As Value = 2 • As String = Skip, As Value = 3 • As String = Run*, As Value = 4 • As String = Skip*, As Value = 5	N	
variable	Override the variables.	List of name:value variables		

4.33.30.3.2 List Workflow Forecast: XML and JSON Examples

Examples	XML	JSON
Response	<pre> XML <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <workflowForecast> <forecast> <agent /> <agentCluster /> <agentClusterVariable /> <agentVariable /> <businessServices/> <clusterBroadcast /> <clusterBroadcastVariable /> <created>2023-01-12 17:24:45 -0500</created> <createdBy>ops.admin</ createdBy> <endTime>2022-01-08 10:04:32 -0500</endTime> <endTimeAccuracy>High</ endTimeAccuracy> <launchTime>2022-01-08 10:03:00 -0500</launchTime> <runSkipEvaluation>Run</ runSkipEvaluation> <sysId>3dd2ff81f3934898adba1396b44a753 7</sysId> <task>work-1</task> <taskType>Workflow</taskType> <trigger>work-1 #TRIGGER#</ trigger> <triggerTime>2022-01-08 10:03:00 -0500</triggerTime> <updated>2023-01-12 17:24:45 -0500</updated> <updatedBy>ops.admin</ updatedBy> <vertexId /> <workflow /> </forecast> <forecast> <agent /> <agentCluster /> <agentClusterVariable /> <agentVariable /> <businessServices/> <clusterBroadcast /> </pre>	<pre> JSON [{ "agent": null, "agentCluster": null, "agentClusterVariable": null, "agentVariable": null, "businessServices": [], "clusterBroadcast": null, "clusterBroadcastVariable": null, "created": "2023-01-12 17:19:12 -0500", "createdBy": "ops.admin", "endTime": "2022-01-08 10:04:32 -0500", "endTimeAccuracy": "High", "launchTime": "2022-01-08 10:03:00 -0500", "runSkipEvaluation": "Run", "sysId": "bca33d227d8d4bcda7e8ede5abe62994", "task": "work-1", "taskType": "Workflow", "trigger": "work-1 #TRIGGER#", "triggerTime": "2022-01-08 10:03:00 -0500", "updated": "2023-01-12 17:19:12 -0500", "updatedBy": "ops.admin", "vertexId": null, "workflow": null }, { "agent": null, "agentCluster": null, "agentClusterVariable": null, "agentVariable": null, "businessServices": [], "clusterBroadcast": null, "clusterBroadcastVariable": null, "created": "2023-01-12 17:19:12 -0500", "createdBy": "ops.admin", </pre>

Examples	XML	JSON
	<pre> <clusterBroadcastVariable /> <created>2023-01-12 17:24:46 -0500</created> <createdBy>ops.admin</ createdBy> <endTime>2022-01-08 10:03:41 -0500</endTime> <endTimeAccuracy>Medium</ endTimeAccuracy> <launchTime>2022-01-08 10:03:41 -0500</launchTime> <runSkipEvaluation>Run</ runSkipEvaluation> <sysId>088f8283fcd42d7858bc991d42e8e6 6</sysId> <task>Sleep 0</task> <taskType>Timer</taskType> <trigger>work-1 #TRIGGER#</ trigger> <triggerTime>2022-01-08 10:03:00 -0500</triggerTime> <updated>2023-01-12 17:24:46 -0500</updated> <updatedBy>ops.admin</ updatedBy> <vertexId>3</vertexId> <workflow>work-1</workflow> </forecast> <forecast> <agent /> <agentCluster /> <agentClusterVariable /> <agentVariable /> <businessServices/> <clusterBroadcast /> <clusterBroadcastVariable /> <created>2023-01-12 17:24:46 -0500</created> <createdBy>ops.admin</ createdBy> <endTime>2022-01-08 10:03:41 -0500</endTime> <endTimeAccuracy>Medium</ endTimeAccuracy> <launchTime>2022-01-08 10:03:11 -0500</launchTime> <runSkipEvaluation>Run</ runSkipEvaluation> <sysId>a7fa4a5b35854af297eb2f9197e63f9 7</sysId> <task>Sleep 30</task> <taskType>Timer</taskType> </pre>	<pre> "endTime": "2022-01-08 10:03:41 -0500", "endTimeAccuracy": "Medium", "launchTime": "2022-01-08 10:03:41 -0500", "runSkipEvaluation": "Run", "sysId": "57232f7ecb3b4dae9ff1367442036a81", "task": "Sleep 0", "taskType": "Timer", "trigger": "work-1 #TRIGGER#", "triggerTime": "2022-01-08 10:03:00 -0500", "updated": "2023-01-12 17:19:12 -0500", "updatedBy": "ops.admin", "vertexId": "3", "workflow": "work-1" }, { "agent": null, "agentCluster": null, "agentClusterVariable": null, "agentVariable": null, "businessServices": [], "clusterBroadcast": null, "clusterBroadcastVariable": null, "created": "2023-01-12 17:19:12 -0500", "createdBy": "ops.admin", "endTime": "2022-01-08 10:03:41 -0500", "endTimeAccuracy": "Medium", "launchTime": "2022-01-08 10:03:11 -0500", "runSkipEvaluation": "Run", "sysId": "f531aa964eb6495e8e7549e13d2f3ea1", "task": "Sleep 30", "taskType": "Timer", "trigger": "work-1 #TRIGGER#", "triggerTime": "2022-01-08 10:03:00 -0500", "updated": "2023-01-12 17:19:12 -0500", "updatedBy": "ops.admin", "vertexId": "2", "workflow": "work-1" }, { "agent": null, </pre>

Examples	XML	JSON
	<pre> <trigger>work-1 #TRIGGER#</ trigger> <triggerTime>2022-01-08 10:03:00 -0500</triggerTime> <updated>2023-01-12 17:24:46 -0500</updated> <updatedBy>ops.admin</ updatedBy> <vertexId>2</vertexId> <workflow>work-1</workflow> </forecast> <forecast> <agent /> <agentCluster /> <agentClusterVariable /> <agentVariable /> <businessServices> <businessService>A</ businessService> <businessService>B</ businessService> </businessServices> <clusterBroadcast /> <clusterBroadcastVariable /> <created>2023-01-12 17:24:46 -0500</created> <createdBy>ops.admin</ createdBy> <endTime>2022-01-08 10:03:05 -0500</endTime> <endTimeAccuracy>Medium</ endTimeAccuracy> <launchTime>2022-01-08 10:03:00 -0500</launchTime> <runSkipEvaluation>Run</ runSkipEvaluation> <sysId>efea93a7ed804280b6fbee22a29a004 c</sysId> <task>Sleep 5</task> <taskType>Timer</taskType> <trigger>work-1 #TRIGGER#</ trigger> <triggerTime>2022-01-08 10:03:00 -0500</triggerTime> <updated>2023-01-12 17:24:46 -0500</updated> <updatedBy>ops.admin</ updatedBy> <vertexId>5</vertexId> <workflow>work-1</workflow> </forecast> <forecast> <agent /> </pre>	<pre> "agentCluster": null, "agentClusterVariable": null, "agentVariable": null, "businessServices": ["A", "B"], "clusterBroadcast": null, "clusterBroadcastVariable": null, "created": "2023-01-12 17:19:12 -0500", "createdBy": "ops.admin", "endTime": "2022-01-08 10:03:05 -0500", "endTimeAccuracy": "Medium", "launchTime": "2022-01-08 10:03:00 -0500", "runSkipEvaluation": "Run", "sysId": "2f9fee276640457ba1c743dfb683b9a6", "task": "Sleep 5", "taskType": "Timer", "trigger": "work-1 #TRIGGER#", "triggerTime": "2022-01-08 10:03:00 -0500", "updated": "2023-01-12 17:19:12 -0500", "updatedBy": "ops.admin", "vertexId": "5", "workflow": "work-1" }, { "agent": null, "agentCluster": null, "agentClusterVariable": null, "agentVariable": null, "businessServices": ["C"], "clusterBroadcast": null, "clusterBroadcastVariable": null, "created": "2023-01-12 17:19:12 -0500", "createdBy": "ops.admin", "endTime": "2022-01-08 10:03:15 -0500", "endTimeAccuracy": "Medium", "launchTime": "2022-01-08 10:03:05 -0500", "runSkipEvaluation": "Run", </pre>

Examples	XML	JSON
	<pre> <agentCluster /> <agentClusterVariable /> <agentVariable /> <businessServices> <businessService>C</ businessService> </businessServices> <clusterBroadcast /> <clusterBroadcastVariable /> <created>2023-01-12 17:24:46 -0500</created> <createdBy>ops.admin</ createdBy> <endTime>2022-01-08 10:03:15 -0500</endTime> <endTimeAccuracy>Medium</ endTimeAccuracy> <launchTime>2022-01-08 10:03:05 -0500</launchTime> <runSkipEvaluation>Run</ runSkipEvaluation> <sysId>c0901a00837b46da99606d45998ba78 0</sysId> <task>Sleep 10</task> <taskType>Timer</taskType> <trigger>work-1 #TRIGGER#</ trigger> <triggerTime>2022-01-08 10:03:00 -0500</triggerTime> <updated>2023-01-12 17:24:46 -0500</updated> <updatedBy>ops.admin</ updatedBy> <vertexId>6</vertexId> <workflow>work-1</workflow> </forecast> </workflowForecast> </pre>	<pre> "sysId": "12ca3120496e48f5be1ff5a5a103b927", "task": "Sleep 10", "taskType": "Timer", "trigger": "work-1 #TRIGGER#", "triggerTime": "2022-01-08 10:03:00 -0500", "updated": "2023-01-12 17:19:12 -0500", "updatedBy": "ops.admin", "vertexId": "6", "workflow": "work-1" }] </pre>

4.33.30.4 Modify a Workflow Task

	Description
URI	http://host_name/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a

	Description
HTTP Method	PUT
Description	Modifies the task specified by the sysId in the request. To modify Workflow Task properties without modifying related records, use the excludeRelated property.
Example Response	Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.

4.33.30.5 Read a Workflow Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task .
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>
Example URI	http://localhost:8080/uc/resources/task?taskname=test
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	- Status 200 /OK (See Workflow Task: XML and JSON Examples.) - Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

4.33.30.5.1 Workflow Task: XML and JSON Examples

The `retainSysIds` and `version` properties are specified as attributes in XML.

The `exportReleaseLevel` and `exportTable` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<pre> XML <taskWorkflow exportReleaseLevel="7.2.0.0" exportTable="ops_task_workflow" retainSysIds="true" version="1"> <actions /> <variables /> <notes /> <virtualResources /> <exclusiveTasks /> <stepConditions /> <stepActions /> <runCriteria /> <criticalEndpoint /> <workflowVertices> <workflowVertex> <alias /> <conditionExpression /> <task>Sleep 30</task> </workflowVertex> <workflowVertex> <alias /> <task>Sleep 60</task> </workflowVertex> <workflowVertex> <alias /> <task>zos task</task> </workflowVertex> <workflowVertex> <alias /> <task>uc - Windows Sleep</task> </workflowVertices> </taskWorkflow> </pre>	<pre> JSON { "type": "taskWorkflow", "actions": { "abortActions": [], "emailNotifications": [], "setVariableActions": [], "snmpNotifications": [], "systemOperations": [] }, "avgRunTime": 3, "avgRunTimeDisplay": "3 Seconds", "calculateCp": false, "calendar": null, "cpDuration": null, "cpDurationUnit": "Minutes", "criticalEndpoint": null, "customField1": { "label": "Domain", "value": null }, "customField2": { "label": null, "value": null }, "efDayConstraint": "Nth Day", "efDuration": "00:00:00:00", "efEnabled": false, "efNthAmount": 10, "efOffsetDuration": null, "efOffsetDurationUnit": "Minutes", "efOffsetPercentage": 0, "efOffsetType": "Percentage", "efTime": "00:00", "efType": "Time", "excludeRelated": false, "exclusiveTasks": [], "executionRestriction": "Run", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_task_manual", </pre>

Examples	XML	JSON
	<pre> vertexId> <vertexX>390</ vertexX> <vertexY>310</ vertexY> </workflowVertex> </workflowVertices> <workflowEdges> <workflowEdge> <condition>Succes ss</condition> <sourceId>2</ sourceId> <straightEdge>true</ straightEdge> <targetId>3</ targetId> </workflowEdge> <workflowEdge> <condition type="Exit Code">123</condition> <sourceId>3</ sourceId> <straightEdge>true</straightEdge> <targetId>5</ targetId> </workflowEdge> <workflowEdge> <condition type="Step Condition">1:*:*:1</ condition> <sourceId>4</ sourceId> <straightEdge>true</straightEdge> <targetId>2</ targetId> </workflowEdge> </workflowEdges> <avgRunTime>3</avgRunTime> <avgRunTimeDisplay>3 Seconds</ avgRunTimeDisplay> <cpDuration /> <cpDurationUnit>Minutes</ cpDurationUnit> <customField1 label="Domain">web.com</customField1> <customField2 /> <efDayConstraint>Nth</ efDayConstraint> <efDuration>00:00:00:00</ efDuration> <efEnabled>>false</efEnabled> <efNthAmount>10</efNthAmount> </pre>	<pre> "firstRun": "2021-03-15 13:59:37 -0400", "holdResources": false, "lastRun": "2021-03-16 17:12:42 -0400", "lastRunTime": 9, "lastRunTimeDisplay": "9 Seconds", "layoutOption": "-- None --", "lfDayConstraint": "Nth Day", "lfDuration": "00:00:00:00", "lfEnabled": false, "lfNthAmount": 1, "lfOffsetDuration": null, "lfOffsetDurationUnit": "Minutes", "lfOffsetPercentage": 0, "lfOffsetType": "Percentage", "lfTime": "00:00", "lfType": "Time", "lsDayConstraint": "Nth Day", "lsDuration": "00:00:00:00", "lsEnabled": false, "lsNthAmount": 7, "lsTime": "00:00", "lsType": "Time", "maxRunTime": 9, "maxRunTimeDisplay": "9 Seconds", "minRunTime": 3, "minRunTimeDisplay": "3 Seconds", "name": "test-wkfl-web- service", "notes": [], "numberOfTasks": 2, "opswiseGroups": [], "overrideCalendar": false, "resolveNameImmediately" : false, "resPriority": 10, "restrictionPeriod": "Span", "restrictionPeriodAfterDat e": "2017-11-10", </pre>

Examples	XML	JSON
	<pre> <efOffsetDuration /> <efOffsetDurationUnit>MInutes</efOffsetDurationUnit> <efOffsetPercentage>0</efOffsetPercentage> <efOffsetType>Percentage</efOffsetType> <efTime>00:00</efTime> <efType>Time</efType> <executionRestriction>Run</executionRestriction> <firstRun>2021-03-15 13:59:37-0400</firstRun> <holdResources>>false</holdResources> <lastRun>2021-03-16 17:12:42-0400</lastRun> <lastRunTime>9</lastRunTime> <lastRunTimeDisplay>9 seconds</lastRunTimeDisplay> <lfDayConstraint>Nth</lfDayConstraint> <lfDuration>00:00:00:00</lfDuration> <lfEnabled>>false</lfEnabled> <lfNthAmount>1</lfNthAmount> <lfOffsetDuration /> <lfOffsetDurationUnit>MInutes</lfOffsetDurationUnit> <lfOffsetPercentage>0</lfOffsetPercentage> <lfOffsetType>Percentage</lfOffsetType> <lfTime>00:00</lfTime> <lfType>Time</lfType> <lsDayConstraint>Nth</lsDayConstraint> <lsDuration>00:00:00:00</lsDuration> <lsEnabled>>false</lsEnabled> <lsNthAmount>7</lsNthAmount> <lsTime>00:00</lsTime> <lsType>Time</lsType> <maxRunTime>9</maxRunTime> <maxRunTimeDisplay>9 Seconds</maxRunTimeDisplay> <minRunTime>3</minRunTime> <minRunTimeDisplay>3 Seconds</minRunTimeDisplay> <name>uc - Test Email</name> <opswiseGroups /> <resolveNameImmediately>>false</resolveNameImmediately> <resPriority>10</resPriority> </pre>	<pre> "restrictionPeriodAfterTime": "10:30", "restrictionPeriodBeforeDate": "2017-11-20", "restrictionPeriodBeforeTime": "15:00", "restrictionPeriodDateList": [], "retainSysIds": true, "runCount": 32, "runCriteria": [], "runTime": 108, "skippedOption": "Show Skipped", "startHeld": false, "startHeldReason": null, "stepActions": [], "stepConditions": [], "summary": null, "sysId": "fb59a227517a421a92c15ff5aefe3b66", "timeZonePref": "--System Default --", "twDelayAmount": null, "twDelayDuration": "00:00:00:00", "twDelayType": "None", "twWaitAmount": null, "twWaitDayConstraint": "None", "twWaitDuration": "00:00:00:00", "twWaitTime": "00:00", "twWaitType": "None", "twWorkflowOnly": "--System Default --", "userEstimatedDuration": null, "variables": [], "version": 2, "virtualResources": [], "workflowEdges": [{ "condition": { "value": "Success" }, "sourceId": { "taskName": "SB_ZOS_Task ", "value": "2" } }] </pre>

Examples	XML	JSON
	<pre> <restrictionPeriod>Span</ restrictionPeriod> <restrictionPeriodAfterDate>2017- 11-10</restrictionPeriodAfterDate> <restrictionPeriodAfterTime>10:30 </restrictionPeriodAfterTime> <restrictionPeriodBeforeDate>2017 -11-20</restrictionPeriodBeforeDate> <restrictionPeriodBeforeTime>15:0 0</restrictionPeriodBeforeTime> <restrictionPeriodDateList /> <runCount>32</runCount> <runTime>108</runTime> <skippedOption>Show Skipped</ skippedOption> <startHeld>false</startHeld> <startHeldReason /> <summary /> <sysId>c835007fc0a802650080dabfc0 4d4d67</sysId> <timeZonePref>-- System Default --</timeZonePref> <twDelayAmount /> <twDelayDuration>00:00:00:00</ twDelayDuration> <twDelayType>None</twDelayType> <twWaitAmount /> <twWaitDayConstraint>None</ twWaitDayConstraint> <twWaitDuration>00:00:00:00</ twWaitDuration> <twWaitTime>00:00</twWaitTime> <twWaitType>None</twWaitType> <twWorkflowOnly>-- System Default --</twWorkflowOnly> <userEstimatedDuration /> <calculateCp>false</calculateCp> <calendar /> <layoutOption>-- None --</ layoutOption> <numberOfTasks>10</numberOfTasks> <overrideCalendar>false</ overrideCalendar> <skippedOption>Show Skipped</ skippedOption> </taskWorkflow> </pre>	<pre> }, "straightEdge": true, "targetId": { "taskAlias": "Timer 0", "taskName": "Sleep 0", "value": "3" }], "workflowVertices": [{ "alias": null, "conditionExpression": null, "task": { "value": "SB_ZOS_Task" }, "vertexId": "2", "vertexX": "480", "vertexY": "90" }, { "alias": "Timer 0", "task": { "value": "Sleep 0" }, "vertexId": "3", "vertexX": "480", "vertexY": "270" }] } </pre>

See [Task Web Services - Task Actions](#) for XML and JSON examples of task actions.

See [Task Web Services - Task-Related Records](#) for XML and JSON examples of task-related records.

See [Workflow Task - Workflow Task-Related Records](#) for XML and JSON examples of Workflow task-related records.

4.33.30.6 Properties

- See [All Tasks Properties](#)
- See [Workflow Task Properties](#)
- See [Workflow Task - Workflow Task-Related Records Properties](#)

4.33.30.7 Workflow Task - Workflow Task-Related Records

4.33.30.7.1 Examples

The following examples are for task-related records for all task types except where noted otherwise.

Examples	XML	JSON
Examples for Workflow Task-Related Records	<pre> Workflow Vertices <workflowVertices> <workflowVertex> <alias /> <conditionExpression /> <task>zos task</task> <vertexId>4</vertexId> <vertexX>560</vertexX> <vertexY>50</vertexY> </workflowVertex> </workflowVertices> Workflow Edges <workflowEdges> <workflowEdge> <condition type="Step Condition">1:*:*:1</condition> <sourceId>4</sourceId> <straightEdge>true</ straightEdge> <targetId>2</targetId> </workflowEdge> <workflowEdge> <points> <point x="280" y="300" /> </points> <condition>Success</ condition> <sourceId>2</sourceId> <straightEdge>false</ straightEdge> <targetId>3</targetId> </workflowEdge> </workflowEdges> Step Conditions <stepConditions> <stepCondition> <programName>programName</ programName> <pstepName>procedureName</ pstepName> <stepAction>Continue</ Success></stepAction> <stepCodes>U0016</stepCodes> <stepName>stepName</stepName> <stepOrder>0</stepOrder> </pre>	<pre> Workflow Vertices "workflowVertices": [{ "alias": null, "conditionExpression": null, "task": { "value": "SB_ZOS_Task " }, "vertexId": "2", "vertexX": "510", "vertexY": "40" }] Workflow Edges "workflowEdges": [{ "condition": { "value": "Success" }, "sourceId": { "taskName": "SB_ZOS_Task ", "value": "2" }, "straightEdge": true, "targetId": { "taskAlias": "Timer 0", "taskName": "Sleep 0", "value": "3" } }] Step Conditions "stepConditions": [{ "programName": null, "pstepName": null, "stepAction": "Halt/ Failed", "stepCodes": "1-4095", "stepName": null, "stepOrder": 1, </pre>

Examples	XML	JSON
	<pre> <sysId>1f85c539f50a4b488af5aad39a60c05c</sysId> </stepCondition> </stepConditions> Variable Conditions <variableCondition> <firstValue>\${_varToLowerCase('variableName')}</firstValue> <operator>=</operator> <secondValue>\${var2}</secondValue> </variableCondition> Step Actions <stepActions> <systemOperation> <actionCriteriaTask>zostask</actionCriteriaTask> <agent>AGNT0001</agent> <agentCluster /> <agentClusterVar /> <agentVar /> <description>description</description> <execCommand>Cancel</execCommand> <execCriteria>Oldest Active Instance</execCriteria> <execId /> <execLookupOption>Instance Name</execLookupOption> <execName /> <execWorkflowName /> <execWorkflowNameCode>Equals</execWorkflowNameCode> <limit /> <notificationOption>Operation Success/Failure</notificationOption> <operation>Suspend Agent</operation> <overrideTriggerDateOffset>5</overrideTriggerDateOffset> <overrideTriggerDateTime>true</overrideTriggerDateTime> </pre>	<pre> "sysId": "100b1da7c19f40a3848c2549a7c24de4" }] Variable Conditions "condition": { "firstValue": "\${_varToLowerCase('variableName')}", "operator": "=", "secondValue": "\${var2}", "type": "Variable" } Step Actions "stepActions": [{ "actionCriteriaTask": "SB_ZOS_Task ", "agent": null, "agentCluster": null, "agentClusterVar": null, "agentVar": null, "description": null, "execCommand": "Cancel", "execCriteria": "Oldest Active Instance", "execId": null, "execLookupOption": "Instance Name", "execName": "SB_Timer", "execWorkflowName": "SB_Workflow", "execWorkflowNameCond": "Equals", "limit": null, "notificationOption": "Operation Failure", "operation": "Task Instance Command", "overrideTriggerDateOffset": 5, "overrideTriggerDateTime": true </pre>

Examples	XML	JSON
	<pre> <overrideTriggerTime>20:00</overrideTriggerTime> <programName /> <pstepName /> <stepCodes>123</stepCodes> <stepName /> <sysId>d722fd81df0b4ac8ad0c684a1b17a766</sysId> <task /> <taskLimitType>Unlimited</taskLimitType> <taskVar /> <trigger>Trigger A</trigger> <triggerVar /> <variables> <variable> <name>var1</name> <value>val1</value> </variable> <variable> <name>var2</name> <value>val2</value> </variable> </variables> <variablesUnresolved>false</variablesUnresolved> <vertexId>1</vertexId> <virtualResource /> <virtualResourceVar /> </systemOperation> </stepActions> Run Criteria <runCriteria> <runCriterion> <businessDay>true</businessDay> <complex>true</complex> <complexAdjective>Every</complexAdjective> <complexNouns> <complexNoun>Monday</complexNoun> <complexNoun>CustomDay1</complexNoun> </complexNouns> </runCriterion> </runCriteria> </pre>	<pre> "overrideTriggerTime": "20:00", "programName": null, "pstepName": null, "stepCodes": "S0C4", "stepName": null, "sysId": "e1149f680ce542febfa022f3c0dbf828", "task": null, "taskLimitType": "Unlimited", "taskVar": null, "trigger": null, "triggerVar": null, "variables": [], "variablesUnresolved": false, "vertexId": "Any", "virtualResource": null, "virtualResourceVar": null }] Run Criteria "runCriteria": [{ "businessDay": true, "complex": false, "complexAdjective": "Every", "complexAdjustment": "None", "complexAdjustmentAmount" : 1, "complexAdjustmentType": "Day", "complexNoun": { "value": "Day" }, "complexNouns": [</pre>

Examples	XML	JSON
	<pre> <complexNthAmount>5</ complexNthAmount> <complexQualifiers> <complexQualifier>Jan</ complexQualifier> <complexQualifier>CustomDay1</ complexQualifier> </complexQualifiers> <complexAdjustment>Less</ complexAdjustment> <complexAdjustmentAmount>1</ complexAdjustmentAmount> <complexAdjustmentType>Day</ complexAdjustmentType> <customDay>false</customDay> <customDayChoice /> <description /> <evaluateAt>Trigger Time</ evaluateAt> <holiday>false</holiday> <holidayAdjustment>Less</ holidayAdjustment> <holidayAdjustmentAmount>1</ holidayAdjustmentAmount> <holidayAdjustmentType>Day</ holidayAdjustmentType> <specificDay>false</ specificDay> <specificDayFri>false</ specificDayFri> <specificDayMon>false</ specificDayMon> <specificDaySat>false</ specificDaySat> <specificDaySun>false</ specificDaySun> <specificDayThu>false</ specificDayThu> <specificDayTue>false</ specificDayTue> <specificDayWed>false</ specificDayWed> <sysId>bb5f7807b0614153942572ecbc2dcf be</sysId> <task>Sleep 60</task> </pre>	<pre> { "value": "Day" }, "complexNthAmount": 5, "complexQualifier": { "value": "Year" }, "complexQualifiers": [{ "value": "Year" }], "customDay": false, "customDayChoice": null, "description": "test1", "evaluateAt": "Trigger Time", "holiday": false, "holidayAdjustment": "None", "holidayAdjustmentAmount" : 1, "holidayAdjustmentType": "Day", "specificDay": false, "specificDayFri": false, "specificDayMon": false, "specificDaySat": false, "specificDaySun": false, "specificDayThu": false, "specificDayTue": false, "specificDayWed": false, </pre>

Examples	XML	JSON
	<pre> <type>Skip Criteria</type> <variable>>false</variable> <variableName /> <variableOp>=</variableOp> <variableValue /> <vertexId>13</vertexId> </runCriterion> </runCriteria> Critical Endpoints <criticalEndpoints> <criticalEndpoint> <description>test1</ description> <lfDayConstraint>Next Day</lfDayConstraint> <lfDuration>00:00:00:00</ lfDuration> <lfEnabled>>true</ lfEnabled> <lfNthAmount>5</ lfNthAmount> <lfOffsetDuration /> <lfOffsetDurationUnit>Minutes</ lfOffsetDurationUnit> <lfOffsetPercentage>0</ lfOffsetPercentage> <lfOffsetType>Percentage</ lfOffsetType> <lfTime>22:22</lfTime> <lfType>Time</lfType> <lsDayConstraint>Same Day</lsDayConstraint> <lsDuration>00:00:00:00</ lsDuration> <lsEnabled>>true</ lsEnabled> <lsNthAmount>5</ lsNthAmount> <lsTime>01:01</lsTime> <lsType>Time</lsType> <sysId>6ca686c553314947b8ffcc489b2a84 ec</sysId> <task>task_1</task> <vertexId>Any</vertexId> </criticalEndpoint> </criticalEndpoints> </pre>	<pre> "sysId": "c26f0ecd92fe4cf19782291a 91894beb", "task": "task_1", "type": "Run Criteria", "variable": false, "variableName": null, "variableOp": "=", "variableValue": null, "vertexId": "Any" }], Critical Endpoints "criticalEndpoints": [{ "description": "test1", "lfDayConstraint": "Next Day", "lfDuration": "00:00:00:00", "lfEnabled": true, "lfNthAmount": 5, "lfOffsetDuration": null, "lfOffsetDurationUnit": "Minutes", "lfOffsetPercentage": 0, "lfOffsetType": "Percentage", "lfTime": "22:22", "lfType": "Time", "lsDayConstraint": "Same Day", "lsDuration": "00:00:00:00", </pre>

Examples	XML	JSON
		<pre> "lsEnabled": true, "lsNthAmount": 5, "lsTime": "01:01", "lsType": "Time", "sysId": "331ae420fe264026b3f9a78b 1f05e8de", "task": "task_1", "vertexId": "Any" }],</pre>

4.33.30.7.2 Properties

See the [Workflow Task - Workflow Task-Related Records Properties](#) page for information on Workflow task-related records properties.

- See [Workflow Vertices Properties](#)
- See [Workflow Edges Properties](#)
- See [Step Conditions Properties](#)
- See [Step Actions Properties](#)
- See [Run Criteria Properties](#)
- See [Critical Endpoints Properties](#)

4.33.30.8 Workflow Task - Workflow Task-Related Records Properties

- [Workflow Vertices](#)
- [Workflow Edges](#)
 - [Variable Conditions](#)
 - [Variable Condition: JSON and XML Examples](#)
- [Step Conditions](#)
- [Step Actions](#)
- [Run Criteria](#)
- [Workflow Forecast](#)
- [Critical Endpoint](#)

4.33.30.8.1 Workflow Vertices

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
alias	n/a	Alias used for the task to be inserted within the workflow; specifically, the value of ops_exec_workflow_vertex.name .		N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
conditionExpression	n/a	Boolean condition expression to specify the dependency criteria.	XML: <pre> <conditionExpression> <condition> <vertexId>7</vertexId> </condition> <condition> <vertexId>10</vertexId> </condition> <compoundCondition> <condition> <vertexId>9</vertexId> </condition> </compoundCondition> <condition> <vertexId>7</vertexId> </condition> </condition> </logicalOperator>And</logicalOperator> </conditionExpression> </pre> JSON:	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
			<pre> "conditionExpression": { "conditions": [{ "type": "condition", "vertexId": "7" }, { "type": "condition", "vertexId": "10" }, { "type": "compoundCondition" }, "conditions": [{ "type": "condition", "vertexId": "9" }, { "type": "condition", "vertexId": "7" }], "logicalOperator": "And" }, "logicalOperator": "Or" }</pre>		
task	Task Name	Name of the task to be inserted within the workflow. Example: <task sysId="true">a8756a120a00010357097d05fa5c558e</task>		Y	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
vertexId	n/a	Vertex ID of the task to be inserted within the workflow. Each task within a Workflow must have a unique Vertex ID to distinguish it from other tasks, if any, of the same name.		Y	
vertexX	n/a	x-coordinate of the task to be inserted within the workflow.	Default is 0.	N	
vertexY	n/a	y-coordinate of the task to be inserted within the workflow.	Default is 0.	N	

4.33.30.8.2 Workflow Edges

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
condition	n/a	Dependency condition between the source and target tasks of this edge (connector). Example: <condition type="Exit Code">123</condition>	Valid values: • Success • Failure • Success/Failure • Exit Code; Format: Numeric. Use commas to list a series of exit codes; use hyphens to specify a range. Example: 1,5, 22-30 • Step Conditions; Format: Step:Procedure:Program:Condition codes. Example: **:*:JCLERR • Variable	Y	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
			Default is Success. For example: <pre> <condition>Success</ condition> <condition>Failure</ condition> <condition>Success/ Failure</condition> <condition>1,5,22-30</ condition> <condition>*:*:JCLERR</ condition> <condition>S1:PROC1:PGM1:U0 16</condition> <condition type="Exit Code">1,5,22-30</condition> <condition type="Step Condition">*:*:JCLERR</ condition> <condition type="Step Condition">*:*:S0C4</ condition> <condition type="Step Condition">S1:PROC1:PGM1:U016</ condition> <variableCondition> <firstValue>\$ {_varToLowerCase('variableName')}</firstValue> <operator>=</ operator> <secondValue>\$ {var2}</secondValue> </variableCondition> </pre> Step Condition is valid for z/OS tasks only. Success/Failure and Failure are not valid for Workflow, Timer, and Manual tasks. Note		

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
			The type attribute (type=) is optional for Exit Code and Step Condition. Based on the format of the condition, in most cases it is easily determined if the condition is Exit Code and Step Condition. If the condition cannot be determined, the type attribute can be checked. For JSON, the type attribute is required for Variable Condition. If type = Variable(case sensitive), it will be detected as a Variable Condition.		
points	n/a	If straightEdge is false; x and y coordinates of the Edge angles.	For example: <pre><points> <point x="280" y="300" /> </points></pre>	Y	
sourceId	n/a	Vertex ID of the source task. Example: <sourceId taskName="Sleep 10"taskAlias="Sleep 10-alias">20</sourceId>		Y	
straightEdge	n/a	Specification for whether the edge is straight or bent.	Boolean; Valid values: true/false. Default is true.	N	
targetId	n/a	Vertex ID of the target task. Example: <targetID taskName="Sleep 10"taskAlias="Sleep 10-alias">20</targetId>		Y	

4.33.30.8.2.1 Variable Conditions

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
firstValue	First Value	First Value of the condition evaluation.	Default is an empty/blank string.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
operator	Operator	Operator of the condition evaluation.	Valid values: • As String = , As Value 1. • As String != , As Value 2. • As String > , As Value 3. • As String >= , As Value 4. • As String < , As Value 5. • As String <= , As Value 6. • As String regex , As Value 7. • As String contains , As Value 8. Default is =(1).	N	
secondValue	Second Value	Second Value of the condition evaluation.	Default is an empty/blank string.	N	

4.33.30.8.2.2 Variable Condition: JSON and XML Examples

XML	JSON
XML <pre> <variableCondition> <firstValue>\${_varToLowerCase('variableName')}</firstValue> <operator>=</operator> <secondValue>\${var2}</secondValue> </variableCondition> </pre>	JSON <pre> "condition": { "firstValue": "\${_varToLowerCase('variableName')}", "operator": "=", "secondValue": "\${var2}", "type": "Variable" } </pre>

4.33.30.8.3 Step Conditions

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
programName	Program	Program name to match.	A blank value or an asterisk (*) will match any program name. Generic matching characters asterisk (*) and question mark (?) match zero or more characters and one character, respectively.	N	
pstepName	Procedure	Procedure step name to match.	A blank value or an asterisk (*) will match any procedure step name. Generic matching characters asterisk (*) and question mark (?) match zero or more characters and one character, respectively.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>stepAction</code>	Action	Action to take and the task status to set if the Step Condition matches.	Valid values: - As String = Continue/Success, As Value = 1 - As String = Continue/Failed, As Value = 2 - As String = Halt/Failed, As Value = 3 - As String = Askoper, As Value = 4 Default is Continue/Success (1).	N	
<code>stepCodes</code>	Condition Codes	Integer return codes from the program or ABEND codes.	Integer return codes are specified as a comma-separated list of integer values or ranges. Ranges are specified with a dash (-) separating the lower and upper bounds of the range. The z/OS job step return code range is 0-4095. ABEND codes are specified directly as either a user ABEND or a system ABEND. The ABEND code must be specified verbatim including leading zeroes.	Y	
<code>stepName</code>	Step	Job step name to match.	A blank value or an asterisk (*) will match any job step name. Generic matching characters asterisk (*) and question mark (?) match zero or more characters and one character, respectively.	N	
<code>stepOrder</code>	Evaluation Order	Order for step condition evaluation.	Step conditions with a lower order are evaluated before step conditions with a higher order.	N	
<code>sysId</code>	n/a	<code>sys_id</code> used within the Controller to identify this Step Condition.		N	

4.33.30.8.4 Step Actions

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>actionCriteriaTask</code>	Task	Name of a task. In combination with the <code>vertexId</code> , it specifies a specific task within the Workflow to which the step action applies; if no task is specified, the step action applies to all z/OS tasks within the Workflow.		N	
<code>agent</code>	Agent	If <code>operation</code> is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Agent for which the system operation is to be performed.		N	<code>agentVar</code>

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agentCluster	Agent Cluster	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Agent Cluster for which the system operation is to be performed.		N	agentClusterVar
agentClusterVar	Agent Cluster Variable	Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.		N	agentCluster
agentVar	Agent Variable	Name of a variable that will be resolved at run time to the name of the Agent to use.		N	agent
description	Description	Description of this System Operation Step Action.		N	
execCommand	Command	If operation is Run Task Instance Command; Type of task instance command to run.	Valid values: - As String = Cancel, As Value = 1 - As String = Force Finish, As Value = 2 - As String = Force Finish (Halt), As Value = 3 - As String = Force Finish/Cancel, As Value = 4 - As String = Force Finish/Cancel (Halt), As Value = 5 - As String = Skip, As Value = 6 - As String = Hold, As Value = 7 - As String = Release, As Value = 8 - As String = Release Recursive, As Value = 9 - As String = Clear All Dependencies, As Value = 10 - As String = Clear Exclusive, As Value = 11 - As String = Clear Predecessors, As Value = 12 - As String = Clear Resources, As Value = 13 - As String = Unskip, As Value = 14 - As String = Clear Timewait, As Value = 15 - As String = Re-run, As Value = 16 Default value is Cancel (1).	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>execCriteria</code>	Instance Criteria	If <code>operation</code> is Run Task Instance Command; Additional criteria for selecting a specific task instance if multiple task instances have matching names.	Valid values: - As String = Oldest Active Instance, As Value = 1 - As String = Newest Active Instance, As Value = 2 - As String = Oldest Instance, As Value = 3 - As String = Newest Instance, As Value = 4 Default is Oldest Active Instance (1). - An Active task instance is an instance that is not in any of these statuses: Skipped, Finished, Success. - An Unskip command can use only the Newest Instance and Oldest Instance criteria; an active instance cannot be unskipped.	N	
<code>execId</code>	Instance ID	If <code>execLookupOption</code> is Instance Id; ID of task instance to run the command against.		N	
<code>execLookupOption</code>	Instance Lookup Option	If <code>operation</code> is Run Task Instance Command; Specification for how to search for the task instance to run a command against.	Valid values: - As String = Instance Name, As Value = 1 - As String = Instance Name/Task, As Value = 2 - As String = Instance Id, As Value = 3 - As String = Task, As Value = 4 Default is Instance Name (1).	N	
<code>execName</code>	Instance Name	If <code>execLookupOption</code> is Instance Name; Name of the task instance to run the command against.		N	
<code>execWorkflowName</code>	Workflow Instance Name	If <code>operation</code> is Run Task Instance Command; Name of the parent workflow task instance that contains the task on which to perform the specified action.		N	
<code>execWorkflowNameCondition</code>	Workflow Instance Name Condition	If <code>operation</code> is Run Task Instance Command; Type of condition for the name of the parent workflow task instance that contains the task on which to perform the specified action. If you select a condition type, enter a value for that condition. The action will be performed only on a task instance in a parent workflow task instance meeting the specified condition value.	Valid values: - As String = Equals, As Value = 1 - As String = Starts With, As Value = 2 - As String = Contains, As Value = 3 - As String = Ends With, As Value = 4 Default is Equals (1).	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
limit	Limit	- If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit, and taskLimitType is Limited; Number of tasks that can be run concurrently by the specified Agent / Agent Cluster. - If operation is Set Virtual Resource Limit; Virtual resource limit to be set for the specified virtual resource.		N	
name	Name	Name of a variable to override.		N	
notification0 ption	System Notification	Status of the specified operation that will trigger a system notification.	Valid values: - As String = -- None --, As Value = 0 - As String = Operation Failure, As Value = 1 - As String = Operation Success/Failure, As Value = 2 - As String = Operation Success, As Value = 3 Default is Operation Failure (1).	N	
operation	System Operation	Specific system operation to perform.	Valid values: - As String = Suspend Agent, As Value = 1 - As String = Resume Agent, As Value = 2 - As String = Suspend Agent Cluster, As Value = 3 - As String = Resume Agent Cluster, As Value = 4 - As String = Suspend Cluster Membership, As Value = 5 - As String = Resume Cluster Membership, As Value = 6 - As String = Set Agent Task Execution Limit, As Value = 7 - As String = Set Cluster Task Execution Limit, As Value = 8 - As String = Set Virtual Resource Limit, As Value = 9 - As String = Task Instance Command, As Value = 10 - As String = Launch Task, As Value = 11 - As String = Trigger Now, As Value = 12 - As String = Enable Trigger, As Value = 13 - As String = Disable Trigger, As Value = 14 Default is Suspend Agent (1).	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>overrideTriggerDateOffset</code>	Override Date Offset	Override date offset.	Date Offset value of trigger to fire.	N (unless <code>overrideTriggerDateTime</code> is true)	
<code>overrideTriggerDateTime</code>	Override Trigger Date/Time	Request parameter to enable/disable override functionality.	Boolean value (true / false). Default is false.	N	
<code>overrideTriggerTime</code>	Override Time	Override time.	Time of the trigger to fire.	Y (if <code>overrideTriggerDateTime</code> is true)	
<code>programName</code>	Program	Program name to match.	A blank value or an asterisk (*) will match any program name. Generic matching characters asterisk (*) and question mark (?) match zero or more characters and one character, respectively.	N	
<code>pstepName</code>	Procedure	Procedure step name to match.	A blank value or an asterisk (*) will match any procedure step name. Generic matching characters asterisk (*) and question mark (?) match zero or more characters and one character, respectively.	N	
<code>stepCodes</code>	Condition Codes	Conditions codes are integer return codes from the program or ABEND codes. Integer return codes are specified as a comma-separated list of integer values or ranges. Ranges are specified with a dash (-) separating the lower and upper bounds of the range. The z/OS job step return code range is 0-4095. ABEND codes are specified directly as either a user ABEND or a system ABEND. The ABEND code must be specified verbatim including leading zeroes.		N	
<code>stepName</code>	Step	Job step name to match.	A blank value or an asterisk (*) will match any job step name. Generic matching characters asterisk (*) and question mark (?) match zero or more characters and one character, respectively.	N	
<code>task</code>	Task Reference	- If <code>execLookupOption</code> is Instance Name/Task or Task; Name of the task for which the task instance was run. - If <code>operation</code> is Launch Task; Name of the task to launch.		N	<code>taskVar</code>

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
taskLimitType	Task Execution Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit; Specification for whether a limited or unlimited number of task instances can be run concurrently on the specified Agent / Agent Cluster.	Valid values: - As String = Unlimited, As Value = 1 - As String = Limited, As Value = 2 Default is Unlimited.	N	
taskVar	Task Reference Variable	- If execLookupOption is Instance Name/Task or Task; Name of a variable that will be resolved at run time to the name of the task for which the task instance was run. - If operation is Launch Task; Name of a variable that will be resolved at run time to the name of the task to launch.		N	task
trigger	Trigger Reference	If operation is Trigger Now, Enable Trigger, or Disable Trigger; Name of the trigger.		N	triggerVar
triggerVar	Trigger Reference Variable	If operation is Trigger Now, Enable Trigger, or Disable Trigger; Name of a variable that will be resolved at run time to the name of the trigger.		N	trigger
value	Value	Value of a variable to override.		N	
variables	Override Variables	List of variables to override.		N	
variablesUnresolved	Override Variables Resolution Disabled	Specification for whether or not variables resolution should be disabled to allow for passing unresolved variable values. - If variables resolution is disabled, any unresolved variables will be resolved in the context of the launched or triggered task instance. - If variables resolution is not disabled, variables will be resolved prior to the execution of the Launch Task or Trigger Now operation.	Boolean; Valid values: true/false. Default is false.	N	
vertexId	Vertex Id	Numerical ID of the task that identifies it uniquely from other tasks of the same type in the Workflow.	Valid values: - Any - The action applies to any instance of the specified task in the Workflow. <number> - The action applies only to this instance of the task in the Workflow.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
vertexSelection	Vertex Selection	If operation is Trigger Now or Launch Task; Specifies if the vertex selection can be enabled.	Boolean; Valid Values: true/false	N	
vertices	Vertices	If operation is Trigger Now or Launch Task; Specifies Root Vertices and/or Specific Vertices to be included in the launched workflow. A vertex can be specified by taskName and vertexId. If you specify a vertexId, then only a single vertex will match, whereas, if vertexId is "Any", any vertex matching by taskName will be selected. To indicate a vertex selection is a Root Vertex, set root to true. If root is unspecified or false, it indicates a vertex selection is a Specific Vertex.	XML <pre><vertices> <vertex root="true"> <taskName>JOB_A</taskName> <vertexId>10</vertexId> </vertex> <vertex root="false"> <taskName>JOB_B</taskName> <vertexId>Any</vertexId> </vertex> </vertices></pre> JSON <pre>"vertices": [{ "root": true, "taskName": "JOB_A", "vertexId": "10", }, { "root": false, "taskName": "JOB_B", "vertexId": "Any", }]</pre>	N	
virtualResource	Virtual Resource	If operation is Set Virtual Resource Limit; Virtual resource for which a virtual resource limit is to be set.		N	virtualResourceVar

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
virtualResourceVar	Virtual Resource Variable	Name of a variable that will be resolved at run time to the name of the Virtual Resource to use.		N	virtualResource

4.33.30.8.5 Run Criteria

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
businessDays	Business Day	Specification for whether the task runs or skips on all business days.	Boolean; Valid values: true/false. Default is false.	N	
complex	Complex	Specification for whether the task runs or skips on the day(s) indicated in the <code>complexAdjective</code> , <code>complexNouns</code> , and <code>complexQualifiers</code> .	Boolean; Valid values: true/false. Default is false.	N	
complexAdjective	Adjective	If <code>complex</code> is specified; Used with <code>complexNouns</code>, <code>complexQualifiers</code>, and <code>complexNthAmount</code> (if <code>complexAdjective</code> is Nth) to specify which in a series of days you want to select. For example, to specify "the 15th business day of the month," select <code>complexAdjective</code> is Nth, <code>complexNouns</code> is Business Day, <code>complexQualifiers</code> is Month, and <code>complexNthAmount</code> is 15.	Valid values: - As String = Every, As Value = 0 - As String = 1st, As Value = 1 - As String = 2nd, As Value = 2 - As String = 3rd, As Value = 3 - As String = 4th, As Value = 4 - As String = 5th, As Value = 5 - As String = 6th, As Value = 6 Default is Every (0).	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
complexNoun	Noun	Deprecated (used only for single-value Nouns) If <code>complex</code> is specified; Used with <code>complexAdjective</code>, <code>complexQualifier</code>, and <code>complexNthAmount</code> (if <code>complexAdjective</code> is Nth) to specify the type of day you want to select. For example, to specify "the 1st business day of the month," select <code>complexAdjective</code> is 1st, <code>complexNoun</code> is Business Day, and <code>complexQualifier</code> is Month. Example: <code><complexNoun local="true">LCD1</complexNoun></code> To specify a Custom Day, use the name of the Custom Day. For example: XML <code><complexNoun>CustomDay1</complexNoun></code> JSON <pre>"complexNoun": { "value": "CustomDay1" }</pre> To specify a Local Custom Day, use the local attribute. For example: XML <code><complexNoun local="true">CustomDay2</complexNoun></code> JSON <pre>"complexNoun": { "local": "true", "value": "CustomDay2" }</pre> Note The Default Calendar for the Workflow task is used to verify Custom Day references.	Valid values: - Sunday through Saturday - Day (any day) - Business Day (The business days specified in the calendar selected in the Workflow Calendar.) - Custom Days specified in the calendar selected in the Workflow Calendar.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With												
complexNouns	Noun(s)	If <code>complex</code> is specified; Used with <code>complexAdjective</code>, <code>complexQualifiers</code>, and <code>complexNthAmount</code> (if <code>complexAdjective</code> is Nth) to specify the type of days you want to select. For example, to specify "the 1st business day of the month," select <code>complexAdjective</code> as 1st, <code>complexNouns</code> as Business Day, and <code>complexQualifiers</code> as Month. Example: <table><tr><td>1</td><td><complexNouns></td></tr><tr><td>2</td><td><complexNoun>Business Day</complexNoun></td></tr><tr><td>3</td><td></complexNouns></td></tr></table> To specify a Custom Day, use the name of the Custom Day. For example: XML <table><tr><td>1</td><td><complexNouns></td></tr><tr><td>2</td><td><complexNoun>Monday</complexNoun></td></tr><tr><td>3</td><td><complexNoun>CustomDay1</complexNoun></td></tr></table>	1	<complexNouns>	2	<complexNoun>Business Day</complexNoun>	3	</complexNouns>	1	<complexNouns>	2	<complexNoun>Monday</complexNoun>	3	<complexNoun>CustomDay1</complexNoun>	Valid values: - Sunday through Saturday - Day (any day) - Business Day (The business days specified in the calendar selected in the Workflow Calendar.) - Custom Days specified in the calendar selected in the Workflow Calendar.	N	
1	<complexNouns>																
2	<complexNoun>Business Day</complexNoun>																
3	</complexNouns>																
1	<complexNouns>																
2	<complexNoun>Monday</complexNoun>																
3	<complexNoun>CustomDay1</complexNoun>																

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
		4 </complex Nouns> JSON 1 "complexNouns" 2 : [3 { "value": "Monday" 4 } 5 { 6 "value" : "CustomDay1" 7 } 8] To specify a Local Custom Day, use the local attribute. For example: XML 1 <complexNouns> 2 <complexNoun local="true">CustomDay2</complexNoun> 3 </complex Nouns> JSON 1 "complexNouns" : [			

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
		2 3 4 5 6 { "local" : true, "value" : "Custom Day1" }]			
complexNthAmount	Nth Amount	If complexAdjective is Nth; Sequential occurrence of the day selected in complexNouns within the selected complexQualifiers .	Integer.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
complexQualifier	Qualifier	Deprecated (used only for single-value Qualifiers) If <code>complex</code> is specified; Used with the <code>complexAdjective</code>, <code>complexNoun</code>, and <code>complexNthAmount</code> (if <code>complexAdjective</code> is Nth) to specify the period for your selection formula. For example, to specify "the 1st business day of the month," select <code>complexAdjective</code> is 1st, <code>complexNoun</code> is Business Day, <code>complexQualifier</code> is Month. Example: <code><complexQualifier local="true">Year</complexQualifier></code> To specify a Custom Day Period, use the name of the Custom Day Period. For example: XML <code><complexQualifier>CustomDayPeriod1</complexQualifier></code> JSON <code>"complexQualifier": { "value": "CustomDayPeriod1" }</code> To specify a Local Custom Day Period, use the local attribute. For example: XML <code><complexQualifier local="true">CustomDayPeriod2</complexQualifier></code> JSON <code>"complexQualifier": { "local": "true", "value": "CustomDayPeriod2" }</code> Note The Default Calendar for the Workflow task is used to verify Custom Day references.	Valid values: - Month - Year - January through December - Custom Period	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With										
complexQualifiers	Qualifier(s)	If <code>complex</code> is specified; Used with <code>complexAdjective</code>, <code>complexQualifiers</code>, and <code>complexNthAmount</code> (if <code>complexAdjective</code> is Nth) to specify the type of days you want to select. For example, to specify "the 1st business day of the month," select <code>complexAdjective</code> as 1st, <code>complexNouns</code> as Business Day, and <code>complexQualifiers</code> as Month. Example: <table><tr><td>1</td><td><complexQualifiers></td></tr><tr><td>2</td><td><complexQualifier>Month</complexQualifier></td></tr><tr><td>3</td><td></complexQualifiers></td></tr></table> To specify a Custom Day, use the name of the Custom Day. For example: XML <table><tr><td>1</td><td><complexQualifiers></td></tr><tr><td>2</td><td><complexQualifier>Jan</complexQualifier></td></tr></table>	1	<complexQualifiers>	2	<complexQualifier>Month</complexQualifier>	3	</complexQualifiers>	1	<complexQualifiers>	2	<complexQualifier>Jan</complexQualifier>	Valid values: • Month • Year • January through December • Custom Period	N	
1	<complexQualifiers>														
2	<complexQualifier>Month</complexQualifier>														
3	</complexQualifiers>														
1	<complexQualifiers>														
2	<complexQualifier>Jan</complexQualifier>														

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
		3 <complexQualifier>CustomDay1</complexQualifier> 4 </complexQualifiers> JSON 1 "complexQualifiers": [2 { 3 "value": "Jan" 4 }, 5 { 6 "value": : "CustomDay1" 7 } 8] To specify a Local Custom Day, use the local attribute. For example: XML 1 <complexQualifiers>			

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
		2 <complexQualifier local="true">CustomDay2</complexQualifier> 3 </complexQualifiers> JSON 1 "complexQualifiers": 2 [3 { 4 "local": true, 5 "value": 6 "CustomDay1" }]			
complexAdjustment	Adjustment	Specification for adjusting a complex day by a less or plus number of days or business days.	Valid values: - As String = None, As Value = 0 - As String = Less, As Value = 1 - As String = Plus, As Value = 2 Default is None (0).	N	
complexAdjustmentAmount	Adjustment Amount	Number of days or business days to adjust a complex day.	Integer; Default is 1. - Minimum is 1 if complexAdjustmentType is Day (1). - Minimum is 0 if complexAdjustmentType is Business Day (2). Maximum is 366.	Y (if complexAdjustment is Less (1) or Plus (2))	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>complexAdjustmentType</code>	Adjustment Type	Type of day by which to adjust a complex day.	Valid values: - As String = Day, As Value = 1 - As String = Business Day, As Value = 2 Default is Day (1).	N	
<code>customDay</code>	Custom Day	Specification that the task runs or skips on the day you select in the <code>customDayChoice</code> .		N	
<code>customDayChoice</code>	Custom Day Choice	If <code>customDay</code> is specified; Custom day for which you are specifying run or skip criteria.		N	
<code>description</code>	Description	Description of this record.		N	
<code>evaluateAt</code>	Evaluate At	If <code>variable</code> is specified; When you want the Controller to evaluate the variable.	Valid values: - As String = Trigger Time, As Value = 1 - As String = Run Time, As Value = 2 Default is Trigger Time (1).	N	
<code>holiday</code>	Holiday	Specification for whether or not the task runs or skips on holidays.	Boolean; Valid values: true/false. Default is false.	N	
<code>holidayAdjustment</code>	Adjustment	Specification for adjusting a holiday by a less or plus number of days or business days.	Valid values: - As String = None, As Value = 0 - As String = Less, As Value = 1 - As String = Plus, As Value = 2 Default is None (0).	N	
<code>holidayAdjustmentAmount</code>	Adjustment Amount	Number of days or business days to adjust a holiday.	Integer; Default is 1. - Minimum is 1. - Maximum is 366.	N	
<code>holidayAdjustmentType</code>	Adjustment Type	Type of day by which to adjust a holiday.	Valid values: - As String = Day, As Value = 1 - As String = Business Day, As Value = 2 Default is Day (1).	N	
<code>specificDay</code>	Specific Day(s)	Specification for whether or not the task runs or skips on the day(s) you select in the <code>specificDayFri</code> to <code>specificDayWed</code> .	Boolean; Valid values: true/false. Default is false.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>specificDayFri</code>	Friday	If <code>specificDay</code> is selected; Specification for whether or not the task runs or skips on this day of the week.	Boolean; Valid values: true/false. Default value is false.	N	
<code>specificDayMon</code>	Monday	If <code>specificDay</code> is selected; Specification for whether or not the task runs or skips on this day of the week.	Boolean; Valid values: true/false. Default value is false.	N	
<code>specificDaySat</code>	Saturday	If <code>specificDay</code> is selected; Specification for whether or not the task runs or skips on this day of the week.	Boolean; Valid values: true/false. Default value is false.	N	
<code>specificDaySun</code>	Sunday	If <code>specificDay</code> is selected; Specification for whether or not the task runs or skips on this day of the week.	Boolean; Valid values: true/false. Default value is false.	N	
<code>specificDayThu</code>	Thursday	If <code>specificDay</code> is selected; Specification for whether or not the task runs or skips on this day of the week.	Boolean; Valid values: true/false. Default value is false.	N	
<code>specificDayTue</code>	Tuesday	If <code>specificDay</code> is selected; Specification for whether or not the task runs or skips on this day of the week.	Boolean; Valid values: true/false. Default value is false.	N	
<code>specificDayWed</code>	Wednesday	If <code>specificDay</code> is selected; Specification for whether or not the task runs or skips on this day of the week.	Boolean; Valid values: true/false. Default value is false.	N	
<code>task</code>	Task	Task for which you are specifying run or skip criteria.		Y	
<code>type</code>	Type	Specification for whether this criteria is for running or skipping the specified task.	Valid values: - As String = Run Criteria, As Value = 1 - As String = Skip Criteria, As Value = 2 Default is Run Criteria (1).	N	
<code>variable</code>	Variable	Used with <code>evaluateAt</code> , <code>variableName</code> , <code>variableOp</code> , and <code>variableValue</code> ; Instructs the Controller to run or not run the task, depending on the value of a specific variable.		N	
<code>variableName</code>	Name	If <code>variable</code> is specified; Name of the variable being evaluated.		N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>variableOp</code>	Operator	If <code>variable</code> is specified; Operator to be used in the evaluation.	Valid values: - As String = =, As Value = 1 - As String = !=, As Value = 2 - As String = >, As Value = 3 - As String = >=, As Value = 4 - As String = <, As Value = 5 - As String = <=, As Value = 6 - As String = regex, As Value = 7 Default is (1). Default is (1).	N	
<code>variableValue</code>	Value	If <code>variable</code> is specified; Value or regular expression that the Controller should look for when evaluating the variable.	Maximum 40 alphanumerics.	N	
<code>vertexId</code>	Vertex ID	Numerical ID of the task that identifies it uniquely from other tasks of the same type in the Workflow.	Valid values: - Any - The action applies to any instance of the specified task in the Workflow. <number> - The action applies only to this instance of the task in the Workflow.	N	

4.33.30.8.6 Workflow Forecast

Property	Description	Specifications	Required	Mutually Exclusive With
<code>workflowid</code>	ID used within the Controller to identify the workflow.	String; URI parameter.	Y (unless <code>workflowname</code> is specified)	<code>workflowname</code>
<code>workflowname</code>	Name used within the Controller to identify the workflow.	String; URI parameter.	Y (unless <code>workflowid</code> is specified)	<code>workflowid</code>
<code>calendarid</code>	Unique ID for the Calendar.		N (unless <code>calendarname</code> is specified)	<code>calendarname</code>
<code>calendarname</code>	Name used within the Controller to identify the Calendar.	Maximum 100 alphanumeric.	N (unless <code>calendarid</code> is specified)	<code>calendarid</code>
<code>triggerid</code>	Unique ID for this trigger.		N (unless <code>triggername</code> is specified)	<code>triggername</code>

Property	Description	Specifications	Required	Mutually Exclusive With
triggername	Name used within the Controller to identify this trigger.	Maximum 255 alphanumeric.	N (unless triggerid is specified)	triggerid
date	Date of the forecast.	Date (yyyy-mm-dd)	N	
time	Time of the forecast.	Time(HH:mm)	N	
timezone	Timezone.		N	
forecastTimezone	Forecast Timezone.		N	
exclude	Exclude the forecast types in the response.	Valid values: • As String = Not Evaluated, As Value = 1 • As String = Run, As Value = 2 • As String = Skip, As Value = 3 • As String = Run*, As Value = 4 • As String = Skip*, As Value = 5	N	
variable	Override the variables.	List of name: value variables	N	

4.33.30.8.7 Critical Endpoint

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Task Critical Endpoint Description	User-defined description of this Critical Endpoint.		N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>lfDayConstraint</code>	Late Finish Day Constraint	If <code>lfType</code> = Time (1); Specification for whether or not to advance the late finish time to another day.	Valid values: - As String = None, As Value = 0 - As String = Same Day, As Value = 1 - As String = Next Day, As Value = 2 - As String = Next Business Day, As Value = 3 - As String = Sunday, As Value = 4 - As String = Monday, As Value = 5 - As String = Tuesday, As Value = 6 - As String = Wednesday, As Value = 7 - As String = Thursday, As Value = 8 - As String = Friday, As Value = 9 - As String = Saturday, As Value = 10 - As String = Nth Day, As Value = 11 Default is None (0).	N	
<code>lfDuration</code>	Late Finish Duration	If <code>lfType</code> = Duration (2); Longest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N	
<code>lfEnabled</code>	Late Finish	Specification that if the task instance finishes after the specified <code>lfDuration</code> or <code>lfTime</code> , the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N	
<code>lfOffsetDuration</code>	Late Finish Duration Offset (+)	if <code>lfOffsetType</code> is Duration (2); Duration offset to add to the Average Duration.	Integer; Valid values are 0 or greater. Variables and Functions are supported.	Y (if <code>lfOffsetType</code> = Duration (2)).	<code>lfOffsetPercentage</code>
<code>lfOffsetDurationUnit</code>	Late Finish Duration Offset Unit	Used with the <code>lfOffsetDuration</code> ; type of Late Finish Duration Offset. For example, for a Late Finish Duration Offset of two minutes, specify 2 in <code>lfOffsetDuration</code> and Minutes in <code>lfOffsetDurationUnit</code> .	Valid Values: - As String = Seconds, As Value = 1 - As String = Minutes, As Value = 2 - As String = Hours, As Value = 3 Default is Minutes (2).	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>lfOffsetPercentage</code>	Late Finish Percentage Offset (+)	If <code>lfOffsetType</code> is Percentage (1); Percentage offset to add to the Average Duration.	Integer; Valid values are 0 to 100. Default is 0.	Y (if <code>lfOffsetType</code> = Percentage (1)).	<code>lfOffsetDuration</code>
<code>lfOffsetType</code>	Late Finish Offset Type	If <code>lfType</code> is Average Duration (5); Specification for the type of offset to apply to the Average Duration.	Valid Values: - As String = Percentage, As Value = 1 - As String = Duration, As Value = 2 Default is Percentage (1).	N	
<code>lfTime</code>	Late Finish Time	If <code>lfType</code> = Time (1); Time after which the task finish time is considered late.	Format = hh:mm. Default is 00:00.	N	
<code>lfType</code>	Late Finish Type	Type of late finish.	Valid values: - As String = Time, As Value = 1 - As String = Duration, As Value = 2 - As String = Average Duration, As Value = 5 Default is Time (1).	Y (if <code>lfEnabled</code> is true)	
<code>lsDayConstraint</code>	Late Start Day Constraint	If <code>lsType</code> = Time (1); Specification for whether or not to advance the late start time to another day.	Valid values: - As String = None, As Value = 0 - As String = Same Day, As Value = 1 - As String = Next Day, As Value = 2 - As String = Next Business Day, As Value = 3 - As String = Sunday, As Value = 4 - As String = Monday, As Value = 5 - As String = Tuesday, As Value = 6 - As String = Wednesday, As Value = 7 - As String = Thursday, As Value = 8 - As String = Friday, As Value = 9 - As String = Saturday, As Value = 10 - As String = Nth Day, As Value = 11 Default is None (0).	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
lsDuration	Late Start Duration	If lsType = Duration (2); Duration (amount of relative time) after which the task is considered to have started late.	Format = dd:hh:mm:ss	N	
lsEnabled	Late Start	Specification that if the task instance starts after the specified lsDuration or lsTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N	
lsTime	Late Start Time	If lsType = Time (1); Time after which the task start time is considered late.	Format = hh:mm. Default is 00:00.	N	
lsType	Late Start Type	Type of late start.	Valid values: - As String = Time, As Value = 1 - As String = Duration, As Value = 2 Default is Time (1).	Y (if lsEnabled is true)	
task	Task	Task for which you are specifying critical endpoint		Y	
vertexId	Vertex ID	Numerical ID of the task that identifies it uniquely from other tasks of the same type in the Workflow.	Valid values: - Any - The action applies to any instance of the specified task in the Workflow. <number> - The action applies only to this instance of the task in the Workflow.	N	

4.33.30.9 Workflow Task and Dependency Web Services

- [Overview](#)
- [Add a Dependency to a Workflow](#)
- [Add a Task to a Workflow](#)
- [List Dependencies in a Workflow](#)
- [List Tasks in a Workflow](#)
- [Modify a Dependency in a Workflow](#)
- [Modify a Task in a Workflow](#)
- [Remove a Dependency from a Workflow](#)
- [Remove Task\(s\) from a Workflow](#)

4.33.30.9.1 Overview

Universal Controller supports the following RESTful-based web services for Workflow Task and Dependency operations, which are listed alphabetically on this page.

- [Add a Dependency to a Workflow](#)
- [Add a Task to a Workflow](#)
- [List Dependencies in a Workflow](#)
- [List Tasks in a Workflow](#)
- [Modify a Dependency in a Workflow](#)
- [Modify a Task in a Workflow](#)
- [Remove a Dependency from a Workflow](#)
- [Remove Task\(s\) from a Workflow](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

4.33.30.9.2 Add a Dependency to a Workflow

	Description
URI	http://host_name/uc/resources/workflow/edges
HTTP Method	POST
Description	Adds a dependency to a workflow, with the dependency represented by a <code>workflowEdge</code> . (See Example Request, below.)
URI Parameters	See Add a Dependency to a Workflow: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/workflow/edges?workflowname=workflow1
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Add a Dependency to a Workflow: Example Request , below.
Add a Dependency to a Workflow Properties	See Add a Dependency to a Workflow: Properties , below.
Example Response	• Status 200 /OK Successfully added a dependency between <sourceId> and <targetId>. • Status 400 /Bad Request Workflow <workflowName> doesn't exist.

4.33.30.9.2.1 Add a Dependency to a Workflow: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
<code>workflowid</code>	ID used within the Controller to identify the workflow.	String; URI parameter.	Y (unless <code>workflowname</code> is specified)	<code>workflowname</code>

Name	Description	Specifications	Required	Mutually Exclusive With
workflowname	Name used within the Controller to identify the workflow.	String; URI parameter.	Y (unless workflowid is specified)	workflowid

4.33.30.9.2.2 Add a Dependency to a Workflow: Example Request

XML	JSON
XML <pre><workflowEdge> <condition>Success</condition> <points> <point x="280" y="300" /> </points> <sourceId>2</sourceId> <straightEdge>>false</straightEdge> <targetId>3</targetId> </workflowEdge></pre>	JSON <pre>{ "condition": { "value": "Success" }, "points": [{ "x": "280", "y": "300" }], "sourceId": { "value": "2" }, "straightEdge": false, "targetId": { "value": "3" } }</pre>

4.33.30.9.2.3 Add a Dependency to a Workflow: Request Properties

Property	UI Field Name	Description	Specifications	Required
condition	n/a	Dependency condition between the source and target tasks of this dependency (connector).	Valid values: - Success - Failure - Success/Failure - Exit Code; Format: Numeric. Use commas to list a series of exit codes; use hyphens to specify a range. Example: 1,5, 22-30 - Step Condition; Format: step:procedure:program:condition codes. Example: *:*:*:JCLERR - Variable Default is Success. For example: <pre> <condition>Success</condition> <condition>Failure</condition> <condition>Success/Failure</condition> <condition>1,5,22-30</condition> <condition>*:*:*:JCLERR</condition> <condition>S1:PROC1:PGM1:U016</condition> <condition type="Exit Code">1,5,22-30</condition> <condition type="Step Condition">*:*:*:JCLERR</condition> <condition type="Step Condition">*:*:*:S0C4</condition> <condition type="Step Condition">S1:PROC1:PGM1:U016</condition> <variableCondition> <firstValue>\${_varToLowerCase('variableName')}</firstValue> <operator>=</operator> <secondValue>\${var2}</secondValue> </variableCondition> </pre> Step Condition is valid for z/OS tasks only. Success/Failure and Failure are not valid for Workflow, Timer, and Manual tasks. Note	N

Property	UI Field Name	Description	Specifications	Required
			The type attribute (type=) is optional for Exit Code and Step Condition. Based on the format of the condition, in most cases it is easily determined if the condition is Exit Code and Step Condition. If the condition cannot be determined, the type attribute can be checked.	
points	n/a	If straightEdge is false; x and y coordinates of the Edge angles.	For example: <pre><points> <point x="280" y="300" /> </points></pre>	N
sourceId	n/a	Vertex ID of the source task.		Y
straightEdge	n/a	Specification for whether the edge is straight or bent.	Boolean; Valid values: true/false. Default is true.	N
targetId	n/a	Vertex ID of the target task.		Y

4.33.30.9.3 Add a Task to a Workflow

	Description
URI	http://host_name/uc/resources/workflow/vertices
HTTP Method	POST
Description	Adds a task to a workflow, with the task represented by a workflowVertex . (See Example Request, below.)
URI Parameters	See Add a Task to a Workflow: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/workflow/vertices?workflowname=workflow1
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Add a Task to a Workflow: Example Request , below.
Example Response	See Add a Task to a Workflow: Example Response (Status 200) , below.
Add a Task to a Workflow Properties	See Add a Task to a Workflow: Request/Response Properties , below.
Example Response	- Status 200 /OK Successfully added vertex with vertexId <vertexId>. - Status 400 /Bad Request Workflow <workflowName> doesn't exist.

4.33.30.9.3.1 Add a Task to a Workflow: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
workflowid	ID used within the Controller to identify the workflow.	String; URI parameter.	Y (unless workflowname is specified)	workflowname
workflowname	Name used within the Controller to identify the workflow.	String; URI parameter.	Y (unless workflowid is specified)	workflowid

4.33.30.9.3.2 Add a Task to a Workflow: Example Request

XML	JSON
XML <pre><workflowVertex> <alias>S30</alias> <task>Sleep 30</task> <vertexX>360</vertexX> <vertexY>60</vertexY> </workflowVertex></pre>	JSON <pre>{ "alias": "S30", "task": { "value": "Sleep 30" }, "vertexX": "360", "vertexY": "60" }</pre>

4.33.30.9.3.3 Add a Task to a Workflow: Example Response (Status 200)

XML	JSON
XML <pre><workflowVertex> <alias>S30</alias> <conditionExpression /> <task>Sleep 30</task> <vertexId>9</vertexId> <vertexX>360</vertexX> <vertexY>60</vertexY> </workflowVertex></pre>	JSON <pre>{ "alias": "S30", "conditionExpression": null, "task": { "value": "Sleep 30" }, "vertexId": "9", "vertexX": "360", "vertexY": "60" }</pre>

4.33.30.9.3.4 Add a Task to a Workflow: Request/Response Properties

Property	UI Field Name	Description	Specification	Required
alias	n/a	Alias used for the task added to the workflow; specifically, the value of ops_task_workflow_vertex.name .		N

Property	UI Field Name	Description	Specification	Required
conditionExpression	n/a	Boolean condition expression to specify the dependency criteria.	XML: <pre> <conditionExpression> <condition> <vertexId>7</vertexId> </condition> <condition> <vertexId>10</vertexId> </condition> <compoundCondition> <condition> <vertexId>9</vertexId> </condition> <condition> <vertexId>7</vertexId> </condition> <logicalOperator>And</logicalOperator> </compoundCondition> <logicalOperator>Or</logicalOperator> </conditionExpression> </pre> JSON:	N

Property	UI Field Name	Description	Specification	Required
			<pre> "conditionExpression": { "conditions": [{ "type": "condition", "vertexId": "7" }, { "type": "condition", "vertexId": "10" }, { "type": "compoundCondition", "conditions": [{ "type": "condition", "vertexId": "9" }, { "type": "condition", "vertexId": "7" }], "logicalOperator": "And" }], "logicalOperator": "Or" } </pre>	
task	Task Name	Name of the task added to the workflow.		Y
vertexId	n/a	Vertex ID of the task added to the workflow. Each task within a Workflow has a unique Vertex ID to distinguish it from other tasks of the same name, if any.		Y
vertexX	n/a	x-coordinate of the task added to the workflow.	Default is 0.	N

Property	UI Field Name	Description	Specification	Required
vertexY	n/a	y-coordinate of the task added to the workflow.	Default is 0.	N

4.33.30.9.4 List Dependencies in a Workflow

	Description
URI	http://host_name/uc/resources/workflow/edges
HTTP Method	GET
Description	Returns the list of dependencies for all tasks in a workflow, with each dependency represented by a <code>workflowEdge</code> (see Example Response, below).
URI Parameters	See List Dependencies in a Workflow: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/workflow/edges?workflowname=workflow1
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See List Dependencies in a Workflow: Example Response , below.
Response Properties	See List Dependencies in a Workflow: Properties , below.

4.33.30.9.4.1 List Dependencies in a Workflow: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
sourceid	Vertex ID of the source task.	String; URI parameter.	N	
targetid	Vertex ID of the target task.	String; URI parameter.	N	
workflowid	ID used within the Controller to identify the workflow.	String; URI parameter.	Y (unless <code>workflowname</code> is specified)	<code>workflowname</code>
workflowname	Name used within the Controller to identify the workflow.	String; URI parameter.	Y (unless <code>workflowid</code> is specified)	<code>workflowid</code>

4.33.30.9.4.2 List Dependencies in a Workflow: Example Response

XML	JSON
XML <pre><workflowEdges> <workflowEdge> <condition>Success</condition> <sourceId taskName="Sleep 30" taskAlias="test">2</sourceId> <straightEdge>true</straightEdge> <targetId taskName="Sleep 60">3</ targetId> </workflowEdge> <workflowEdge> <condition>Success</condition> <sourceId taskName="Sleep 60">3</ sourceId> <straightEdge>true</straightEdge> <targetId taskName="Sleep 60">6</ targetId> </workflowEdge> </workflowEdges></pre>	JSON <pre>[{ "condition": { "value": "Success" }, "sourceId": { "taskAlias": "test", "taskName": "Sleep 30", "value": "2" }, "straightEdge": true, "targetId": { "taskName": "Sleep 60", "value": "3" } }, { "condition": { "value": "Success" }, "sourceId": { "taskName": "Sleep 60", "value": "3" }, "straightEdge": true, "targetId": { "taskName": "Sleep 60", "value": "6" } }]</pre>

4.33.30.9.4.3 List Dependencies in a Workflow: Properties

Property	UI Field Name	Description
condition	n/a	Dependency condition between the source and target tasks of this edge (connector).
sourceId	n/a	Vertex ID of the source task.
straightEdge	n/a	Specification for whether the edge is straight or bent.
targetId	n/a	Vertex ID of the target task.

4.33.30.9.5 List Tasks in a Workflow

Attribute **sysId** identifies the sysid of the specified task.

	Description
URI	http://host_name/uc/resources/workflow/vertices
HTTP Method	GET
Description	Returns the list of tasks in a workflow, with each task represented by a <code>workflowVertex</code> (see Example Response, below).
URI Parameters	See List Tasks in a Workflow: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/workflow/vertices?workflowname=workflow http://localhost:8080/uc/resources/workflow/vertices?workflowname=workflow&taskname=test
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See List Tasks in a Workflow: Example Response , below.
Response Properties	See List Tasks in a Workflow: Properties , below.

4.33.30.9.5.1 List Tasks in a Workflow: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
<code>taskalias</code>	Alias used for the task within the Workflow; specifically, the value of ops_task_workflow_vertex.name .	String; URI parameter.	Y (unless <code>taskid</code> , <code>taskname</code> or <code>vertexid</code> , is specified)	<code>taskid</code> , <code>taskname</code> , <code>vertexid</code>
<code>taskid</code>	ID used within the Controller to identify this task.	String; URI parameter.	Y (unless <code>taskalias</code> , <code>taskname</code> or <code>vertexid</code> , is specified)	<code>taskalias</code> , <code>taskname</code> , <code>vertexid</code>
<code>taskname</code>	Name used within the Controller to identify this task.	String; URI parameter.	Y (unless <code>taskalias</code> , <code>taskid</code> or <code>vertexid</code> , is specified)	<code>taskalias</code> , <code>taskid</code> , <code>vertexid</code>

Parameter	Description	Specifications	Required	Mutually Exclusive With
vertexid	Vertex ID of the task in the workflow to be listed. Each task within a Workflow has a unique Vertex ID to distinguish it from other tasks, if any, of the same name.	String; URI parameter.	Y (unless taskalias, taskid or taskname is specified)	taskalias, taskid, taskname
workflowid	ID used within the Controller to identify a workflow.		Y (unless workflowname is specified)	workflowname
workflowname	Name of a workflow.		Y (unless workflowid is specified)	workflowid

4.33.30.9.5.2 List Tasks in a Workflow: Example Response

XML	JSON
<pre>XML <workflowVertices> <workflowVertex> <alias>Task 1</alias> <conditionExpression /> <task sysId="1010f538c0a801c900e0fe0af94d9be5" >task1</task> <vertexId>5</vertexId> <vertexX>253</vertexX> <vertexY>296</vertexY> </workflowVertex> <workflowVertex> <alias>Task 2</alias> <conditionExpression /> <task sysId="f81d30ccc0a801c9008ea20e4f5f61d6" >task2</task> <vertexId>6</vertexId> <vertexX>252.5</vertexX> <vertexY>429</vertexY> </workflowVertex> </workflowVertices></pre>	<pre>JSON [{ "alias": "Task 1", "conditionExpression": null, "task": { "sysId": "1010f538c0a801c900e0fe0af94d9be5", "value": "task1" }, "vertexId": "5", "vertexX": "253", "vertexY": "296" }, { "alias": "Task 2", "conditionExpression": null, "task": { "sysId": "f81d30ccc0a801c9008ea20e4f5f61d6", "value": "task2" }, "vertexId": "6", "vertexX": "252.5", "vertexY": "429" }]</pre>

4.33.30.9.5.3 List Tasks in a Workflow: Response Properties

Property	UI Field Name	Description
alias	n/a	Alias used for the task; specifically, the value of <code>ops_task_workflow_vertex.name</code> .
conditionExpression	n/a	Boolean condition expression to specify the dependency criteria.
task	Task Name	Name of the task added.
vertexId	n/a	Vertex ID of the task. Each task within a Workflow has a unique Vertex ID to distinguish it from other tasks of the same name, if any.
vertexX	n/a	x-coordinate of the task.
vertexY	n/a	y-coordinate of the task.

4.33.30.9.6 Modify a Dependency in a Workflow

	Description
URI	http://host_name/uc/resources/workflow/edges
HTTP Method	PUT
Description	Modifies a dependency in a workflow, with the dependency represented by a <code>workflowEdge</code> .
URI Parameters	See Modify a Dependency in a Workflow: URI Parameters .
Example URI	http://localhost:8080/uc/resources/workflow/edges?workflowname=workflow1
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Modify a Dependency in a Workflow: Example Request , below.
Modify a Dependency in a Workflow Properties	See Add a Dependency to a Workflow: Properties .
Example Response	- Status 200 /OK Successfully updated dependency between <sourceId> and <targetId>. - Status 400 /Bad Request Workflow <workflowName> doesn't exist.

4.33.30.9.6.1 Modify a Dependency in a Workflow: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
workflowid	ID used within the Controller to identify the workflow.	String; URI parameter.	Y (unless workflowname is specified)	workflowname
workflowname	Name used within the Controller to identify the workflow.	String; URI parameter.	Y (unless workflowid is specified)	workflowid

4.33.30.9.6.2 Modify a Dependency in a Workflow: Example Request

XML	JSON
<pre>XML <workflowEdge> <condition>Success</condition> <points> <point x="280" y="300" /> </points> <sourceId>2</sourceId> <straightEdge>false</straightEdge> <targetId>3</targetId> </workflowEdge></pre>	<pre>JSON { "condition": { "value": "Success" }, "points": [{ "x": "280", "y": "300" }], "sourceId": { "value": "2" }, "straightEdge": false, "targetId": { "value": "3" } }</pre>

4.33.30.9.7 Modify a Task in a Workflow

	Description
URI	http://host_name/uc/resources/workflow/vertices
HTTP Method	PUT
Description	Modifies a task in a workflow, with the task represented by a workflowVertex .
URI Parameters	See Modify a Task in a Workflow: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/workflow/vertices?workflowname=workflow1

	Description
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Modify a Task in a Workflow: Example Request , below.
Modify a Task in a Workflow Properties	See Add a Task to a Workflow: Properties .

4.33.30.9.7.1 Modify a Task in a Workflow: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
<code>workflowid</code>	ID used within the Controller to identify the workflow.	String; URI parameter.	Y (unless <code>workflowname</code> is specified)	<code>workflowname</code>
<code>workflowname</code>	Name used within the Controller to identify the workflow.	String; URI parameter.	Y (unless <code>workflowid</code> is specified)	<code>workflowid</code>

4.33.30.9.7.2 Modify a Task in a Workflow: Example Request

XML	JSON
<pre>XML <workflowVertex> <alias>S30</alias> <conditionExpression /> <task>Sleep 30</task> <vertexX>360</vertexX> <vertexY>60</vertexY> </workflowVertex></pre>	<pre>JSON { "alias": "S30", "conditionExpression": null, "task": { "value": "sleep 30" }, "vertexX": "360", "vertexY": "60" }</pre>

4.33.30.9.7.3 Modify a Task in a Workflow: Properties

Property	UI Field Name	Description	Specifications	Required
<code>alias</code>	n/a	Alias used for the task to be modified in the workflow; specifically, the value of ops_task_workflow_vertex.name .		N

Property	UI Field Name	Description	Specifications	Required
conditionExpression	n/a	Boolean condition expression to specify the dependency criteria.	XML: <pre> <conditionExpression> <condition> <vertexId>7</vertexId> </condition> <condition> <vertexId>10</vertexId> </condition> <compoundCondition> <condition> <vertexId>9</vertexId> </condition> <condition> <vertexId>7</vertexId> </condition> </compoundCondition> <logicalOperator>And</logicalOperator> </conditionExpression> </pre> JSON:	N

Property	UI Field Name	Description	Specifications	Required
			<pre> "conditionExpression" : { "conditions": [{ "type": "condition", "vertexId": "7" }, { "type": "condition", "vertexId": "10" }, { "type": "compoundCondition", "conditions": [{ "type": "condition", "vertexId": "9" }, { "type": "condition", "vertexId": "7" }], "logicalOperator": "And" }], "logicalOperator": "Or" } </pre>	
task	Task Name	Name of the task to be modified in the workflow.	Cannot be modified; used only to search for the task. To modify by task , the task must be unique in the workflow. If both task and vertexId are specified, vertexId is used to search for the task to be modified.	Y (unless vertexId is specified.)

Property	UI Field Name	Description	Specifications	Required
vertexId	n/a	Vertex ID of the task within the workflow. Each task within a Workflow has a unique Vertex ID to distinguish it from other tasks of the same name, if any.	Cannot be modified; used only to search for the task. If both task and vertexId are specified, vertexId is used to search for the task to be modified.	Y (unless task is specified.)
vertexX	n/a	x-coordinate of the task to be modified in the workflow.	Default is 0.	N
vertexY	n/a	y-coordinate of the task to be modified in the workflow.	Default is 0.	N

4.33.30.9.8 Remove a Dependency from a Workflow

	Description
URI	http://host_name/uc/resources/workflow/edges
HTTP Method	DELETE
Description	Removes a dependency from a workflow, with the dependency represented by sourceid and targetid (see Example Response, below).
URI Parameters	See Remove a Dependency from a Workflow: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/workflow/edges?workflowname=workflow1&sourceid=2&targetid=4
Authentication	HTTP Basic
Example Response	- Status 200 /OK Successfully updated vertex with vertex id <vertexId>. - Status 400 /Bad Request Workflow <workflowName> doesn't exist.

4.33.30.9.8.1 Remove a Dependency from a Workflow: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
sourceid	Vertex ID of the source task.	Integer; URI parameter.	Y	
targetid	Vertex ID of the target task.	Integer; URI parameter.	Y	
workflowid	ID used within the Controller to identify a workflow.	String; URI parameter.	Y (unless workflowname is specified.)	workflowname

Name	Description	Specifications	Required	Mutually Exclusive With
<code>workflowname</code>	Name used within the Controller to identify a workflow.	String; URI parameter.	Y (unless <code>workflowid</code> is specified.	<code>workflowid</code>

4.33.30.9.9 Remove Task(s) from a Workflow

	Description
URI	http://host_name/uc/resources/workflow/vertices
HTTP Method	DELETE
Description	Removes one or more tasks from a workflow, with each removed task represented by a <code>workflowVertex</code> (see Example Response, below).
URI Parameters	See Remove Task(s) from a Workflow: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/workflow/vertices?workflowname=workflow1&vertexid=2 http://localhost:8080/uc/resources/workflow/vertices?workflowname=workflow1&taskname=task1 http://localhost:8080/uc/resources/workflow/vertices?workflowname=workflow1&taskalias=Task1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Authentication	HTTP Basic
Example Response	See Remove Task(s) from a Workflow: Example Response , below.
Remove Task(s) from a Workflow Properties	See Remove Task(s) from a Workflow: Properties , below.

4.33.30.9.9.1 Remove Task(s) from a Workflow: URI Parameters

If `taskid`, `taskname`, or `taskalias` is specified, all tasks matching the `taskid`, `taskname`, or `taskalias` - and their dependencies - are removed.

If `vertexid` is specified, only the task with that specific Vertex ID - and its dependencies - is removed.

Parameter	Description	Specifications	Required	Mutually Exclusive With
<code>taskalias</code>	Alias of the task(s) to be removed from the Workflow; specifically, the value of ops_task_workflow_vertex.name .	String; URI parameter.	Y (unless <code>taskid</code> , <code>taskname</code> or <code>vertexid</code> is specified	<code>taskid</code> , <code>taskname</code> , <code>vertexid</code>

Parameter	Description	Specifications	Required	Mutually Exclusive With
taskid	SysId of the task(s) to be removed from the Workflow.	String; URI parameter.	Y (unless taskalias, taskname or vertexid, is specified)	taskalias, taskname, vertexid
taskname	Name of the task(s) to be removed from the Workflow.	String; URI parameter.	Y (unless taskalias, taskid or vertexid, is specified)	taskalias, taskid, vertexid
vertexid	Vertex ID of the task to be removed from the workflow. Each task within a Workflow has a unique Vertex ID to distinguish it from other tasks, if any, of the same name.	String; URI parameter.	Y (unless taskalias, taskid or taskname, is specified)	taskalias, taskid, taskname
workflowid	ID used within the Controller to identify a workflow.	String; URI parameter.	Y (unless workflowname is specified.)	workflowname
workflowname	Name used within the Controller to identify a workflow.	String; URI parameter.	Y (unless workflowid is specified.)	workflowid

4.33.30.9.9.2 Remove Task(s) from a Workflow: Example Response

XML	JSON
XML <pre> <workflowVertices> <workflowVertex> <alias>Task 1</alias> <conditionExpression /> <task sysId="1010f538c0a801c900e0fe0af94d9be5"> task1</task> <vertexId>5</vertexId> <vertexX>253</vertexX> <vertexY>296</vertexY> </workflowVertex> </workflowVertices> </pre>	JSON <pre> [{ "alias": "task 1", "conditionExpression": null, "task": { "sysId": "1010f538c0a801c900e0fe0af94d9be5", "value": "task1" }, "vertexId": "5", "vertexX": "253", "vertexY": "296" }] </pre>

Note

If there are no matching tasks to remove, an empty list is returned.

4.33.30.9.9.3 Remove Task(s) from a Workflow: Response Properties

This response contains a list of tasks removed from a workflow

Property	UI Field Name	Description
alias	n/a	Alias of the task removed from the Workflow; specifically, the value of <code>ops_task_workflow_vertex.name</code> .
conditionExpression	n/a	Boolean condition expression to specify the dependency criteria.
task	Task Name	Name of the task removed from the Workflow.
vertexId	n/a	Vertex ID of the task removed from the Workflow. Each task within a Workflow has a unique Vertex ID to distinguish it from other tasks of the same name, if any.
vertexX	n/a	x-coordinate of the task removed from the Workflow.
vertexY	n/a	y-coordinate of the task removed from the Workflow.

4.33.31 z/OS Task Web Services

- [Overview](#)
- [Create a z/OS Task](#)
- [Modify a z/OS Task](#)
- [Read a z/OS Task](#)
- [z/OS Task: XML and JSON Examples](#)
- [Properties](#)

4.33.31.1 Overview

Universal Controller supports the following RESTful-based web services for z/OS Task operations, which are listed alphabetically on this page.

- [Create a z/OS Task](#)
- [Modify a z/OS Task](#)
- [Read a z/OS Task](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Links to detailed information about the [properties](#) used in these web services also is located on this page.

For information on Task web services that are applicable to all task types, see:

- [Delete a Task](#)
- [Launch a Task](#)
- [List Tasks](#)

4.33.31.2 Create a z/OS Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	POST
Description	Creates a new z/OS task. To persist syslds , use the retainSyslds property.
Example URI	http://localhost:8080/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See z/OS Task: XML and JSON Examples , below.
Properties	See Properties .
Example Response	• Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

4.33.31.3 Modify a z/OS Task

	Description
URI	http://host_name/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	Modifies the task specified by the sysId in the request . To modify z/OS Task properties without modifying related records, use the excludeRelated property.
Example	See z/OS Task: XML and JSON Examples .
Properties	See Properties .

	Description
Example Response	Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.

4.33.31.4 Read a z/OS Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task .
Request Parameters	<code>taskid</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskid</code> and <code>taskname</code>
Example URI	http://localhost:8080/uc/resources/task?taskname=testTask http://localhost:8080/uc/resources/task?taskid=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	- Status 200 /OK (See z/OS Task: XML and JSON Examples .) - Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
Properties	See Properties .

4.33.31.5 z/OS Task: XML and JSON Examples

The

`retainSysIds`

and

`version`

properties are specified as attributes in XML.

The

`exportReleaseLevel`

and `exportTable` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<pre> <taskZos exportReleaseLevel="7. 2.0.0" exportTable="ops_task_zo s" retainSysIds="true" version= "1"> <actions /> <variables /> <notes /> <virtualResources /> <exclusiveTasks /> <stepConditions /> <restartCriteria /> <agent /> <agentVar>agentVar</ agentVar> <avgRunTime>3</ avgRunTime> <avgRunTimeDisplay>3 Seconds</avgRunTimeDisplay> <cpDuration /> <cpDurationUnit>Minutes< /cpDurationUnit> <credentials /> <credentialsVar /> <customField1 label="Domain">web.com</ customField1> <customField2 /> <efDayConstraint>Nth</ efDayConstraint> <efDuration>00:00:00:00< /efDuration> <efEnabled>>false</ efEnabled> <efNthAmount>10</ efNthAmount> <efOffsetDuration /> <efOffsetDurationUnit>Mi nutes</efOffsetDurationUnit> <efOffsetPercentage>0</ efOffsetPercentage> <efOffsetType>Percentage </efOffsetType> <efTime>00:00</efTime> <efType>Time</efType> <executionRestriction>Ru n</executionRestriction> </pre>	<pre> { "type": "taskZos", "actions": { "abortActions": [], "emailNotifications": [], "setVariableActions": [], "snmpNotifications": [], "systemOperations": [] }, "agent": "Agent A", "agentVar": null, "autoRestartOption": "Restart From First Job Step", "avgRunTime": 3, "avgRunTimeDisplay": "3 Seconds", "cpDuration": null, "cpDurationUnit": "Minutes", "credentials": null, "credentialsVar": null, "customField1": { "label": "Domain", "value": "http://qa-cntlr- mssql:8080/uc/" }, "customField2": { "label": null, "value": null }, "deleteOverrideJcl": true, "efDayConstraint": "Nth Day", "efDuration": "00:00:00:00", "efEnabled": false, "efNthAmount": 10, "efOffsetDuration": null, "efOffsetDurationUnit": "Minutes", "efOffsetPercentage": 0, "efOffsetType": "Percentage", "efTime": "00:00", "efType": "Time", "excludeRelated": false, "exclusiveTasks": [], "executionRestriction": "Run", "exitCodeOutput": null, "exitCodeProcessing": "Success </pre>

Examples	XML	JSON
	<pre> <firstRun>2021-03-15 13:59:37 -0400</firstRun> <holdResources>>false</ holdResources> <lastRun>2021-03-16 17:12:42 -0400</lastRun> <lastRunTime>9</ lastRunTime> <lastRunTimeDisplay>9 seconds</lastRunTimeDisplay> <lfDayConstraint>Nth</ lfDayConstraint> <lfDuration>00:00:00:00< /lfDuration> <lfEnabled>>false</ lfEnabled> <lfNthAmount>1</ lfNthAmount> <lfOffsetDuration /> <lfOffsetDurationUnit>MI nutes</lfOffsetDurationUnit> <lfOffsetPercentage>0</ lfOffsetPercentage> <lfOffsetType>Percentage </lfOffsetType> <lfTime>00:00</lfTime> <lfType>Time</lfType> <lsDayConstraint>Nth</ lsDayConstraint> <lsDuration>00:00:00:00< /lsDuration> <lsEnabled>>false</ lsEnabled> <lsNthAmount>7</ lsNthAmount> <lsTime>00:00</lsTime> <lsType>Time</lsType> <maxRunTime>9</ maxRunTime> <maxRunTimeDisplay>9 Seconds</maxRunTimeDisplay> <minRunTime>3</ minRunTime> <minRunTimeDisplay>3 Seconds</minRunTimeDisplay> <name>uc - Test Email</ name> <opswiseGroups /> <resolveNameImmediately> false</resolveNameImmediately> <resPriority>10</ resPriority> <restrictionPeriod>Span< /restrictionPeriod> </pre>	<pre> Output Contains", "exitCodeText": "exitCodeText", "exitCodes": 0, "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_task_zos", "firstRun": "2021-03-15 13:59:37 -0400", "holdResources": false, "jclLocation": "jclLocation", "jobclassNew": "jobclassNew", "jobnameNew": "jobnameNew", "lastRun": "2021-03-16 17:12:42 -0400", "lastRunTime": 9, "lastRunTimeDisplay": "9 Seconds", "lfDayConstraint": "Nth Day", "lfDuration": "00:00:00:00", "lfEnabled": false, "lfNthAmount": 1, "lfOffsetDuration": null, "lfOffsetDurationUnit": "Minutes", "lfOffsetPercentage": 0, "lfOffsetType": "Percentage", "lfTime": "00:00", "lfType": "Time", "lsDayConstraint": "Nth Day", "lsDuration": "00:00:00:00", "lsEnabled": false, "lsNthAmount": 7, "lsTime": "00:00", "lsType": "Time", "maxRunTime": 9, "maxRunTimeDisplay": "9 Seconds", "minRunTime": 3, "minRunTimeDisplay": "3 Seconds", "msgclassNew": "MSGCLASSNAME", "name": "uc - Test Email", "notes": [], "opswiseGroups": null, "outputFailureOnly": true, "outputReturnFile": null, "outputReturnNline": 100, "outputReturnSline": 1, "outputReturnText": null, "outputReturnText": null, "outputType": null, "overrideJclDelInstCount": 1, "overrideJclLocation": "OVERRIDEJCLLOC", </pre>

Examples	XML	JSON
	<pre> <restrictionPeriodAfterDate>2017-11-10</restrictionPeriodAfterDate> <restrictionPeriodAfterTime>10:30</restrictionPeriodAfterTime> <restrictionPeriodBeforeDate>2017-11-20</restrictionPeriodBeforeDate> <restrictionPeriodBeforeTime>15:00</restrictionPeriodBeforeTime> <restrictionPeriodDateList /> <runCount>32</runCount> <runTime>108</runTime> <startHeld>false</startHeld> <startHeldReason /> <summary>Test Email</summary> <sysId>fb59a227517a421a92c15ff5aefe3b66</sysId> <twDelayAmount /> <timeZonePref>-- System Default --</timeZonePref> <twDelayDuration>00:00:00</twDelayDuration> <twDelayType>None</twDelayType> <twWaitAmount /> <twWaitDayConstraint>NONE</twWaitDayConstraint> <twWaitDuration>00:00:00</twWaitDuration> <twWaitTime>00:00</twWaitTime> <twWaitType>None</twWaitType> <twWorkflowOnly>-- System Default --</twWorkflowOnly> <userEstimatedDuration /> <autoRestartOption>Restart From First Job Step</autoRestartOption> <deleteOverrideJcl>true</deleteOverrideJcl> <exitCodeOutput /> <exitCodeProcessing>Success Output Contains</exitCodeProcessing> </pre>	<pre> "parameters": [{ "name": "TEST", "value": "val" }], "proclibName": null, "resolveNameImmediately": false, "resPriority": 10, "restrictionPeriod": "Span", "restrictionPeriodAfterDate": "2017-11-10", "restrictionPeriodAfterTime": "10:30", "restrictionPeriodBeforeDate": "2017-11-20", "restrictionPeriodBeforeTime": "15:00", "restrictionPeriodDateList": [], "retainSysIds": true, "retryIndefinitely": false, "retryInterval": 60, "retryMaximum": "0", "retrySuppressFailure": false, "runCount": 32, "runTime": 108, "scheduleId": 123, "startHeld": false, "startHeldReason": null, "summary": "Test Email", "sysId": "fb59a227517a421a92c15ff5aefe3b66", "systemOrSysaffParameter": "SYSTEM=(-*,NAME1)", "timeZonePref": "-- System Default --", "twDelayAmount": null, "twDelayDuration": "00:00:00:00", "twDelayType": "None", "twWaitAmount": null, "twWaitDayConstraint": "NONE", "twWaitDuration": "00:00:00:00", "twWaitTime": "00:00", "twWaitType": "None", "twWorkflowOnly": "-- System Default --", "useOverrideLib": true, "userEstimatedDuration": null, "variables": [], </pre>

Examples	XML	JSON
	<pre> <exitCodeText>exitCodeTe xt</exitCodeText> <exitCodes>0</exitCodes> <jclLocation>jclLocation </jclLocation> <jobclassNew>jobclassNew </jobclassNew> <jobnameNew>NEWJOBNM</ jobnameNew> <msgclassNew>MSGCLASSNAM E</msgclassNew> <outputFailureOnly>true< /outputFailureOnly> <outputReturnFile /> <outputReturnNline>100</ outputReturnNline> <outputReturnSline>1</ outputReturnSline> <outputReturnText /> <outputReturnType>NONE</ outputReturnType> <outputType>STDOUT</ outputType> <overrideJclDelInstCount> 1</overrideJclDelInstCount> <overrideJclLocation>OVE RRIDEJCLLOC</ overrideJclLocation> <parameters> <parameter> <name>TEST</ name> <value>val</ value> </parameter> </parameters> <proclibName /> <retryIndefinitely>false </retryIndefinitely> <retryInterval>60</ retryInterval> <retryMaximum>0</ retryMaximum> <retrySuppressFailure>fa lse</retrySuppressFailure> <scheduleId>123</ scheduleId> <systemOrSysaffParameter> SYSTEM=(-*,NAME1)</ systemOrSysaffParameter> <useOverrideLib>true</ useOverrideLib> <waitForOutput>false</ waitForOutput> </taskZos> </pre>	<pre> "version": 1, "virtualResources": [], "waitForOutput": false } </pre>

See [Task Web Services - Task Actions](#) for XML and JSON examples of task actions.

See [Task Web Services - Task-Related Records](#) for XML and JSON examples of task-related records.

4.33.31.6 Properties

- See [All Tasks Properties](#)
- See [z/OS Task Properties](#)

4.33.32 z/OS Monitor Task Web Services

- [Overview](#)
- [Create a z/OS Monitor Task](#)
- [Modify a z/OS Monitor Task](#)
- [Read a z/OS Monitor Task](#)
- [z/OS Monitor Task: XML and JSON Examples](#)
- [Properties](#)

4.33.32.1 Overview

Universal Controller supports the following RESTful-based web services for z/OS Monitor Task operations, which are listed alphabetically on this page.

- [Create a z/OS Monitor Task](#)
- [Modify a z/OS Monitor Task](#)
- [Read a z/OS Monitor Task](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Links to detailed information about the [properties](#) used in these web services also is located on this page.

For information on Task web services that are applicable to all task types, see:

- [Delete a Task](#)
- [Launch a Task](#)
- [List Tasks](#)

4.33.32.2 Create a z/OS Monitor Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	POST

	Description
Description	Creates a new z/OS Monitor task. To persist syslds , use the retainSyslds property.
Example URI	http://localhost:8080/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See z/OS Monitor Task: XML and JSON Examples , below.
Properties	See Properties.
Example Response	Status 200 /OK Successfully created the <task type> task with sysld <sysld>.

4.33.32.3 Modify a z/OS Monitor Task

	Description
URI	http://host_name/uc/resources/task
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	Modifies the task specified by the sysld in the request . To modify z/OS Monitor Task properties without modifying related records, use the excludeRelated property.
Example	See z/OS Monitor Task: XML and JSON Examples .
Properties	See Properties.
Example Response	Status 200 /OK Successfully updated the <task type> task with sysld <sysld> to version <version>.

4.33.32.4 Read a z/OS Monitor Task

	Description
URI	http://host_name/uc/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task .

	Description
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>
Example URI	http://localhost:8080/uc/resources/task?taskname=testTask http://localhost:8080/uc/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	- Status 200 /OK (See z/OS Monitor Task: XML and JSON Examples.) - Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
Properties	See Properties.

4.33.32.5 z/OS Monitor Task: XML and JSON Examples

The

`retainSysIds`

and

`version`

properties are specified as attributes in XML.

The

`exportReleaseLevel`

and `exportTable` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<pre> XML <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <taskZosMonitor exportReleaseLevel="7.7.0.0" exportTable="ops_task_zos_monitor" retainSyslds="true" version="6"> <variables/> <notes/> <agent>AGNT0016</agent> <agentCluster /> <agentClusterVar /> <agentVar /> <avgRunTime>32</avgRunTime> <avgRunTimeDisplay>32 Seconds</ avgRunTimeDisplay> <broadcastCluster /> <broadcastClusterVar /> <cpDuration /> <cpDurationUnit>Minutes</cpDurationUnit> <credentials /> <credentialsVar /> <customField1/> <customField2/> <efDayConstraint>None</efDayConstraint> <efDuration>00:00:00:00</efDuration> <efEnabled>false</efEnabled> <efNthAmount>5</efNthAmount> <efOffsetDuration /> <efOffsetDurationUnit>Minutes</ efOffsetDurationUnit> <efOffsetPercentage>0</efOffsetPercentage> <efOffsetType>Percentage</efOffsetType> <efTime>00:00</efTime> <efType>Time</efType> <enforceVariables>false</enforceVariables> <exclusiveWithSelf>false</exclusiveWithSelf> <executionRestriction>None</ executionRestriction> <firstRun>2024-09-30 11:10:12 -0400</firstRun> <holdResources>false</holdResources> <lastRun>2024-09-30 12:50:51 -0400</lastRun> <lastRunTime>65</lastRunTime> <lastRunTimeDisplay>1 Minute 5 Seconds</ lastRunTimeDisplay> <IfDayConstraint>None</IfDayConstraint> <IfDuration>00:00:00:00</IfDuration> <IfEnabled>false</IfEnabled> <IfNthAmount>5</IfNthAmount> <IfOffsetDuration /> <IfOffsetDurationUnit>Minutes</ IfOffsetDurationUnit> <IfOffsetPercentage>0</IfOffsetPercentage> <IfOffsetType>Percentage</IfOffsetType> <IfTime>00:00</IfTime> <IfType>Time</IfType> <lockVariables>false</lockVariables> <logLevel>Inherited</logLevel> <IsDayConstraint>None</IsDayConstraint> <IsDuration>00:00:00:00</IsDuration> <IsEnabled>false</IsEnabled> <IsNthAmount>5</IsNthAmount> <IsTime>00:00</IsTime> <IsType>Time</IsType> <maxRunTime>65</maxRunTime> <maxRunTimeDisplay>1 Minute 5 Seconds</ maxRunTimeDisplay> <minRunTime>15</minRunTime> </pre>	<pre> JSON { "type": "taskZosMonitor", "actions": { "abortActions": [], "emailNotifications": [], "setVariableActions": [], "snmpNotifications": [], "systemOperations": [] }, "agent": "AGNT0016", "agentCluster": null, "agentClusterVar": null, "agentVar": null, "avgRunTime": 32, "avgRunTimeDisplay": "32 Seconds", "broadcastCluster": null, "broadcastClusterVar": null, "conditionCode": "0-10,20", "cpDuration": null, "cpDurationUnit": "Minutes", "customField1": { "label": null, "value": null }, "customField2": { "label": null, "value": null }, "efDayConstraint": "None", "efDuration": "00:00:00:00", "efEnabled": false, "efNthAmount": 5, "efOffsetDuration": null, "efOffsetDurationUnit": "Minutes", "efOffsetPercentage": 0, "efOffsetType": "Percentage", "efTime": "00:00", "efType": "Time", "enforceVariables": false, "exclusiveTasks": [], "exclusiveWithSelf": false, "executionRestriction": "None", "expirationAction": "Failed", "exportReleaseLevel": "7.7.0.0", "exportTable": "ops_task_zos_monitor", "firstRun": "2024-09-30 11:10:12 -0400", "holdResources": false, "jobEvent": "Step End", "jobName": "SB_END", "lastRun": "2024-09-30 12:50:51 -0400", "lastRunTime": 65, "lastRunTimeDisplay": "1 Minute 5 Seconds", "IfDayConstraint": "None", "IfDuration": "00:00:00:00", "IfEnabled": false, "IfNthAmount": 5, "IfOffsetDuration": null, "IfOffsetDurationUnit": "Minutes", "IfOffsetPercentage": 0, "IfOffsetType": "Percentage", "IfTime": "00:00", "IfType": "Time", "lockVariables": false, "logLevel": "Inherited", "IsDayConstraint": "None", "IsDuration": "00:00:00:00", </pre>

Examples	XML	JSON
	<pre> <minRunTimeDisplay>15 Seconds</minRunTimeDisplay> <name>ZOS SB Monitor</name> <actions/> <opswiseGroups/> <overrideInstanceWait>No</overrideInstanceWait> <resPriority>10</resPriority> <resolveNameImmediately>false</resolveNameImmediately> <restrictionPeriod>None</restrictionPeriod> <restrictionPeriodAfterDate /> <restrictionPeriodAfterTime /> <restrictionPeriodBeforeDate /> <restrictionPeriodBeforeTime /> <restrictionPeriodDateList/> <runCount>3</runCount> <runTime>95</runTime> <simulation>false</simulation> <startHeld>false</startHeld> <startHeldReason /> <summary /> <sysId>45ce9701e2fc48f8889e6f80a1c6d4a8</sysId> <exclusiveTasks/> <virtualResources/> <timeZonePref>-- System Default --</timeZonePref> <twDelayAmount /> <twDelayDuration>00:00:00:00</twDelayDuration> <twDelayType>None</twDelayType> <twWaitAmount /> <twWaitDayConstraint>None</twWaitDayConstraint> <twWaitDuration>00:00:00:00</twWaitDuration> <twWaitTime>00:00</twWaitTime> <twWaitType>None</twWaitType> <twWorkflowOnly>-- System Default --</twWorkflowOnly> <userEstimatedDuration /> <conditionCode>0-10,20</conditionCode> <expirationAction>Failed</expirationAction> <jobEvent>Step End</jobEvent> <jobName>SB_END</jobName> <relativeTimeFrom>00:00</relativeTimeFrom> <relativeTimeTo /> <stepName>PAYROLL</stepName> <timeScope>-- None --</timeScope> <userId>BOB</userId> </taskZosMonitor> </pre>	<pre> { "isEnabled": false, "isNthAmount": 5, "isTime": "00:00", "isType": "Time", "maxRunTime": 65, "maxRunTimeDisplay": "1 Minute 5 Seconds", "minRunTime": 15, "minRunTimeDisplay": "15 Seconds", "name": "ZOS SB Monitor", "notes": [], "opswiseGroups": [], "overrideInstanceWait": "No", "relativeTimeFrom": "00:00", "relativeTimeTo": null, "resPriority": 10, "resolveNameImmediately": false, "restrictionPeriod": "None", "restrictionPeriodAfterDate": null, "restrictionPeriodAfterTime": null, "restrictionPeriodBeforeDate": null, "restrictionPeriodBeforeTime": null, "restrictionPeriodDateList": [], "retainSysIds": true, "runCount": 3, "runTime": 95, "simulation": false, "startHeld": false, "startHeldReason": null, "stepName": "PAYROLL", "summary": null, "sysId": "45ce9701e2fc48f8889e6f80a1c6d4a8", "timeScope": "-- None --", "timeZonePref": "-- System Default --", "twDelayAmount": null, "twDelayDuration": "00:00:00:00", "twDelayType": "None", "twWaitAmount": null, "twWaitDayConstraint": "None", "twWaitDuration": "00:00:00:00", "twWaitTime": "00:00", "twWaitType": "None", "twWorkflowOnly": "-- System Default --", "userEstimatedDuration": null, "userId": "BOB", "variables": [], "version": 6, "virtualResources": [] } </pre>

See [Task Web Services - Task Actions](#) for XML and JSON examples of task actions.

See [Task Web Services - Task-Related Records](#) for XML and JSON examples of task-related records.

4.33.32.6 Properties

- See [All Tasks Properties](#)
- See [z/OS Monitor Task Properties](#)

4.33.33 Task Web Services - Task Actions

The following Task Action examples are for all task types.

4.33.33.1 Examples

Examples	XML	JSON
Examples for Task Actions	XML <pre> Abort <abortAction> <description /> <exitCodes /> <notifyOnEarlyFinish>>false</ notifyOnEarlyFinish> <notifyOnLateFinish>>false</ notifyOnLateFinish> <notifyOnLateStart>>false</ notifyOnLateStart> <notifyOnProjectedLate>>false</ notifyOnProjectedLate> <status>Waiting</status> <sysId>ad42c3268468425db6e1580cd53f57f0< /sysId> <cancelProcess>>false</ cancelProcess> <haltOnFinish>>false</ haltOnFinish> <overrideExitCode /> </abortAction> Email Notification <emailNotification> <description /> <exitCodes /> <notifyOnEarlyFinish>>false</ notifyOnEarlyFinish> <notifyOnLateFinish>>false</ notifyOnLateFinish> <notifyOnLateStart>>false</ notifyOnLateStart> <notifyOnProjectedLate>>false</ notifyOnProjectedLate> <status>Success</status> <sysId>2b72cdaaf3a145e4bbae5a7ddd24baff< /sysId> <attachFile>>false</attachFile> <attachJobLog>>false</ attachJobLog> </pre>	JSON <pre> Abort "abortActions": [{ "cancelProcess": false, "description": null, "exitCodes": null, "haltOnFinish": true, "notifyOnEarlyFinish": false, "notifyOnLateFinish": false, "notifyOnLateStart": false, "notifyOnProjectedLate": false, "overrideExitCode": null, "status": "Waiting", "sysId": "ad42c3268468425db6e1580c d53f57f0" }], Email Notification "emailNotifications": [{ "attachFile": false, "attachJobLog": false, "attachLocalFile": true, "attachStdError": false, "attachStdOut": true, "bcc": null, "body": "test body", "cc": null, "description": null, "emailConnection": "Opwise - Gmail Account", "emailTemplate": null, "emailTemplateVar": null, </pre>

Examples	XML	JSON
	<pre> <attachLocalFile>true</ attachLocalFile> <attachStdError>false</ attachStdError> <attachStdOut>true</attachStdOut> <bcc /> <body>test body</body> <cc /> <emailConnection>Opswise - Gmail Account</emailConnection> <emailTemplate /> <emailTemplateVar /> <fileName /> <fileNumLines>100</fileNumLines> <fileScanText /> <fileStartLine>1</fileStartLine> <joblogNumLines>100</ joblogNumLines> <joblogScanText /> <joblogStartLine>1</ joblogStartLine> <listReportFormat>CSV</ listReportFormat> <localAttachment>report.pdf</ localAttachment> <localAttachmentsPath>E:\temp</ localAttachmentsPath> <replyTo>replyTo@test.com</ replyTo> <report> <groupName /> <title>report1</title> <userName>ops.admin</ userName> </report> <stderrNumLines>100</ stderrNumLines> <stderrScanText /> <stderrStartLine>1</ stderrStartLine> <stdoutNumLines>100</ stdoutNumLines> <stdoutScanText /> <stdoutStartLine>1</ stdoutStartLine> <subject /> <to>test@test.com</to> </emailNotification> Set Variable <setVariableAction> </pre>	<pre> "exitCodes": null, "fileName": null, "fileNumLines": 100, "fileScanText": null, "fileStartLine": 1, "joblogNumLines": 100, "joblogScanText": null, "joblogStartLine": 1, "listReportFormat": "CSV", "localAttachment": "report.pdf", "localAttachmentsPath": "E:\temp", "notifyOnEarlyFinish": false, "notifyOnLateFinish": false, "notifyOnLateStart": false, "notifyOnProjectedLate": false, "replyTo": "replyTo@test.com", "report": { "groupName": null, "title": "report1", "userName": "ops.admin" }, "status": "Success", "stderrNumLines": 100, "stderrScanText": null, "stderrStartLine": 1, "stdoutNumLines": 100, "stdoutScanText": null, "stdoutStartLine": 1, "subject": null, "sysId": "2b72cdaaf3a145e4bbae5a7d dd24baff", "to": "test@test.com" }], Set Variable "setVariableActions": [{ "description": null, "exitCodes": null, "notificationOption": "Operation Failure", </pre>

Examples	XML	JSON
	<pre> <description /> <exitCodes /> <notificationOption>Operation Failure</notificationOption> <notifyOnEarlyFinish>>false</ notifyOnEarlyFinish> <notifyOnLateFinish>>false</ notifyOnLateFinish> <notifyOnLateStart>>false</ notifyOnLateStart> <notifyOnProjectedLate>>false</ notifyOnProjectedLate> <status>Waiting</status> <sysId>f7824e38add745c2bf41017b07697bdf< /sysId> <variableName>name</variableName> <variableScope>Self</ variableScope> <variableValue /> </setVariableAction> SNMP Notification <snmpNotification> <description /> <exitCodes /> <notifyOnEarlyFinish>>false</ notifyOnEarlyFinish> <notifyOnLateFinish>>false</ notifyOnLateFinish> <notifyOnLateStart>>false</ notifyOnLateStart> <notifyOnProjectedLate>>false</ notifyOnProjectLate> <status>Resource Requested</ status> <sysId>1a1ddf2fa7f7466db8b5fc7863fc4ea3< /sysId> <severity>Normal</severity> <snmpManager>test manager</ snmpManager> </snmpNotification> System Operation <systemOperation> <description /> <exitCodes /> </pre>	<pre> "notifyOnEarlyFinish": false, "notifyOnLateFinish": false, "notifyOnLateStart": false, "notifyOnProjectedLate": false, "status": "Waiting", "sysId": "f7824e38add745c2bf41017b 07697bdf", "variableName": "name", "variableScope": "Self", "variableValue": null }], SNMP Notification "snmpNotifications": [{ "description": null, "exitCodes": null, "notifyOnEarlyFinish": false, "notifyOnLateFinish": false, "notifyOnLateStart": false, "notifyOnProjectedLate": false, "severity": "Normal", "snmpManager": "test manager", "status": "Resource Requested", "sysId": "1a1ddf2fa7f7466db8b5fc78 63fc4ea3" }], System Operation "systemOperations": [{ "agent": null, "agentCluster": null, "agentClusterVar": null, </pre>

Examples	XML	JSON
	<pre> <notifyOnEarlyFinish>false</ notifyOnEarlyFinish> <notifyOnLateFinish>false</ notifyOnLateFinish> <notifyOnLateStart>false</ notifyOnLateStart> <notifyOnProjectedLate>false</ notifyOnProjectedLate> <status>Held</status> <sysId>742beaf652834054b1edc37e6423700d< /sysId> <agent /> <agentCluster /> <agentClusterVar /> <agentVar /> <execCommand>Cancel</execCommand> <execCriteria>Oldest Active Instance</execCriteria> <execId /> <execLookupOption>Task</ execLookupOption> <execName /> <execWorkflowNameCond /> <execWorkflowName /> <limit /> <notificationOption>Operation Failure </notificationOption> <operation>Run Task Instance Command</operation> <overrideTriggerDateOffset>1</ overrideTriggerDateOffset> <overrideTriggerDateTime>true</ overrideTriggerDateTime> <overrideTriggerTime>3:20</ overrideTriggerTime> <task>Opswise - B=\${B}</task> <taskLimitType>Unlimited</ taskLimitType> <taskVar /> <trigger /> <triggerVar /> <variables> <variable> <name>var1</name> <value>val1</value> </variable> <variable> <name>var2</name> <value>val2</value> </variable> </variables> </pre>	<pre> "agentVar": null, "description": null, "execCommand": "Cancel", "execCriteria": "Oldest Active Instance", "execId": null, "execLookupOption": "Task", "execName": null, "execWorkflowNameCond": null, "execWorkflowName": null, "exitCodes": null, "limit": null, "notificationOption": "Operation Failure", "notifyOnEarlyFinish": false, "notifyOnLateFinish": false, "notifyOnLateStart": false, "notifyOnProjectedLate": false, "operation": "Run Task Instance Command", "overrideTriggerDateOffse t": 1, "overrideTriggerDateTime" : true, "overrideTriggerTime": "3:20", "task": "Opswise - B=\$ {B}", "taskLimitType": "Unlimited", "taskVar": null, "trigger": null, "triggerVar": null, "status": "Held", "sysId": "742beaf652834054b1edc37e 6423700d", "variables": [{ "name": "var1", "value": "val1" }, { "name": "var2", </pre>

Examples	XML	JSON
	<pre><variablesUnresolved>false</variablesUnresolved> <vertexSelection>false</vertexSelection> <vertices /> <virtualResource /> <virtualResourceVar /> </systemOperation></pre>	<pre>"value": "val2" }], "variablesUnresolved": false, "vertexSelction":false, "vertex": null, "virtualResource": null, "virtualResourceVar": null }]</pre>

4.33.33.2 Properties

See the [Task Action Properties](#) page for information on all task action properties.

- [Abort Action](#)
- [Email Notification Action](#)
- [Set Variable Action](#)
- [SNMP Notification Action](#)
- [System Operation Action](#)

4.33.34 Task Web Services - Task-Related Records

4.33.34.1 Examples

The following examples are for task-related records for all task types except where noted otherwise.

Examples	XML	JSON
Examples for Task-Related Records	<pre> Advanced Criteria (Email Monitor Tasks only) <emailCriteria> <emailCriterion> <body /> <bodyFilter>None</bodyFilter> <caseSensitive>>false</ caseSensitive> <cc>test@test.com</cc> <ccFilter>Equals</ccFilter> <filterLogic>Or</filterLogic> <from /> <fromFilter>None</fromFilter> <subject /> <subjectFilter>None</ subjectFilter> <to>test@test.com</to> <toFilter>Equals</toFilter> </emailCriterion> </emailCriteria> Mutually Exclusive Tasks <exclusiveTasks> <exclusiveTask> <sysId>5d2c0886b69745aa916a755602a1 b77f</sysId> <task>Sleep 0</task> <type>Direct</type> </exclusiveTask> <exclusiveTask> <sysId>c1342b7597f9492e927ce24c5126 f9d4</sysId> <task>Sleep 30</task> <type>Direct</type> </exclusiveTask> </exclusiveTasks> Notes <notes> <note> <sysId>8122cc80fbdb4e12b2c7118c1720 38fc</sysId> <text>note2 text</text> <title>note2</title> </note> </pre>	<pre> Advanced Criteria (Email Monitor Tasks only) "emailCriteria": [{ "body": null, "bodyFilter": "None", "caseSensitive": false, "cc": "test@test.com", "ccFilter": "Equals", "filterLogic": "Or", "from": null, "fromFilter": "None", "subject": null, "subjectFilter": "None", "to": "test@test.com", "toFilter": "Equals" }] Mutually Exclusive Tasks "exclusiveTasks": [{ "sysId": "5d2c0886b69745aa916a755602a1b77f ", "task": "Sleep 0", "type": "Direct" }, { "sysId": "c1342b7597f9492e927ce24c5126f9d4 ", "task": "Sleep 30", "type": "Direct" }] Notes "notes": [{ "sysId": "8122cc80fbdb4e12b2c7118c172038fc ", "text": "note2 text", "title": "note2" }, { "sysId": "eb95737f44664bd3bd4002690e00d715 ", "text": "note1 text", </pre>

Examples	XML	JSON
	<pre> <note> <sysId>eb95737f44664bd3bd4002690e00 d715</sysId> <text>note1 text</text> <title>note1</title> </note> </notes> Restart Criteria (z/OS Tasks only) <restartCriteria> <restartCriterion> <directives> <directive> <type>Start</type> <procedure /> <step>-3</step> </directive> <directive> <type>Skip</type> <procedure /> <step>0</step> </directive> </directives> <evaluationOrder>3</ evaluationOrder> <programName /> <pstepName /> <restartOption>Restart Using Directives</restartOption> <stepCodes>S806</ stepCodes> <stepName>S5</ stepName> <sysId>76ce212c7757451e86c0f9232201 b2ef</sysId> </restartCriterion> ... </restartCriteria> RunTime Parameters (PeopleSoft Tasks only) <runtimeParameters> <runtimeParameter> </pre>	<pre> "title": "note1" }] Restart Criteria (z/OS Tasks only) "restarCriteria": [{ "directives : [{ "type": "Start", "procedure": null, "step": "-3" }, { "type": "Skip", "procedure": null, "step": 0 }] "evaluationOrder": 3, "programName": null, "pstepName": null, "restartOption": "Restart Using Directives", "stepCodes": "S806", "stepName": "S5", "sysId": "76ce212c7757451e86c0f9232201b2ef " }] RunTime Parameters (PeopleSoft Tasks only) "runtimeParameters": [{ parameterName": "RTP-1", parameterValue": 100, processName": "TREEMOVER", processType": "Application Engine", sysId": "4f5bb3fda5874dac8bb1897382d1317d " }] Step Conditions (z/OS Tasks only) "stepConditions": [{ "programName": "*", "pstepName": "*", </pre>

Examples	XML	JSON
	<pre> <parameterName>RTP-1</parameterName> <parameterValue>100</parameterValue> <processName>TREEMOVER</processName> <processType>Application Engine</processType> <sysId>4f5bb3fda5874dac8bb1897382d1317d</sysId> </runtimeParameter> </runtimeParameters> Step Conditions (z/OS Tasks only) <stepConditions> <stepCondition> <programName>*</programName> <pstepName>*</pstepName> <stepAction>Continue/Success</stepAction> <stepCodes>1-4095</stepCodes> <stepName>*</stepName> <stepOrder>1</stepOrder> <sysId>1481337495c04883b007dac298a088a9</sysId> </stepCondition> ... </stepConditions> Stored Procedure Parameters (Stored Procedure Tasks only) (Set only if resultProcessing is Success Output Parameter or Failure Output Parameter.) <storedProcParams> <storedProcParam> <descriptiond /> <isNull>>false</isNull> <ivalue /> <ovalue /> <paramMode>Output</paramMode> <paramType>VARCHAR</paramType> <paramVar>var</paramVar> <pos>2</pos> </pre>	<pre> "stepAction": "Continue/Success", "stepCodes": "1-4095", "stepName": "*", "stepOrder": 1, "sysId": "1481337495c04883b007dac298a088a9" }] Stored Procedure Parameters (Stored Procedure Tasks only) "storedProcParams": [{ "descriptiond": null, "isNull": false, "ivalue": null, "ovalue": null, "paramMode": "Output", "paramType": "VARCHAR", "paramVar": "var", "pos": 2, "variableScope": "Self" }] Variables "variables": [{ "description": "description", "name": "var1", "sysId": "76af48c246954c128ef90da254044618", "value": "value1" }, { "description": null, "name": "var2", "sysId": "899912878e4b4a36848269dc8a75dc1c", "value": "value2" }] Virtual Resources "virtualResources": [{ "amount": 1, </pre>

Examples	XML	JSON
	<pre> <sysId>5cad4c1b80694f90a968c6fb4113 a3e6</sysId> <variableScope>Self</ variableScope> </storedProcParam> </storedProcParams> Variables <variables> <variable> <description>description</ description> <name>var1</name> <sysId>76af48c246954c128ef90da25404 4618</sysId> <value>value1</value> </variable> <variable> <description /> <name>var2</name> <sysId>899912878e4b4a36848269dc8a75 dc1c</sysId> <value>value2</value> </variable> </variables> Virtual Resources <virtualResources> <virtualResource> <amount>1</amount> <resource>R1</ resource> <resourceVar /> <sysId>4f5bb3fda5874dac8bb1897382d1 317d</sysId> </virtualResource> <virtualResource> <amount>20</amount> <resource /> <resourceVar>\${VR}/ resourceVar> <sysId>4f5bb3fda5874dac8bb1897382d1 317d</sysId> </virtualResource> </virtualResources> </pre>	<pre> "resource": "R1", "resourceVar": null, "sysId": "11ea6bd3476f4fab8c2b4c3b4716532c " }, { "amount": 20, "resource": null, "resourceVar": "\${VR}", "sysId": "3879a075b0fa4ccaa68966495b12c6f1 " }] </pre>

4.33.34.2 Properties

See the [Task-Related Records Properties](#) page for information on all task-related records properties.

Click the links in the following table to view properties for specific task-related records on that page.

Note

As shown in the following table, some task-related records are specific to a single task type.

Task-Related Records	Task Type
Advanced Criteria	Email Monitor
Mutually Exclusive Tasks	All
Notes	All
Restart Criteria	z/OS
RunTime Parameters	PeopleSoft
Step Conditions	z/OS
Stored Procedure Parameters	Stored Procedure
Variables in Tasks Properties	All
Virtual Resources Properties	All

4.33.35 Task Web Services - Properties

There are task web service properties for:

- All tasks properties
- Task-specific properties
- Task action properties
- Task-related records properties
- Workflow task-related records properties

4.33.35.1 Task Properties

- [All Tasks Properties](#)
- [Agent File Monitor Task Properties](#)
- [Application Control Task Properties](#)
- [Email Task Properties](#)

- [Email Monitor Task Properties](#)
- [IBM i Task Properties](#)
- [File Transfer Task Properties](#)
- [Linux Unix Task Properties](#)
- [Recurring Task Properties](#)
- [PeopleSoft Task Properties](#)
- [Remote File Monitor Task Properties](#)
- [SAP Task Properties](#)
- [SQL Task Properties](#)
- [Stored Procedure Task Properties](#)
- [System Monitor Task Properties](#)
- [Task Monitor Task Properties](#)
- [Timer Task Properties](#)
- [Universal Command Task Properties](#)
- [Universal Task Properties](#)
- [Variable Monitor Task Properties](#)
- [Web Service Task Properties](#)
- [Windows Task Properties](#)
- [Workflow Task Properties](#)
- [z/OS Task Properties](#)
- [z/OS Monitor Task Properties](#)

4.33.35.1.1 All Tasks Properties

4.33.35.1.1.1 All Tasks Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agent	Agent	For Agent-based task types only; Name of the Agent to use.		Y (unless agentVar , agentCluster , agentClusterVar , broadcastCluster , or broadcastClusterVar is specified)	agentVar , broadcastCluster , and broadcastClusterVar
agentCluster	Agent Cluster	For Agent-based task types only; Group of Agents, one of which the Controller will choose to run this task (compare with broadcastCluster).		Y (unless agentClusterVar , agent , agentVar , broadcastCluster , or broadcastClusterVar is specified)	agentClusterVar , broadcastCluster , and broadcastClusterVar
agentClusterVar	Agent Cluster Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.	Format: \${variable name}.	Y (unless agentCluster , agent , agentVar , broadcastCluster , or broadcastClusterVar is specified)	agentCluster , broadcastCluster , and broadcastClusterVar
agentVar	Agent Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent to use.	Format: \${variable name}.	Y (unless agent , agentCluster , agentClusterVar , broadcastCluster , or broadcastClusterVar is specified)	agent , broadcastCluster , and broadcastClusterVar
avgRunTime	Average Instance Time	Average duration of all the runs of the task.	Long value of the current average run time (in seconds).	n/a	
avgRunTimeDisplay	n/a	Easier to read version of Average Run Time.	String value of Average Run Time in human readable format	n/a	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>broadcastCluster</code>	Cluster Broadcast	For Agent-based task types only; Group of Agents, all of which will run this task (compare with <code>agentCluster</code>). Each instance of the task running on its own Agent becomes a separate task instance record in the database and displays separately on the Activity Monitor.		Y (unless <code>broadcastClusterVar</code> , <code>agent</code> , <code>agentVar</code> , <code>agentCluster</code> , or <code>agentClusterVar</code> is specified)	<code>broadcastClusterVar</code> , <code>agent</code> , <code>agentVar</code> , <code>agentCluster</code> , and <code>agentClusterVar</code>
<code>broadcastClusterVar</code>	Cluster Broadcast Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Cluster Broadcast to use.	Format: \${variable name}	Y (unless <code>broadcastCluster</code> , <code>agent</code> , <code>agentVar</code> , <code>agentCluster</code> , or <code>agentClusterVar</code> is specified)	<code>broadcastCluster</code> , <code>agent</code> , <code>agentVar</code> , <code>agentCluster</code> , and <code>agentClusterVar</code>
<code>cpDuration</code>	CP Duration	Used with <code>cpDurationUnit</code> ; Allows override of the estimated Critical Path Duration of the task when running in a Workflow. In most cases, <code>cpDuration</code> and <code>cpDurationUnit</code> are not used, which implies that the Controller will estimate the Critical Path Duration based on historical executions.	Integer; Valid values are 0 or greater. Variables and Functions are supported.	N	
<code>cpDurationUnit</code>	CP Duration Unit	Used with the <code>cpDuration</code> ; type of Critical Path Duration. For example, for a Critical Path Duration of two minutes, specify 2 in <code>cpDuration</code> and Minutes in <code>cpDurationUnit</code> .	Valid Values: - As String = Seconds, As Value = 1 - As String = Minutes, As Value = 2 - As String = Hours, As Value = 3 Default is Minutes (2).	N	
<code>credentials</code>	Credentials	For Agent-based task types only; Credentials under which an Agent runs this task. These credentials override any credentials provided in the Agent Details for any Agent running this task.		N	<code>credentialsVar</code>
<code>credentialsVar</code>	Credentials Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Credentials to use.		N	<code>credentials</code>

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
customField1	n/a	User-Defined field. Example: <customField1 label="Domain">web.com</customField1>	The label is included only if a value has been defined for the User Defined Task Field Label 1 Universal Controller system property.	N	
customField2	n/a	User-Defined field. Example: <customField2 label="Domain">web.com</customField2>	The label is included only if a value has been defined for the User Defined Task Field Label 2 Universal Controller system property.	N	
efDayConstraint	Early Finish Day Constraint	If efType = Time (1); Specification for whether or not to advance the early finish time to another day.	Valid values: - As String = None, As Value = 0 - As String = Same Day, As Value = 1 - As String = Next Day, As Value = 2 - As String = Next Business Day, As Value = 3 - As String = Sunday, As Value = 4 - As String = Monday, As Value = 5 - As String = Tuesday, As Value = 6 - As String = Wednesday, As Value = 7 - As String = Thursday, As Value = 8 - As String = Friday, As Value = 9 - As String = Saturday, As Value = 10 - As String = Nth Day, As Value = 11 Default is None (0).	N	
efDuration	Early Finish Duration	If efType = Duration (2); Shortest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N	
efEnabled	Early Finish	Specification that if the task instance finishes before the specified efDuration or efTime, the task instance is flagged as early.	Boolean; Valid values: true/false. Default is false.	N	
efOffsetDuration	Early Finish Duration Offset (-)	if efOffsetType is Duration (2); Duration offset to subtract from the Average Duration.	Integer; Valid values are 0 or greater. Variables and Functions are supported.	Y (if efOffsetType = Duration (2)).	efOffsetPercentage

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
efOffsetDurationUnit	Early Finish Duration Offset Unit	Used with the efOffsetDuration; Type of Early Finish Duration Offset. For example, for an Early Finish Duration Offset of two minutes, specify 2 in efOffsetDuration and Minutes in efOffsetDurationUnit.	Valid Values: - As String = Seconds, As Value = 1 - As String = Minutes, As Value = 2 - As String = Hours, As Value = 3 Default is Minutes (2).	N	
efOffsetPercentage	Early Finish Offset Type	If efOffsetType is Percentage (1); Percentage offset to subtract from the Average Duration.	Integer; Valid values are 0 to 100. Default is 0.	Y (if efOffsetType = Percentage (1)).	efOffsetDuration
efOffsetType	Early Finish Offset Type	If efType = Average Duration (5); Specification for the type of offset to apply to the Average Duration.	Valid values: - As String = Percentage, As Value = 1. - As String = Duration, As Value = 2. Default is Percentage (1).	N	
efTime	Early Finish Time	If efType = Time (1); Time before which the task finish time is considered early. That is, the time at which the task should still be running.	Format = hh:mm, 24-hour time. Default is 00:00.	N	
efType	Early Finish Type	Type of early finish.	Valid values: - As String = Time, As Value = 1. - As String = Duration, As Value = 2. - As String = Average Duration, As Value = 5. Default is Time (1).	Y (if efEnabled is true)	
enforceVariables	Enforce Variables	Specifies whether or not to enforce Launch with Variables... when launching a task using the User Interface. Not applicable for Web Service APIs.	Boolean; Valid values: true/false. Default is false.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>excludeRelated</code>	n/a	For Modify task JSON web services; specification for whether or not to exclude related records (Actions, Mutually Exclusive Tasks, Notes, Variables in Tasks, Virtual Resources) from the update, even if they are provided in the request. Note In XML web services, <code>excludeRelated</code> is specified as an attribute in the <code><task type></code> element.	Valid values: true/false (default is false).	N	
<code>exclusiveWithSelf</code>	Mutually Exclusive With Self	Specification for whether or not to allow the task to run concurrently with itself.	Boolean; Valid values: true/false. Default is false.	N	
<code>executionRestriction</code>	Execution Restriction	For tasks in a workflow; Specification for whether or not there is a restriction for this task to be run, skipped, or held.	Valid values: - As String = – None –, As Value = 0 - As String = Run, As Value = 1 - As String = Skip, As Value = 2 - As String = Hold, As Value = 3 Default is – None – (0).	N	
<code>exportReleaseLevel</code>	n/a	Universal Controller release that the record was exported from. Note In XML web services, <code>exportReleaseLevel</code> is specified as an attribute in the <code><task type></code> element.	read only	N	
<code>exportTable</code>	n/a	Record table information. Note In XML web services, <code>exportTable</code> is specified as an attribute in the <code><task type></code> element.	read only	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
firstRun	First Execution	System-supplied; End Time of the first instance of this task to complete.	String value of the time that the task was first run.	n/a	
lastRun	Last Execution	System-supplied; End Time of the last instance of this task to complete.	String value of the time that the task was last run.	n/a	
lastRunTime	Last Instance Duration	Duration of the last run of the task.	Long value of the current last run time (in seconds).	n/a	
lastRunTimeDisplay	n/a	Easier to read version of Last Run Time	String value of Last Run Time in human readable format	n/a	
lfDayConstraint	Late Finish Day Constraint	If lfType = Time (1); Specification for whether or not to advance the late finish time to another day.	Valid values: - As String = None, As Value = 0 - As String = Same Day, As Value = 1 - As String = Next Day, As Value = 2 - As String = Next Business Day, As Value = 3 - As String = Sunday, As Value = 4 - As String = Monday, As Value = 5 - As String = Tuesday, As Value = 6 - As String = Wednesday, As Value = 7 - As String = Thursday, As Value = 8 - As String = Friday, As Value = 9 - As String = Saturday, As Value = 10 - As String = Nth Day, As Value = 11 Default is None (0).	N	
lfDuration	Late Finish Duration	If lfType = Duration (2); Longest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N	
lfEnabled	Late Finish	Specification that if the task instance finishes after the specified lfDuration or lfTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N	
lfOffsetDuration	Late Finish Duration Offset (+)	if lfOffsetType is Duration (2); Duration offset to add to the Average Duration.	Integer; Valid values are 0 or greater. Variables and Functions are supported.	Y (if lfOffsetType = Duration (2)).	lfOffsetPercentage

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>lfOffsetDurationUnit</code>	Late Finish Duration Offset Unit	Used with the <code>lfOffsetDuration</code> ; type of Late Finish Duration Offset. For example, for a Late Finish Duration Offset of two minutes, specify 2 in <code>lfOffsetDuration</code> and Minutes in <code>lfOffsetDurationUnit</code> .	Valid Values: - As String = Seconds, As Value = 1 - As String = Minutes, As Value = 2 - As String = Hours, As Value = 3 Default is Minutes (2).	N	
<code>lfOffsetPercentage</code>	Late Finish Percentage Offset (+)	If <code>lfOffsetType</code> is Percentage (1); Percentage offset to add to the Average Duration.	Integer; Valid values are 0 to 100. Default is 0.	Y (if <code>lfOffsetType</code> = Percentage (1)).	<code>lfOffsetDuration</code>
<code>lfOffsetType</code>	Late Finish Offset Type	If <code>lfType</code> is Average Duration (5); Specification for the type of offset to apply to the Average Duration.	Valid Values: - As String = Percentage, As Value = 1 - As String = Duration, As Value = 2 Default is Percentage (1).	N	
<code>lfTime</code>	Late Finish Time	If <code>lfType</code> = Time (1); Time after which the task finish time is considered late.	Format = hh:mm. Default is 00:00.	N	
<code>lfType</code>	Late Finish Type	Type of late finish.	Valid values: - As String = Time, As Value = 1 - As String = Duration, As Value = 2 - As String = Average Duration, As Value = 5 Default is Time (1).	Y (if <code>lfEnabled</code> is true)	
<code>lockVariables</code>	Lock Variables	Specifies whether or not to prevent editing variables when using Launch with Variables... from the User Interface. Not applicable for Web Service APIs.	Boolean; Valid values: true/false. Default is false.	N	
<code>logLevel</code>	Log Level	Applicable only to Extension-based Universal Tasks; default is Inherited. For all other task types, <code>logLevel</code> is not applicable.	Valid values: - Inherited - Trace - Debug - Info - Warn - Error - Severe	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
lsDayConstraint	Late Start Day Constraint	If lsType = Time (1); Specification for whether or not to advance the late start time to another day.	Valid values: - As String = None, As Value = 0 - As String = Same Day, As Value = 1 - As String = Next Day, As Value = 2 - As String = Next Business Day, As Value = 3 - As String = Sunday, As Value = 4 - As String = Monday, As Value = 5 - As String = Tuesday, As Value = 6 - As String = Wednesday, As Value = 7 - As String = Thursday, As Value = 8 - As String = Friday, As Value = 9 - As String = Saturday, As Value = 10 - As String = Nth Day, As Value = 11 Default is None (0).	N	
lsDuration	Late Start Duration	If lsType = Duration (2); Duration (amount of relative time) after which the task is considered to have started late.	Format = dd:hh:mm:ss	N	
lsEnabled	Late Start	Specification that if the task instance starts after the specified lsDuration or lsTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N	
lsTime	Late Start Time	If lsType = Time (1); Time after which the task start time is considered late.	Format = hh:mm. Default is 00:00.	N	
lsType	Late Start Type	Type of late start.	Valid values: - As String = Time, As Value = 1 - As String = Duration, As Value = 2 Default is Time (1).	Y (if lsEnabled is true)	
maxRunTime	Highest Instance Time	Longest duration that the task ran.	Long value of the current longest run time (in seconds).	n/a	
maxRunTimeDisplay	n/a	Easier to read version of Maximum Run Time	String value of Maximum Run Time in human readable format	n/a	
minRunTime	Lowest Instance Time	Shortest duration that the task ran.	Long value of the current shortest run time (in seconds).	n/a	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
minRunTimeDisplay	n/a	Easier to read version of Minimum Run Time	String value of Minimum Run Time in human readable format	n/a	
name	Task Name	Name of this task.		Y	
opswiseGroups	Member of Business Services	List of Business Services that this task belongs to: XML <pre><opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups></pre> JSON <pre>"opswiseGroups" : ["1", "2"]</pre>		N	
overrideInstanceWait	Override Previous Instance Wait	Specification for overriding the Previous Instance Wait specification of the parent workflow. This option only applies for an instance running within a workflow.	Valid values (case-insensitive): - As String = No, As Value = 0 - As String = Yes / -- None --, As Value = 1 - As String = Yes / Wait For Last, As Value = 2 - As String = Yes / Wait For Last / Same Workflow, As Value = 3 - As String = Yes / Wait For All, As Value = 4 - As String = Yes / Wait For All / Same Workflow, As Value = 5 Default is No (0).	N	
resolveNameImmediately	Resolve Name Immediately	Specification for whether or not to resolve the Instance Name of the task instance at trigger/launch time.	Boolean; Valid values: true/false. Default is false.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
resPriority	Virtual Resource Priority	Priority for acquiring a resource when two or more tasks are waiting for the resource. This priority applies to all resources required by the task.	Integer; Valid values: 1 (high) - 20 (low). Default is 10.	N	
restrictionPeriod	Restriction Period	If [[executionRestriction]] = Run, Skip, or Hold; Period of time when the task is restricted.	Valid values: - As String = -- None --, As Value = 0 - As String = Before, As Value = 1 - As String = After, As Value = 2 - As String = Span, As Value = 3 - As String = On, As Value = 4 Default is -- None -- (0).	N	
restrictionPeriodAfterDate	After Date	If restrictionPeriod = After or Span; Date after which the restriction is valid.		N	
restrictionPeriodBeforeDate	Before Date	If restrictionPeriod = Before or Span; Date before which the restriction is valid.		N	
restrictionPeriodDateList	Date List	If restrictionPeriod = On; Date(s) on which the restriction is valid.		N	
retainSysIds	n/a	For Create web services; specification for whether or not the web service should persist the sysId property. - If retainSysIds is true and sysId is included in the request/response, sysId will be persisted to the database. - If retainSysIds is false and sysId is included in the request/response, sysId will be ignored; it will be autogenerated by the Controller. Note In XML web services, retainSysIds is specified as an attribute in the <task type> element.	Valid values: true/false (default is true).	Yes (for Read)	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
minRunTime	Lowest Instance Time	Shortest duration that the task ran.	Long value of the current shortest run time (in seconds).	n/a	
minRunTimeDisplay	n/a	Easier to read version of Minimum Run Time	String value of Minimum Run Time in human readable format	n/a	
runCount	Number of Instances	Number of times that the task has run.	Long value of the task run count	n/a	
runTime	n/a	Total amount of time the task has ran.	Long value of the total amount of time that task has ran (in seconds).	n/a	
startHeld	Hold on Start	Specification for whether or not when the task is launched, it appears in the Activity Monitor with a status of Held . The task runs when the user releases it.	Boolean; Valid values: true/false. Default is false.	N	
startHeldReason	Hold Reason	Information about why the task will be put on hold when it starts.		N	
summary	Task Description	User-defined description of this task.		N	
sysId	n/a	System ID field in the database for this task.	Persisted only if retainSysIds is set to true.	N	
twDelayAmount	Delay Duration In Seconds	If twDelayType = Seconds (3); Number of seconds to delay after starting the task.		N	
twDelayDuration	Delay Duration	If twDelayType = Duration (2); Number of days, hours, minutes, and seconds to delay after starting the task.	Format = dd:hh:mm:ss	N	
twDelayType	Delay On Start	Amount of time to delay the start of a task, after it has been launched, from the time that it is eligible to start; that is, all dependencies have been met. For example: it is not being held, it is not waiting on any predecessors, or there is no wait time specified.	Valid values: - As String = None, As Value = 0 - As String = Duration, As Value = 1 - As String = Seconds, As Value = 2 Default is None (0).	N	
twWaitAmount	Wait Duration In Seconds	If twWaitType = Seconds (3); Number of seconds to wait before starting the task.		N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
twWaitDayConstraint	Wait Day Constraint	If twWaitType = Time (1) or Relative Time (4). Specification for whether or not to advance the wait time to another day.	Valid values: - As String = None, As Value = 0 - As String = Same Day, As Value = 1 - As String = Next Day, As Value = 2 - As String = Next Business Day, As Value = 3 - As String = Sunday, As Value = 4 - As String = Monday, As Value = 5 - As String = Tuesday, As Value = 6 - As String = Wednesday, As Value = 7 - As String = Thursday, As Value = 8 - As String = Friday, As Value = 9 - As String = Saturday, As Value = 10 Default is None (0).	N	
twWaitDuration	Wait Duration	If twWaitType = Duration; Number of days, hours, minutes, and seconds to wait before starting the task.	Format = dd:hh:mm:ss	N	
twWaitTime	Wait Time	If twWaitType = Time (1) or Relative Time (4); Number of hours and minutes to wait before starting the task.	Format = hh:mm	N	
twWaitType	Wait To Start	Amount of time to wait before starting a task from the time that it was launched.	Valid values: - As String = None, As Value = 0 - As String = Time, As Value = 1 - As String = Duration, As Value = 2 - As String = Seconds, As Value = 3 - As String = Relative Time, As Value = 4 Default is None (0).	N	
twWorkflowOnly	Workflow Only	Specification for whether or not to apply the twWaitType and twDelayType specifications only if the task is in a Workflow.	Valid values: - As String = – System Default –, As Value = 0 - As String = Yes, As Value = 1 - As String = No, As Value = 2 Default is – System Default – (0).	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>userEstimatedDuration</code>	User Estimated Duration	Estimated amount of time it should normally take to run this task.	Format = dd:hh:mm:ss	Y (if <code>efType</code> = Average Duration (5) or <code>lfType</code> = Average Duration (5))	
<code>version</code>	n/a	For Read and List task web services; specification of the task version being read or listed. Note In XML web services, <code>version</code> is specified as an attribute in the <task type> element.		Yes	

4.33.35.1.2 Agent File Monitor Task Properties

4.33.35.1.2.1 Task Properties: Agent File Monitor Task

Property	UI Field Name	Description	Specifications	Required
<code>byPercentage</code>	By Percentage	If <code>fctype</code> = Changed (3); Amount that the file size has changed, expressed as a percentage of the original file size. For example, enter 10 to monitor for a change in file size of 10 percent (larger or smaller).	BigDecimal.	N
<code>byScale</code>	By Scale	If <code>fctype</code> = Changed (3); Used in conjunction with <code>bySize</code> , specifies a change in file size that you want to monitor for. For example, to monitor for a change in file size of 10MB, enter 10 in <code>bySize</code> and enter 1024000 in <code>byScale</code> .	Integer; Valid values: 1 = Bytes 1024 = KB 1024000 = MB	N
<code>bySize</code>	By Size	If <code>fctype</code> = Changed (3); Used in conjunction with <code>byScale</code> , specifies an actual change in file size. For example, to monitor for a change in file size of 10MB, enter 10 in <code>bySize</code> and enter 1024000 in <code>byScale</code> .	BigDecimal.	N
<code>fileName</code>	Monitor File(s)	Location and name of a specific file or file pattern (for example, ACT001*) being monitored.	Variables and Wildcards are supported.	Y

Property	UI Field Name	Description	Specifications	Required
fileOwner	File Owner	If <code>fmdtype</code> = Create (1), Delete (2), Changed (3), or Exist (4); User name / group name of the owner of the file on the operating system; that is, the user name / group name returned by the operating system in the file ownership information.	LDAP groups are supported. Specifying a file owner limits the search to files with that owner.	N
fmdtype	Monitor Type	Type of file event being monitored for.	Valid values: • As String = Created, As Value = 1 • As String = Deleted, As Value = 2 • As String = Changed, As Value = 3 • As String = Exist, As Value = 4 • As String = Missing, As Value = 5 Default is Created (1).	N
maxFiles	Maximum Files	If <code>fmdtype</code> = Create (1), Delete (2), or Changed (3); For searches that use wildcards, limits the number of files to be searched.	Integer	N
minFileScale	Minimum File Scale	If <code>fmdtype</code> = Create (1); Scale for the minimum file size.	Valid values: • As String = Bytes, As Value = 0 • As String = KB, As Value = 1 • As String = MB, As Value = 2 Default is KB (1).	N
minFileSize	Minimum File Size	If <code>fmdtype</code> = Create (1); Minimum file size.		N
recursive	Recursive	Specification for whether or not the Agent File Monitor searches the specified directory and all sub-directories.	Boolean; Valid values: true/false. Default is false.	N
scanForward	Scan Forward	If <code>fmdtype</code> = Changed (3); Specification that once the Agent File Monitor has been satisfied, it should continue from where it left off. If it is scanning within a file, it should resume from the point in the file that it last scanned. If it is monitoring for files, it should resume monitoring for the next file. If you are scanning a file that is being overwritten each time and you want to start from the beginning each time, do not use <code>scanForward</code> .	Boolean; Valid values: true/false. Default is false.	N
scanText	Scan Text	If <code>fmdtype</code> = Create (1), Changed (3), or Exist (4); String that the Agent File Monitor will search for in the file or files. Specifying a string means that only files containing the string constitute a match.		N
stableSeconds	Stable (seconds)	If <code>fmdtype</code> = Create (1) or Changed (3); Period of time, in seconds, during which the file has not changed (Agent File Monitor checks the modification timestamp and the file size).	Integer.	N

Property	UI Field Name	Description	Specifications	Required
toScale	To Scale	If <code>fmttype</code> = Changed (3); Used in conjunction with <code>toSize</code> , specifies an actual file size that you want to monitor for. For example, to monitor for a file size of 5KB, enter 5 in <code>toSize</code> and enter 1024 in <code>toScale</code> .	Integer; Valid values: 1 = Bytes 1024 = KB 1024000 = MB Default is 1024.	N
toSize	To Size	If <code>fmttype</code> = Changed (3); Used in conjunction with <code>toScale</code> , specifies an actual file size that you want to monitor for. For example, to monitor for a file size of 5KB, enter 5 in <code>toSize</code> and enter 1024 in <code>toScale</code> .	BigDecimal; Default is 1024.	N
triggerOnCreate	Trigger On Create	If <code>fmttype</code> = Change (3); task is triggered if the file being monitored is being created.	Boolean; Valid values: true/false. Default is false.	N
triggerOnExist	Trigger on Existence	If <code>fmttype</code> = Create (1); task is triggered if the file being monitored for creation already exists.	Boolean; Valid values: true/false. Default is false.	N
useRegex	Use Regular Expression	Enables the use of a regular expression in <code>fileName</code> .	Boolean; Valid values: true/false. Default is false.	N

4.33.35.1.3 Application Control Task Properties

4.33.35.1.3.1 Application Control Task

Property	UI Field Name	Description	Specifications	Required
application	Application	Name of the Application resource record. The Application resource defines where the software application is running; it also defines the start, stop, and query commands for the application.		Y
command	Command	Command that this task is executing against the software application.	Valid values: - As String = QUERY, As Value = 0 - As String = START, As Value = 1 - As String = STOP, As Value = 2 Default is QUERY (0).	N

4.33.35.1.4 Email Task Properties

4.33.35.1.4.1 Email Task

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>attachLocalFile</code>	Attach Local File	Specification for whether or not a local file is attached.	Specification for whether or not a local file is attached.	N	
<code>bccRecipients</code>	Bcc	Email address of the party being sent a blind (hidden) copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N	
<code>body</code>	Body	Text of the email message.	Variables and functions are supported. If both the email <code>template</code> and the email task contain text in the body, the text is appended.	N	
<code>ccRecipients</code>	Cc	Email address of the party being sent a copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N	
<code>connection</code>	Email Connection	Name of an Email Connection .	An Email Connection specifies information about an email server. If you specify both an Email <code>template</code> and an Email <code>connection</code> , the Email <code>connection</code> overrides the Email Connection specified by the Email <code>template</code> .	Y (unless an Email <code>template</code> is specified)	
<code>listReportFormat</code>	List Report Format	Report format If the attached report is not a List type report, this option will be ignored.	Default is PDF (1). Valid Values: • As String = PDF, As Value = 1 • As String = XML, As Value = 2 • As String = JSON, As Value = 3 • As String = CSV, As Value = 4 • As String = TSV, As Value = 5	N	
<code>localAttachmentsPath</code>	Local Attachments Path	Location of Local Attachments for the connected Node.		N	
<code>localAttachment</code>	Local Attachment	Name of the file(s) to attach.		N	
<code>replyTo</code>	Reply-To	Email address of the sender.	Use commas to separate multiple recipients. Variables and functions are supported.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
report	Report	Report to attach to this email; if <code>reportVar</code> is specified, <code>report</code> is ignored.	If <code>reportVar</code> is specified, <code>report</code> is ignored. Reports do not have to be unique by Title. However, reports with the same Title must be unique per Visibility: per User, per one or more Groups, and per Everyone. Therefore, when specifying a report reference, both the Title and Visibility must be specified. To define a report reference for a report with Title XYZ that is visible to user john.doe, you would specify: XML <pre><report> <title>XYZ</title> <userName>john.doe</userName> <groupName /> </report></pre> JSON <pre>"report": { "title": "XYZ", "userName": "john.doe", "groupName": null }</pre> To specify a single visibility group, you can utilize either <code>groupName</code> or <code>groupNames</code> with only one <code>groupName</code> in the list.	N	<code>reportVar</code>

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
			To define a report reference for a report with Title XYZ that is visible to group Operators, you could specify: XML <pre><report> <title>XYZ</title> <userName /> <groupName>Operators</ groupName> </report></pre> JSON <pre>"report": { "title": "XYZ", "userName": null, "groupName": "Operators", }</pre> or XML <pre><report> <title>XYZ</title> <userName /> <groupName/> <groupNames> <groupName>Operators</ groupName> </groupNames> </report></pre> JSON		

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
			<pre>"report": { "title": "XYZ", "userName": null, "groupNames": { "groupName": "Operators", } }</pre> Duplicate group visibility is prohibited and thus there should be only a single report (of the same title) visible to a particular group. Therefore, to look up a report visible to multiple groups, you can specify one or more of the visibility groups, as long as the report is visible to all of the specified groups. To define a report reference for a report with Title XYZ that is visible to groups Operators, Finance, and Development; You could specify any one of the visibility groups: XML <pre><report> <title>XYZ</title> <userName /> <groupName>Operators</ groupName> </report></pre> JSON <pre>"report": { "title": "XYZ", "userName": null, "groupName": "Operators", } }</pre> Or you could specify multiple visibility groups: XML		

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
			<pre> <report> <title>XYZ</title> <userName /> <groupName/> <groupNames> <groupName>Operators</ groupName> <groupName>Developme nt</groupName> </groupNames> </report> </pre> JSON <pre> "report": { "title": "XYZ", "userName": null, "groupNames": { "groupName": "Operators", "groupName": "Development", } } </pre> To define a report reference for a report with title XYZ that is visible to Everyone, you would specify: XML <pre> <report> <title>XYZ</title> <groupName /> <userName /> </report> </pre> JSON <pre> "report": { "title": "XYZ", "userName": null, "groupName": null } </pre>		
reportVar	Report Variable	Name of a variable that will be resolved at run time to the name of the Report to use.		N	report
subject	Subject	Subject line of the email.	Variables and functions are supported.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
template	Email Template	Name of an Email Template	An Email Template allows you to specify standard recipients and text for outgoing emails. Every Email Template specifies an Email connection. If you do not specify an Email template , you must specify an Email connection . If you specify both an Email template and an Email connection , the Email server specified by the Email connection overrides the Email server specified in the Email template . (Any information specified in an Email task overrides what is specified in an Email Template.)	N	
templateVar	Email Template Variable	Name of a variable that will be resolved at run time to the name of an Email Template to use.	Format: \${variable name}.	N	
toRecipients	To	Email address of the recipient.	Use commas to separate multiple recipients. Variables and functions are supported.	N	

4.33.35.1.5 Email Monitor Task Properties

4.33.35.1.5.1 Email Monitor Task

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
action	Action	Action to take on mail that matches the filter.	Valid values: - As String = Mark As Read, As Value = 1 - As String = Delete, As Value = 2 - As String = Delete/ Mark As Read, As Value = 3 - As String = Move, As Value = 4 - As String = Move/Mark As Read, As Value = 5 Default is Mark As Read (1).	N	
body	Body	If useAdvancedCriteria is false and bodyFilter is any value other than None, Is Blank, or Is Not Blank; bodyFilter condition value.		N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
bodyBeginMarker	Body Begin Marker	If <code>bodyVariables</code> is Within Custom Markers; Value that demarks the place within the Email body to start processing variables.		N	
bodyEndMarker	Body End Marker	If <code>bodyVariables</code> is Within Custom Markers; Value that demarks the place within the Email body to stop processing variables.		N	
bodyFilter	Body Filter	If <code>useAdvancedCriteria</code> is false; <code>body filter</code> condition to apply.	Valid values: • As String = None, As Value = 0 • As String = Equals, As Value = 1 • As String = Starts With, As Value = 2 • As String = Contains, As Value = 3 • As String = Ends With, As Value = 4 • As String = Dos Not Equal, As Value = 5 • As String = Dos Not Start With, As Value = 6 • As String = Does Not Contain, As Value = 7 • As String = Dos Not End With, As Value = 8 • As String = Is Blank, As Value = 9 • As String = Is Not Blank, As Value = 10 • As String = Regex, As Value = 11 Default is None (0).	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
bodyVariables	Body Variables	Specification for whether to parse the Email body for name/value pairs to create variables from. - If None is selected, no processing of the Email body will occur. - If When Within Body is selected, the entire body of the Email will be scanned for a "=" (equal sign) and any lines containing a "=" will be variablized as long as the text to the left of the "=" conforms to the naming standards for variables. - If Within Default Markers or Within Custom Markers is selected, the processing for each will be the same, with the only difference being the demarcation values. - For Default Markers, the marker begin and end values are defined by the Email Body Default Begin Marker and Email Body Default End Marker Universal Controller system properties. - For Custom Markers, the begin and end markers are explicitly defined. When markers are used, all lines of the Email body between the begin and end markers will be variablized in accordance to java properties. Any lines of the Email body outside the markers will be ignored with respect to variablization.	Valid values: - As String = None, As Value = 0 - As String = Within Body, As Value = 1 - As String = Within Default Markers, As Value = 2 - As String = Within Custom Markers, As Value = 3 Default is None (0).	N	
caseSensitive	Case Sensitive	If <code>useAdvancedCriteria</code> is false; Text-based filters should be treated as case-sensitive.	Boolean; Valid values: true/false. Default is false.	N	
cc	Cc	If <code>useAdvancedCriteria</code> is false and <code>ccFilter</code> is any value other than None, Is Blank, or Is Not Blank; <code>ccFilter</code> condition value.		N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
ccFilter	Cc Filter	If useAdvancedCriteria is false; cc filter condition to apply.	Valid values: - As String = None, As Value = 0 - As String = Equals, As Value = 1 - As String = Contains, As Value = 3 - As String = Dos Not Equal, As Value = 5 - As String = Does Not Contain, As Value = 7 - As String = Is Blank, As Value = 9 - As String = Is Not Blank, As Value = 10 - As String = Regex, As Value = 11 Default is None (0).	N	
connection	Email Connection	Email Connection name.		N	connectionVar
connectionVar	Email Connection Variable	Name of a variable that will be resolved at run time to the name of the Email Connection to use.		N	connection
contentProcessingType	Email Content Processing	Method for determining the success or failure of this task based on Email content.	Valid values: - As String = -- None --, As Value = 0 - As String = Success Body Contains , As Value = 1 - As String = Failure Body Contains , As Value = 2 - As String = Success Body Does Not Contain, As Value = 3 - As String = Failure Body Does Not Contain, As Value = 4 - As String = Success Subject Contains k, As Value = 5 - As String = Failure Subject Contains , As Value = 6 - As String = Success Subject Does Not Contain , As Value = 7 - As String = Failure Subject Does Not Contain , As Value = 8 Default is -- None -- (0).	N	
contentValue	Content Vale	If contentProcessingType is not -- None --; Content Value to be matched in the email.		N	
csContentProcessing	Case Sensitive Content	If contentProcessingType is not -- None --; Indication of whether or not matching will be performed in a case sensitive manner.	Boolean; Valid values: true/false. Default is false.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
expirationAction	Expiration Action	Expiration Action to specify the timeout Execution status.	Valid values: - As String = Failed, As Value = 1 - As String = Finished, As Value = 2 Default is Failed (1).	N	
filterLogic	Filter Logic	Logic to apply when combining filters. If useAdvancedCriteria is true, filterLogic specified the logic to apply when combining Advanced Criteria record.	Valid values: - As String = And, As Value = 1 - As String = Or, As Value = 2 Default is And (1).	N	
from	From	If useAdvancedCriteria is false and fromFilter is any value other than None; fromFilter condition value.		N	
fromFilter	From Filter	If useAdvancedCriteria is false; from filter condition to apply.	Valid values: - As String = None, As Value = 0 - As String = Equals, As Value = 1 - As String = Contains, As Value = 3 - As String = Dos Not Equal, As Value = 5 - As String = Does Not Contain, As Value = 7 - As String = Regex, As Value = 11 Default is None (0).	N	
includeReadMail	Include Read Mail	Specification for whether or not mail marked as read should be included by the filter.	Boolean; Valid values: true/false. Default is false.	N	
mailboxFolder	Mailbox Folder	Mailbox folder to monitor.		Y	
mailboxFolderDestination	Mailbox Folder Destination	If action is Move or Move/Mark As Read; Mailbox folder to move matched mail into.		Y	
moveToTrash	Move To Trash	If action is Delete or Delete/Mark As Read; Mail matching the filter will be moved to the trash folder in th Email Connection specified by connection.		Y	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
receivedAfter	Receive After	If receivedRestriction is After; receivedRestriction restriction value.	Valid values: - As String = Date, As Value = 1 - As String = Today, As Value = 2 - As String = Yesterday, As Value = 3 - As String = Tomorrow, As Value = 4 - As String = Launch Time, As Value = 5 - As String = Relative, As Value = 6 Default is Date (1).	N	
receivedAfterDate	Receive After Date	If receivedAfter is Date; Specific date for the receivedAfter restriction value.	Valid format: YYYY-MM-DD	N	
receivedAfterOffset	Receive After Offset	If receivedAfter is Relative; Offset, relative to the last launch time, for the receivedAfter restriction value.	Valid Format: [+/-]hh:mm	N	
receivedBefore	Receive Before	If receivedRestriction is Before; receivedRestriction restriction value.	Valid values: - As String = Date, As Value = 1 - As String = Today, As Value = 2 - As String = Yesterday, As Value = 3 - As String = Tomorrow, As Value = 4 - As String = Launch Time, As Value = 5 - As String = Relative, As Value = 6 Default is Date (1).	N	
receivedBeforeDate	Receive Before Date	If receivedBefore is Date; Specific date for the receivedBefore restriction value.	Valid format: YYYY-MM-DD	N	
receivedBeforeOffset	Receive Before Offset	If receivedBefore is Relative; Offset, relative to the last launch time, for the receivedBefore restriction value.	Valid Format: [+/-]hh:mm	N	
receivedOn	Receive On	If receivedRestriction is On; receivedRestriction restriction value.	Valid values: - As String = Date, As Value = 1 - As String = Today, As Value = 2 - As String = Yesterday, As Value = 3 - As String = Tomorrow, As Value = 4 Default is Date (1).	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>receivedOnDate</code>	Receive On Date	If <code>receivedOn</code> is Date; Specific date for the <code>receivedOn</code> restriction value.	Valid format: YYYY-MM-DD	N	
<code>receivedRestriction</code>	Receive Restriction	Type of Receive restriction to apply.	Valid values: - As String = None, As Value = 0 - As String = On, As Value = 1 - As String = Before, As Value = 2 - As String = After, As Value = 3 - As String = Span, As Value = 4 Default is None (0).	N	
<code>sentAfter</code>	Sent After	If <code>sentRestriction</code> is After; <code>sentRestriction</code> restriction value.	Valid values: - As String = Date, As Value = 1 - As String = Today, As Value = 2 - As String = Yesterday, As Value = 3 - As String = Tomorrow, As Value = 4 - As String = Launch Time, As Value = 5 - As String = Relative, As Value = 6 Default is Date (1).	N	
<code>sentAfterDate</code>	Sent After Date	If <code>sentAfter</code> is Date; Specific date for the <code>sentAfter</code> restriction value.	Valid format: YYYY-MM-DD	N	
<code>sentAfterOffset</code>	Sent After Offset	If <code>sentAfter</code> is Relative; Offset, relative to the last launch time, for the <code>sentAfter</code> restriction value.	Valid Format: [+/-]hh:mm	N	
<code>sentBefore</code>	Sent Before	If <code>sentRestriction</code> is Before; <code>sentRestriction</code> restriction value.	Valid values: - As String = Date, As Value = 1 - As String = Today, As Value = 2 - As String = Yesterday, As Value = 3 - As String = Tomorrow, As Value = 4 - As String = Launch Time, As Value = 5 - As String = Relative, As Value = 6 Default is Date (1).	N	
<code>sentBeforeDate</code>	Sent Before Date	If <code>sentBefore</code> is Date; Specific date for the <code>sentBefore</code> restriction value.	Valid format: YYYY-MM-DD	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>sentBeforeOffset</code>	Sent Before Offset	If <code>sentBefore</code> is Relative; Offset, relative to the last launch time, for the <code>sentBefore</code> restriction value.	Valid Format: [+/-]hh:mm	N	
<code>sentOn</code>	Sent On	If <code>sentRestriction</code> is On; <code>sentRestriction</code> restriction value.	Valid values: - As String = Date, As Value = 1 - As String = Today, As Value = 2 - As String = Yesterday, As Value = 3 - As String = Tomorrow, As Value = 4 Default is Date (1).	N	
<code>sentOnDate</code>	Sent On Date	If <code>sentOn</code> is Date; Specific date for the <code>sentOn</code> restriction value.	Valid format: YYYY-MM-DD	N	
<code>sentRestriction</code>	Sent Restriction	Type of Sent restriction to apply.	Valid values: - As String = None, As Value = 0 - As String = On, As Value = 1 - As String = Before, As Value = 2 - As String = After, As Value = 3 - As String = Span, As Value = 4 Default is None (0).	N	
<code>subject</code>	Subject	If <code>useAdvancedCriteria</code> is false and <code>subjectFilter</code> is any value other than None, Is Blank, or Is Not Blank; <code>subjectFilter</code> condition value.		N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>subjectFilter</code>	Subject Filter	If <code>useAdvancedCriteria</code> is false; <code>subject</code> filter condition to apply.	Valid values: - As String = None, As Value = 0 - As String = Equals, As Value = 1 - As String = Starts With, As Value = 2 - As String = Contains, As Value = 3 - As String = Ends With, As Value = 4 - As String = Dos Not Equal, As Value = 5 - As String = Dos Not Start With, As Value = 6 - As String = Does Not Contain, As Value = 7 - As String = Dos Not End With, As Value = 8 - As String = Is Blank, As Value = 9 - As String = Is Not Blank, As Value = 10 - As String = Regex, As Value = 11 Default is None (0).	N	
<code>timeLimit</code>	Time Limit	Used for Email Monitor tasks not associated with a trigger; Amount of time (in units specified by <code>timeLimitUnit</code>) to monitor for the Email Monitor conditions to be met.	The <code>timeLimit</code> duration is always relative to the start time of the Email Monitor task instance.	N	
<code>timeLimitUnit</code>	Time Limit Unit	Unit of time to use for <code>timeLimit</code> .	Valid Values: - As String = Minutes, As Value = 2 - As String = Hours, As Value = 3 - As String = Days, As Value = 4 Default is Hours (3).	N	
<code>to</code>	To	If <code>useAdvancedCriteria</code> is false and <code>toFilter</code> is any value other than None, Is Blank, or Is Not Blank; <code>toFilter</code> condition value.		N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
toFilter	To Filter	If useAdvancedCriteria is false; to condition to apply.	Valid values: - As String = None, As Value = 0 - As String = Equals, As Value = 1 - As String = Contains, As Value = 3 - As String = Dos Not Equal, As Value = 5 - As String = Does Not Contain, As Value = 7 - As String = Is Blank, As Value = 9 - As String = Is Not Blank, As Value = 10 - As String = Regex, As Value = 11 Default is None (0).	N	
useAdvancedCriteria	Use Advanced Criteria	Specification for whether or not to use Advanced Criteria for the Email Monitor filter criteria.	Boolean; Valid values: true/false. Default is false.	N	

4.33.35.1.6 File Transfer Task Properties

4.33.35.1.6.1 Task Properties: File Transfer Task

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
authenticatePeer	Authenticate Peer	If serverType = FTPES; Indication of whether to use a CA certificate configured in the agent to authenticate the FTP server's certificate.	Boolean; Valid Values: true/false. Default is false.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
codepage	Codepage	If <code>serverType</code> = UDM; Supported code pages for a File Transfer task.	Valid Values: - As String = -- None --, As Value = 0 - As String = ISO 8859-1, As Value = 1 - As String = IBM Latin-1 1047, As Value = 2 - As String = ISO 8859-2, As Value = 3 - As String = ISO 8859-3, As Value = 4 - As String = ISO 8859-4, As Value = 5 - As String = ISO 8859-5, As Value = 6 - As String = ISO 8859-6, As Value = 7 - As String = ISO 8859-7, As Value = 8 - As String = ISO 8859-8, As Value = 9 - As String = ISO 8859-9, As Value = 10 - As String = ISO 8859-10, As Value = 11 - As String = ISO 8859-13, As Value = 12 - As String = ISO 8859-14, As Value = 13 - As String = ISO 8859-15, As Value = 14 - As String = cp437, As Value = 15 - As String = cp737, As Value = 16 - As String = cp775, As Value = 17 - As String = cp850, As Value = 18 - As String = cp852, As Value = 19 - As String = cp855, As Value = 20 - As String = cp857, As Value = 21 - As String = cp860, As Value = 22 - As String = cp861, As Value = 23 - As String = cp862, As Value = 24 - As String = cp863, As Value = 25 - As String = cp864, As Value = 26 - As String = cp865, As Value = 27 - As String = cp866, As Value = 28 - As String = cp869, As Value = 29 - As String = cp874, As Value = 30 - As String = cp1250, As Value = 31	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
			• As String = cp1251, As Value = 32 • As String = cp1252, As Value = 33 • As String = cp1253, As Value = 34 • As String = cp1254, As Value = 35 • As String = cp1255, As Value = 36 • As String = cp1256, As Value = 37 • As String = cp1257, As Value = 38 • As String = cp1258, As Value = 39 • As String = IBM Portugal 037, As Value = 40 • As String = IBM German 273, As Value = 41 • As String = IBM Danish and Norwegian 277, As Value = 42 • As String = IBM Sweden and Finland 278, As Value = 43 • As String = IBM Italian 280, As Value = 44 • As String = IBM Spanish 284, As Value = 45 • As String = IBM International 500, As Value = 46 • As String = IBM Greek 875, As Value = 47 • As String = IBM Portugal 1140, As Value = 48 • As String = IBM German 1141, As Value = 49 • As String = IBM Danish 1142, As Value = 50 • As String = IBM Finish 1143, As Value = 51 • As String = IBM Italian 1144, As Value = 52 • As String = IBM Spanish 1145, As Value = 53 • As String = IBM UK 1146, As Value = 54 • As String = IBM Swiss 1148, As Value = 55 • As String = IBM Greek 4971, As Value = 56 Default is - - None - - (0).		

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
command	Command	If <code>serverType</code> = FTP, SFTP, FTPS, or FTPES; File Transfer command being executed.	Valid Values: - As String = GET, As Value = 1 - As String = PUT, As Value = 2 - As String = MGET, As Value = 3 - As String = MPUT, As Value = 4 - As String = DELETE, As Value = 5 - As String = MDELETE, As Value = 6 - As String = MKDIR, As Value = 7 - As String = RMDIR, As Value = 8 Default is GET (1).	N	
compress	Compress	If <code>serverType</code> = UDM; Type of data compression used in the transfer, if any.	Valid Values: - As String = YES, As Value = 1 - As String = NO, As Value = 2 - As String = ZLIB, As Value = 3 - As String = HASP, As Value = 4 Default is NO (2).	N	
createop	File Creation Option	If <code>serverType</code> = UDM, <code>formOrScript</code> = Form, and <code>udmOperation</code> = Copy, Move, or Copy Directory; Specification for whether the transferred file should be created (new), appended, or should replace any existing file.	Valid Values: - As String = -- None --, As Value = 0 - As String = APPEND, As Value = 1 - As String = NEW, As Value = 2 - As String = REPLACE, As Value = 3 Default is -- None -- (0).	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
encrypt	Encrypt	If <code>serverType</code> = UDM; Method of encryption that the Controller will use in the transfer.	Valid Values: - As String = YES, As Value = 1 - As String = NO, As Value = 2 - As String = RC4-SHA, As Value = 3 - As String = RC4-MD5, As Value = 4 - As String = AES256-SHA, As Value = 5 - As String = AES128-SHA, As Value = 6 - As String = DES-CBC3-SHA, As Value = 7 - As String = DES-CBC-SHA, As Value = 8 - As String = NULL-SHA, As Value = 9 - As String = NULL-MD5, As Value = 10 - As String = NULL-NULL, As Value = 11 Default is NO (2).	N	
exitCodeOutput	Output File	If <code>outputType</code> = FILE (3); Path and file name containing the output that you want automatically retrieved and attached to the task instance.		Y	
exitCodeProcessing	Exit Code Processing	If <code>serverType</code> = UDM; Specification for how the Controller should determine whether the executed command failed or completed successfully.	Valid Values: - As String = Success Exitcode Range, As Value = 1 - As String = Failure Exitcode Range, As Value = 2 - As String = Success Output Contains, As Value = 3 - As String = Failure Output Contains, As Value = 4 - As String = Step Conditions, As Value = 5 Default is Success Exitcode Range (1).	N	
exitCodes	Exit Codes	If <code>exitCodeProcessing</code> = Success Exitcode Range (1) or Failure Exitcode Range (2); Range of exit codes.	Format: Numeric. Use commas to list a series of exit codes; use hyphens to specify a range. For example: 1,5, 22-30.	Y	
exitCodeText	Scan Output For	If <code>exitCodeProcessing</code> = Success Exitcode Range (1) or Failure Exitcode Range (2); Text for which the Controller should scan the output file. The Controller will process this field as a regular expression .		Y	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>format</code>	Transfer Type	If <code>serverType</code> = FTP, SFTP, FTPS, or FTPES; Type of data transfer.	Valid Values: - As String = Binary, As Value = 1 - As String = ASCII or Text, As Value = 2 Default is Binary (1).	N	
<code>formOrScript</code>	Form or Script	If <code>serverType</code> = UDM; Form or Script for this UDM File Transfer to use.	Valid Values: - As String = Form, As Value = 1 - As String = Script, As Value = 2 Default is Form (1).	N	
<code>ftpSubcommands</code>	Subcommands (z/OS only)	If <code>serverType</code> = FTP, SFTP, FTPS, or FTPES; Any subcommands used in the JCL statement.		N	
<code>jobcard</code>	Job Card (zOS only)]	If <code>serverType</code> = FTP, SFTP, FTPS, or FTPES; Job card information for the JCL statement.		N	
<code>localFilename</code>	Local Filename	If <code>serverType</code> = FTP, SFTP, FTPS, or FTPES; Path and file name on the local server (that is, the "transfer from" file name).		Y	
<code>localFilename</code>	Primary File(s)	If <code>serverType</code> = UDM; Specifies the File(s) on the Primary UDM Agent.		Y - If <code>formOrScript</code> = Form and <code>udmOperation</code> = Copy or Move. - If <code>formOrScript</code> = Form, <code>udmOperation</code> = Copy Directory, and <code>transferDirection</code> = PUT.	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
move	Move	If <code>transferProtocol</code> = FTP, SFTP, FTPS, or FTPES, and <code>command</code> = GET, MGET, PUT, or MPUT; Modifies the behavior of GET/MGET and PUT/MPUT by deleting the primary file(s) after being transferred to the destination. GET/MGET with Move enabled will delete the files from the remote FTP server; PUT/MPUT with Move enabled will delete the files from the local FTP client..		Y	
nft	Network Fault Tolerant	If <code>serverType</code> = UDM and <code>formOrScript</code> = form; Enable if the session is network fault tolerant.	Boolean; Valid Values: true/false. Default is false.	N	
outputType	Output Type	If <code>exitCodeProcessing</code> = Success Output Contains (3) or Failure Output Contains (4); Type of output.	Valid Values: - As String = STDOUT, As Value = 1 - As String = STDERR, As Value = 2 - As String = FILE, As Value = 3 Default is STDOUT (1).	N	
primaryBroker	Primary UDM Agent	If <code>serverType</code> = UDM; Name of the Agent resource defined in the Controller that describes the Primary UDM Agent machine (primary transfer server).		Y If <code>formOrScript</code> = Form, and <code>primaryBrokerChoice</code> = Hostname or Agent Variable. or If <code>formOrScript</code> = Form, <code>primaryBrokerChoice</code> = Agent, and <code>primaryBrokerChoice</code> is not specified.	primaryBrokerRef

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
primaryBrokerChoice	Primary UDM Agent Option	If <code>serverType</code> = UDM; Specification for how you will specify the Primary UDM Agent. Note The Agent Variable value is valid for PUT/POST. GET will no longer support the Agent Variable (2) option.	Valid Values: - As String = None, As Value = 0 - As String = Agent, As Value = 1 - As String = Agent Variable, As Value = 2 - As String = Agent Hostname, As Value = 3 - As String = Utility Agent, As Value = 4 - As String = Agent Cluster, As Value = 5 Default is Agent (1).	N	
primaryBrokerRef	Primary UDM Agent	If <code>serverType</code> = UDM; Name of the Agent resource defined in the Controller that describes the Primary UDM Agent machine (primary transfer server).		Y If <code>formOrScript</code> = Form, <code>primaryBrokerChoice</code> = Agent and <code>primaryBroker</code> is not specified.	primaryBroker
primaryCluster	Primary UDM Agent Cluster	If <code>primaryBrokerChoice</code> = Cluster: Agent Cluster to use for the Primary UDM Agent.		Y (unless <code>primaryClusterRef</code> is specified)	primaryClusterRef
primaryClusterRef	Primary UDM Agent Cluster	If <code>primaryBrokerChoice</code> = Cluster: Name of a variable that will be resolved at run time to the name of the Primary UDM Agent Cluster to use.		Y (unless <code>primaryCluster</code> is specified)	primaryCluster
primaryCred	Primary Credentials	If <code>serverType</code> = UDM; Primary user ID and password (local to the host on which the server is running) under which the transfer operation is being carried out.		N	
primaryCredVar	Primary Credentials Variable	If <code>serverType</code> = UDM; Name of a variable that will be resolved at run time to the name of the Primary Credentials to use.		N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
primaryFilesys	Primary File System	If <code>serverType</code> = UDM and <code>formOrScript</code> = Form; Type of file system on the Primary server.	Valid Values: - As String = -- None --, As Value = 0 - As String = DSN, As Value = 1 - As String = HFS, As Value = 2 - As String = LIB, As Value = 3 Default is -- None -- (0).	N	
primaryOpenOptions	Append Primary Open Options	If <code>serverType</code> = UDM and <code>formOrScript</code> = Form; Any additional free form open command options for the Primary transfer server.		N	
remoteCredentials	FTP Credentials	If <code>serverType</code> = FTP, SFTP, FTPS, or FTPES; Login credentials that the Agent will use to access the FTP or SFTP server machine.	If the File Transfer server and Agent are running on the same machine, enter the same credentials as those you entered in the Credentials field.	Y (unless <code>remoteCredVar</code> is specified)	<code>remoteCredVar</code>
remoteCredVar	FTP Credentials Variable	If <code>serverType</code> = FTP, SFTP, FTPS, or FTPES; Name of a variable that will be resolved at run time to the name of the FTP Credentials to use.		Y (unless <code>remoteCredentials</code> is specified)	<code>remoteCredentials</code>
remoteFilename	Remote Filename	If <code>serverType</code> = FTP, SFTP, FTPS, or FTPES; Path and file name on the remote server (that is, the "transfer to" file name).		Y	
remoteFilename	Secondary File(s)	If <code>serverType</code> = UMD; Specifies the File(s) on the Secondary UDM Agent.		Y - If <code>formOrScript</code> = Form and <code>udmOperation</code> = Copy or Move. - If <code>formOrScript</code> = Form, <code>udmOperation</code> = Copy Directory, and <code>transferDirection</code> = GET.	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>remoteServer</code>	Remote Server	If <code>serverType</code> = FTP, SFTP, FTPS, or FTPES; Name or IP address of the File Transfer server.	This machine may or may not be the same as the Agent machine. You also can specify a non-standard FTP or SFTP port: - For FTP, specify the port number separated from the host name with a space: "some.server.com 2222". - For SFTP, specify the port number separated from the host name with a colon: "some.server.com:2222".	N	
<code>retryExitCodes</code>	Retry Exit Codes	Exit code range for which an auto-retry of tasks in FAILED status will occur.	Range must be in the same format as <code>exitCodes</code> .	N	
<code>retryIndefinitely</code>	Retry Indefinitely	Specification for whether or not the Controller should continue trying indefinitely to run this task. If you enable this field, it overrides any value placed in <code>retryMaximum</code> .	Boolean; Valid values: true/false. Default is false.	N	
<code>retryInterval</code>	Retry Interval (Seconds)	Number of seconds between each retry.	Integer; Default is 60.	N	
<code>retryMaximum</code>	Maximum Retries	Maximum number of times that the Controller should retry this task after it has started and gone to a FAILED state.	Integer; Default is 0.	N	
<code>retrySuppressFailure</code>	Suppress Intermediate Failures	Specification for whether or not the following will be suppressed until all scheduled retry attempts have been made: - All Actions (Abort, Email Notification, Set Variable, SNMP Notification, and System Operation) to be made against the task instance. - Workflow conditional path processing; any Successors waiting on a failure path will not be released. - Task Monitors will not be notified of the Failed status. Also, any Task Monitor task that has a Time Scope in the past will disqualify any matching task instance in the past with a Failed status if the task instance is scheduled for automatic retry and for which Suppress Intermediate Failures has been enabled. - Any Workflow containing the Failed task instance will not transition to the Running/Problems status.	Boolean; Valid values: true/false. Default is false.	N	
<code>runtimeDir</code>	Runtime Directory	If <code>serverType</code> = UDM; Directory from which the application should be executed.	Variables are supported.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
script	Script	If <code>serverType</code> = UDM and <code>formOrScript</code> = Script; Name of a script to execute for this File Transfer task.		N	
secondaryBroker	Secondary UDM Agent	If <code>serverType</code> = UDM; Name of the Agent resource defined in the Controller that provides details about the Secondary UDM Agent machine (secondary transfer server).		Y If <code>secondaryBrokerChoice</code> = Hostname or Agent Variable and <code>formOrScript</code> = Form or <code>secondaryBrokerChoice</code> = Agent, <code>formOrScript</code> = Form, and <code>secondaryBrokerRef</code> is not specified.	secondaryBrokerRef
secondaryBrokerChoice	Secondary UDM Agent Option	If <code>serverType</code> = UDM; Specification for how you will specify the Secondary UDM Agent. Note The Agent Variable value is valid for PUT/POST. GET will no longer support the Agent Variable (2) option.	Valid Values: - As String = None, As Value = 0 - As String = Agent, As Value = 1 - As String = Agent Variable, As Value = 2 - As String = Agent Hostname, As Value = 3 - As String = Agent Cluster, As Value 5 Default is Agent (1).	N	
secondaryBrokerRef	Secondary UDM Agent	If <code>serverType</code> = UDM; Name of the Agent resource defined in the Controller that provides details about the Secondary UDM Agent machine (secondary transfer server).		Y If <code>secondaryBrokerChoice</code> = Agent, <code>formOrScript</code> = Form, and <code>secondaryBroker</code> is not specified.	secondaryBroker

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
secondaryCluster	Secondary UDM Agent Cluster	If <code>secondaryBrokerChoice</code> = Cluster: Agent Cluster to use for the Secondary UDM Agent.		Y (unless <code>secondaryClusterRef</code> is specified)	secondaryClusterRef
secondaryClusterRef	Secondary UDM Agent Cluster	If <code>secondaryBrokerChoice</code> = Cluster: Name of a variable that will be resolved at run time to the name of the Secondary UDM Agent Cluster to use.		Y (unless <code>secondaryCluster</code> is specified)	secondaryCluster
secondaryCred	Secondary Credentials	If <code>serverType</code> = UDM; Secondary user ID and password (local to the host on which the server is running) under which the transfer operation is being carried out.		N	secondaryCredVar
secondaryCredVar	Secondary Credentials Variable	If <code>serverType</code> = UDM; Name of a variable that will be resolved at run time to the name of the Secondary Credentials to use.		N	secondaryCred
secondaryFilesys	Secondary File System	If <code>serverType</code> = UDM and <code>formOrScript</code> = Form; Type of file system on the Secondary server.	Valid Values: - As String = -- None --, As Value = 0 - As String = DSN, As Value = 1 - As String = HFS, As Value = 2 - As String = LIB, As Value = 3 Default is -- None -- (0).	N	
secondaryOpenOptions	Append Secondary Open Options	If <code>serverType</code> = UDM and <code>formOrScript</code> = Form; Any additional free form open command options for the Secondary transfer server.		N	
serverType	Transfer Protocol	Type of File Transfer server. Note You cannot select a <code>serverType</code> if it has been excluded via the File Transfer Task Exclude Protocols Universal Controller system property.	Valid Values: - As String = FTP, As Value = 1 - As String = SFTP, As Value = 2 - As String = UDM, As Value = 3 - As String = FTPS, As Value = 4 - As String = FTPES, As Value = 5 Default is FTP (1).	N	
showProgress	Show Progress	If <code>serverType</code> = UDM, <code>formOrScript</code> = form, and <code>udmOperation</code> = Copy, Move, or Copy Directory; Shows periodic file transfer progress messages in the UDM transfer output.	Boolean; Valid values: true/false. Default is false.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
transferDirection	Transfer Direction	If <code>serverType</code> = UDM, <code>formOrScript</code> = form, and <code>udmOperation</code> = Copy, Move, or Copy Directory; Direction of the transfer between the Primary and Secondary UDM Agents.	Valid Values: - As String = PUT, As Value = 1 - As String = GET, As Value = 2 Default is PUT (1).	N	
transferMode	Transfer Mode	If <code>serverType</code> = FTP, FTPS, or FTPES; Mode of transfer to use.	Valid Values: - As String = Active, As Value = 1 - As String = Passive, As Value = 2 - As String = Extended Passive, As Value = 3 Default is Passive (2).	N	
trimSpace	Trim Trailing Spaces	If <code>serverType</code> = UDM and <code>formOrScript</code> = form; Specification for whether or the Controller should trim trailing spaces from lines on a text transfer.	Boolean; Valid Values: true/false. Default is false.	N	
udmOperation	UDM Operation	If <code>serverType</code> = UDM; UDM Operation for this UDM File Transfer to use.	Valid Values: - As String = Copy, As Value = 1 - As String = Move, As Value = 2 - As String = Delete, As Value = 3 - As String = Rename, As Value = 4 - As String = List, As Value = 5 - As String = Copy Directory, As Value = 6 - As String = Create Directory, As Value = 7 - As String = Delete Directory, As Value = 8 Default is Copy (1).	N	
udmOptions	Append UDM Options	If <code>serverType</code> = UDM; Any additional free-form Universal Data Mover command options.		N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
useRegex	User Regular Expression	Specification for whether or not to enable the use of a regular expression. If <code>serverType</code> = FTP/SFTP/FTPS/FTPES, the use of regular expression is in <code>localFilename</code>. If <code>serverType</code> = UDM; - If <code>udmOperation</code> = Copy or Move and <code>transferDirection</code> = PUT; the use of regular expression is in <code>localFilename</code>. - If <code>udmOperation</code> = Copy or Move and <code>transferDirection</code> = GET; the use of regular expression is in <code>remoteFilename</code>. - If <code>udmOperation</code> = Delete or List and <code>localFilename</code> is specified; the use of regular expression is in <code>localFilename</code>. - If <code>udmOperation</code> = Delete or List and <code>remoteFilename</code> is specified; the use of regular expression is in <code>remoteFilename</code>.	Boolean; Valid Values: true/false. Default is false.	N	
verifyHostName	Verify Host Name	If <code>serverType</code> = FTPS or FTPES; Indication of whether to verify the DNS name or IP address of the FTP server's certificate against the host system.	Boolean; Valid Values: true/false. Default is false.	N	

4.33.35.1.7 IBM i Task Properties

4.33.35.1.7.1 Task Properties: IBM i Task

Property	UI Field Name	Description	Specifications	Required
command	Command	If <code>commandOrScript</code> = Command (1); Command being executed on the remote machine.	Variables supported.	N
commandOrScript	Command or Script	Specification for whether a single command or a script is being executed.	Valid values: - As String = Command, As Value = 1 - As String = Script, As Value = 2 Default is Command (0).	N

Property	UI Field Name	Description	Specifications	Required
<code>commandType</code>	Command Type	Specifies the type of command used to execute	Valid values: - As String = CL, As Value = 1 - As String = REXX, As Value = 2 - As String = PASE, As Value = 3 - As String = SBMJOB, As Value = 4 Default is CL (1).	N
<code>endSeverity</code>	End Severity	Specifies the message severity level that must be reached in order for the Initiator job to terminate.		N
<code>environment</code>	Environment Variables	Environment variables needed by the program to run.	List of environment variables: <pre> <environment> <variable> <name>env1</name> <value>test1</value> </variable> <variable> <name>env2</name> <value>test2</value> </variable> </environment> </pre>	N
<code>exitCodeOutput</code>	Output File	If <code>outputType</code> = FILE (3); Path and file name of the output file that should be scanned for the text in <code>exitCodeText</code> .		N
<code>exitCodeProcessing</code>	Exit Code Processing	Specification for how the Controller should determine whether the executed command failed or completed successfully.	Valid values: - As String = Success Exitcode Range, As Value = 1 - As String = Failure Exitcode Range, As Value = 2 - As String = Success Output Contains, As Value = 3 - As String = Failure Output Contains, As Value = 4 Default is Success Exitcode Range (1).	N
<code>exitCodes</code>	Exit Codes	If <code>exitCodeProcessing</code> = Success Exitcode Range (1) or Failure Exitcode Range (2); Range of exit codes.	Format: Numeric. Use commas to list a series of exit codes; use hyphens to specify a range. Example: 1,5, 22-30.	Y
<code>exitCodeText</code>	Scan Output For	If <code>exitCodeProcessing</code> = Success Output Contains (3) or Failure Output Contains (4); text for which the Controller should scan the output file.	The Controller will process this field as a regular expression .	Y
<code>jobName</code>	Job Name	Specifies the name associated with the job when it is processed by the system.		N

Property	UI Field Name	Description	Specifications	Required
jobDescription	Job Description	Specifies the job description used with the job.		N
jobQueue	Job Queue	Specifies the job queue in which this job is placed.		N
jobPriority	Job Priority(On JOBQ)	Specifies the job queue scheduling priority. The highest priority is 1 and the lowest priority is 9.	Valid Values: 1-9 *JOBQ	N
outputFailureOnly	Failure Only	If outputReturnType = STDOUT (2), STDERR (3), FILE (4), or OUTERR (6), and waitForOutput is false; Indication for whether output should be retrieved on task failure only.	Boolean; Valid values: true/false. Default is false.	N
outputReturnFile	Output File	If outputReturnType = FILE (4); Path and file name containing the output that you want automatically retrieved and attached to the task instance.		Y
outputReturnLines	Number of Lines	If outputReturnType = STDOUT (2), STDERR (3), FILE (4), or OUTERR (6); Allows you to limit the retrieved data to the number of lines specified.	Integer; Default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	N
outputReturnStartingLine	Starting Line	If outputReturnType = STDOUT (2), STDERR (3), FILE (4), or OUTERR (6); Allows you to instruct the Controller to retrieve data beginning at this line.	Integer; Default is 1.	N
outputReturnText	Scan Text	If outputReturnType = STDOUT (2), STDERR (3), FILE (4), or OUTERR (6); Instructs the Controller to scan the data for the text specified and retrieve only that.	The Controller will process this field as a regular expression .	N
outputReturnType	Automatic Output Retrieval	Specification for whether you want the Controller to automatically retrieve any output from the job and attach it to the task instance record.	Valid values: - As String = NONE, As Value = 1 - As String = STDOUT, As Value = 2 - As String = STDERR, As Value = 3 - As String = FILE, As Value = 4 - As String = OUTERR, As Value = 6 Default is NONE (1). Note If outputReturnType is not NONE (1), the web service will fail with Start Failure if outputProhibited is true for the specified agent .	N

Property	UI Field Name	Description	Specifications	Required
outputQueue	Output Queue	Specifies the qualified name of the output queue used for spooled files that specify OUTQ(*JOB). This parameter applies only to printer files that have *JOB specified on the OUTQ parameter.		N
outputPriority	Output Priority(On OUTQ)	Specifies the output priority for spooled output files produced by this job. The highest priority is 1 and the lowest priority is 9.	Valid Values: 1-9 *JOBQ	N
outputType	Output Type	If exitCodeProcessing = Success Output Contains (3) or Failure Output Contains (4); Type of output.	Valid values: - As String = STDOUT, As Value = 1 - As String = STDERR, As Value = 2 - As String = FILE, As Value = 3 Default is STDOUT (1).	Y
parameters	Parameters	Any arguments needed by the program to execute properly.	Variables are supported.	N
printDevice	Print Device	Specifies the qualified name of the default printer device for this job. If the printer file being used to create the output specifies to spool the file, the spooled file is placed on the device's output queue, which is named the same as the device.		N
retryExitCodes	Retry Exit Codes	Exit code range for which an auto-retry of the task in FAILED status will occur. Exit code ranges must be in the same format as ranges specified in exitCodes . Maximum Retries must be greater than 0. If an exit code range is not specified, any exit code potentially will cause a retry.	Format = 1,5,22-30	N
retryIndefinitely	Retry Indefinitely	Specification for whether or not the Controller should continue trying indefinitely to run this task. If retryIndefinitely = yes, it overrides any value placed in retryMaximum .	Boolean; Valid values: true/false. Default is false.	N
retryInterval	Retry Interval	Number of seconds between each retry.	Integer; Default is 60.	N
retryMaximum	Maximum Retries	Maximum number of times that the Controller should retry this task after it has started and gone to a failed state.	Integer; Default is 0.	N

Property	UI Field Name	Description	Specifications	Required
<code>retrySuppressFailure</code>	Suppress Intermediate Failures	Specification for whether or not the following will be suppressed until all scheduled retry attempts have been made: - All Actions (Abort, Email Notification, Set Variable, SNMP Notification, and System Operation) to be made against the task instance. - Workflow conditional path processing; any Successors waiting on a failure path will not be released. - Task Monitors will not be notified of the Failed status. Also, any Task Monitor task that has a Time Scope in the past will disqualify any matching task instance in the past with a Failed status if the task instance is scheduled for automatic retry and for which Suppress Intermediate Failures has been enabled. - Any Workflow containing the Failed task instance will not transition to the Running/Problems status.	Boolean; Valid values: true/false. Default is false.	N
<code>runtimeDir</code>	Runtime Directory	Directory from which the application should be executed. Variables are supported.		N
<code>script</code>	Script	If <code>commandOrScript</code> is Script (2); Name of a script in the Controller database that will be executed by this task.		Y
<code>waitForOutput</code>	Wait For Output	If <code>outputReturnTypes</code> = STDOUT (2), STDERR (3), FILE (4), or OUTERR (6), and <code>outputFailureOnly</code> is false; Specification for whether or not the task should wait for the requested output before completing.	Boolean; Valid values: true/false. Default is false.	N

4.33.35.1.8 Linux Unix Task Properties

4.33.35.1.8.1 Task Properties: Linux/Unix Task

Property	UI Field Name	Description	Specifications	Required
<code>command</code>	Command	If <code>commandOrScript</code> = Command (1); Command being executed on the remote machine.	Variables supported.	N
<code>commandOrScript</code>	Command or Script	Specification for whether a single command or a script is being executed.	Valid values: - As String = Command, As Value = 1 - As String = Script, As Value = 2 Default is Command (0).	N

Property	UI Field Name	Description	Specifications	Required
environment	Environment Variables	Environment variables needed by the program to run.	List of environment variables: <pre> <environment> <variable> <name>env1</name> <value>test1</value> </variable> <variable> <name>env2</name> <value>test2</value> </variable> </environment> </pre>	N
exitCodeOutput	Output File	If <code>outputType</code> = FILE (3); Path and file name of the output file that should be scanned for the text in <code>exitCodeText</code> .		N
exitCodeProcessing	Exit Code Processing	Specification for how the Controller should determine whether the executed command failed or completed successfully.	Valid values: - As String = Success Exitcode Range, As Value = 1 - As String = Failure Exitcode Range, As Value = 2 - As String = Success Output Contains, As Value = 3 - As String = Failure Output Contains, As Value = 4 Default is Success Exitcode Range (1).	N
exitCodes	Exit Codes	If <code>exitCodeProcessing</code> = Success Exitcode Range (1) or Failure Exitcode Range (2); Range of exit codes.	Format: Numeric. Use commas to list a series of exit codes; use hyphens to specify a range. Example: 1,5, 22-30.	Y
exitCodeText	Scan Output For	If <code>exitCodeProcessing</code> = Success Output Contains (3) or Failure Output Contains (4); text for which the Controller should scan the output file.	The Controller will process this field as a regular expression .	Y
outputFailureOnly	Failure Only	If <code>outputReturnType</code> = STDOUT (2), STDERR (3), FILE (4), or OUTERR (6), and <code>waitForOutput</code> is false; Indication for whether output should be retrieved on task failure only.	Boolean; Valid values: true/false. Default is false.	N
outputReturnFile	Output File	If <code>outputReturnType</code> = FILE (4); Path and file name containing the output that you want automatically retrieved and attached to the task instance.		Y

Property	UI Field Name	Description	Specifications	Required
<code>outputReturnNLine</code>	Number of Lines	If <code>outputReturnType</code> = STDOUT (2), STDERR (3), FILE (4), or OUTERR (6); Allows you to limit the retrieved data to the number of lines specified.	Integer; Default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	N
<code>outputReturnStartingLine</code>	Starting Line	If <code>outputReturnType</code> = STDOUT (2), STDERR (3), FILE (4), or OUTERR (6); Allows you to instruct the Controller to retrieve data beginning at this line.	Integer; Default is 1.	N
<code>outputReturnText</code>	Scan Text	If <code>outputReturnType</code> = STDOUT (2), STDERR (3), FILE (4), or OUTERR (6); Instructs the Controller to scan the data for the text specified and retrieve only that.	The Controller will process this field as a regular expression .	N
<code>outputReturnType</code>	Automatic Output Retrieval	Specification for whether you want the Controller to automatically retrieve any output from the job and attach it to the task instance record.	Valid values: • As String = NONE, As Value = 1 • As String = STDOUT, As Value = 2 • As String = STDERR, As Value = 3 • As String = FILE, As Value = 4 • As String = OUTERR, As Value = 6 Default is NONE (1). Note If <code>outputReturnType</code> is not NONE (1), the web service will fail with Start Failure if <code>outputProhibited</code> is true for the specified agent.	N
<code>outputType</code>	Output Type	If <code>exitCodeProcessing</code> = Success Output Contains (3) or Failure Output Contains (4); Type of output.	Valid values: • As String = STDOUT, As Value = 1 • As String = STDERR, As Value = 2 • As String = FILE, As Value = 3 Default is STDOUT (1).	Y
<code>parameters</code>	Parameters	Any arguments needed by the program to execute properly.	Variables are supported.	N
<code>retryExitCodes</code>	Retry Exit Codes	Exit code range for which an auto-retry of the task in FAILED status will occur. Exit code ranges must be in the same format as ranges specified in <code>exitCodes</code> . Maximum Retries must be greater than 0. If an exit code range is not specified, any exit code potentially will cause a retry.	Format = 1,5,22-30	N
<code>retryIndefinitely</code>	Retry Indefinitely	Specification for whether or not the Controller should continue trying indefinitely to run this task. If <code>retryIndefinitely</code> = yes, it overrides any value placed in <code>retryMaximum</code> .	Boolean; Valid values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
<code>retryInterval</code>	Retry Interval	Number of seconds between each retry.	Integer; Default is 60.	N
<code>retryMaximum</code>	Maximum Retries	Maximum number of times that the Controller should retry this task after it has started and gone to a failed state.	Integer; Default is 0.	N
<code>retrySuppressFailure</code>	Suppress Intermediate Failures	Specification for whether or not the following will be suppressed until all scheduled retry attempts have been made: - All Actions (Abort, Email Notification, Set Variable, SNMP Notification, and System Operation) to be made against the task instance. - Workflow conditional path processing; any Successors waiting on a failure path will not be released. - Task Monitors will not be notified of the Failed status. Also, any Task Monitor task that has a Time Scope in the past will disqualify any matching task instance in the past with a Failed status if the task instance is scheduled for automatic retry and for which Suppress Intermediate Failures has been enabled. - Any Workflow containing the Failed task instance will not transition to the Running/Problems status.	Boolean; Valid values: true/false. Default is false.	N
<code>runAsSudo</code>	Run as sudo	Specification for whether or not to run the command as Sudo (superuser do). <code>runAsSudo</code> prefixes the command with either: sudo (if a credential is not specified; that is, the command is run as root) sudo -u userid (if a credential is specified, where <code>userid</code> = the Runtime User from the supplied credential) When using <code>runAsSudo</code>, you must grant Universal Broker <code>userid</code> authority to <code>sudo</code> to the requested <code>userid</code> without specifying its password; you can do this via the <code>sudoers</code> file. Please refer to your local security policy and documentation for updating the <code>sudoers</code> file.	Boolean; Valid values: true/false. Default is false.	N
<code>runtimeDir</code>	Runtime Directory	Directory from which the application should be executed. Variables are supported.		N
<code>script</code>	Script	If <code>commandOrScript</code> is Script (2); Name of a script in the Controller database that will be executed by this task.		Y
<code>waitForOutput</code>	Wait For Output	If <code>outputReturnType</code> = STDOUT (2), STDERR (3), FILE (4), or OUTERR (6), and <code>outputFailureOnly</code> is false; Specification for whether or not the task should wait for the requested output before completing.	Boolean; Valid values: true/false. Default is false.	N

4.33.35.1.9 PeopleSoft Task Properties

4.33.35.1.9.1 Task Properties: PeopleSoft Task

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>command</code>	Command	PeopleSoft command to execute.	Valid values: - As String = Schedule Process, As Value = 1 - As String = Schedule Job, As Value = 2 - As String = Run Jobset, As Value = 3 Default is Schedule Process (1).	N	
<code>connection</code>	PeopleSoft Connection	Name of the PeopleSoft Connection.		Y (unless <code>connectionVariable</code> is specified)	<code>connectionVariable</code>
<code>connectionVariable</code>	PeopleSoft Connection Variable	Name of a variable that will be resolved at run time to the name of the PeopleSoft Connection to use.		Y (unless <code>connection</code> is specified)	<code>connection</code>
<code>contentFilter</code>	Content Filter	Comma-delimited list of report file suffixes that will not be returned.	For example: pdf,xls	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
distributionOptions	Distribution Options	If <code>command</code> is Schedule Process; Recipients of the process output.	Format: <pre> <distributionOptions> <distributionOption> <distributionId>PS_User_1</distributionId> <distributionIdType>User</distributionIdType> </distributionOption> <distributionOption> <distributionId>PS_Role_1</distributionId> <distributionIdType>Role</distributionIdType> </distributionOption> </distributionOptions> </pre>	N	
emailAddresses	Email Address List	If <code>command</code> is Schedule Process; list of email addresses, separated by semicolons.		N	
emailAttachLog	Email With Log	If <code>command</code> is Schedule Process; Specification for whether or not to attach log files resulting from the Structured Query Report (SQR). Only applicable if <code>processType</code> is SQR Report.	Boolean; Valid values: true/false. Default is false.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
emailSubject	Email Subject	If <code>command</code> is Schedule Process; Subject line of the email.	If not specified, default subject line is used.	N	
emailText	Email Text	If <code>command</code> is Schedule Process; Body of the email.	If not specified, default body message is used.	N	
emailWebReport	Email Web Report	If <code>command</code> is Schedule Process; Specification for whether or not to include a link to the completed report output. Only applicable when <code>outputType</code> is Web.	Boolean; Valid values: true/false. Default is false.	N	
exitCodeProcessing	Exit Code Processing	Specification for how the Controller should determine whether the executed command failed or completed successfully.	Valid values: - As String = Success Exitcode Range, As Value = 1 - As String = Failure Exitcode Range, As Value = 2 - As String = Success Output Contains, As Value = 3 - As String = Failure Output Contains, As Value = 4 Default is Success Exitcode Range (1).	N	
exitCodeText	Scan Output For	If <code>exitCodeProcessing</code> = Success Output Contains or Failure Output Contains; text for which the Controller should scan the output file.	The Controller will process this field as a regular expression.	N	
exitCodes	Exit Codes	If <code>exitCodeProcessing</code> = Success Exitcode Range or Failure Exitcode Range; Range of exit codes.	Format: Numeric. Use commas to list a series of exit codes; use hyphens to specify a range. Example: 1,5, 22-30.	Y	
mainJobName	Main Job Name	If <code>command</code> = Run Jobset; Name of the job within the jobset schedule.		Y	
mainSchedName	Main Schedule Name	If <code>command</code> = Run Jobset; Name of the jobset schedule.		Y	
outputDestFormat	Output Destination Format	If <code>command</code> = Schedule Process or Schedule Job; Override of the default output format for the submitted job or process.		N	
outputDestString	Output Destination String	If <code>command</code> = Schedule Process or Schedule Job; File path or printer destination for the output.		N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
outputDestination	Output Destination Type	If <code>command</code> = Schedule Process or Schedule Job; Type of output for the submitted process.		N	
outputFailureOnly	Failure Only	If <code>outputReturnTypes</code> = STDOUT, STDERR, FILE, or OUTERR, and <code>waitForOutput</code> is false; Indication for whether output should be retrieved on task failure only.	Boolean; Valid values: true/false. Default is false.	N	
outputReturnFile	Automatic Output File	If <code>outputReturnTypes</code> = FILE; Output file to return automatically.		Y	
outputReturnLines	Number of Lines	If <code>outputReturnTypes</code> = STDOUT, STDERR, FILE, or OUTERR; Allows you to limit the retrieved data to the number of lines specified.		N	
outputReturnStartLine	Start Line	If <code>outputReturnTypes</code> = STDOUT, STDERR, FILE, or OUTERR; Instructs the Controller to retrieve data beginning at the specified line.		N	
outputReturnText	Scan Text	If <code>outputReturnTypes</code> = STDOUT, STDERR, FILE, or OUTERR; Regex pattern that the Controller will search for a match for in STDOUT/STDERR or a specified file.	The Controller will include the Number of Lines above and below the first line matched.	N	
outputReturnTypes	Automatic Output Retrieval	Specification for whether you want the Controller to automatically retrieve any output from the job and attach it to the task instance record.	Valid values: - As String = NONE, As Value = 1 - As String = STDOUT, As Value = 2 - As String = STDERR, As Value = 3 - As String = FILE, As Value = 4 - As String = OUTERR, As Value = 6 Default is OUTERR (6).	N	
outputType	Output Type	If <code>exitCodeProcessing</code> = Success Output Contains (3) or Failure Output Contains (4); Type of output.	Valid values: - As String = STDOUT, As Value = 1 - As String = STDERR, As Value = 2 - As String = FILE, As Value = 3 Default is STDOUT (1).	N	
printAppMessage	Print Application Message	Specification for whether or not the application messages for the monitored processes are included in the Job Report.	Boolean; Valid values: true/false. Default is false.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
printDistList	Print Distribution List	Specification for whether or not the report-recipient distribution list is included in the Job Report.	Boolean; Valid values: true/false. Default is false.	N	
printJobTree	Print Job Tree	Specification for whether or not the job tree is included in the Job Report.	Boolean; Valid values: true/false. Default is false.	N	
printParamList	Print Parameter List	Specification for whether or not the parameter list job items are included in the Job Report.	Boolean; Valid values: true/false. Default is false.	N	
printSystemMessage	Print System Message	Specification for whether or not the system messages for the monitored processes are included in the Job Report.	Boolean; Valid values: true/false. Default is false.	N	
processFileName	Process File Name	If command = Schedule Process or Schedule Job; Dependent file name.		N	
processName	Process/Job Name	If command = Schedule Process or Schedule Job; Name of the PeopleSoft process.		N	
processType	Process Type	If command = Schedule Process or Schedule Job; Type of the PeopleSoft process.		N	
psCredentials	PeopleSoft Credentials	Credentials for the PeopleSoft system.		Y (unless psCredentialsVar is specified)	psCredentialsVar
psCredentialsVar	PeopleSoft Credentials Variable	Name of a variable that will be resolved at run time to the name of the PeopleSoft Credentials to use.		Y (unless psCredentials is specified)	psCredentials
report	Report	Specification for whether or not reports associated with a process are returned.	Boolean; Valid values: true/false. Default is false.	N	
reportFolderName	Report Folder Name	If command = Schedule Process or Schedule Job; Folder in which the report will be viewed in Report Manager.		N	
retentionDays	Retention Days	If command = Schedule Process or Schedule Job; Number of days that reports generated by the submitted process should be retained by the system.		N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>runControlId</code>	Run Control ID	If <code>command</code> = Schedule Process or Schedule Job; Run control ID to be used for the process submission.		Y	
<code>serverName</code>	Server Name	If <code>command</code> = Schedule Process or Schedule Job; Specific server name.		N	
<code>waitForOutput</code>	Wait For Output	If <code>outputReturnTypes</code> = STDOUT, STDERR, FILE, or OUTERR, and <code>outputFailureOnly</code> is false; Specification for whether or not the task should wait for the requested output before completing.	Boolean; Valid values: true/false. Default is false.	N	

4.33.35.1.10 Recurring Task Properties

4.33.35.1.10.1 Task Properties: Recurring Task

Property	UI Field Name	Description	Specifications	Required
<code>indefiniteRecurrences</code>	Indefinite Recurrences	Indication that the recurrence of runs for the specified <code>targetTask</code> will occur indefinitely.	Boolean	Y (if <code>recurrenceType</code> is Interval)
<code>intervalEndDayConstraint</code>	Interval End Day Constraint	Specification for whether or not to advance the end day of the recurrence to another day.	String Value	Y (if <code>recurrenceType</code> is Interval and <code>timeWindow</code> is true)
<code>intervalEndTime</code>	Interval End Time (HH:MM)	Ending time of day that runs of the specified <code>targetTask</code> will occur.	String Value of time (HH:MM)	Y (if <code>recurrenceType</code> is Interval and <code>timeWindow</code> is true)
<code>intervalStartDayConstraint</code>	Interval Start Day Constraint	Specification for whether or not to advance the start day of the recurrence to another day.	String Value	Y (if <code>recurrenceType</code> is Interval and <code>timeWindow</code> is true)
<code>intervalStartTime</code>	Interval Start Time (HH:MM)	Starting time of day that runs of the specified <code>targetTask</code> will occur.	String Value of time (HH:MM)	Y (if <code>recurrenceType</code> is Interval and <code>timeWindow</code> is true)

Property	UI Field Name	Description	Specifications	Required
numberOfRecurrences	Number Of Recurrences	Number of times that runs of the specified <code>targetTask</code> will occur.	Integer value	Y (if <code>recurrenceType</code> is Interval)

Property	UI Field Name	Description	Specifications	Required
overrideVariables	Override Variables	Override Variables	Format: XML <overrideVariables> <variable> <name>var1</name> name> <resolution>res1</resolution> <value>val1</value> value> </variable> <variable> <name>var2</name> name> <resolution>res2</resolution> <value>val2</value> value> </variable> </overrideVariables> JSON	N

Property	UI Field Name	Description	Specifications	Required
			<pre>[{ "name": "var1", "resolution": "res1", "value": "val1" } { "name": "var2", "resolution": "res2", "value": "val2" }],</pre>	
<code>rdExcludeBackupRt</code>	Exclude Backup	Set only if <code>retentionDurationPurgeRt</code> is selected; Specification for whether qualifying task instances can be excluded from the backup when being purged by retention duration.	Boolean; Valid values: true/false. Default is false.	N
<code>recurrenceInterval</code>	Recurrence Interval	Amount of time to wait - based on the time unit specified in <code>recurrenceIntervalUnit</code> - between runs of the specified <code>targetTask</code> .	Integer value	Y (if <code>recurrenceType</code> is Interval)
<code>recurrenceIntervalUnit</code>	Recurrence Interval Unit	Units of time to wait - based on the time specified in <code>recurrenceInterval</code> - between runs of the specified <code>targetTask</code> .	String Value	Y (if <code>recurrenceType</code> is Interval)

Property	UI Field Name	Description	Specifications	Required
recurrenceTimeList	Recurrence Time List	List of Times and Days on which runs of the <code>targetTask</code> will reoccur.	Format: <pre> <recurrenceTimeList> <recurrenceTime> <time>10:05</time> <dayConstraint>None</dayConstraint> </recurrenceTime> <recurrenceTime> <time>11:05</time> <dayConstraint>Sunday1</dayConstraint> </recurrenceTime> </recurrenceTimeList> </pre>	Y (if <code>recurrenceType</code> is On)
recurrenceType	Recurrence Type	Type of recurrence	Valid values: One of the following (not case sensitive): - As String = Interval, As Value = 1 - As String = On, As Value = 2	Y
retentionDurationRt	Retention Duration	Set only if <code>retentionDurationPurgeRt</code> is selected; Minimum retention duration for the selected <code>retentionDurationPurgeRt</code> before triggered task instances can qualify for purge.	Positive Integer	N
retentionDurationPurgeRt	Purge By Retention Duration	Specification for whether triggered task instances can be purged by retention duration.	Boolean; Valid values: true/false. Default is false.	N
retentionDurationUnitRt	Retention Duration Unit	Set only if <code>retentionDurationPurgeRt</code> is selected; Retention duration unit.	Valid values: - As String = Hours, As Value = 3 - As String = Days, As Value = 4 Default is Days (4).	N

Property	UI Field Name	Description	Specifications	Required
targetTaskStatusText	Status To Monitor	Status being monitored for. When the target task instance(s) being monitored go to the status specified here, the Recurring Task Instance will complete successfully.	Comma-separated list of task instance statuses . Valid values: - Finished - Success - Skipped	Y (if <code>targetTaskMonitorCondition</code> is First Recurrence or Last Recurrence)
timeWindow	Time Window	Specification for whether the <code>targetTask</code> will run within a specified time frame.	Boolean; Valid values: true/false. Default is false.	Y (if <code>recurrenceType</code> is Interval and <code>indefiniteRecurrences</code> is false)

4.33.35.1.11 Remote File Monitor Task Properties

4.33.35.1.11.1 Task Properties: Remote File Monitor Task

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
authenticatePeer	Authenticate Peer	If <code>serverType</code> = FTPES; Indication of whether to use a CA certificate configured in the agent to authenticate the FTP server's certificate.	Boolean; Valid Values: true/false. Default is false.	N	
ftpFmtype	Monitor Type	Type of file event being monitored for.	Valid values: - As String = Exist, As Value = 1 - As String = Missing, As Value = 2 Default is Exist (1).	N	
jobcard	Job Card (z/OS only)	For z/OS; Job card information for the JCL statement.		N	
listOptions	Additional FTP Commands	If <code>servertype</code> = FTP, FTPS, or FTPES; Allows you to add statements to the FTP script that control the format of the file list returned by the task.	(See Additional FTP Commands in Remote File Monitor task.)	N	
minFileScale	Minimum File Scale	If <code>ftpFtype</code> = Exist(1); Scale for the minimum file size.	Valid values: - As String = Bytes, As Value = 0 - As String = KB, As Value = 1 - As String = MB, As Value = 2 Default is KB (1).	N	
minFileSize	Minimum File Size	If <code>ftpFmtype</code> = Exist (1); Minimum file size.		N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
outputFailureOnly	Failure Only	If outputReturntype = STDOUT (2), STDERR (3), or OUTERR (6), and waitForOutput is false; Indication for whether output should be retrieved on task failure only.	Boolean; Valid values: true/false. Default is false.	N	
outputReturnLines	Number of Lines	If outputReturntype is STDOUT (2), STDERR (3), or OUTERR (6); Allows you to limit the retrieved data to the number of lines specified.	Integer; Default is the value of the Retrieve Output Default Number Of Lines Universal Controller system property.	N	
outputReturnStartingLine	Starting Line	If outputReturntype is STDOUT (2), STDERR (3), or OUTERR (6); Allows you to instruct the Controller to retrieve data beginning at this line.	Integer; Default is 1.	N	
outputReturnText	Scan Text	If outputReturntype is STDOUT (2), STDERR (3), or OUTERR (6); Instructs the Controller to scan the data for the text specified and retrieve only that.	The Controller will process this field as a regular expression .	N	
outputReturntype	Automatic Output Retrieval	Specification for whether you want the Controller to automatically retrieve any output from the job and attach it to the task instance record.	Valid values: - As String = NONE, As Value = 1 - As String = STDOUT, As Value = 2 - As String = STDERR, As Value = 3 - As String = OUTERR, As Value = 6 Default is NONE (1). If outputReturntype is not NONE (1), the web service will fail with Start Failure if outputProhibited is true for the specified agent.	N	
pollInterval	Poll Interval (Seconds)	If wait = true; Frequency, in seconds, in which the Remote File Monitor will check to see if the file exists or is missing.	Integer; Default is 30.	N	
pollMaximum	Maximum Polls	If wait = true; Maximum number of times that the Remote File Monitor will check to see if the file exists or is missing.	Integer.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>remoteCredentials</code>	FTP Credentials	Login credentials that the Agent will use to access the FTP or SFTP server machine.	If the File Transfer server and Agent are running on the same machine, enter the same credentials as those you entered in the Credentials field.	N	<code>remoteCredVar</code>
<code>remoteCredVar</code>	FTP Credentials Variable	Name of a variable that will be resolved at run time to the name of the FTP Credentials to use.		N	<code>remoteCredentials</code>
<code>remoteFilename</code>	Remote Filename (FTP)	Path and file name on the remote server.		N	
<code>remoteServer</code>	Remote Server (FTP)	Name or IP address of the remote server.	This machine may or may not be the same as the Universal Agent machine. You also can specify a non-standard FTP or SFTP port: - For FTP, specify the port number separated from the host name with a space: "some.server.com 2222". - For SFTP, specify the port number separated from the host name with a colon: "some.server.com:2222".	N	
<code>servertype</code>	Server Type	Type of FTP server. Note You cannot select a <code>serverType</code> if it has been excluded via the Remote File Monitor Task Exclude Protocols Universal Controller system property.	Valid values: - As String = FTP, As Value = 1 - As String = SFTP, As Value = 2 - As String = FTPS, As Value = 4 - As String = FTPES, As Value = 5 Default is FTP (1).	N	
<code>stableSeconds</code>	Stable (Seconds)	If <code>wait</code> is true; Period of time, in seconds, during which the file has not changed.	Integer.	N	
<code>transferMode</code>	Transfer Mode	Transfer mode to use.	Valid values: - As String = Active, As Value = 1 - As String = Passive, As Value = 2 - As String = Extended Passive, As Value = 3	N	
<code>useRegex</code>	Use Regular Expression	Enables the use of a regular expression in <code>remoteFilename</code> .	Boolean; Valid values: true/false. Default is false.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>verifyHostName</code>	Authenticate Peer	If <code>serverType</code> = FTPS or FTPES; Indication of whether to verify the DNS name or IP address of the FTP server's certificate against the host system.	Boolean; Valid Values: true/false. Default is false.	N	
<code>wait</code>	Wait until Satisfied	If true, the task instance starts and continues to run until one of the following events occurs: - If <code>ftpFmtype</code> = Exist and the specified file exists or appears, the task instance completes with a status of SUCCESS. - If <code>ftpFmtype</code> = Missing and the specified file does not exist or exists then disappears, the task instance completes with a status of SUCCESS. If false, the task instance: - Starts. - Checks for the existence of the file. - Takes one of the following actions: - If <code>ftpFmtype</code> = Exist and if the file exists, the task instance completes with a status of SUCCESS. - If <code>ftpFmtype</code> = Exist and if the file does not exist, the task instance completes with a status of FAILURE. - If <code>ftpFmtype</code> = Missing and if the file exists, the task instance completes with a status of FAILURE. - If <code>ftpFmtype</code> = Missing and if the file does not exist, the task instance completes with a status of SUCCESS.	Boolean; Valid values: true/false. Default is false.	N	

4.33.35.1.12 SAP Task Properties

- [Task Properties: SAP Task](#)
 - [Email Notification Properties: SAP Task](#)
 - [Spool List Recipient Properties: SAP Task](#)

4.33.35.1.12.1 Task Properties: SAP Task

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
chainDesc	Chain Description	If sapDisplayCommand equals Process Chains (19); Displays the list of processes contained within the specified process chain.		N	
chainId	Chain ID	If commandGroup is one of the following; ID of the process chain to run: • Run Process Chain • Start Process Chain • Wait Process Chain • Interrupt Process Chain • Display and sapDisplayCommand is Process Chains (19), Process Chain (20), Process Chain Log (21), Process Chain Start Condition (22), or Process Chain Status (23)		Y	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
commandGroup	Command Group	Universal Connector command group.	Valid values: • As String = Run, As Value = 1 • As String = Submit, As Value = 2 • As String = Modify, As Value = 3 • As String = Start, As Value = 4 • As String = Wait, As Value = 5 • As String = Abort, As Value = 6 • As String = Purge Job, As Value = 7 • As String = Raise Event, As Value = 8 • As String = Display, As Value = 9 • As String = Generate Variant Definition, As Value = 10 • As String = Generate Job Definition, As Value = 11 • As String = Create CM Profile, As Value = 12 • As String = Set CM Criteria, As Value = 13 • As String = Activate CM Profile, As Value = 14 • As String = Deactivate CM Profile, As Value = 15 • As String = Delete CM Profile, As Value = 16 • As String = Purge Variant, As Value = 17 • As String = Run Process Chain, As Value = 18 • As String = Start Process Chain, As Value = 19 • As String = Wait Process Chain, As Value = 20 • As String = Interrupt Process Chain, As Value = 21 • As String = Run InfoPackage, As Value = 22 • As String = Start InfoPackage, As Value = 23 • As String = Wait InfoPackage, As Value = 24 Default is Run (1).	N	
commandOptions	SAP Command Options	Any additional command options supported by Universal Connector.		N	
dataSource	Data Source	If sapDisplayCommand is InfoPackages(24); SAP InfoPackage data source.		N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
defFile	Definition File	For Run, Submit, and Modify commandGroups if repositoryOrFilesys is File System; Path and file name of the file.		Y	
definitionOrModel	Definition or Model	If commandGroup is Run(1); Specification for how the new SAP job will be created, based either on a USAP Definition File or an SAP Model Job.	Valid values: - As String = USAP Definition File, As Value = 1 - As String = SAP Model Job, As Value = 2 Default is USAP Definition File (1).	N	
definitionOrModelJobVar	Definition or Model	If commandGroup is Submit(1); Name of a variable that will be resolved at run time to the name of the Definition or Model to use.	Valid values: - As String = USAP Definition File, As Value = 1 - As String = SAP Model Job, As Value = 2 - As String = SAP Model Variant, As Value = 3 Default is USAP Definition File (1).	N	
dispAbapName	SAP ABAP Program Name	If definitionOrModelJobVar is SAP Model Variant; Name of an ABAP program in an SAP system to which the model variant belongs.		Y	
dispSapEventId	SAP Event	If sapDisplayCommand is Event History(16); ID of the Event.		Y	
dispSapEventParameter	SAP Event Parameter	If sapDisplayCommand is Event History(16); Optional parameter value for the event.		N	
dispVariant	SAP Variant Name	Pre-existing SAP variant name to use as the model variant.		N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
emailNotification		XML: <pre><emailNotification> <language>email language</language> <notifyType>Status Cancelled</notifyType> <recipient>email recipient</recipient> </emailNotification></pre> JSON: <pre>"emailNotification": { "language": "email language", "notifyType": "Status Cancelled", "recipient": "email recipient" }</pre>	See SAP Task Properties#Email Notification payload properties.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
environment	Environment Variables	List of environment variables needed by the program to run: <pre> <environment> <variable> <name>env1</name> <value>test1</value> </variable> <variable> <name>env2</name> <value>test2</value> </variable> </environment> </pre>		N	
exitCodeOutput	Output File	If <code>outputType</code> = FILE (3); Path and file name of the output file that should be scanned for the text in <code>exitCodeText</code> .		N	
exitCodeProcessing	Exit Code Processing	Specification for how the Controller should determine whether the executed command failed or completed successfully.	Valid values: - As String = Success Exitcode Range, As Value = 1 - As String = Failure Exitcode Range, As Value = 2 - As String = Success Output Contains, As Value = 3 - As String = Failure Output Contains, As Value = 4 - As String = Step Conditions, As Value = 5 Default is Success Exitcode Range (1).	N	
exitCodes	Exit Codes	If <code>exitCodeProcessing</code> = Success Exitcode Range (1) or Failure Exitcode Range (2); Range of exit codes.	Format: Numeric. Use commas to list a series of exit codes; use hyphens to specify a range. Example: 1,5, 22-30.	Y	
exitCodeText	Scan Output For	If <code>exitCodeProcessing</code> = Success Output Contains (3) or Failure Output Contains (4); text for which the Controller should scan the output file.	The Controller will process this field as a regular expression .	Y	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>immediate</code>	Start Immediately	If <code>commandGroup</code> is Run(1) or Start(4), or <code>start</code> is true; Causes the job to fail if SAP resources are not available to start the job immediately (for example, a background work process). Otherwise, the job will wait for SAP resources to become available.	Boolean; Valid values: true/false. Default is false.	N	
<code>infoPackage</code>	InfoPackage	If <code>commandGroup</code> is one of the following; Name of the InfoPackage: - Run InfoPackage (22) - Start InfoPackage(23) - Display(9) and <code>sapDisplayCommand</code> equals InfoPackages (24).		Y	
<code>infoPackageJob name</code>	InfoPackage Job Name	If <code>commandGroup</code> is one of the following; Name of the SAP batch job that processes the InfoPackage request: - Run InfoPackage (22) - Start InfoPackage (23)		Y	
<code>infoSource</code>	InfoSource	If <code>sapDisplayCommand</code> equals InfoPackages (24); SAP InfoSource.		N	
<code>jobClass</code>	Job Class	Job class for the SAP Job.	Valid Values: - As String = High Priority, As Value = 1 - As String = Middle Priority, As Value = 2 - As String = Low Priority, As Value = 3 Default is Low Priority (3).		
<code>jobId</code>	SAP Job ID	Job ID of the SAP job.	Variables are supported.	N	
<code>jobLog</code>	Print Job Log	If <code>commandGroup</code> is Wait (5) or <code>wait</code> is true; Specification for whether or not the job's joblog is returned.	Boolean; Valid values: true/false. Default is false.	N	
<code>jobLogChild</code>	Job Log Child	Specifies whether or not to return job logs for child jobs.	Valid Values: - As String = Yes, As Value = 1 - As String = No, As Value = 2 - As String = Error, As Value = 3 Default is Yes (1).	N	
<code>jobName</code>	SAP Job Name	Job name of the SAP job.	Variables are supported.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
jobStatus	Status	If sapDisplayCommand equals InfoPackages(24); Current status for an SAP job.		N	
logId	Log ID	If commandGroup is one of the following; Log ID for process chain instance to be restarted: - Start Process Chain and pcRestart is true. - Wait Process Chain. - Display (9) and sapDisplayCommand is Process Chain (20), Process Chain Log (21), or Process Chain Status (23).		Y	
maxChildDepth	Max Child Depth	Specifies the maximum depth of child processes that Universal Connector will monitor.	Integer	N	
outputFailureOnly	Failure Only	If outputReturnType = STDOUT (2), STDERR (3), FILE (4), or OUTERR (6), and waitForOutput is false; Indication for whether output should be retrieved on task failure only.	Boolean; Valid values: true/false. Default is false.	N	
outputReturnFile	Output File	If outputReturnType is FILE (4); Path and file name containing the output that you want automatically retrieved and attached to the task instance.		Y	
outputReturnLines	Number of Lines	If outputReturnType is STDOUT (2), STDERR (3), FILE (4), or OUTERR (6); Allows you to limit the retrieved data to the number of lines specified.	Integer; Default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	N	
outputReturnStartingLine	Starting Line	If outputReturnType is STDOUT (2), STDERR (3), FILE (4), or OUTERR (6); Allows you to instruct the Controller to retrieve data beginning at this line.	Integer; Default is 1.	N	
outputReturnText	Scan Text	If outputReturnType is STDOUT (2), STDERR (3), FILE (4), or OUTERR (6); Instructs the Controller to scan the data for the text specified and retrieve only that.	The Controller will process this field as a regular expression .	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>outputReturnTy pe</code>	Automatic Output Retrieval	Specification for whether you want the Controller to automatically retrieve any output from the job and attach it to the task instance record.	Valid values: - As String = NONE, As Value = 1 - As String = STDOUT, As Value = 2 - As String = STDERR, As Value = 3 - As String = FILE, As Value = 4 - As String = OUTERR, As Value = 6 Default is NONE (1). Note If <code>outputReturnTy pe</code> is not NONE (1), the web service will fail with Start Failure if <code>outputProhibited</code> is true for the specified agent .	N	
<code>outputType</code>	Output Type	If <code>exitCodeProcessing</code> = Success Output Contains (3) or Failure Output Contains (4); Type of output.	Valid values: - As String = STDOUT, As Value = 1 - As String = STDERR, As Value = 2 - As String = FILE, As Value = 3 Default is STDOUT (1).	Y	
<code>pcRestart</code>	Restart	If <code>commandGroup</code> equals Start Process Chain (18); Specification for whether or not to restart failed and cancelled processes (R or X) in the specified process chain instance.	Boolean. Valid values: true/false. Default is false.	N	
<code>printAppLog</code>	Print Application Log	If <code>commandGroup</code> is Run (1) or Wait (5), or <code>wait</code> is true; Specification for whether or not the job's application log, if one was generated, is returned.	Boolean. Valid values: true/false. Default is false.	N	
<code>printAppRc</code>	Print Application RC	If <code>commandGroup</code> is Run (1) or Wait (5) or <code>wait</code> is true; Specification for whether or not the job's application return codes, if they were set, are returned.	Boolean. Valid values: true/false. Default is false.	N	
<code>purge</code>	Delete SAP Job on Completion	If <code>commandGroup</code> is Wait(5) or <code>wait</code> is true;	Boolean. Valid values: true/false. Default is false.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>purgeChild</code>	Purge Child	Specification for whether or not to purge all child jobs from the SAP system.	Boolean; Valid values: true/false. Default is false.	N	
<code>repositoryOrFilesys</code>	Script or File System	Specification for whether the USAP definition file exists in the file system of the machine where the Agent is running or in Scripts.	Valid values: - As String = Script, As Value = 1 - As String = File System, As Value = 2 Default is Script (1).	N	
<code>requestId</code>	Request ID	If <code>commandGroup</code> is Wait InfoPackage(24) or Display(9) and <code>sapDisplayCommand</code> is InfoPackages Status (25); Request ID of the InfoPackage that is to be monitored.		Y	
<code>retryIndefinitely</code>	Retry Indefinitely	Specification for whether or not the Controller should continue trying indefinitely to run this task.	Boolean; Valid values: true/false. Default is false. This value overrides any value placed in <code>retryMaximum</code> .	N	
<code>retryInterval</code>	Retry Interval]	Number of seconds between each retry.	Integer; Default is 60.	N	
<code>retryMaximum</code>	Maximum Retries	Maximum number of times that the Controller should retry this task after it has started and gone to a failed state.	Integer; Default is 0.	N	
<code>retrySuppressFailure</code>	Suppress Intermediate Failures	Specification for whether or not the following will be suppressed until all scheduled retry attempts have been made: - All Actions (Abort, Email Notification, Set Variable, SNMP Notification, and System Operation) to be made against the task instance. - Workflow conditional path processing; any Successors waiting on a failure path will not be released. - Task Monitors will not be notified of the Failed status. Also, any Task Monitor task that has a Time Scope in the past will disqualify any matching task instance in the past with a Failed status if the task instance is scheduled for automatic retry and for which Suppress Intermediate Failures has been enabled. - Any Workflow containing the Failed task instance will not transition to the Running/ Problems status.	Boolean; Valid values: true/false. Default is false.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>runtimeDir</code>	Runtime Directory	Directory from which the application should be executed. Variables are supported.		N	
<code>sapCmProfileId</code>	SAP Criteria Manager Profile ID	If <code>commandGroup</code> is Set CM Profile, Activate CM Profile, or Delete CM Profile; ID of the profile.		Y	
<code>sapCmProfileType</code>	SAP Criteria Manager Profile Type	If <code>commandGroup</code> is Set CM Profile, Activate CM Profile, Deactivate CM Profile, or Delete CM Profile; Type of profile. For the default criteria types provided by SAP, the values are: • EVTHIS - Identifies a criteria type for event history. • EVHIRO - Identifies a criteria type for the reorganization of raised events. • INTERC - Identifies a criteria type for job interception.		Y	
<code>sapCmXmlFile</code>	SAP Criteria Manager XML File	If <code>commandGroup</code> is Create CM Profile or Set CM Profile, and <code>repositoryOrFilesys</code> is File System; Name of the file that contains the Criteria Manager information.		Y	
<code>sapCommandMask</code>	SAP Command Mask	Name of a command or a mask used to select SAP external commands that match the mask.		N	
<code>sapConnection</code>	SAP Connection	Name of the SAP connection.	The SAP connection specifies information about the SAP server.	Y (unless {{sapConnectionVar}} is specified)	<code>sapConnectionVar</code>
<code>sapConnectionVar</code>	SAP Connection Variable	Name of a variable that will be resolved at run time to the name of the SAP Connection to use.		Y (unless {{sapConnection}} is specified)	<code>sapConnection</code>
<code>sapCred</code>	SAP Credentials	Login credentials that the Controller will use to access the SAP system.	The credentials are stored in the Universal Controller credentials table; see Credentials .	Y (unless <code>sapCredVar</code> is specified)	<code>sapCredVar</code>
<code>sapCredVar</code>	SAP Credentials Variable	Name of a variable that will be resolved at run time to the name of the SAP Credentials to use.		Y (unless <code>sapCred</code> is specified)	<code>sapCred</code>
<code>sapDispConfirmEvents</code>	Confirm Returned Events	If <code>sapDisplayCommand</code> is Event History(16); Specification for whether or not the status of returned events should be changed in the SAP system.		N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sapDispEventSelectState	Event Select State	Event status of the events which should be read.	Valid values: - As String = New, As Value = 1 - As String = Confirmed, As Value = 2 - As String = All, As Value = 3 Default is New (1).	N	
sapDisplayCommand	Display Command	Displays the specified data, which is written to standard output.	Valid values: - As String = Job Log, As Value = 1 - As String = Spool List, As Value = 2 - As String = Status, As Value = 3 - As String = Variants, As Value = 4 - As String = Variant, As Value = 5 - As String = Job Definition, As Value = 6 - As String = Select, As Value = 7 - As String = System Log, As Value = 8 - As String = Intercept Table, As Value = 9 - As String = Intercepted Jobs, As Value = 10 - As String = Reports, As Value = 11 - As String = Commands, As Value = 12 - As String = Output Devices, As Value = 13 - As String = Print Formats, As Value = 14 - As String = Selection Screen, As Value = 15 - As String = Event History, As Value = 16 - As String = Criteria Manager Profiles, As Value = 17 - As String = Criteria Manager Criteria, As Value = 18 - As String = Process Chains, As Value = 19 - As String = Process Chain, As Value = 20 - As String = Process Chain Log, As Value = 21 - As String = Process Chain Start Condition, As Value = 22 - As String = Process Chain Status, As Value = 23 - As String = InfoPackages, As Value = 24 - As String = InfoPackages Status, As Value = 25 Default Value: Log (1)	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sapEventId	SAP Event	If <code>commandGroup</code> is Raise Event (8); Name of the event.		Y	
sapEventParm	SAP Event Parameter	If <code>commandGroup</code> equals Raise Event(8); Optional parameter value for the event.		N	
sapFromDate	From Date	If <code>sapDisplayCommand</code> is Select (7) or System Log (8); Earliest date to use for job selection or syslog request.		N	
sapLang	SAP Language	SAP logon language used when executing the SAP task.	Valid values: - Any valid 1-character SAP language identifier. - Any valid 2-character ISO language identifier. (no value). SAP will use the default language set up for the user. If there is no such default, the default is EN (English).		
sapPrinterName	SAP Printer Name	If <code>sapDisplayCommand</code> is Print Formats (14); Name of the SAP printer.		Y	
sapToDate	To Date	If <code>sapDisplayCommand</code> is Select(7) or System Log (8); Latest date to use for job selection or syslog request.		N	
sapView	View	Specifies whether to display the SAP task in Legacy View or Enhanced View. Enhanced View runs as Command Group Submit with both Start and Wait options enabled automatically.	Valid Values: - As String = Legacy View, As Value = 1 - As String = Enhanced View, As Value = 2 Default is Legacy View (1).		
script	Script	If <code>repositoryOrFilesys</code> is Script; Name of an SAP Definition script in the Controller database.		Y	
sourceSystem	Source System	If <code>sapDisplayCommand</code> equals InfoPackages (24); SAP InfoPackage source system.		N	
spoolist	Print Spooled Output	If <code>commandGroup</code> is Wait(5) or <code>wait</code> is true; Specification for whether or not the spoolists of all job steps are returned.	Boolean; Valid values: true/false. Default is false.	N	
spoolistChild	Spool List Child	Specification for whether or not to print the spool list for child jobs.	Boolean; Valid values: true/false. Default is false.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
spoolListRecipient		XML: <pre> <spoolListRecipient> <blindCopy>true</blindCopy> <copy>true</copy> <deliver>true</deliver> <express>true</express> <mailStatus>Always</mailStatus> <noForwarding>true</noForwarding> <recipient>notificationRecipient</recipient> <recipientType>External Addresses</recipientType> </spoolListRecipient> </pre> JSON:	See SAP Task Properties#Spool List Recipient payload properties.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
		<pre> "spoolListRecipient": { "blindCopy": true, "copy": true, "deliver": true, "express": true, "mailStatus": "Always", "noForwarding": true, "recipient": "notificationRecipient", "recipientType": "External Addresses" } </pre>			
start	Start	Specification for whether or not the newly-defined SAP job should be started.	Boolean; Valid values: true/false. Default is false.	N	
stepNum	SAP Job Step Number	If sapDisplayCommand is Spool List; Step number of the SAP job step.		Y	
targetJobName	Target Job Name	If commandGroup equals Run or Submit and definitionOrModel is SAP Model Job (2); Name of the new SAP job being created.	If you do not include targetJobName , the Controller uses the same name as the SAP Model Job.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
targetServer	SAP Target Server	If <code>commandGroup</code> is Run (1) or Start (4), or <code>start</code> is true; Name of an SAP instance at which a background job should be run.	The name has the following format: [host name]_[SAP System name]_[SAP System number] Where host name is the name of the server computer on which the instance is running, as specified in the system profile parameter SAPLOCALHOST. For example: hs0123_C11_55	N	
targetVariantName	Target Variant Name	If <code>commandGroup</code> is Submit and <code>definitionOrModelJobVar</code> is SAP Model Variant (3); One or more replacement variants for ABAP program job steps in an SAP job.		Y	
useAppRc	Use Application RC	If <code>commandGroup</code> is Run (1) or Wait(5), or <code>wait</code> is true; Specification for whether or not the SAP job's application return codes will be used to determine the return code for the Universal Controller task.	Boolean; Valid values: true/false. Default is false.	N	
wait	Wait	Specification for whether or not the Controller should wait for the SAP process chain to complete processing.	Boolean; Valid values: true/false. Default is false.	N	
waitForOutput	Wait For Output	If <code>outputReturnType</code> = STDOUT (2), STDERR (3), FILE (4), or OUTERR (6), and <code>outputFailureOnly</code> is false; Specification for whether or not the task should wait for the requested output before completing.	Boolean; Valid values: true/false. Default is false.	N	
waitChild	Wait Child	Specification for whether or not to monitor child jobs.	Boolean; Valid values: true/false. Default is false.	N	

Email Notification Properties: SAP Task

Property	UI Field Name	Description	Specifications	Required
recipient	Email Recipient	Specifies one or more email addresses.		N
language	Email Language	Specifies the language of the email.		N
notifyType	Send Email	Specifies the circumstances in which to send the email notification.	Valid Values: - As String = Status Cancelled , As Value = 1 - As String = Status Completed and Cancelled, As Value = 2 - As String = Never, As Value = 3 Default is Status Cancelled (1).	N

Spool List Recipient Properties: SAP Task

Property	UI Field Name	Description	Specifications	Required
recipient	Recipient	Recipient address.		N
copy	Copy	If true, recipient will receive the document as a copy.	Boolean; Valid values: true/false. Default is false.	N
express	Express	If true, document will be sent to the recipient as an express message.	Boolean; Valid values: true/false. Default is false.	N
blindCopy	Blind Copy	If true, recipient will receive the document as a blind copy.	Boolean; Valid values: true/false. Default is false.	N
noForwarding	No Forwarding	If true, recipient cannot forward the document to other users.	Boolean; Valid values: true/false. Default is false.	N
deliver	Report Send Status		Valid Values: - As String = -- System Default -- , As Value = 0 - As String = Always, As Value = 1 - As String = Error , As Value = 2 - As String = Never , As Value = 3 Default is -- System Default -- (0).	N

Property	UI Field Name	Description	Specifications	Required
recipientType	Type	Recipient type.	Valid Values: - As String = None, As Value = 0 - As String = SAP Username, As Value = 1 - As String = External Addresses, As Value = 2 - As String = Shared Distribution List , As Value = 3 - As String = Private Distribution List, As Value = 4 - As String = Fax Number, As Value = 5 - As String = Internet Address, As Value = 6 - As String = X.400 Address , As Value = 7 - As String = Remote Mail Address, As Value = 8 Default is None (0).	N
mailStatus	Report Status by Email		Valid Values: - As String = -- System Default -- , As Value = 0 - As String = Always, As Value = 1 - As String = Error , As Value = 2 - As String = Never , As Value = 3 Default is -- System Default -- (0).	N

4.33.35.1.13 SQL Task Properties

4.33.35.1.13.1 Task Properties: SQL Task

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
autoCleanup	Auto Cleanup	Specification for whether or not data retrieved as the result of a SQL task and written into a database table is discarded upon the successful completion of the task (or workflow if the task is contained within a workflow).	Boolean; Valid values: true or false. Default is false.	N	
columnName	Column Name	If resultProcessing is Success Result Set Contains (4) or Failure Result Set Contains (5); Name of a database column that is being checked for a specific value.		Y	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
columnOp	Operator	If <code>resultProcessing</code> is Success Result Set Contains (4) or Failure Result Set Contains (5); Operator being used for the comparison.	Valid Values: - As String = =, As Value = 1 - As String = !=, As Value = 2 - As String = >, As Value = 3 - As String = >=, As Value = 4 - As String = <, As Value = 5 - As String = <=, As Value = 6 - As String = regex, As Value = 7 Default is = (1).	N	
columnValue	Value	If <code>resultProcessing</code> is Success Result Set Contains (4) or Failure Result Set Contains (5); Value being compared, using the specified <code>columnOp</code> .		N	
connection	Database Connection	Name of the Universal Controller Database Connection that defines the database.		Y (unless <code>connectionVar</code> is specified)	<code>connectionVar</code>
connectionVar	Database Connection Variable	Name of a variable that will be resolved at run time to the name of the Database Connection to use.		Y (unless <code>connection</code> is specified)	<code>connection</code>
exitCodes	Exit Codes	If <code>resultProcessing</code> equals Success Exitcode Range (2) or Failure Exitcode Range (3); Range of exit codes.	Format: Numeric. Use commas to list a series of exit codes; use hyphens to specify a range. Example: 1,5, 22-30.	N	
maxRows	Maximum Rows	Limit to the number of rows you want returned by the SQL statement.	Integer; this overrides any value specified in the selected Database Connection .	N	
resultProcessing	Result Processing	Specification for how the Controller should determine whether the SQL command failed or completed successfully.	Valid Values: - As String = Skip Result Processing, As Value = 1 - As String = Success Exitcode Range, As Value = 2 - As String = Failure Exitcode Range, As Value = 3 - As String = Success Result Set Contains, As Value = 4 - As String = Failure Result Set Contains, As Value = 5 Default is Skip Result Processing (1).	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>retryIndefinitely</code>	Retry Indefinitely	Specification for whether or not the Controller should continue trying indefinitely to run this task.	Boolean; Valid values: true/false. Default is false. This value overrides any value specified in <code>retryMaximum</code> .	N	
<code>retryInterval</code>	Retry Interval	Number of seconds between each retry.	Integer; Default is 60.	N	
<code>retryMaximum</code>	Maximum Retries	Maximum number of times that the Controller should retry this task after it has started and gone to a failed state.	Integer; Default is 0.	N	
<code>retrySuppressFailure</code>	Suppress Intermediate Failures	Specification for whether or not the following will be suppressed until all scheduled retry attempts have been made: - All Actions (Abort, Email Notification, Set Variable, SNMP Notification, and System Operation) to be made against the task instance. - Workflow conditional path processing; any Successors waiting on a failure path will not be released. - Task Monitors will not be notified of the Failed status. Also, any Task Monitor task that has a Time Scope in the past will disqualify any matching task instance in the past with a Failed status if the task instance is scheduled for automatic retry and for which Suppress Intermediate Failures has been enabled. - Any Workflow containing the Failed task instance will not transition to the Running/Problems status.	Boolean; Valid values: true/false. Default is false.	N	
<code>sqlCommand</code>	SQL Command	SQL command being executed against the database.	Variables are supported.	Y	

4.33.35.1.14 Stored Procedure Task Properties

4.33.35.1.14.1 Task Properties: Stored Procedure Task

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
autoCleanup	Auto Cleanup	Specification for whether or not data retrieved as the result of a SQL task and then written into a database table is discarded upon the successful completion of the task (or workflow if the task is contained within a workflow).	Boolean. Valid values: true or false. Default is false.	N	
columnName	Column Name	If <code>resultProcessing</code> is Success Result Set Contains or Failure Result Set Contains; Name of a database column that is being checked for a specific value.		N	
connection	Database Connection	Universal Controller Database Connection that defines the database.		Y (unless <code>connectionVar</code> is specified)	<code>connectionVar</code>
connectionVar	Database Connection Variable	Name of a variable that will be resolved at run time to the name of the Database Connection to use.		Y (unless <code>connection</code> is specified)	<code>connection</code>
exitCodes	Exit Codes	If <code>resultProcessing</code> is Success Exitcode Range or Failure Exitcode Range; Range of exit codes.	Format: Numeric. Use commas to list a series of exit codes; use hyphens to specify a range. Example: 1,5, 22-30.	N	
maxRows	Maximum Rows	Limit to the number of rows you want returned by the SQL statement. This value overrides any value specified in the selected Database Connection .	Integer.	N	
parameterPosition	Parameter Position	If <code>resultProcessing</code> is Success Output Parameter or Failure Output Parameter; Position of this parameter within a list of parameters.	Integer.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
resultOp	Operator	If resultProcessing is Success Result Set Contains, Failure Result Set Contains, Success Output Parameter, or Failure Output Parameter; Operator being used for the comparison.	Valid values: - As String = =, As Value = 1 - As String = !=, As Value = 2 - As String = >, As Value = 3 - As String = >=, As Value = 4 - As String = <, As Value = 5 - As String = <=, As Value = 6 - As String = regex, As Value = 7 Default is = (1).	N	
resultProcessing	Result Processing	Specification for how the Controller should determine whether the Stored Procedure failed or completed successfully.	Valid values: - As String = Skip Result Processing, As Value = 1 - As String = Success Exitcode Range, As Value = 2 - As String = Failure Exitcode Range, As Value = 3 - As String = Success Result Set Contains, As Value = 4 - As String = Failure Result Set Contains, As Value = 5 - As String = Success Output Parameter, As Value = 6 - As String = Failure Output Parameter, As Value = 7 Default is Skip Result Processing (1).	N	
resultValue	Value	If resultProcessing is Success Result Set Contains Range, Failure Result Set Contains, Success Output Parameter or Failure Output Parameter; Value being compared, using the operator specified in resultOp.		N	
retryIndefinitely	Retry Indefinitely	Specification for whether or not the Controller should continue trying indefinitely to run this task. This value overrides any value in retryMaximum.	Boolean; Valid values: true/false. Default is false.	N	
retryInterval	Retry Interval (Seconds)	Number of seconds between each retry.	Integer; Default is 60.	N	
retryMaximum	Maximum Retries	Maximum number of times that the Controller should retry this task after it has started and gone to a failed state.	Integer; Default is 0.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>retrySuppressFailure</code>	Suppress Intermediate Failures	If the task instance is in the Failed status; Specification for whether or not the following will be suppressed until all scheduled retry attempts (a <code>retryMaximum</code> value has been specified or <code>retryIndefinitely</code> is true): - All Actions (Abort, Email Notification, Set Variable, SNMP Notification, and System Operation) to be made against the task instance. - Workflow conditional path processing; any Successors waiting on a failure path will not be released. - Task Monitors will not be notified of the Failed status. Also, any Task Monitor task that has a Time Scope in the past will disqualify any matching task instance in the past with a Failed status if the task instance is scheduled for automatic retry and for which Suppress Intermediate Failures has been enabled. - Any Workflow containing the Failed task instance will not transition to the Running/ Problems status.	Boolean; Valid values: true/false. Default is false.	N	
<code>storedProcName</code>	Stored Procedure Name	Name of the file containing the stored procedure being executed against the database. Variables are supported.		Y	

4.33.35.1.15 System Monitor Task Properties

4.33.35.1.15.1 Task Properties: System Monitor Task

Property	UI Field Name	Description	Specifications	Required
<code>byScale</code>	By Scale	Scale of the number you entered in <code>freeSize</code> .	Valid values: - As String = KB, As Value = 1 - As String = MB, As Value = 2 - As String = GB, As Value = 3 Default is MB (2).	N
<code>condition</code>	Condition	Specification for whether you want to check for free disk space greater than or less than the amount specified in the Resource Available field.	Valid values: - As String = >, As Value = 1 - As String = <, As Value = 2 Default is > (1).	N

Property	UI Field Name	Description	Specifications	Required
drive	Mount Points or Drives	Specific mount point or drive, such as drive C: for Windows, that you want to limit the check to.		Y
freeSize	Resource Available	Used in conjunction with byScale ; Amount of the resource you are checking for. For example, to verify that the machine has at least 1GB of free disk space, enter 1 in freeSize , GB in byScale , and > in condition .	Integer.	Y
smtype	Monitor Type	Type of system status to monitor for.	Valid values: As String = DISKFREESPC, As Integer = 1 Default is DISKFREESPC (1).	N

4.33.35.1.16 Task Monitor Task Properties

4.33.35.1.16.1 Task Properties: Task Monitor Task

Property	UI Field Name	Description	Specifications	Required
expirationAction	Expiration Action	If timeScope is Relative or Relative / Last Run; State to transition to if Task Monitor conditions are not met within the specified window..	Valid values: - As String = Failed, As Value = 1 - As String = Finished, As Value = 2 - As String = Failed If Potential Match Found Else Finished, As Value = 3 - As String = Finished If Potential Match Found Else Failed, As Value = 4 Default is Failed (1).	N
monType	Monitoring Type	Specification for which task or tasks are being monitored.	Valid values: - As String = Specific, As Value = 1 - As String = General, As Value = 2 Default is Specific (1).	N
monitorEarlyFinish	Monitor Early Finish	Specifies to monitor for an instance or instances that finished early. When specifying a Time Scope, the instance Created Time must fall within the time window.	Boolean; Valid values: - true - false Default is false.	N

Property	UI Field Name	Description	Specifications	Required
monitorLateFinish	Monitor Late Finish	Specifies to monitor for an instance or instances that finished late. When specifying a Time Scope, the instance Created Time must fall within the time window.	Boolean; Valid values: - true - false Default is false.	N
monitorLateStart	Monitor Late Start	Specifies to monitor for an instance or instances that started late. When specifying a Time Scope, the instance Created Time must fall within the time window.	Boolean; Valid values: - true - false Default is false.	N
relativeTimeFrom	From	If <code>timeScope</code> is Relative or Relative / Last Run; Used for Task Monitor tasks not associated with a trigger. Together with the Time Scope <code>relativeTimeTo</code> property, it allows you to specify a window of time, relative to the time the Task Monitor task launched, during which the conditions of the Task Monitor must be met. If the conditions are not met within the specified window, the Task Monitor task instance will transition to Failed (default) or Finished status determined by the <code>expirationAction</code>. Required for Relative Time Scope, however, if left unspecified for Relative / Last Run Time Scope, there is no limit on how far back the monitor will look.	Format: hh:mm. Default is 00:00. - hh must be a positive integer. - mm must be a positive integer between 0 and 59 inclusive. For example, -124:00, -12:00, -6:00, 00:00, 6:00, 12:00, or 124:00.	N
relativeTimeTo	Time Scope To	If <code>timeScope</code> is Relative or Relative / Last Run; Used for Task Monitor tasks not associated with a trigger. Together with the Time Scope <code>relativeTimeFrom</code> property, it allows you to specify a window of time, relative to the time the Task Monitor task launched, during which the conditions of the Task Monitor must be met. If the conditions are not met within the specified window, the Task Monitor task instance will transition to Failed (default) or Finished status determined by the <code>expirationAction</code>.	Format: hh:mm. - hh must be a positive integer. - mm must be a positive integer between 0 and 59 inclusive. For example, -124:00, -12:00, -6:00, 00:00, 6:00, 12:00, or 124:00.	N
statusText	Status to Monitor	Status being monitored for. When the task being monitored goes to a status specified here, the associated trigger is satisfied and the tasks specified in the trigger launch. You can specify status only, or status and exit code. You can specify as many statuses as needed	Comma-separated list of task instance statuses .	N
taskMonName	Task to Monitor	If <code>monType</code> is Specific; Task to monitor.		N
taskNameLookup	Task Name Condition	If <code>monType</code> is General; Type of condition for the name of tasks being monitored for.	Valid values: - As String = -- None --, As Value = 1 - As String = Starts With, As Value = 2 - As String = Contains, As Value = 3 - As String = Ends With, As Value = 4 - As String = Equals, As Value = 5 - As String = Wildcard, As Value = 6 Default is -- None -- (1).	N

Property	UI Field Name	Description	Specifications	Required
taskNameValue	Task Name <Condition Value>	If <code>monType</code> is General and <code>taskNameLookup</code> is not – None – (1); Value for the condition specified in <code>taskNameLookup</code> .		N
taskNameValueResolve	Resolve Task Name Condition	If <code>monType</code> is General and <code>taskNameLookup</code> is not – None – (1); Specification for whether or not to resolve at run time any variables in the task name of the task(s) being monitored.	Boolean; Valid values: true/false. Default is false.	N
timeScope	Time Scope	Used for Task Monitor tasks not associated with a trigger. The Time Scope properties are used to create a window during which the Task Monitor conditions must be met in order for the Task Monitor to be satisfied. The Time Scope window is always relative to the time that the Task Monitor launched. For example, if you put -01:00 in the <code>relativeTimeFrom</code> field and 02:00 in the <code>relativeTimeTo</code> field, the window's begin time is one hour before the Task Monitor is launched and its end time is two hours after it is launched. Use Relative / Last Run Time Scope if you want to match the most recent prior instance.	Valid values: - As String = -- None --, As Value = 0 - As String = Relative, As Value = 1 - As String = Relative / Last Run, As Value = 2 Default is – None – (0).	N
typeText	Task Type to Monitor	If <code>monType</code> is General; Task type(s) to monitor for.	Comma-separated list of task types .	N
wfConditionType	Workflow Name Condition	Type of condition for the name of a workflow or workflows containing the task being monitored for.	Valid values: - As String = -- None --, As Value = 0 - As String = Equals, As Value = 1 - As String = Starts With, As Value = 2 - As String = Contains, As Value = 3 - As String = Ends With, As Value = 4 - As String = Wildcard, As Value = 5 Default is – None – (0).	N
wfConditionValue	Workflow Name <Condition Value>	If <code>wfConditionType</code> is not – None --; Value for <code>wfConditionType</code> .		Y

4.33.35.1.17 Timer Task Properties

4.33.35.1.17.1 Task Properties: Timer Task

Property	UI Field Name	Description	Specifications	Required
sleepAmount	Timer Duration in Seconds	If <code>sleepType</code> is Seconds; Number of seconds the Timer task will run.		N

Property	UI Field Name	Description	Specifications	Required
<code>sleepDayConstraint</code>	Timer Day Constraint	If <code>sleepType</code> is Time or Relative Time; Specification for whether or not to advance the timer to another day.	Valid values: - As String = None, As Value = 0 - As String = Same Day, As Value = 1 - As String = Next Day, As Value = 2 - As String = Next Business Day, As Value = 3 - As String = Sunday, As Value = 4 - As String = Monday, As Value = 5 - As String = Tuesday, As Value = 6 - As String = Wednesday, As Value = 7 - As String = Thursday, As Value = 8 - As String = Friday, As Value = 9 - As String = Saturday, As Value = 10 Default is None (0).	N
<code>sleepDuration</code>	Timer Duration	If <code>sleepType</code> is Duration; Number of days, hours, minutes, and/or seconds the Timer task will run.	Format: dd:hh:mm:ss	N
<code>sleepTime</code>	Timer Time	If <code>sleepType</code> is Time or Relative Time; Time of day that the Timer task should go to a completed status.	24-hour time format. Default is 00:00.	N
<code>sleepType</code>	Timer Type	Type of Timer command to execute.	Valid values: - As String = Time, As Value = 1 - As String = Duration, As Value = 2 - As String = Seconds, As Value = 3 - As String = Relative Time, As Value = 4 Default is Seconds (3).	N

4.33.35.1.18 Universal Command Task Properties

4.33.35.1.18.1 Task Properties: Universal Command Task

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
broker	UCMD Agent	If <code>brokerChoice</code> is Agent Hostname or Agent Variable; Either: - Variable that will be resolved when the task is launched. - Host name of a machine where the UCMD Agent is running.		N	
brokerChoice	UCMD Agent Option	Specification for how the name of the UCMD Agent is being specified in <code>broker</code> or <code>brokerRef</code> .	Valid values: - As String = Agent, As Value = 1 - As String = Agent Variable, As Value = 2 - As String = Agent Hostname, As Value = 3 Default is Agent (1).	N	
brokerCred	UCMD Credentials	Login credentials that Controller will use to access the remote machine where the UCMD Agent is running.		N	brokerCredVar
brokerCredVar	UCMD Credentials Variable	Name of a variable that will be resolved at run time to the name of the UCMD Credentials to use.		N	brokerCred
brokerRef	UCMD Agent	If <code>brokerChoice</code> is Agent; UCMD Agent record selected from the UCMD Agent table.		N	
command	Command	If <code>commandOrScript</code> is Command; Command being executed on the remote machine.	Variables are supported.	Y	
commandOptions	UCMD Options	Any UCMD options needed by the program to execute properly.	Variables are supported.	N	
commandOrScript	Command or Script	Specification for whether a single command or a script is being executed.	Valid values: - As String = Command, As Value = 1 - As String = Script, As Value = 2 Default is Command (1).	N	
exitCodeOutput	Output File	Path and file name of the output file that should be scanned for the text in <code>exitCodeText</code> .		N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>exitCodeProcessing</code>	Exit Code Processing	Specification for how the Controller should determine whether the executed command failed or completed successfully.	Valid values: - As String = Success Exitcode Range, As Value = 1 - As String = Failure Exitcode Range, As Value = 2 - As String = Success Output Contains, As Value = 3 - As String = Failure Output Contains, As Value = 4 - As String = Step Conditions, As Value = 5 Default is Success Exitcode (1).	N	
<code>exitCodes</code>	Exit Codes	If <code>exitCodeProcessing</code> is Success Exitcode Range or Failure Exitcode Range; Range of exit codes.	Format: Numeric. Use commas to list a series of exit codes; use hyphens to specify a range. Example: 1,5, 22-30.	Y	
<code>exitCodeText</code>	Scan Output For	If <code>exitCodeProcessing</code> = Success Output Contains (3) or Failure Output Contains (4); text for which the Controller should scan the output file.	The Controller will process this field as a regular expression .	Y	
<code>outputFailureOnly</code>	Failure Only	If <code>outputReturnType</code> is STDOUT, STDERR, FILE, or OUTERR, and <code>waitForOutput</code> is false; Indication for whether output should be retrieved on task failure only.	Boolean; Valid values: true/false. Default is false.	N	
<code>outputReturnFile</code>	Output File	If <code>outputReturnType</code> is FILE; Path and file name containing the output that you want automatically retrieved and attached to the task instance.		N	
<code>outputReturnLines</code>	Number of Lines	If <code>outputReturnType</code> is STDOUT, STDERR, FILE, or OUTERR; Limit the retrieved data to this number of lines.	Default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	N	
<code>outputReturnStartLine</code>	Start Line	If <code>outputReturnType</code> is STDOUT, STDERR, FILE, or OUTERR; Instructs the Controller to retrieve data beginning at the line indicated.	Default is 1.	N	
<code>outputReturnText</code>	Scan Text	If <code>outputReturnType</code> is STDOUT, STDERR, FILE, or OUTERR; Instructs the Controller to scan the data for the text specified and retrieve only that.	The Controller will process this field as a regular expression .	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>outputReturnTy pe</code>	Automatic Output Retrieval	Specification for whether you want the Controller to automatically retrieve any output from the job and attach it to the task instance record.	Valid values: • As String = NONE, As Value = 1 • As String = STDOUT, As Value = 2 • As String = STDERR, As Value = 3 • As String = FILE, As Value = 4 • As String = OUTERR, As Value = 6 Default is OUTERR (6). Note If <code>outputReturnTy pe</code> is not NONE (1), the web service will fail with Start Failure if <code>outputProhibited</code> is true for the specified agent.	N	
<code>outputType</code>	Output Type	If <code>exitCodeProcessing</code> is Success Output or Failure Output; Type of output.	Valid values: • As String = STDOUT, As Value = 1 • As String = STDERR, As Value = 2 • As String = FILE, As Value = 3 Default is STDOUT (1).	N	
<code>retryExitCodes</code>	Retry Exit Codes	Exit code range for which an auto-retry of the task in FAILED status will occur. Exit code ranges must be in the same format as ranges specified in <code>exitCodes</code> . Maximum Retries must be greater than 0. If an exit code range is not specified, any exit code potentially will cause a retry.	Format = 1,5,22-30	N	
<code>retryInterval</code>	Retry Interval (Seconds)	Number of seconds between each retry.	Integer; Default is 60.	N	
<code>retryMaximum</code>	Maximum Retries	Maximum number of times that the Controller should retry this task after it has started and gone to a failed state.	Integer; Default is 0.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>retrySuppressFailure</code>	Suppress Intermediate Failures	If the task instance is in the Failed status; Specification for whether or not the following will be suppressed until all scheduled retry attempts (a Maximum Retries value has been entered or Retry Indefinitely has been enabled) have been made: • All Actions (Abort, Email Notification, Set Variable, SNMP Notification, and System Operation) to be made against the task instance. • Workflow conditional path processing; any Successors waiting on a failure path will not be released. • Task Monitors will not be notified of the Failed status. Also, any Task Monitor task that has a Time Scope in the past will disqualify any matching task instance in the past with a Failed status if the task instance is scheduled for automatic retry and for which Suppress Intermediate Failures has been enabled. • Any Workflow containing the Failed task instance will not transition to the Running/ Problems status.	Boolean; Valid values: true/false. Default is false.	N	
<code>runtimeDir</code>	Runtime Directory	Directory from which the application should be executed.	Variables are supported.	N	
<code>script</code>	Script File	If <code>commandOrScript</code> is Script; Path and filename of a script file that will be executed on the remote machine.		Y	
<code>scriptOptions</code>	Script Options	If <code>commandOrScript</code> is Script; One or more command line options to pass to the script file.		N	
<code>waitForOutput</code>	Wait For Output	If <code>outputReturnTypes</code> = STDOUT (2), STDERR (3), FILE (4), or OUTERR (6), and <code>outputFailureOnly</code> is false; Specification for whether or not the task should wait for the requested output before completing.	Boolean; Valid values: true/false. Default is false.	N	

4.33.35.1.19 Universal Monitor Task Properties

- [Task Properties](#)

4.33.35.1.19.1 Task Properties

Property	UI Field Name	Description	Specifications	Required
eventTemplate	Universal Event Template	Universal Event Template name. XML 1<eventTemplate label="Test Event A">test_event_a</eventTemplate> JSON 1"eventTemplate": { 2 "label": "Test Event A", 3 "value": 4 "test_event_a" }	The label is included when reading a Universal Monitor task; however, it is ignored when creating/updating a Universal Monitor task.	Y (if eventType is Global)
eventType	Event Type	Type of Universal Event to monitor.	Valid values: one of the following (not case sensitive): As String = Global, As Value = 1 As String = Local, As Value = 2	Y
expirationAction	Expiration Action	If timeScope is Relative; Specify the Expiration Action to specify the timeout Execution status.	Valid values: As String = Failed, As Value = 1 As String = Finished, As Value = 2 Default is Failed (1).	N
filter	n/a	Universal Event criteria to monitor.		N
relativeTimeFrom	From	If timeScope is Relative; Used for Universal Monitor tasks not associated with a trigger. Together with relativeTimeTo , it allows you to specify a window of time, relative to the time the Universal Monitor task launched, during which the criteria of the Universal Monitor must be met. If the criteria is not met within the specified window, the Universal Monitor task goes to a FAILED status. If you specify a past time in relativeTimeFrom , as soon as the Universal Monitor task launches, the Controller searches for past events that match the Universal Monitor criteria. If the criteria is satisfied already, the Universal Monitor task goes immediately to SUCCESS status. Otherwise, the Controller continues monitoring until the criteria is met or until the relativeTimeTo time has passed.	Format: [+/-]hh:mm. Default is 00:00.	N

Property	UI Field Name	Description	Specifications	Required
relativeTimeTo	To	If <code>timeScope</code> is Relative; Used for Universal Monitor tasks not associated with a trigger. Together with <code>relativeTimeFrom</code>, it allows you to specify a window of time, relative to the time the Universal Monitor task launched, during which the criteria of the Universal Monitor must be met. If the criteria is not met within the specified window, the Universal Monitor task goes to a FAILED status. If the criteria of the Universal Monitor task is met before the <code>relativeTimeTo</code> time arrives, the Universal Monitor task goes to SUCCESS. If the criteria is not met by the <code>relativeTimeTo</code> time, the Universal Monitor task goes to FAILED status.	Format: [+/-]hh:mm.	N
taskUniversal	Universal Task Publisher	Universal Extension-based Universal Task that will be: • Launched when the Universal Monitor task starts. • Force Finished/Cancelled when the Universal Monitor task ends.		N

Property	UI Field Name	Description	Specifications	Required																																										
taskUniversalVariables	Universal Task Publisher Variables	List of variables to override.	<table><tr><td>1</td><td><taskUniversalVariables></td></tr><tr><td>2</td><td><variable></td></tr><tr><td>3</td><td><name>v_enabled</name></td></tr><tr><td>4</td><td><value>\${var}</value></td></tr><tr><td>5</td><td><resolution>Enabled</resolution></td></tr><tr><td>6</td><td></variable></td></tr><tr><td>7</td><td><variable></td></tr><tr><td>8</td><td><name>v_disabled</name></td></tr><tr><td>9</td><td><value>\${var}</value></td></tr><tr><td>10</td><td><resolution>Disabled</resolution></td></tr><tr><td>11</td><td></variable></td></tr><tr><td>12</td><td></taskUniversalVariables></td></tr></table> <table><tr><td>1</td><td>"taskUniversalVariables": [</td></tr><tr><td>2</td><td>{</td></tr><tr><td>3</td><td>"name":</td></tr><tr><td>4</td><td>"v_enabled",</td></tr><tr><td>5</td><td>"resolution": "Enabled",</td></tr><tr><td>6</td><td>"value": "\${</td></tr><tr><td>7</td><td>{var}"</td></tr><tr><td></td><td>},</td></tr><tr><td></td><td>{</td></tr></table>	1	<taskUniversalVariables>	2	<variable>	3	<name>v_enabled</name>	4	<value>\${var}</value>	5	<resolution>Enabled</resolution>	6	</variable>	7	<variable>	8	<name>v_disabled</name>	9	<value>\${var}</value>	10	<resolution>Disabled</resolution>	11	</variable>	12	</taskUniversalVariables>	1	"taskUniversalVariables": [	2	{	3	"name":	4	"v_enabled",	5	"resolution": "Enabled",	6	"value": "\${	7	{var}"		},		{	N
1	<taskUniversalVariables>																																													
2	<variable>																																													
3	<name>v_enabled</name>																																													
4	<value>\${var}</value>																																													
5	<resolution>Enabled</resolution>																																													
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9	<value>\${var}</value>																																													
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4	"v_enabled",																																													
5	"resolution": "Enabled",																																													
6	"value": "\${																																													
7	{var}"																																													
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Property	UI Field Name	Description	Specifications		Required
			8 9 10 11 12	<pre>"name": "v_disabled" , "resolution" : "Disabled", "value": "\${ {var}" }]</pre>	
template	Universal Template	Universal Template name.			Y (if eventType is Local)
templateEventTemplate	Universal Template Event Template	Universal Template Event Template name. XML 1 <templateEventTemplate label="Test Event B">test_event_b</ templateEventTemplate> JSON 1 "templateEventTemplate": { 2 "label": "Test Event B", 3 "value": "test_event_b" 4 }	The label is included when reading a Universal Monitor task; however, it is ignored when creating/updating a Universal Monitor task.	Y (if eventType is Local)	

Property	UI Field Name	Description	Specifications	Required
timeScope	Time Scope	For Universal Monitor tasks not associated with a trigger; Used to create a window during which the Universal Monitor conditions must be met in order for the Universal Monitor to be satisfied. The timeScope window is always relative to the time that the Universal Monitor launched. For example, if you specify -01:00 in relativeTimeFrom and 02:00 in relativeTimeTo, the window's begin time is one hour before the Universal Monitor is launched, and its end time is two hours after it is launched.	Valid values: - As String = -- None --, As Value = 0 - As String = Relative, As Value = 1 Default is -- None -- (0).	N

Filter Properties

Property	UI Field Name	Description	Specifications	Required
logicalOperator	Match All Match Any	Specifies that the Universal Monitor task instance should go to SUCCESS status when ALL or ANY of the criteria is met.	Valid values: - As String = And (case insensitive), and As Value = 1 - As String = Or (case insensitive), As Value = 2 Default is And (1).	N

Property	UI Field Name	Description	Specifications	Required
criteria	n/a	Criteria list. An element in the list is of type criterion or criteria.	The following example represent a criteria list consisted of two elements: • One element of type criterion. • One element of type criteria. Note In JSON, the two elements are wrapped in the "criteria": [] property. However, in XML, there is no additional <criteria></criteria> tag to wrap the two elements. XML XML <pre><criteria> <criterion> <name>int</name> <operator>EQUALS</operator> <value>5</value> </criterion> <criterion> <name>ifield</name> <operator>IS_NULL</operator> </criterion> </criteria></pre>	N

Property	UI Field Name	Description	Specifications	Required
			<logicalOperator> And</ logicalOperator> </criteria> JSON JSON <pre>"criteria": [{ "type": "criterion", "name": "int", "operator": "EQUALS", "value": "5" }, { "type": "criteria", "criteria": [{ "type": "criterion", "name": "ifield", "operator": "IS_NULL" }, { "type": "criterion", "name": "bool", "operator": "EQUALS", "value": "true" }],],</pre>	

Property	UI Field Name	Description	Specifications	Required
			<pre>"logicalOperator" : "And" }]</pre>	
eventBusinessServiceCriteria	Event Business Service Criteria	Specifies the type of business service filtering to apply when monitoring on Universal Events.	Valid values (case-insensitive): - As String = Member of Any Business Service or Unassigned, As Value = 1 - As String = Member of Specific Business Services or Unassigned, As Value = 2 - As String = Member of Specific Business Services, As Value = 3 - As String = Unassigned, As Value = 4 Default is Member of Any Business Service or Unassigned (1).	N
eventBusinessServices	Event Member of Business Services	Specifies one or more business services to filter on when Event Business Service Criteria is one of the following. - Member of Specific Business Services or Unassigned - Member of Specific Business Services	XML XML <pre><eventBusinessServices> <businessService> A</businessService> <businessService> B</businessService> </eventBusinessServices></pre> JSON JSON <pre>"eventBusinessServices": ["A", "B"]</pre>	N

Criteria Properties

Property	UI Field Name	Description	Specifications	Required
type	n/a	Specifies the type of an element in the criteria list.	For JSON only. Valid values: - As String = criterion - As String = criteria Default is criterion.	N
criterion	n/a	A single condition composed of name, operator, value(s). For example: "attribute1 EQUALS value1" where attribute1 is a attribute of the selected Universal Event Template.	XML XML <pre> <criterion> <name>attribute1</name> <operator>EQUALS</operator> <value>value1</value> </criterion> </pre> JSON JSON <pre> { "type": "criterion", "name": "attribute1", "operator": "EQUALS", "value": "value1" }, </pre>	N

Property	UI Field Name	Description	Specifications	Required
criteria	n/a	Composed of multiple elements and a logical operator And or Or. An element can be a criterion or a inner criteria.	XML XML <pre> <criteria> <criterion> <name>ifield</name> <operator>IS_NULL</operator> </criterion> <criterion> <name>bool</name> <operator>EQUALS</operator> <value>>true</value> </criterion> <logicalOperator>And</logicalOperator> </criteria> </pre> JSON JSON <pre> { "type": "criteria", "criteria": [{ "type": "criterion", "name": "ifield", "operator": "IS_NULL" }, { "type": "criterion", "name": "bool", "operator": "EQUALS", "value": "true" </pre>	N

Property	UI Field Name	Description	Specifications	Required
			<pre> }], "logicalOperator": "And" } </pre>	

Criterion Properties

Property	UI Field Name	Description	Specifications	Required
name	n/a	Name of the attribute	Input data will be converted to lowercase.	Y
operator	n/a		Valid values (case insensitive) : • As String = EQUALS • As String = NOT_EQUALS • As String = IN • As String = NOT_IN • As String = GREATER_THAN • As String = LESS_THAN • As String = GT_OR_EQUALS • As String = LT_OR_EQUALS • As String = STARTS_WITH • As String = ENDS_WITH • As String = CONTAINS • As String = DOES_NOT_START_WITH • As String = DOES_NOT_END_WITH • As String = DOES_NOT_CONTAIN • As String = IS_NULL • As String = IS_NOT_NULL • As String = BETWEEN	Y

Property	UI Field Name	Description	Specifications	Required
value	n/a			Y - if operator is either: • CONTAINS • DOES_NOT_CONTAIN • START_WITH • DOES_NOT_START_WITH • ENDS_WITH • DOES_NOT_END_WITH • EQUALS • NOT_EQUALS • LESS_THAN • LT_OR_EQUALS • GREATER_THAN • GT_OR_EQUALS
values	n/a			Y - if operator is either: • IN • NOT_IN
start	n/a		start should be less than or equal to end. XML XML <pre><start> <value>5</value> </start></pre> JSON JSON <pre>"start": { "value": "5" }</pre>	Y - if operator is: • BETWEEN

Property	UI Field Name	Description	Specifications	Required
end	n/a		start should be less than or equal to end. XML <pre>XML <end> <value>6</value> </end></pre> JSON <pre>JSON { "end": { "value": "6" } }</pre>	Y - if operator is: BETWEEN

4.33.35.1.20 Universal Task Properties

4.33.35.1.20.1 Task Properties: Universal Task

Property	UI Field Name	Description	Specifications	Required
arrayField{1-4}	Label user-defined in the Universal Template Field.	Array field for this Universal Task. Create / Update XML: <pre><arrayField1 nameTitle="Custom Name" valueTitle="Custom Id"> <field> <name>John Doe Jr.</name> <value>1234567</value> </field> <field> <name>Max</name> <value>888888</value> </field> </arrayField1> <arrayField2> <field> <name>A1</name> <value>test1</value> </field> <field> <name>A2</name> <value>test2</value></pre>	Only fields defined in the corresponding Universal Template will be set. Validation rules defined on the template apply. Attributes name and label are for informational purpose only.	N

Property	UI Field Name	Description	Specifications	Required
		<pre> </field> </arrayField2> JSON: "arrayField1": { "fields": [{ "name": "John Doe Jr.", "value": "1234567" }, { "name": "Max", "value": "888888" }], "nameTitle": "Custom Name", "valueTitle": "Custom Id" }, "arrayField2": { "fields": [{ "name": "A1", "value": "test1" }, { "name": "A2", "value": "test2" }] }, </pre> Read XML: <pre> <arrayField1 name="array1" label="Customers" nameTitle="Custom Name" valueTitle="Custom Id"> <field> <name>John Doe Jr.</name> <value>1234567</value> </field> <field> <name>Max</name> <value>888888</value> </field> </arrayField1> </pre> JSON: <pre> "arrayField1": { "fields": [{ </pre>		

Property	UI Field Name	Description	Specifications	Required
		<pre> "name": "John Doe Jr.", "value": "1234567" }, { "name": "Max", "value": "888888" }], "label": "Customers", "name": "array1", "nameTitle": "Custom Name", "valueTitle": "Custom Id" } </pre>		
booleanField{1-15}	Label user-defined in the Universal Template Field.	Boolean field for this Universal Task. Examples: Create / Update XML: <pre><booleanField1>false</booleanField1></pre> JSON: <pre>"booleanField1": false</pre> Read XML: <pre><booleanField1 name="run_immediately" label="Run Immediately">false</booleanField1></pre> JSON: <pre> "booleanField1": { "label": "Run Immediately", "name": "run_immediately", "value": false } </pre>	Only fields defined in the corresponding Universal Template will be set. Validation rules defined on the template apply. Attributes name and label are for informational purpose only.	N

Property	UI Field Name	Description	Specifications	Required
<code>choiceField{1-15}</code>	Label user-defined in the Universal Template Field.	Choice field for this Universal Task. Examples: Create / Update XML: <code><choiceField1>val 1</choiceField1></code> JSON: <code>"choiceField1": "val 1"</code> Read XML: <code><choiceField1 name="progrname" label="Program Name">val 1</choiceField1></code> JSON: <code>"choiceField1": { "label": "Program Name", "name": "progrname", "value": "val 1", }</code>	Only fields defined in the corresponding Universal Template will be set. Validation rules defined on the template apply. Attributes name and label are for informational purpose only.	N
<code>createConsole</code>	Create Console	If <code>desktopInteract</code> is true; Specification for whether or not to allocate a new console for the process, rather than having it inherit one.	Boolean; Valid values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
<code>credentialField{1-6}</code>	Label user-defined in the Universal Template Field.	Credential field for this Universal Task. If <code>credentialVarField{N}</code> is defined, the <code>credentialVarField{N}</code> value takes precedence over the value of <code>credentialField{N}</code>. Examples: XML: <pre><credentialFieldN name="test_credentials" label="Test Credentials">testcred</ credentialFieldN> <credentialVarFieldN name="test_credentials" label="test Credentials"/></pre> JSON: <pre>"credentialFieldN": { "label": "Test Credentials", "name": "test_credentials", "value": "tesctcred" }, "credentialVarFieldN": { "label": "Test Credentials", "name": "test_credentials", "value": null }</pre>	Only fields defined in the corresponding Universal Template will be set. Validation rules defined on the template apply. Attributes name and label are for informational purpose only.	User-defined in the Universal Template Field.

Property	UI Field Name	Description	Specifications	Required
credentialVarField{1-6}	Label user-defined in the Universal Template Field.	If the Universal Template fieldType = Credential and allowVariable = true; Variable and/or function that resolves to the name of a Credential for this Universal Task. If credentialVarField{N} is defined, the credentialVarField{N} value takes precedence over the value of credentialField{N}. Examples: XML: <pre><credentialFieldN name="test_credentials" label="Test Credentials"/> <credentialVarFieldN name="test_credentials" label="Test Credentials">\${test_credentials}</credentialVarFieldN></pre> JSON: <pre>"credentialFieldN": { "label": "Test Credentials", "name": "test_credentials", "value": null }, "credentialVarFieldN": { "label": "Test Credentials", "name": "test_credentials", "value": "\${test_credentials}" }</pre>		User-defined in the Universal Template Field.

Property	UI Field Name	Description	Specifications	Required
databaseConnectionField1	Label user-defined in the Universal Template Field.	Database Connection field for this Universal Task. If <code>databaseConnectionVarField1</code> is defined, the <code>databaseConnectionVarField1</code> value takes precedence over the value of <code>databaseConnectionField1</code>. Examples: XML: <pre><databaseConnectionField1 name="acme_database_connection" label="Acme Database connection">Acme</databaseConnectionField1> <databaseConnectionVarField1 name="acme_database_connection_var" label="Acme Database Connection Var"/></pre> JSON: <pre>"databaseConnectionField1": { "label": "Acme Database connection", "name": "acme_database_connection", "value": "Acme" }, "databaseConnectionVarField1": { "label": "Acme Database connection", "name": "acme_database_connection", "value": null }</pre>	Only fields defined in the corresponding Universal Template will be set. Validation rules defined on the template apply. Attributes name and label are for informational purpose only.	User-defined in the Universal Template Field.

Property	UI Field Name	Description	Specifications	Required
databaseConnectionVarField1	Label user-defined in the Universal Template Field.	If the Universal Template <code>fieldType</code> = Database Connection and <code>allowVariable</code> = true; Variable and/or function that resolves to the name of a Database Connection for this Universal Task. If <code>databaseConnectionVarField1</code> is defined, the <code>databaseConnectionVarField1</code> value takes precedence over the value of <code>databaseConnectionField1</code>. Examples: XML: <pre><databaseConnectionField1 name="acme_database_connection" label="Acme Database Connection"/> <databaseConnectionVarField1 name="acme_database_connection" label="Acme Database Connection">\${acme_database_connection}</databaseConnectionVarField1></pre> JSON: <pre>"databaseConnectionField1": { "label": "Acme Database Connection", "name": "acme_database_connection", "value": null }, "databaseConnectionVarField1": { "label": "Acme Database Connection", "name": "acme_database_connection", "value": "\${acme_database_connection}" }</pre>		User-defined in the Universal Template Field.

Property	UI Field Name	Description	Specifications	Required
desktopInteract	Interact with Desktop	Specification for whether or not a task that runs an application with a GUI requires some manual actions from a user (for example, clicking buttons or entering values).	Boolean; Valid values: true/false. Default is false. This property is effective only for tasks executed on Windows XP or Server 2003. Windows Vista introduced the desktop isolation feature, which prevents tasks from accessing the interactive desktop session on Vista, Windows 7, Server 2008, Windows 8, and Server 2012. The Windows agent will execute the task, but the Interact with Desktop option has no effect. Therefore, an interactive application's GUI will not be visible on those platforms.	N
elevateUser	Run with Highest Privileges	Specification for whether or not to execute the task using an elevated privileges token, rather than one subject to User Account Control (UAC) restrictions. An elevated token allows a process to execute with all the privileges available to its specified credentials. For example, a task executed with an administrative account will behave as though it received permission via a UAC dialog to perform a privileged operation.	Boolean; Valid values: true/false. Default is false. This property will not give a user account privileges that have not already been granted to it. For example, taking ownership of a file is a privileged operation by default. A task will still fail even with this option selected if it is run with a regular user account that has not been granted the ability to change file ownership.	N
environment	Environment Variables	Environment variables needed by the program to run.	List of environment variables:	N
exitCodeOutput	Output File	Path and file name of the output file that should be scanned for the text in <code>exitCodeText</code> .		N

Property	UI Field Name	Description	Specifications	Required
<code>exitCodeProcessing</code>	Exit Code Processing	Specification for how the Controller should determine whether the executed command failed or completed successfully.	Valid values: - As String = Success Exitcode Range, As Value = 1 - As String = Failure Exitcode Range, As Value = 2 - As String = Success Output Contains, As Value = 3 - As String = Failure Output Contains, As Value = 4 Default is Success Exitcode (1).	N
<code>exitCodes</code>	Exit Codes	If <code>exitCodeProcessing</code> is Success Exitcode Range or Failure Exitcode Range; Range of exit codes.	Format: Numeric. Use commas to list a series of exit codes; use hyphens to specify a range. Example: 1,5, 22-30.	Y
<code>exitCodeText</code>	Scan Output For	If <code>exitCodeProcessing</code> = Success Output Contains (3) or Failure Output Contains (4); text for which the Controller should scan the output file.	The Controller will process this field as a regular expression .	Y
<code>floatField{1-4}</code>	Label user-defined in the Universal Template Field.	Float field for this Universal Task. Examples: Create / Update XML: <code><floatField1>float1</floatField1></code> JSON: <code>"floatField1": test float</code> Read XML: <code><floatField1 name="float1" label="float1">2.1474</floatField1></code> JSON: <code>"floatField1": { "label": "float1", "name": "float1", "value": 2.1474, }</code>	Only fields defined in the corresponding Universal Template will be set. Validation rules defined on the template apply. Attributes name and label are for informational purpose only.	N

Property	UI Field Name	Description	Specifications	Required
<code>intField{1-10}</code>	Label user-defined in the Universal Template Field.	Integer field for this Universal Task. Examples: Create / Update XML: <code><intField1>12</intField1></code> JSON: <code>"intField1": 12</code> Read XML: <code><intField1 name="error_level" label="Error Level">12</intField1></code> JSON: <code>"intField1": { "label": "Error Level", "name": "error_level", "value": 12, }</code>	Only fields defined in the corresponding Universal Template will be set. Validation rules defined on the template apply. Attributes name and label are for informational purpose only.	N
<code>largeTextField{1-4}</code>	Label user-defined in the Universal Template Field.	Large text field for this Universal Task. Examples: Create / Update XML: <code><largeTextField1>test text</largeTextField1></code> JSON: <code>"largeTextField1": "test text"</code> Read XML: <code><largeTextField1 name="respapp" label="Responsibility Application">test text</largeTextField1></code> JSON: <code>"largeTextField1": { "label": "Responsibility Application", "name": "respapp", "value": "test text", }</code>	Only fields defined in the corresponding Universal Template will be set. Validation rules defined on the template apply. Attributes name and label are for informational purpose only.	N
<code>outputFailureOnly</code>	Failure Only	If <code>outputReturntype</code> is STDOUT, STDERR, FILE, or OUTERR; Indication for whether output should be retrieved on task failure only.	Boolean; Valid values: true/false. Default is false.	N
<code>outputReturnFile</code>	Output File	If <code>outputReturntype</code> is FILE; Path and file name containing the output that you want automatically retrieved and attached to the task instance.		N
<code>outputReturnNline</code>	Number of Lines	If <code>outputReturntype</code> is STDOUT, STDERR, FILE, or OUTERR; Limit the retrieved data to this number of lines.	Default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	N

Property	UI Field Name	Description	Specifications	Required
outputReturnSline	Start Line	If <code>outputReturntype</code> is STDOUT, STDERR, FILE, or OUTERR; Instructs the Controller to retrieve data beginning at the line indicated.	Default is 1.	N
outputReturnText	Scan Text	If <code>outputReturntype</code> is STDOUT, STDERR, FILE, or OUTERR; Instructs the Controller to scan the data for the text specified and retrieve only that.	The Controller will process this field as a regular expression .	N
outputReturntype	Automatic Output Retrieval	Specification for whether you want the Controller to automatically retrieve any output from the job and attach it to the task instance record.	Valid values: - As String = NONE, As Value = 1 - As String = STDOUT, As Value = 2 - As String = STDERR, As Value = 3 - As String = FILE, As Value = 4 - As String = OUTERR, As Value = 6 Default is OUTERR (6). Note If <code>outputReturntype</code> is not NONE (1), the web service will fail with Start Failure if <code>outputProhibited</code> is true for the specified agent.	N
outputType	Output Type	If <code>exitCodeProcessing</code> is Success Output or Failure Output; Type of output.	Valid values: - As String = STDOUT, As Value = 1 - As String = STDERR, As Value = 2 - As String = FILE, As Value = 3 Default is STDOUT (1).	N
retryExitCodes	Retry Exit Codes	Exit code range for which an auto-retry of the task in FAILED status will occur. Exit code ranges must be in the same format as ranges specified in <code>exitCodes</code> . Maximum Retries must be greater than 0. If an exit code range is not specified, any exit code potentially will cause a retry.	Format = 1,5,22-30	N

Property	UI Field Name	Description	Specifications	Required
<code>retryInterval</code>	Retry Interval (Seconds)	Number of seconds between each retry.	Integer; Default is 60.	N
<code>retryMaximum</code>	Maximum Retries	Maximum number of times that the Controller should retry this task after it has started and gone to a failed state.	Integer; Default is 0.	N
<code>retrySuppressFailure</code>	Suppress Intermediate Failures	If the task instance is in the Failed status; Specification for whether or not the following will be suppressed until all scheduled retry attempts (a Maximum Retries value has been entered or Retry Indefinitely has been enabled) have been made: - All Actions (Abort, Email Notification, Set Variable, SNMP Notification, and System Operation) to be made against the task instance. - Workflow conditional path processing; any Successors waiting on a failure path will not be released. - Task Monitors will not be notified of the Failed status. Also, any Task Monitor task that has a Time Scope in the past will disqualify any matching task instance in the past with a Failed status if the task instance is scheduled for automatic retry and for which Suppress Intermediate Failures has been enabled. - Any Workflow containing the Failed task instance will not transition to the Running/Problems status.	Boolean; Valid values: true/false. Default is false.	N
<code>runtimeDir</code>	Runtime Directory	Directory from which the application should be executed.	Variables are supported.	N
<code>sapConnectionField1</code>	Label user-defined in the Universal Template Field.	Name of an SAP Connection for this Universal Task. If <code>sapConnectionVarField1</code> is defined, the <code>sapConnectionVarField1</code> value takes precedence over the value of <code>sapConnectionField1</code>. Examples: XML: <pre><sapConnectionField1 name="acme_sap_connection" label="Acme SAP connection">Acme</sapConnectionField1> <sapConnectionVarField1 name="acme_sap_connection_var" label="Acme SAP Connection Var"/></pre> JSON: <pre>"sapConnectionField1": { "label": "Acme SAP connection", "name": "acme_sap_connection", "value": "Acme" }, "sapConnectionVarField1": { "label": "Acme SAP connection", "name": "acme_sap_connection", "value": null }</pre>	Only fields defined in the corresponding Universal Template will be set. Validation rules defined on the template apply. Attributes name and label are for informational purpose only.	User-defined in the Universal Template Field.

Property	UI Field Name	Description	Specifications	Required
<code>sapConnectionVarField1</code>	Label user-defined in the Universal Template Field.	If the Universal Template <code>fieldType</code> =SAP Connection and <code>allowVariable</code> = true; Variable and/or function that resolves to the name of an SAP Connection for this Universal Task. If <code>sapConnectionVarField1</code> is defined, the <code>sapConnectionVarField1</code> value takes precedence over the value of <code>sapConnectionField1</code>. Examples: XML: <pre><sapConnectionField1 name="acme_sap_connection" label="Acme SAP Connection"/> <sapConnectionVarField1 name="acme_sap_connection" label="Acme SAP Connection">\${acme_sap_connection}</sapConnectionVarField1></pre> JSON: <pre>"sapConnectionField1": { "label": "Acme SAP Connection", "name": "acme_sap_Connection", "value": null }, "sapConnectionVarField1": { "label": "Acme SAP Connection", "name": "acme_sap_connection", "value": "\${acme_sap_connection}" }</pre>		User-defined in the Universal Template Field.

Property	UI Field Name	Description	Specifications	Required
<code>scriptField{1-4}</code>	Label user-defined in the Universal Template Field.	Script field for this Universal Task. If <code>scriptVarField{N}</code> is defined, the <code>scriptVarField{N}</code> value takes precedence over the value of <code>scriptField{N}</code>. Examples: XML: <pre><scriptFieldN name="acme_script" label="Acme script">Acme</scriptFieldN> <scriptVarFieldN name="acme_script" label="Acme script"/></pre> JSON: <pre>"scriptFieldN": { "label": "Acme script", "name": "acme_script", "value": "Acme" }, "scriptVarFieldN": { "label": "Acme script", "name": "acme_script", "value": null }</pre>	Only fields defined in the corresponding Universal Template will be set. Validation rules defined on the template apply. Attributes name and label are for informational purpose only.	User-defined in the Universal Template Field.

Property	UI Field Name	Description	Specifications	Required
<code>scriptVarField{1-4}</code>	Label user-defined in the Universal Template Field.	If the Universal Template <code>fieldType</code> = Script and <code>allowVariable</code> = true; Variable and/or function that resolves to the name of a Script for this Universal Task. If <code>scriptVarField{N}</code> is defined, the <code>scriptVarField{N}</code> value takes precedence over the value of <code>scriptField{N}</code>. Examples: XML: <pre><scriptFieldN name="acme_script" label="Acme Script"/> <scriptVarFieldN name="acme_script" label="Acme Script">\${acme_script}</scriptVarFieldN></pre> JSON: <pre>"scriptFieldN": { "label": "Acme script", "name": "acme_script", "value": null }, "scriptVarFieldN": { "label": "Acme script", "name": "acme_script", "value": "\${acme_script}" }</pre>		User-defined in the Universal Template Field.
<code>template</code>	n/a	Universal Template on which the Universal Task is based.		Y
<code>textField{1-20}</code>	Label user-defined in the Universal Template Field.	Text field for this Universal Task. Examples: Create / Update XML: <pre><textField1>test text</textField1></pre> JSON: <pre>"textField1": "test text"</pre> Read XML: <pre><textField1 name="username" label="Application User">test text</textField1></pre> JSON: <pre>"textField1": { "label": "Application User", "name": "username", "value": "test text", }</pre>	Only fields defined in the corresponding Universal Template will be set. Validation rules defined on the template apply. Attributes name and label are for informational purpose only.	N

4.33.35.1.21 Variable Monitor Task Properties

4.33.35.1.21.1 Task Properties: Variable Task Monitor Task

Property		UI Field Name	Description	Specifications	Required
expirationAction	Expiration Action	Expiration Action to specify the timeout Execution status.	Valid values: - As String = Failed, As Value = 1 - As String = Finished, As Value = 2 Default is Failed (1).	N	
timeLimit		Time Limit	If valueMonitorType is Change or Current/Change; Used for Variable Monitor tasks not associated with a trigger; Amount of time (in units specified by timeLimitUnit) to monitor for the Variable Monitor conditions to be met.	The timeLimit duration is always relative to the start time of the Variable Monitor task instance.	N
timeLimitUnit		Time Limit Unit	Unit of time to use for timeLimit	Valid Values: - As String = Minutes, As Value = 2 - As String = Hours, As Value = 3 - As String = Days, As Value = 4 Default is Hours (3).	N
value		Value	If valueCondition is =, !=, >, >=, <, <=, or regex; Value of the variable being monitored.		N
valueCondition		Value Condition	Condition for the value of the variable being monitored.	Valid values: - As String = -- None --, As Value = 0 - As String = =, As Value = 1 - As String = !=, As Value = 2 - As String = >, As Value = 3 - As String = >=, As Value = 4 - As String = <, As Value = 5 - As String = <=, As Value = 6 - As String = regex, As Value = 7 - As String = undefined, As Value = 8 Default is = (1)	N

Property		UI Field Name	Description	Specifications	Required
valueMonitorType		Value Monitor Type	Type of monitoring to be done on the Variable value.	Valid values: - As String = Current, As Value = 1 - As String = Change, As Value = 2 - As String Current/Change, As Value = 3 Default is Current (1).	N
variableName		Variable to Monitor	Name of the variable to monitor.	Variables are supported.	Y

4.33.35.1.22 Web Service Task Properties

4.33.35.1.22.1 Task Properties: Web Service Task

Property	UI Field Name	Description	Specifications	Required
autoCleanup	Auto Cleanup	Specification for whether or not to enable the auto clean-up of Web Service response output upon task instance completion or, if the task instance is within a workflow, when the top-level workflow instance completes.	Boolean; Valid values: true / false. Default is false.	
formData	Form Data	If httpPayloadType = Form Data; Any parameters to be encoded and added to the message body.	Format: <pre> <formData> <formField> <name>field1</name> <value>value1</value> </formField> <formField> <name>field2</name> <value>value2</value> </formField> </formData> </pre>	N
httpAuth	HTTP Authentication	HTTP authentication scheme to use.	Valid values: - As String = None, As Value = 0 - As String = Basic, As Value = 1 Default is None (0).	N

Property	UI Field Name	Description	Specifications	Required
httpHeaders	HTTP Headers	HTTP headers.	Format: <pre><httpHeaders> <httpHeader> <name>header1</name> <value>val1</value> </httpHeader> <httpHeader> <name>header2</name> <value>val2</value> </httpHeader> </httpHeaders></pre>	N
httpMethod	HTTP Method	If <code>protocol</code> = HTTP; Type of HTTP request method to use.	Valid values: - As String = GET, As Value = 1 - As String = POST, As Value = 2 - As String = PUT, As Value = 3 - As String = PATCH, As Value = 4 - As String = DELETE, As Value = 5 Default is GET (1).	N
httpPayloadType	HTTP Payload Type	If <code>protocol</code> = HTTP and <code>httpMethod</code> = POST, PUT, or PATCH; Type of HTTP payload.	Valid values: - As String = Raw, As Value = 1 - As String = Form Data, As Value = 2 Default is Raw (1).	N
httpVersion	HTTP Version	Version of the HTTP protocol to use.	Valid values: - As String = 1.0, As Value = 1 - As String = 1.1, As Value = 2 Default is 1.1 (2).	N
insecure	Insecure	Specification for whether or not to allow the Web Service task to use a TLS/SSL connection that is considered to be insecure.	Boolean; Valid values: true / false. Default is false.	N
contentType	MIME Type	If <code>protocol</code> = HTTP; MIME type of the message body.	If <code>httpPayloadType</code> = Form Data, <code>contentType</code> is set to Application/x-www-form-urlencoded.	N

Property	UI Field Name	Description	Specifications	Required
outputConditionOperator	Operator	If responseProcessingType = Success Output Contains or Failure Output Contains; Condition operator to evaluate in combination with outputConditionValue .	Valid values: - As String = =, As Value = 1 - As String = !=, As Value = 2 - As String = >, As Value = 3 - As String = >=, As Value = 4 - As String = <, As Value = 5 - As String = <=, As Value = 6 - As String = regex, As Value = 7 Default is = (1).	N
outputConditionStrategy	Strategy	If outputType = XML or JSON; Strategy to take when applying outputConditionOperator and outputConditionValue against outputPathExpression matches.	Valid values: - As String = Match Any, As Value = 1 - As String = Match All, As Value = 2 - As String = Match None, As Value = 3 - As String = Count, As Value = 4 Default is Match Any (1).	N
outputConditionValue	Value	If responseProcessingType = Success Output Contains or Failure Output Contains; Condition value to evaluate in combination with the outputConditionOperator .		N
outputPathExpression	Path Expression	If outputType = XML or JSON; Expression to be used when evaluating the response output.		N
outputType	Output Type	If responseProcessingType = Success Status Code Range or Failure Status Code Range; Output type that the Response Processing mechanism should assume when evaluating the output. If the expected output is XML or JSON, it is valid to specify Text. However, when specifying XML or JSON, the output must be XML or JSON, respectively; otherwise, the parsing will fail and the path expression evaluation will return no matches.	Valid values: - As String = Text, As Value = 1 - As String = XML, As Value = 2 - As String = JSON, As Value = 3 Default is Text (1).	N
payload	Payload	If protocol = HTTP, httpMethod = is POST, PUT, or PATCH, httpPayloadType is Raw, and payloadSource = Form, or if protocol = SOAP and payloadSource = Form; Request payload.		N
payloadScript	Payload Script	If payloadSource = Script; Script that contains the content of the request payload.		Y (if payloadSource = Script.
payloadSource	Payload Source	If protocol = HTTP, httpMethod = is POST, PUT, or PATCH, and httpPayloadType is Raw, or if protocol = SOAP; Specification for whether the payload is defined in payload or in payloadScript .	Valid values: - As String = Form, As Value = 1 - As String = Script, As Value = 2 Default is Form (1).	N

Property	UI Field Name	Description	Specifications	Required
<code>protocol</code>	Protocol	Protocol to use for the operation.	Valid values: - As String = HTTP, As Value = 1 - As String = SOAP, As Value = 2 Default is HTTP (1).	N
<code>responseProcessingType</code>	Response Processing	Specification for how to process the response in order to determine success or failure.	Valid values: - As String = Default Success Status Code Range, As Value = 1 - As String = Success Status Code Range, As Value = 2 - As String = Failure Status Code Range, As Value = 3 - As String = Success Output Contains, As Value = 4 - As String = Failure Output Contains, As Value = 5 Default is Default Success Status Code Range (1).	N
<code>soapPayloadType</code>	SOAP Payload Type	If <code>protocol</code> = SOAP; Type of SOAP Payload.	Valid values: - As String = Body, As Value = 1 - As String = Envelope, As Value = 2 Default is Body (1).	N
<code>soapResponseOutput</code>	SOAP Response Output	If <code>protocol</code> = SOAP; Element of the SOAP response to be captured as output.	Valid values: - As String = Body/First Element, As Value = 1 - As String = Body, As Value = 2 - As String = Envelope, As Value = 3 Default is Body/First Element (1).	N
<code>soapVersion</code>	SOAP Version	If <code>protocol</code> = SOAP; Version of the SOAP protocol to use.	Valid values: - As String = 1.1, As Value = 1 - As String = 1.2, As Value = 2 Default is 1.2 (2).	N
<code>statusCodeRange</code>	Status Codes	If <code>responseProcessingType</code> = Success Status Code Range or Failure Status Code Range; Qualifying status codes.	Format: 200-299,503.	N
<code>timeout</code>	Timeout	Number of seconds to wait for the request to complete.		N
<code>url</code>	URL	URL of the target service, excluding any <code>urlParameters</code> .		Y

Property	UI Field Name	Description	Specifications	Required
urlParameters	URL Query Parameters	If protocol = HTTP; Any query parameters to be encoded as a query string and appended to the URL.	Format: <pre> <urlParameters> <urlParameter> <name>param1</name> <value>value1</value> </urlParameter> <urlParameter> <name>param2</name> <value>value2</value> </urlParameter> </urlParameters> </pre>	N

4.33.35.1.23 Windows Task Properties

4.33.35.1.23.1 Task Properties: Windows Task

Property	UI Field Name	Description	Specifications	Required
command	Command	If commandOrScript = Command (1); Command being executed on the remote machine.	Variables supported.	N
commandOrScript	Command or Script	Specification for whether a single command or a script is being executed.	Valid values: - As String = Command, As Value = 1 - As String = Script, As Value = 2 Default is Command (1).	N
createConsole	Create Console	If desktopInteract is true; Specification for whether or not to allocate a new console for the process, rather than having it inherit one.	Boolean; Valid values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
<code>desktopInteract</code>	Interact with Desktop	Specification for whether or not a task that runs an application with a GUI requires some manual actions from a user (for example, clicking buttons or entering values).	Boolean; Valid values: true/false. Default is false. This property is effective only for tasks executed on Windows XP or Server 2003. Windows Vista introduced the desktop isolation feature, which prevents tasks from accessing the interactive desktop session on Vista, Windows 7, Server 2008, Windows 8, and Server 2012. The Windows agent will execute the task, but the Interact with Desktop option has no effect. Therefore, an interactive application's GUI will not be visible on those platforms.	N
<code>elevateUser</code>	Run with Highest Privileges	Specification for whether or not to execute the task using an elevated privileges token, rather than one subject to User Account Control (UAC) restrictions. An elevated token allows a process to execute with all the privileges available to its specified credentials. For example, a task executed with an administrative account will behave as though it received permission via a UAC dialog to perform a privileged operation.	Boolean; Valid values: true/false. Default is false. This property will not give a user account privileges that have are not already granted to it. For example, taking ownership of a file is a privileged operation by default. A task will still fail even with this option selected if it is run with a regular user account that has not been granted the ability to change file ownership.	N
<code>environment</code>	Environment Variables	Environment variables needed by the program to run.	List of environment variables: <pre> <environment> <variable> <name>env1</name> <value>test1</value> </variable> <variable> <name>env2</name> <value>test2</value> </variable> </environment> </pre>	N
<code>exitCodeOutput</code>	Output File	If <code>outputType</code> = FILE (3); Path and file name of the output file that should be scanned for the text in <code>exitCodeText</code> .		N

Property	UI Field Name	Description	Specifications	Required
<code>exitCodeProcessing</code>	Exit Code Processing	Specification for how the Controller should determine whether the executed command failed or completed successfully.	Valid values: - As String = Success Exitcode Range, As Value = 1 - As String = Failure Exitcode Range, As Value = 2 - As String = Success Output Contains, As Value = 3 - As String = Failure Output Contains, As Value = 4 Default is Success Exitcode Range (1).	N
<code>exitCodes</code>	Exit Codes	If <code>exitCodeProcessing</code> = Success Exitcode Range (1) or Failure Exitcode Range (2); Range of exit codes.	Format: Numeric. Use commas to list a series of exit codes; use hyphens to specify a range. Example: 1,5, 22-30.	Y
<code>exitCodeText</code>	Scan Output For	If <code>exitCodeProcessing</code> = Success Output Contains (3) or Failure Output Contains (4); text for which the Controller should scan the output file.	The Controller will process this field as a regular expression .	Y
<code>outputFailureOnly</code>	Failure Only	If <code>outputReturnType</code> = STDOUT (2), STDERR (3), FILE (4), or OUTERR (6), and <code>waitForOutput</code> is false; Indication for whether output should be retrieved on task failure only.	Boolean; Valid values: true/false. Default is false.	N
<code>outputReturnFile</code>	Output File	If <code>outputReturnType</code> is FILE (4); Path and file name containing the output that you want automatically retrieved and attached to the task instance.		Y
<code>outputReturnLines</code>	Number of Lines	If <code>outputReturnType</code> is STDOUT (2), STDERR (3), FILE (4), or OUTERR (6); Allows you to limit the retrieved data to the number of lines specified.	Integer; Default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	N
<code>outputReturnStartingLine</code>	Starting Line	If <code>outputReturnType</code> is STDOUT (2), STDERR (3), FILE (4), or OUTERR (6); Allows you to instruct the Controller to retrieve data beginning at this line.	Integer; Default is 1.	N
<code>outputReturnText</code>	Scan Text	If <code>outputReturnType</code> is STDOUT (2), STDERR (3), FILE (4), or OUTERR (6); Instructs the Controller to scan the data for the text specified and retrieve only that.	The Controller will process this field as a regular expression .	N

Property	UI Field Name	Description	Specifications	Required
<code>outputReturnT</code> <code>ype</code>	Automatic Output Retrieval	Specification for whether you want the Controller to automatically retrieve any output from the job and attach it to the task instance record.	Valid values: - As String = NONE, As Value = 1 - As String = STDOUT, As Value = 2 - As String = STDERR, As Value = 3 - As String = FILE, As Value = 4 - As String = OUTERR, As Value = 6 Default is NONE (1). Note If <code>outputReturnT</code> is not NONE (1), the web service will fail with Start Failure if <code>outputProhibited</code> is true for the specified <code>agent</code>.	N
<code>outputType</code>	Output Type	If <code>exitCodeProcessing</code> = Success Output Contains (3) or Failure Output Contains (4); Type of output.	Valid values: - As String = STDOUT, As Value = 1 - As String = STDERR, As Value = 2 - As String = FILE, As Value = 3 Default is STDOUT (1).	Y
<code>parameters</code>	Parameters	Any arguments needed by the program to execute properly.	Variables are supported.	N
<code>retryExitCodes</code>	Retry Exit Codes	Exit code range for which an auto-retry of the task in FAILED status will occur. Exit code ranges must be in the same format as ranges specified in <code>exitCodes</code> . Maximum Retries must be greater than 0. If an exit code range is not specified, any exit code potentially will cause a retry.	Format = 1,5,22-30	N
<code>retryIndefinite</code> <code>ly</code>	Retry Indefinitely	Specification for whether or not the Controller should continue trying indefinitely to run this task. If <code>retryIndefinitely</code> = yes, it overrides any value placed in <code>retryMaximum</code> .	Boolean; Valid values: true/false. Default is false.	N
<code>retryInterval</code>	Retry Interval	Number of seconds between each retry.	Integer; Default is 60.	N
<code>retryMaximum</code>	Maximum Retries	Maximum number of times that the Controller should retry this task after it has started and gone to a failed state.	Integer; Default is 0.	N

Property	UI Field Name	Description	Specifications	Required
<code>retrySuppressFailure</code>	Suppress Intermediate Failures	Specification for whether or not the following will be suppressed until all scheduled retry attempts have been made: • All Actions (Abort, Email Notification, Set Variable, SNMP Notification, and System Operation) to be made against the task instance. • Workflow conditional path processing; any Successors waiting on a failure path will not be released. • Task Monitors will not be notified of the Failed status. Also, any Task Monitor task that has a Time Scope in the past will disqualify any matching task instance in the past with a Failed status if the task instance is scheduled for automatic retry and for which Suppress Intermediate Failures has been enabled. • Any Workflow containing the Failed task instance will not transition to the Running/Problems status.	Boolean; Valid values: true/false. Default is false.	N
<code>runtimeDir</code>	Runtime Directory	Directory from which the application should be executed. Variables are supported.		N
<code>script</code>	Script	If <code>commandOrScript</code> is Script (2); Name of a script in the Controller database that will be executed by this task.		Y
<code>waitForOutput</code>	Wait For Output	If <code>outputReturnType</code> = STDOUT (2), STDERR (3), FILE (4), or OUTERR (6), and <code>outputFailureOnly</code> is false; Specification for whether or not the task should wait for the requested output before completing.	Boolean; Valid values: true/false. Default is false.	N

4.33.35.1.24 Workflow Task Properties

4.33.35.1.24.1 Task Properties: Workflow Task

Property	UI Field Name	Description	Specifications	Required
calculateCp	Calculate Critical Path	Specification for whether or not the Controller will calculate the Critical Path of this Workflow and, by default, display it in the Workflow Monitor. Important - When restoring a Workflow Details Version, the Calculate Critical Path setting (yes or no) will be preserved. - When promoting a Workflow record or importing (list or bulk) Workflow Details: Critical Path Calculations Permitted setting will not change. Calculate Critical Path, if yes, will remain set to yes. - If the database is "dropped" for any reason: Critical Path Calculations Permitted will be set to false. Calculate Critical Path, if enabled, will be set to no.	Boolean; Valid values: true/false. Default is false.	N
calendar	Default Calendar	Default calendar used by the Workflow. If the Workflow is launched by a trigger, the trigger calendar overrides this default calendar. The Calendar will be used to verify any Custom Day references in <code>complexNoun</code> in the Workflow Run Criteria.		N
instanceWait	Previous Instance Wait	Specification for which previous task instance(s) a task instance of the same task needs to wait to complete before starting. Applies to every task instance directly in the workflow.	Valid values (case-insensitive): - As String = -- None --, As Value = 1 - As String = Wait For Last, As Value = 2 - As String = Wait For Last / Same Workflow, As Value = 3 - As String = Wait For All, As Value = 4 - As String = Wait For All / Same Workflow, As Value = 5	N

Property	UI Field Name	Description	Specifications	Required
layoutOption	Auto Layout	If <code>skippedOption</code> is Hide Skipped (2); Specification for the layout of the Workflow Monitor.	Valid values: - As String = -- None --, As Value = 0 - As String = Horizontal Layout, As Value = 1 - As String = Vertical Layout, As Value = 2 Default is -- None -- (0).	N
numberOfTasks	Progress	Total number of tasks in the Workflow.		N
overrideCalendar	Override Inherited Calendar	Specification for whether or not to use the selected default <code>calendar</code> for this Workflow instead of the calendar used in the trigger or parent Workflow.	Valid values: true/false (default is false).	N
skippedOption	Show/Hide Skipped Tasks	Specification to either show or hide tasks that have been skipped in a Workflow (see Skipping a Task).	Valid values: - As String = Show Skipped, As Value = 1 - As String = Hide Skipped, As Value = 2 Default is Show Skipped (1).	N

4.33.35.1.25 z/OS Task Properties

4.33.35.1.25.1 Task Properties: z/OS Task

Property	UI Field Name	Description	Specifications	Required
autoRestartOption	Auto-Restart Option	Allows the z/OS job to be resubmitted with controlled step selection.	<code>autoRestartOption</code> is processed if a task transitions to a failed state. It works in conjunction with <code>retryMaximum</code> , <code>retryInterval</code> , and <code>retryIndefinitely</code> . Valid values: - As String = -- None --, As Value = 0 - As String = Restart From First Job Step, As Value = 1 - As String = Restart From Failed Job Step, As Value = 2 - As String = Use Restart Criteria, As Value = 3 Default is -- None -- (0).	N
deleteOverrideJcl	Delete Override JCL	If <code>useOverrideLib</code> is true; Allows the task to define criteria that will control the automated clean-up of the override JCL. If <code>deleteOverrideJcl</code> is false, the Controller and Agent will take no action to delete the override JCL from the target system.	Boolean; Valid values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
<code>exitCodeOutput</code>	Output File	If <code>outputType</code> = FILE (3); Path and file name of the output file that should be scanned for the text in <code>exitCodeText</code> .		N
<code>exitCodeProcessing</code>	Exit Code Processing	Specification for how the Controller should determine whether the executed command failed or completed successfully.	Valid values: - As String = Success Exitcode Range, As Value = 1 - As String = Failure Exitcode Range, As Value = 2 - As String = Success Output Contains, As Value = 3 - As String = Failure Output Contains, As Value = 4 - As String = Step Conditions, As Value = 5 Default is Success Exitcode Range (1).	N
<code>exitCodes</code>	Exit Codes	If <code>exitCodeProcessing</code> = Success Exitcode Range (1) or Failure Exitcode Range (2); Range of exit codes.	Format: Numeric. Use commas to list a series of exit codes; use hyphens to specify a range. Example: 1,5, 22-30.	Y
<code>exitCodeText</code>	Scan Output For	If <code>exitCodeProcessing</code> = Success Output Contains (3) or Failure Output Contains (4); text for which the Controller should scan the output file.	The Controller will process this field as a regular expression .	Y
<code>jclLocation</code>	JCL Location	File and member name containing the JCL script.	When you are using the JCL_LIBRARY feature, you can substitute the name of the library with a string starting with "&", that names the library specified in the uags.conf file with the JCL_library definitions.	N
<code>jobclassNew</code>	New Jobclass	New Jobclass to replace the one in the JCL member, allowing you to override the value in your JCL without having to modify the JCL.		N
<code>jobnameNew</code>	New Jobname	Job name that will replace the one in the JCL member, allowing you to override the value in your JCL without having to modify the JCL.	This value should be validated before the job is launched to avoid JES start failures. Syntax: 1-8 characters - Upper case - Name must start with an alphabetic or \$, #, @ character. - Remaining characters are alphanumeric or \$, #, @. - No spaces or tabs.	N
<code>msgclasNew</code>	New Msgclass	New MSGCLASS to replace the one in the JCL member. This allows you to override the value in your JCL from the Controller without having to modify the JCL.		N
<code>outputFailureOnly</code>	Failure Only	If <code>outputReturnType</code> = FILE (4) or JOBLLOG (5), and <code>waitForOutput</code> is false; Indication for whether output should be retrieved on task failure only.	Boolean; Valid values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
<code>outputReturnFile</code>	Output File	If <code>outputReturnTypes</code> = FILE (4); Path and file name containing the output that you want automatically retrieved and attached to the task instance.		Y
<code>outputReturnNLine</code>	Number of Lines	If <code>outputReturnTypes</code> = STDOUT (2), STDERR (3), FILE (4), or OUTERR (6); Allows you to limit the retrieved data to the number of lines specified.	Integer; Default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	N
<code>outputReturnSLine</code>	Starting Line	If <code>outputReturnTypes</code> = STDOUT (2), STDERR (3), FILE (4), or OUTERR (6); Allows you to instruct the Controller to retrieve data beginning at this line.	Integer; Default is 1.	N
<code>outputReturnText</code>	Scan Text	If <code>outputReturnTypes</code> = STDOUT (2), STDERR (3), FILE (4), or OUTERR (6); Instructs the Controller to scan the data for the text specified and retrieve only that.	The Controller will process this field as a regular expression .	N
<code>outputReturnTypes</code>	Automatic Output Retrieval	Specification for whether you want the Controller to automatically retrieve any output from the job and attach it to the task instance record.	Valid values: • As String = NONE, As Value = 1 • As String = FILE, As Value = 4 • As String = JOBLOG, As Value = 5 Default is NONE (1). Note If <code>outputReturnTypes</code> is not NONE (1), the web service will fail with Start Failure if <code>outputProhibited</code> is true for the specified agent.	N
<code>outputType</code>	Output Type	If <code>exitCodeProcessing</code> = Success Output Contains (3) or Failure Output Contains (4); Type of output.	Valid values: • As String = STDOUT, As Value = 1 • As String = STDERR, As Value = 2 • As String = FILE, As Value = 3 Default is STDOUT (1).	Y
<code>overrideJclDelInstCount</code>	Override Instance Count for Deletion	If <code>deleteOverrideJcl</code> is true; Number of successful override instances that must occur before the override JCL library member is deleted. When the deletion criteria has been satisfied, the Controller will instruct the Agent to delete the member specified in JCL Override Location. An override instance is considered successful only if the ending state in the controller is SUCCESS.	Integer. Default is 1.	Y

Property	UI Field Name	Description	Specifications	Required
<code>overrideJclLocation</code>	JCL Override Location	If <code>useOverrideLib</code> is true; File and member name potentially containing an override JCL script.	The Agent will check this location for JCL before looking in the standard <code>jclLocation</code>. If JCL is found in this location, the job will be submitted from there. If JCL is not found in this location, the Agent will submit the job from the standard <code>jclLocation</code>. Missing override JCL is not considered an error condition. As with <code>jclLocation</code>, when you are using the JCL_LIBRARY feature, you can substitute the name of the library with a string starting with "&" that names the library specified in the <code>uags.conf</code> file with the JCL_library definitions.	N
<code>parameters</code>	Parameters	Any arguments needed by the program to execute properly.	Variables are supported.	N
<code>proclibName</code>	Procedure Library	Allows you to define a JES2 PROCLIB control statement in the job JCL. For example, a PROCLIB value of PROC01 will result in the following JES2 control statement generated in the job JCL: <pre>/*JESPARM PROCLIB=PROC001</pre> The PROCLIB value must refer to a ddname defined in the JES2 procedure. Refer to IBM MVS JCL Reference for more information regarding the JES2 PROCLIB control statement.		N
<code>retryIndefinitely</code>	Retry Indefinitely	Specification for whether or not the Controller should continue trying indefinitely to run this task. If <code>retryIndefinitely</code> = yes, it overrides any value placed in <code>retryMaximum</code> .	Boolean; Valid values: true/false. Default is false.	N
<code>retryInterval</code>	Retry Interval	Number of seconds between each retry.	Integer; Default is 60.	N
<code>retryMaximum</code>	Maximum Retries	Maximum number of times that the Controller should retry this task after it has started and gone to a failed state.	Integer; Default is 0.	N

Property	UI Field Name	Description	Specifications	Required
<code>retrySuppressFailure</code>	Suppress Intermediate Failures	Specification for whether or not the following will be suppressed until all scheduled retry attempts have been made: • All Actions (Abort, Email Notification, Set Variable, SNMP Notification, and System Operation) to be made against the task instance. • Workflow conditional path processing; any Successors waiting on a failure path will not be released. • Task Monitors will not be notified of the Failed status. Also, any Task Monitor task that has a Time Scope in the past will disqualify any matching task instance in the past with a Failed status if the task instance is scheduled for automatic retry and for which Suppress Intermediate Failures has been enabled. • Any Workflow containing the Failed task instance will not transition to the Running/Problems status.	Boolean; Valid values: true/false. Default is false.	N
<code>scheduleId</code>	Schedule ID	CA7 Schedule ID; for CA7 toleration only (see Special Processing on z/OS Tasks#CA7/CA11 Toleration).		N
<code>systemOrSysaffParameter</code>	SYSTEM or SYSAFF Override Parameter	Specifies the SYSTEM or SYSAFF parameter.	Value must conform to documented IBM JCL syntax.	N
<code>useOverrideLib</code>	Use JCL Override Library	Specification for whether or not to allow the task to work with a JCL override library on the target system. If <code>useOverrideLib</code> is true, the Agent will check the JCL override path (specified in <code>overrideJclLocation</code>) before submitting the job from <code>jclLocation</code>. If a JCL member is found at the override path, the job is submitted from there. Otherwise, the Agent will look to the <code>jclLocation</code> path for submission.	Boolean; Valid values: true/false. Default is false.	N
<code>waitForOutput</code>	Wait For Output	If <code>outputReturnType</code> = FILE (4) or JOBLLOG (5), and <code>outputFailureOnly</code> is false;; Specification for whether or not the task should wait for the requested output before completing.	Boolean; Valid values: true/false. Default is false.	N

4.33.35.1.26 z/OS Monitor Task Properties

4.33.35.1.26.1 Task Properties: z/OS Monitor Task

Property	UI Field Name	Description	Specifications	Required
conditionCode	Condition Code(s)		String value	Y (if <code>jobEvent</code> is Job End or Step End)
jobEvent	Job Event		String value of the valid job event name	Y
jobName	Job Name		String value	Y
stepName	Step Name		String value	Y (if <code>jobEvent</code> is Step End or Step Abend)
userId	User Id		String value	N

4.33.35.2 Task Action Properties

- [Abort Action](#)
- [Email Notification Action](#)
- [Set Variable Action](#)
- [SNMP Notification Action](#)
- [System Operation Action](#)

4.33.35.2.1 Abort Action

Property	UI Field Name	Description	Specifications	Required
cancelProcess	Cancel Process if Active	Instructs the Controller to cancel the process that was launched by this task before Force Finishing the task.	Boolean; Valid values: true/false. Default is false.	N
description	Description	Description of this Abort action.		N
exitCodes	Exit Codes	One or more exit codes that, together with a status, will trigger the Abort action.	Integer; Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N
haltOnFinish	Halt On Force Finish	Instructs the Controller to Force Finish (Halt) a running task instance, rather than just Force Finish	Boolean; Valid values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
inheritance	Action Inheritance	For Workflow tasks only; Records that this action applies to.	Valid values: - As String = Self, As Value = 1 - As String = Self/Children, As Value = 2 - As String = Children, As Value = 3 Default is Self (1).	N
notifyOnEarlyFinish	On Early Finish	Generates the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnLateFinish	On Late Finish	Generates the action if the task finishes late, based on the Late Finish time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnLateStart	On Late Start	Generates the action if the task started late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnProjectedLate	On Projected Late	Generates the action if the task is projected to be late, based on the calculated Projected End Time and the Late Start Time, Late Start Duration, or Late Finish Time time option.	Boolean; Valid values: true/false. Default is false.	N
overrideExitCode	Override Exit Code	Overrides the exit code returned by the process with this exit code. This enables you to you Force Finish a task instance with a specific exit code so that you can force the workflow to take a conditional path using Conditions.	Integer.	N
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Abort action. You can specify as many statuses as needed.		Y
sysId	n/a	sys_id used within the Controller to identify this Abort action.		N

4.33.35.2.2 Email Notification Action

Property	UI Field Name	Description	Specifications	Required	
attachFile	Attach Remote File	For Agent-based tasks only; Specification for whether or not a text file that is accessible by the Agent is attached.	Boolean; Valid values: true/false. Default is false.	N	
attachJobLog	Attach Job Log	For z/OS tasks; Specification for whether or not a job log is attached.	Boolean; Valid values: true/false. Default is false.	N	
attachLocalFile	Attach Local File	Specification for whether or not a local file is attached.	Boolean; Valid values: true/false. Default is false.	N	

Property	UI Field Name	Description	Specifications	Required	
<code>attachStdError</code>	Attach Standard Error	For Agent-based tasks only (except z/OS); Specification for whether or not standard error data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N	
<code>attachStdOut</code>	Attach Standard Output	For Agent-based tasks only (except z/OS); Specification for whether or not standard output data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N	
<code>bcc</code>	BCC	Email address of the party being sent a blind (hidden) copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N	
<code>body</code>	Body	Text of the email message.	Variables and functions are supported.	N	
<code>cc</code>	CC	Email address of the party being sent a copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N	
<code>description</code>	Description	Description of this Email Notification action.		N	
<code>emailConnection</code>	Email Connection	Name of an Email Connection .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> .	Y (unless <code>emailTemplate</code> is specified)	
<code>emailTemplate</code>	Email Template	Name of an Email Template .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> .	Y (unless <code>emailConnection</code> is specified)	
<code>emailTemplateVar</code>	Email Template Variable	Name of a variable that will be resolved at run time to the name of an Email Template to use.	Format: \${variable name}.	N	
<code>exitCodes</code>	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one <code>status</code> . Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N	
<code>fileName</code>	File Name	If <code>attachFile</code> is enabled; Name of an attached file.	Full path name is required. Wildcards are NOT supported.	Y (if <code>attachFile</code> is specified)	
<code>fileNumLines</code>	Number of Lines	Number of lines to limit the retrieved data to. If <code>fileNumLines</code> is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N	

Property	UI Field Name	Description	Specifications	Required	
<code>fileScanText</code>	Scan Text	Regex pattern that the Controller will search for a match for in STDOUT/STDERR or a specified file. The Controller will include the <code>fileNumLines</code> above and below the first line matched.		N	
<code>fileStartLine</code>	Start Line	Integer; Starting line of the attached data.	Integer.	N	
<code>inheritance</code>	Action Inheritance	For Workflow tasks only; Records that this action applies to.	Valid values: - As String = Self, As Value = 1 - As String = Self/Children, As Value = 2 - As String = Children, As Value = 3 Default is Self (1).	N	
<code>joblogNumLines</code>	Number of Lines	For z/OS tasks only; Number of lines to limit the retrieved data in the job log to.	Integer.	N	
<code>joblogScanText</code>	Scan Text	For z/OS tasks only; Regex pattern that the Controller will search for a match for in the job log.	Integer.	N	
<code>joblogStartLine</code>	Start Line	For z/OS tasks only; Starting line of the attached job log.	Integer.	N	
<code>listReportFormat</code>	List Report Format	Report format. If the attached report is not a List type report, this option will be ignored.	Default is PDF (1). Valid Values: - As String = PDF, As Value = 1 - As String = XML, As Value = 2 - As String = JSON, As Value = 3 - As String = CSV, As Value = 4 - As String = TSV, As Value = 5	N	
<code>localAttachmentsPath</code>	Local Attachments Path	Location of Local Attachments for the connected Node.		N	
<code>localAttachment</code>	Local Attachment	Name of the file(s) to attach.		N	
<code>notifyOnEarlyFinish</code>	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
<code>notifyOnLateFinish</code>	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
<code>notifyOnLateStart</code>	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	

Property	UI Field Name	Description	Specifications	Required	
<code>notifyOnProjectedLate</code>	On Projected Late	Generates the action if the task is projected to be late, based on the calculated Projected End Time and the Late Start Time, Late Start Duration, or Late Finish Time time option.	Boolean; Valid values: true/false. Default is false.	N	
<code>replyTo</code>	Reply-To	Email address of the sender of the email.	Use commas to separate multiple recipients. Variables and Functions are supported.	N	

Property	UI Field Name	Description	Specifications	Required	
report	Report	Report attached to this notification.	If <code>reportVar</code> is specified, <code>report</code> is ignored. Reports do not have to be unique by Title. However, reports with the same Title must be unique per Visibility: per User, per one or more Groups, and per Everyone. Therefore, when specifying a report reference, both the Title and Visibility must be specified. To define a report reference for a report with Title XYZ that is visible to user john.doe, you would specify: XML <pre><report> <title>XYZ</title> <userName>john.doe</userName> <groupName /> </report></pre> JSON	N	

Property	UI Field Name	Description	Specifications	Required	
			<pre>"report": { "title": "XYZ", "userName": "john.doe", "groupName": null }</pre> To specify a single visibility group, you can utilize either <code>groupName</code> or <code>groupNames</code> with only one <code>groupName</code> in the list. To define a report reference for a report with Title XYZ that is visible to group Operators, you could specify: XML <pre><report> <title>XYZ</ title> <userName /> <groupName>Operator s</groupName> </report></pre> JSON <pre>"report": { "title": "XYZ", "userName": null, "groupName": "Operators", }</pre> or XML		

Property	UI Field Name	Description	Specifications	Required	
			<pre><report> <title>XYZ</ title> <userName /> <groupName/> <groupNames> <groupName>Operator s</groupName> </groupNames> </report></pre> JSON <pre>"report": { "title": "XYZ", "userName": null, "groupNames": { "groupName": "Operators", } }</pre> Duplicate group visibility is prohibited and thus there should be only a single report (of the same title) visible to a particular group. Therefore, to look up a report visible to multiple groups, you can specify one or more of the visibility groups, as long as the report is visible to all of the specified groups. To define a report reference for a report with Title XYZ that is visible to groups Operators, Finance, and Development; You could specify any one of the visibility groups: XML		

Property	UI Field Name	Description	Specifications	Required	
			<pre><report> <title>XYZ</ title> <userName /> <groupName>Operator s</groupName> </report></pre> JSON <pre>"report": { "title": "XYZ", "userName": null, "groupName": "Operators", }</pre> Or you could specify multiple visibility groups: XML <pre><report> <title>XYZ</ title> <userName /> <groupName/> <groupNames> <groupName>Operator s</groupName> <groupName>Developm ent</groupName> </groupNames> </report></pre> JSON		

Property	UI Field Name	Description	Specifications	Required	
			<pre> "report": { "title": "XYZ", "userName": null, "groupNames": { "groupName": "Operators", "groupName": "Development", } } </pre> To define a report reference for a report with title XYZ that is visible to Everyone, you would specify: XML <pre> <report> <title>XYZ</ title> <groupName /> <userName /> </report> </pre> JSON <pre> "report": { "title": "XYZ", "userName": null, "groupName": null } </pre>		
reportVar	Report Variable	Name of a variable that will be resolved at run time to the name of the Report to attach.	If reportVar is specified, report is ignored.	N	

Property	UI Field Name	Description	Specifications	Required	
<code>status</code>	Status	Status of this task, by itself or together with an exit code, that will trigger this Email Notification action. You can specify as many statuses as needed.		Y	
<code>stderrNumLines</code>	Number of Lines	Number of lines to limit the retrieved stderr data to. If <code>stderrNumLines</code> is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N	
<code>stderrScanText</code>	Scan Text	Regex pattern that the Controller will search for a match for in stderr. The Controller will include the Number of Lines above and below the first line matched.		N	
<code>stderrStartLine</code>	Start Line	Starting line of the attached stderr data.	Integer.	N	
<code>stdoutNumLines</code>	Number of Lines	Number of lines to limit the retrieved stdout data to. If <code>stdoutNumLines</code> is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N	
<code>stdoutScanText</code>	Scan Text	Regex pattern that the Controller will search for a match for in stdout. The Controller will include the Number of Lines above and below the first line matched.		N	
<code>stdoutStartLine</code>	Start Line	Starting line of the attached stdout data.	Integer.	N	
<code>subject</code>	Subject	Subject line of the email.	Variables and functions supported.	N	
<code>sysId</code>	n/a	<code>sys_id</code> used within the Controller to identify this Email Notification action.		N	
<code>to</code>	To	Email address of the recipient.	Use commas to separate multiple recipients Variables and functions supported.	Y	

4.33.35.2.3 Set Variable Action

Property	UI Field Name	Description	Specifications	Required
<code>description</code>	Description	Description of this Set Variable action.		N

Property	UI Field Name	Description	Specifications	Required
<code>exitCodes</code>	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one <code>status</code> . Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N
<code>inheritance</code>	Action Inheritance	For Workflow tasks only; Records that this action applies to.	Valid values: - As String = Self, As Value = 1 - As String = Self/Children, As Value = 2 - As String = Children, As Value = 3 Default is Self (1).	N
<code>notificationOption</code>	System Notification	If <code>variableScope</code> is Global (4); Status of the Set Variable action that will trigger a system notification.	Valid values: - As String = -- None --, As Value = 0 - As String = Operation Failure, As Value = 1 - As String = Operation Success/Failure, As Value = 2 - As String = Operation Success, As Value = 3 Default is Operation Failure (1).	N
<code>notifyOnEarlyFinish</code>	On Early Finish]	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
<code>notifyOnLateFinish</code>	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
<code>notifyOnLateStart</code>	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
<code>notifyOnProjectedLate</code>	On Projected Late	Generates the action if the task is projected to be late, based on the calculated Projected End Time and the Late Start Time, Late Start Duration, or Late Finish Time time option.	Boolean; Valid values: true/false. Default is false.	N
<code>status</code>	Status	Status of this task, by itself or together with an exit code, that will trigger this Set Variable action. You can specify as many statuses as needed.		Y
<code>sysId</code>	n/a	<code>sys_id</code> used within the Controller to identify this Email Notification action.		N

Property	UI Field Name	Description	Specifications	Required
variableName	Name	Name of the variable.	Name of the variable. Up to 128 alphanumeric characters. The name must begin with an alphabetic character and can consist of: alphas (a-z, A-Z), numerics 0-9, _ (underscore). White spaces are not permitted; names are not case-sensitive. Do not define variables with the prefix ops_. The ops_ prefix is reserved for built-in variables. If the specified variable name contains an embedded variable or function, the above restrictions will not be validated until runtime.	N
variableScope	Variable Scope	Applies to variables associated with a task in a Workflow.	Valid values: - As String = Self, As Value = 1 - As String = Parent, As Value = 2 - As String = Top Level Parent, As Value = 3 - As String = Global, As Value = 4 Default is Self (1).	N
variableValue	Value	Value of this variable.		N

4.33.35.2.4 SNMP Notification Action

Property	UI Field Name	Description	Specifications	Required
description	Description	Description of this action.		N
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status . Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N
inheritance	Action Inheritance	For Workflow tasks only; Records that this action applies to.	Valid values: - As String = Self, As Value = 1 - As String = Self/Children, As Value = 2 - As String = Children, As Value = 3 Default is Self (1).	N
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
<code>notifyOnLateStart</code>	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
<code>notifyOnProjectedLate</code>	On Projected Late	Generates the action if the task is projected to be late, based on the calculated Projected End Time and the Late Start Time, Late Start Duration, or Late Finish Time time option.	Boolean; Valid values: true/false. Default is false.	N
<code>severity</code>	Notification Severity	Severity level of this notification.	Valid values: - As String = Normal, As Value = 1 - As String = Warning, As Value = 2 - As String = Minor, As Value = 3 - As String = Major, As Value = 4 - As String = Critical, As Value = 5 Default is Normal (1).	Y
<code>status</code>	Status	Status of this task, by itself or together with an exit code, that will trigger this SNMP Notification action. You can specify as many statuses as needed.		Y
<code>sysId</code>	n/a	<code>sys_id</code> used within the Controller to identify this SNMP Notification action.		N
<code>snmpManager</code>	SNMP Manager	SNMP Manager that will receive this notification.		Y

4.33.35.2.5 System Operation Action

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>agent</code>	Agent	If <code>operation</code> is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Agent for which the System Operation is to be performed.		Y (unless <code>agentVar</code> , <code>agentCluster</code> , or <code>agentClusterVar</code> is specified)	<code>agentVar</code>
<code>agentCluster</code>	Agent Cluster	If <code>operation</code> is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Agent Cluster for which the system operation is to be performed.		Y (unless <code>agent</code> , <code>agentVar</code> , or <code>agentClusterVar</code> is specified)	<code>agentClusterVar</code>

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agentClusterVar	Agent Cluster Variable	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.		Y (unless agentCluster, agent, or agentVar is specified)	agentCluster
agentVar	Agent Variable	If System Operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		Y (unless agent, agentCluster, or agentClusterVar is specified)	agent
description	Description	Description of this System Operation action.		N	
execCommand	Command	If operation is Run Task Instance Command; Type of task instance command to run.	Valid values: - As String = Cancel, As Value = 1 - As String = Force Finish, As Value = 2 - As String = Force Finish (Halt), As Value = 3 - As String = Force Finish/Cancel, As Value = 4 - As String = Force Finish/Cancel (Halt), As Value = 5 - As String = Skip, As Value = 6 - As String = Hold, As Value = 7 - As String = Release, As Value = 8 - As String = Release Recursive, As Value = 9 - As String = Clear All Dependencies, As Value = 10 - As String = Clear Exclusive, As Value = 11 - As String = Clear Predecessors, As Value = 12 - As String = Clear Resources, As Value = 13 - As String = Unskip, As Value = 14 - As String = Clear Timewait, As Value = 15 - As String = Re-run, As Value = 16 Default is Cancel (1).	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>execCriteria</code>	Instance Criteria	If <code>execLookupOption</code> is Instance Name, Instance Name/ Task, or Task; Additional criteria for selecting a specific task instance if multiple task instances have matching names.	Valid values: - As String = Oldest Active Instance, As Value = 1 - As String = Newest Active Instance, As Value = 2 - As String = Oldest Instance, As Value = 3 (Unskip command only) - As String = Newest Instance, As Value = 4 (Unskip command only) Default is Oldest Active Instance (1).	N	
<code>execId</code>	Instance Id	If <code>execLookupOption</code> is Instance Id; ID of task instance to run the command against.	The instance Id (sysid) is a 32-character universally unique identifier. You can use the <code>\$ {ops_task_id}</code> variable or <code>\$ {_siblingid('mytask')}</code> function to get the instance Id.	N	
<code>execLookupOption</code>	Instance Lookup Option	If <code>operation</code> is Run Task Instance Command; Specification for how to search for the task instance to run a command against.	Valid values: - As String = Instance Name, As Value = 1 - As String = Instance Name/Task, As Value = 2 - As String = Instance Id, As Value = 3 - As String = Task, As Value = 4 Default is Instance Name (1).	N	
<code>execName</code>	Instance Name	If <code>execLookupOption</code> is Instance Name or Instance Name/ Task; Name of the task instance to run the command against.	Variables are supported.	Y	
<code>execWorkflowNameCondition</code>	Workflow Instance Name Condition	If <code>operation</code> is Run Task Instance Command; Type of condition for the name of the parent workflow task instance that contains the task on which to perform the specified action. The action will be performed only on a task instance in a parent workflow task instance meeting the specified condition value.	Valid values: - As String = Equals, As Value = 1 - As String = Start With, As Value = 2 - As String = Contains, As Value = 3 - As String = Ends With, As Value = 4 Default is Equals (1).	N	
<code>execWorkflowNameValue</code>	Workflow Instance Name <Condition Value>	Value for <code>execWorkflowNameCondition</code> .		Y	
<code>exitCodes</code>	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one <code>status</code> . Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
limit	Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit, and taskLimitType is Limited; Number of tasks that can be run concurrently by the specified Agent / Agent Cluster.	Integer	N	
inheritance	Action Inheritance	For Workflow tasks only; Records that this action applies to.	Valid values: - As String = Self, As Value = 1 - As String = Self/Children, As Value = 2 - As String = Children, As Value = 3 Default is Self (1).	N	
name	Name	Name of a variable to override.		N	
notificationOption	System Notification	Status of the specified operation that will trigger a system notification.	Valid values: - As String = -- None --, As Value = 0 - As String = Operation Failure, As Value = 1 - As String = Operation Success/Failure, As Value = 2 - As String = Operation Success, As Value = 3 Default is Operation Failure (1).	N	
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnProjectedLate	On Projected Late	Generates the action if the task is projected to be late, based on the calculated Projected End Time and the Late Start Time, Late Start Duration, or Late Finish Time time option.	Boolean; Valid values: true/false. Default is false.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
operation	System Operation	System operation to perform.	Valid values: - As String = Suspend Agent, As Value = 1 - As String = Resume Agent, As Value = 2 - As String = Suspend Agent Cluster, As Value = 3 - As String = Resume Agent Cluster, As Value = 4 - As String = Suspend Cluster Membership, As Value = 5 - As String = Resume Cluster Membership, As Value = 6 - As String = Set Agent Task Execution Limit, As Value = 7 - As String = Set Cluster Task Execution Limit, As Value = 8 - As String = Set Virtual Resource Limit, As Value = 9 - As String = Run Task Instance Command, As Value = 10 - As String = Launch Task, As Value = 11 - As String = Trigger Now, As Value = 12 - As String = Enable Trigger, As Value = 13 - As String = Disable Trigger, As Value = 14 Default is Suspend Agent (1).	N	
overrideTriggerDateOffset	Override Date Offset	Override date offset.	Date Offset value of trigger to fire.	N (unless overrideTriggerDateTime is true)	
overrideTriggerDateTime	Override Trigger Date/Time	Request parameter to enable/disable override functionality.	Boolean value (true / false). Default is false.	N	
overrideTriggerTime	Override Time	Override time.	Time of the trigger to fire.	Y (if overrideTriggerDateTime is true)	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this System Operation action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this System Operation action.		N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
task	Task Reference	- If <code>execLookupOption</code> is Instance Name/Task or Task; Name of the task for which the task instance was run. - If <code>operation</code> is Launch Task; Name of the task to launch.		N	taskVar
taskLimitType	Task Execution Limit	If <code>operation</code> is Set Agent Task Execution Limit or Set Cluster Task Execution Limit; Specification for whether a limited or unlimited number of task instances can be run concurrently on the specified Agent / Agent Cluster.	Valid values: - As String = Unlimited, As Value = 1 - As String = Limited, As Value = 2 Default is Unlimited.	N	
taskVar	Task Reference Variable	- If <code>execLookupOption</code> is Instance Name/Task or Task; Name of a variable that will be resolved at run time to the name of the task for which the task instance was run. - If <code>operation</code> is Launch Task; Name of a variable that will be resolved at run time to the name of the task to launch.		N	task
trigger	Trigger Reference	If <code>operation</code> is Trigger Now, Enable Trigger, or Disable Trigger; Name of the trigger.		N	triggerVar
triggerVar	Trigger Reference Variable	If <code>operation</code> is Trigger Now, Enable Trigger, or Disable Trigger; Name of a variable that will be resolved at run time to the name of the trigger.		N	trigger
value	Value	Value of a variable to override.		N	
variables	Override Variables	List of variables to override.		N	
variablesUnresolved	Override Variables Resolution Disabled	Specification for whether or not <code>variables</code> resolution should be disabled to allow for passing unresolved variable values. - If <code>variables</code> resolution is disabled, any unresolved variables will be resolved in the context of the launched or triggered task instance. - If <code>variables</code> resolution is not disabled, <code>variables</code> will be resolved prior to the execution of the Launch Task or Trigger Now <code>operation</code>.	Boolean; Valid values: true/false. Default is false.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
vertexSelection	Vertex Selection	If operation is Trigger Now or Launch Task; Specifies if the vertex selection can be enabled.	Boolean; Valid Values: true/false	N	
vertices	Vertices	If operation is Trigger Now or Launch Task; Specifies Root Vertices and/or Specific Vertices to be included in the launched workflow. A vertex can be specified by taskName and vertexId. If you specify a vertexId, then only a single vertex will match, whereas, if vertexId is "Any", any vertex matching by taskName will be selected. To indicate a vertex selection is a Root Vertex, set root to true. If root is unspecified or false, it indicates a vertex selection is a Specific Vertex.	XML <pre><vertices> <vertex root="true"> <taskName>JOB_A</taskName> <vertexId>10</vertexId> </vertex> <vertex root="false"> <taskName>JOB_B</taskName> <vertexId>Any</vertexId> </vertex> </vertices></pre> JSON <pre>"vertices": [{ "root": true, "taskName": "JOB_A", "vertexId": "10", }, { "root": false, "taskName": "JOB_B", "vertexId": "Any", }]</pre>	N	
virtualResource	Virtual Resource	If operation is Set Virtual Resource Limit; Virtual resource for which a virtual resource limit is to be set.		N	virtualResourceVar

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
virtualResourceVar	Virtual Resource Variable	If operation is Set Virtual Resource Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		N	virtualResource

4.33.35.3 Task-Related Records Properties

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4.33.35.3.1 Advanced Criteria

Note

These properties are for the Email Monitor task only.

Property	UI Field Name	Description	Specifications	Required
body	Body	If bodyFilter is any value other than None, Is Blank, or Is Not Blank; bodyFilter condition value.		N

Property	UI Field Name	Description	Specifications	Required
<code>bodyFilter</code>	Body Filter	<code>body</code> filter condition to apply.	Valid values: - As String = None, As Value = 0 - As String = Equals, As Value = 1 - As String = Starts With, As Value = 2 - As String = Contains, As Value = 3 - As String = Ends With, As Value = 4 - As String = Dos Not Equal, As Value = 5 - As String = Dos Not Start With, As Value = 6 - As String = Does Not Contain, As Value = 7 - As String = Dos Not End With, As Value = 8 - As String = Is Blank, As Value = 9 - As String = Is Not Blank, As Value = 10 - As String = Regex, As Value = 11 Default is None (0).	N
<code>caseSensitive</code>	Case Sensitive	Text-based filters should be treated as case-sensitive.	Boolean; Valid values: true/false. Default is false.	N
<code>cc</code>	Cc	If <code>ccFilter</code> is any value other than None, Is Blank, or Is Not Blank; <code>ccFilter</code> condition value.		N
<code>ccFilter</code>	Cc Filter	<code>cc</code> filter condition to apply.	Valid values: - As String = None, As Value = 0 - As String = Equals, As Value = 1 - As String = Contains, As Value = 3 - As String = Dos Not Equal, As Value = 5 - As String = Does Not Contain, As Value = 7 - As String = Is Blank, As Value = 9 - As String = Is Not Blank, As Value = 10 - As String = Regex, As Value = 11 Default is None (0).	N
<code>filterLogic</code>	Filter Logic	Logic to apply when combining filters.	Valid values: - As String = And, As Value = 1 - As String = Or, As Value = 2 Default is And (1).	N
<code>from</code>	From	If <code>fromFilter</code> is any value other than None; <code>fromFilter</code> condition value.		N

Property	UI Field Name	Description	Specifications	Required
fromFilter	From Filter	from filter condition to apply.	Valid values: - As String = None, As Value = 0 - As String = Equals, As Value = 1 - As String = Contains, As Value = 3 - As String = Dos Not Equal, As Value = 5 - As String = Does Not Contain, As Value = 7 - As String = Regex, As Value = 11 Default is None (0).	N
subject	Subject	If subjectFilter is any value other than None, Is Blank, or Is Not Blank; subjectFilter condition value.		N
subjectFilter	Subject Filter	subject filter condition to apply.	Valid values: - As String = None, As Value = 0 - As String = Equals, As Value = 1 - As String = Starts With, As Value = 2 - As String = Contains, As Value = 3 - As String = Ends With, As Value = 4 - As String = Dos Not Equal, As Value = 5 - As String = Dos Not Start With, As Value = 6 - As String = Does Not Contain, As Value = 7 - As String = Dos Not End With, As Value = 8 - As String = Is Blank, As Value = 9 - As String = Is Not Blank, As Value = 10 - As String = Regex, As Value = 11 Default is None (0).	N
to	To	If toFilter is any value other than None, Is Blank, or Is Not Blank; toFilter condition value.		N
toFilter	To Filter	to condition to apply.	Valid values: - As String = None, As Value = 0 - As String = Equals, As Value = 1 - As String = Contains, As Value = 3 - As String = Dos Not Equal, As Value = 5 - As String = Does Not Contain, As Value = 7 - As String = Is Blank, As Value = 9 - As String = Is Not Blank, As Value = 10 - As String = Regex, As Value = 11 Default is None (0).	N

4.33.35.3.2 Job Steps

Note

These properties are for the SAP task only.

4.33.35.3.2.1 ABAP Program Job Step

Property	UI Field Name	Description	Specifications	Required
username	SAP User Name	User name in the SAP system.		N
variantName	Variant Name	Variant to use to process the report.		N
programName	Name	Name of the ABAP Program, External Program or External Command to be processed in the background.		Y
type	Type	Job step type.	XML: <code>type</code> is read-only. The job step <code>type</code> is determined by its element name (abapProgram, externalCommand, externalProgram). Valid Values: • As String = ABAP Program • As String = External Command • As String = External Program Default is ABAP Program.	N
language	Execution Language	Specifies the language in which the system executes and prints the output.		N
stepOrder	Step Order	Order for Job Steps.	Integer	N
sysId	n/a	<code>sys_id</code> used within the Controller to identify this Job Step.		N
useTemporaryVariant	Use Temporary Variant	Specification for whether or not to use Temporary Variant.	Boolean; Valid values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
temporaryVariant	Temporary Variant	XML:	See Temporary Variant payload properties.	Y if useTemporaryVariant is true

Property	UI Field Name	Description	Specifications	Required
		<temporaryVariant> <variantParameter> <high>Z</high> <low>A*</low> <technicalName>NAME1</technicalName> <option>Between</option> <sign>Include</sign> <type>Selection</type> </variantParameter> <variantParameter> <high /> > <low>ABC*</low> <technicalName>NAME2</technicalName> <option>Contains Pattern</option> <sign>Exclude</sign> <type>Parameter</type> </variantParameter> </temporaryVariant>		

Property	UI Field Name	Description	Specifications	Required
		JSON: <pre> { "temporaryVariant": [{ "high": "Z", "low": "A*", "technicalName": "NAME1", "option": "Between", "sign": "Include", "type": "Selection" }, { "high": null, "low": "ABC*", "technicalName": "NAME2", "option": "Contains Pattern", "sign": "Exclude", "type": "Parameter" }] } </pre>		
userCredentials	SAP User Credentials	SAP User Credentials to run the Job Step. These Credentials override the task-level SAP Credentials.	If both userCredentials and userCredentialsVar are specified, userCredentialsVar will be used.	N
userCredentialsVar	SAP User Credentials	Name of a variable that will be resolved at run time to the name of the Credentials to use.	If both userCredentials and userCredentialsVar are specified, userCredentialsVar will be used.	N

Property	UI Field Name	Description	Specifications	Required
printParameters		XML: <pre> <printParameters> <numberOfCopies>3</ numberOfCopies> <outputDevice>output device</outputDevice> <pageArea>Page</pageArea> <pageFrom>1</pageFrom> <pageTo>5</ pageTo> <printTime>Immediately</ printTime> </ printParameters> </pre> JSON: <pre> { "printParameters": { "numberOfCopies": 3, "outputDevice": "output device", "pageArea": "Page", "pageFrom": 1, "pageTo": 5, "printTime": "Immediately" } } </pre>	See Print Parameters payload properties.	N

Print Parameters

Property	UI Field Name	Description	Specifications	Required
outputDevice	Output Device	Specifies the printer or fax machine.		N
printTime	Print Time	Specifies when the spool request will be sent to the output device.	Valid Values: - As String = SAP Spool Only, As Value = 1 - As String = Immediately, As Value = 2 Default is SAP Spool Only (1).	N
numberOfCopies	Number of Copies	Number of printouts.	Integer	N
pageFrom	Page From	First page in the range of pages to be printed.	Integer	Y if pageArea is Page
pageTo	Page To	Last page in the range of pages to be printed.	Integer	Y if pageArea is Page
pageArea	Page Area	Specifies if everything should be printed or select pages.	Valid Values: - As String = Everything, As Value = 1 - As String = Page, As Value = 2 Default is Everything (1).	N
format	Format			N

Property	UI Field Name	Description	Specifications	Required
outputContent		XML: <pre><outputContent> <maxSpoolWidth>Yes</maxSpoolWidth> <noFrame>Yes</noFrame> <noShade>Yes</noShade> <structureInformation>Yes</structureInformation> <textOnly>Yes</textOnly> </outputContent></pre> JSON: <pre>"outputContent": { "maxSpoolWidth": "Yes", "noFrame": "Yes", "noShade": "Yes", "structureInformation": "Yes", "textOnly": "Yes" }</pre>	See Output Content payload properties.	N
spoolRequest		XML: <pre><spoolRequest> <authorization>authorization</authorization> <name>spool request name</name> <title>title</title> </spoolRequest></pre> JSON: <pre>"spoolRequest": { "authorization": "authorization", "name": "spool request name", "title": "title" }</pre>	See Spool Request payload properties.	N

Property	UI Field Name	Description	Specifications	Required
coverSheets		XML: <pre> <coverSheets> <department>dep</department> <osCoverSheet>Do Not Print</osCoverSheet> <receivers>rec</receivers> <sapCoverSheet>Do Not Print</sapCoverSheet> <selectionCoverSheet>Yes</selectionCoverSheet> </coverSheets> </pre> JSON: <pre> "coverSheets": { "department": "department", "osCoverSheet": "Do Not Print", "receivers": "receivers", "sapCoverSheet": "Do Not Print", "selectionCoverSheet": "Yes" } </pre>	See Cover Sheets payload properties.	N

Property	UI Field Name	Description	Specifications	Required
outputOptions		XML: <pre><outputOptions> <deleteAfterPrinting>Unspecified</deleteAfterPrinting> <documentType /> <information /> <newSpoolRequest>Unspecified</newSpoolRequest> <objectType /> <printPriority>Unspecified</printPriority> <spoolRetention>Unspecified</spoolRetention> <storageMode>Unspecified</storageMode> <text /> </outputOptions></pre> JSON: <pre>"outputOptions": { "deleteAfterPrinting": "Unspecified", "documentType": null, "information": null, "newSpoolRequest": "Unspecified", "objectType": null, "printPriority": "Unspecified", "spoolRetention": "Unspecified", "storageMode": "Unspecified", "text": null }</pre>	See Output Options payload properties.	N

Print Parameters: Output Content

Property	UI Field Name	Description	Specifications	Required
maxSpoolWidth	Spool Request Maximum 255 Character Width	Specification for a line break in spool after 255 characters.	Valid Values: - As String = Unspecified, As Value = 0 - As String = Yes, As Value = 1 - As String = No, As Value = 2 Default is Unspecified (0).	N
textOnly	Text Only	Specification to print text output only.	Valid Values: - As String = Unspecified, As Value = 0 - As String = Yes, As Value = 1 - As String = No, As Value = 2 Default is Unspecified (0).	N
noShade	Suppress Colors/Shading In Printout	Specifies if colors/shading are included in spool list.	Valid Values: - As String = Unspecified, As Value = 0 - As String = Yes, As Value = 1 - As String = No, As Value = 2 Default is Unspecified (0).	N
structureInformation	Spool List With Structure Information	Specifies if structure information is inserted into the print request.	Valid Values: - As String = Unspecified, As Value = 0 - As String = Yes, As Value = 1 - As String = No, As Value = 2 Default is Unspecified (0).	N
noFrame	No Frame Characters	Specifies if no frame characters are printed.	Valid Values: - As String = Unspecified, As Value = 0 - As String = Yes, As Value = 1 - As String = No, As Value = 2 Default is Unspecified (0).	N

Print Parameters: Spool Request

Property	UI Field Name	Description	Specifications	Required
name	Spool Request Name	The name of the spool request if not printed immediately.		N
title	Title	Description text for the spool request, appears on the default cover page and is displayed in the output controller instead of the value of the Spool Request Name.		N

Property	UI Field Name	Description	Specifications	Required
authorization	Authorization	Authorization for the spool request. This can be used to check whether or not a user is allowed to carry out certain actions on the spool request.		N

Print Parameters: Cover Sheets

Property	UI Field Name	Description	Specifications	Required
sapCoverSheet	SAP Cover Sheet	Specifies whether a cover page containing details about the print request - such as recipient, department, and format - is to be sent with the with the spool request.	Valid Values: - As String = Unspecified, As Value = 0 - As String = Default System Administrator Settings , As Value = 1 - As String = Do Not Print, As Value = 2 - As String = Print, As Value = 3 Default is Unspecified (0).	N
osCoverSheet	OS Cover Sheet	Specifies whether the standard cover page of the operating system spooler is to be sent with the spool request.	Valid Values: - As String = Unspecified, As Value = 0 - As String = Default System Administrator Settings , As Value = 1 - As String = Do Not Print, As Value = 2 - As String = Print, As Value = 3 Default is Unspecified (0).	Y
selectionCoverSheet	Selection Cover Sheet	Specifies whether a cover page with the input values of the selection layout is printed.	Valid Values: - As String = Unspecified, As Value = 0 - As String = Yes, As Value = 1 - As String = No, As Value = 2 Default is Unspecified (0).	N
receivers	Receivers	Recipient name for the SAP cover page.		N
department	Department	Department name for the SAP cover page.		N

Print Parameters: Output Options

Property	UI Field Name	Description	Specifications	Required
<code>deleteAfterPrinting</code>	Delete After Printing	If Yes (1), spool request is deleted immediately after printing, otherwise after the value of Spool Retention.	Valid Values: - As String = Unspecified, As Value = 0 - As String = Yes, As Value = 1 - As String = No, As Value = 2 Default is Unspecified (0).	N
<code>spoolRetention</code>	Spool Retention	This field specifies how many days a spool request stays in the spool system before it is deleted.	Valid Values: - As String = Unspecified, As Value = 0 - As String = Delete After 1 Day, As Value = 1 - As String = Delete After 2 Days, As Value = 2 - As String = Delete After 3 Days, As Value = 3 - As String = Delete After 4 Days, As Value = 4 - As String = Delete After 5 Days, As Value = 5 - As String = Delete After 6 Days, As Value = 6 - As String = Delete After 7 Days, As Value = 7 - As String = Delete After 8 Days, As Value = 8 - As String = Do Not Delete, As Value = 9 Default is Unspecified (0).	N
<code>newSpoolRequest</code>	New Spool Request	Specifies whether the system creates a new spool request.	Valid Values: - As String = Unspecified, As Value = 0 - As String = Yes, As Value = 1 - As String = No, As Value = 2 Default is Unspecified (0).	N
<code>printPriority</code>	Print Priority	Specifies the priority to be passed on to the spool system of the operating system. A spool request with a higher priority is inserted into the spooler queue in front of a spool request with a lower priority.	Valid Values: - As String = Unspecified, As Value = 0 - As String = High Priority, As Value = 1 - As String = Medium Priority, As Value = 2 - As String = Low Priority, As Value = 3 Default is Unspecified (0).	N

Property	UI Field Name	Description	Specifications	Required
<code>storageMode</code>	Storage Mode	Specifies the archiving mode.	Valid Values: - As String = Unspecified, As Value = 0 - As String = Print Only, As Value = 1 - As String = Archive Only, As Value = 2 - As String = Print And Archive, As Value = 3 Default is Unspecified (0).	N
<code>objectType</code>	Object Type	If <code>storageMode</code> = Archive Only or Print And Archive, Object type of the SAP object.		N
<code>documentType</code>	Document Type	If <code>storageMode</code> = Archive Only or Print And Archive, Document type of the archiving object.		N
<code>information</code>	Information	If <code>storageMode</code> = Archive Only or Print And Archive, Information abbreviation for the archiving request which can contain more information beside the name.		N
<code>text</code>	Text	If <code>storageMode</code> = Archive Only or Print And Archive, Description text of the archiving request.		N

Temporary Variant

Property	UI Field Name	Description	Specifications	Required
<code>technicalName</code>	Technical Name			Y
<code>type</code>	Type		Valid Values: - As String = Parameter, As Value = 1 - As String = Selection, As Value = 2	Y
<code>low</code>	Lower Limit/Single Value			Y
<code>high</code>	Upper Limit			Y if option is Between or Not Between

Property	UI Field Name	Description	Specifications	Required
option	Option		Valid Values: - As String = Equals, or, EQ As Value = 1 - As String = Not Equals, or, NE, As Value = 2 - As String = Greater Than, or, GT, As Value = 3 - As String = Greater Than or Equals, or, GE, As Value = 4 - As String = Less Than, or, LT, As Value = 5 - As String = Less Than or Equals, or, LE, As Value = 6 - As String = Contains Pattern, or, CP, As Value = 7 - As String = Does Not Contain Pattern, or, NP, As Value = 8 - As String = Between, or, BT, As Value = 9 - As String = Not Between, or, NB, As Value = 10	Y
sign	Sign		Valid Values: - As String = Include, As Value = 1 - As String = Exclude, As Value = 2	Y

4.33.35.3.2.2 External Command / External Program Job Step

Property	UI Field Name	Description	Specifications	Required
username	SAP User Name	User name in the SAP system.		N
programName	Name	Name of the ABAP Program, External Program or External Command to be processed in the background.		Y

Property	UI Field Name	Description	Specifications	Required
type	Type	Job step type.	XML: <code>type</code> is read-only. The job step <code>type</code> is determined by its element name (abapProgram, externalCommand, externalProgram). Valid Values: • As String = ABAP Program • As String = External Command • As String = External Program Default is ABAP Program.	N
userCredentials	SAP User Credentials	SAP User Credentials to run the Job Step. These Credentials override the task-level SAP Credentials.	If both userCredentials and userCredentialsVar are specified, userCredentialsVar will be used.	N
userCredentialsVar	SAP User Credentials	Name of a variable that will be resolved at run time to the name of the Credentials to use.	If both userCredentials and userCredentialsVar are specified, userCredentialsVar will be used.	N
stepOrder	Step Order	Order for Job Steps.	Integer	N
sysId	n/a	<code>sys_id</code> used within the Controller to identify this Job Step.		N
parameters	Parameters	Parameter string to be passed to the external program or command when the step starts.		N
targetServer	Target Server	Name of the host system on which you want to process a background job.		Y
operatingSystem	OS	Operating system of the application server.		
waitForTermination	Job Waiting For External Termination	Informs SAP to wait for termination before returning.	Valid Values: • As String = Unspecified, As Value = 0 • As String = Do Not Wait, As Value = 1 • As String = Wait, As Value = 2 • As String = Wait For Event, As Value = 3 Default is Unspecified (0).	N

Property	UI Field Name	Description	Specifications	Required
logOutput	Log Output	Specifies how to write the standard job output.	Valid Values: - As String = Unspecified, As Value = 0 - As String = No Change, As Value = 1 - As String = Close Expenditure, As Value = 2 - As String = Return Expenditure, As Value = 3 - As String = Return Into Trace Files, As Value = 4 - As String = Write Into Main Storage, As Value = 5 Default is Unspecified (0).	N
logErrors	Log Errors	Specifies how to write the standard error job output.	Valid Values: - As String = Unspecified, As Value = 0 - As String = No Change, As Value = 1 - As String = Close Expenditure, As Value = 2 - As String = Return Expenditure, As Value = 3 - As String = Write Into Main Storage, As Value = 5 Default is Unspecified (0).	N
traceLevel	Activate Trace With Trace Level	Specifies the trace level.	Valid Values: - As String = Unspecified, As Value = 0 - As String = No Trace, As Value = 1 - As String = Function Call Trace, As Value = 2 - As String = Minutes Trace, As Value = 3 - As String = Expression Of All Messages, As Value = 4 Default is Unspecified (0).	N

4.33.35.3.3 Mutually Exclusive Tasks

Property	UI Field Name	Description	Specifications	Required
sysId	n/a	sysId of the task-to-exclusive-task relationship.		N
task	Exclusive Task	Name of this Mutually Exclusive task.		Y

Property	UI Field Name	Description	Specifications	Required
type	Type	Type of Mutually Exclusive task.	Valid values: • Direct Default is Direct.	N

4.33.35.3.4 Notes

Property	UI Field Name	Description	Specifications	Required
sysId	n/a	sys_id used within the Controller to identify this Note.		N
text	Text	Text of this note.		N
title	Title	Title of this note.		N

4.33.35.3.5 Restart Criteria

Note

These properties are for the z/OS task only.

Property	UI Field Name	Description	Specifications	Required
directives	Directives List	Collection of directive objects.	Valid values: • As String = Start, As Value = 1 • As String = Skip, As Value = 2 • As String = End, As Value = 3	Y (if restartOption is Restart Using Directives (3))
evaluationOrder	Evaluation Order	Order for restart criteria evaluation.	Integer; Restart criteria with a lower order are evaluated before restart criteria with a higher order.	N
programName	Program	Program name to match.	A blank value or an asterisk (*) will match any program name. Generic matching characters asterisk (*) and question mark (?) match zero or more characters and one character, respectively.	N
pstepName	Procedure	Procedure step name to match.	A blank value or an asterisk (*) will match any procedure step name. Generic matching characters asterisk (*) and question mark (?) match zero or more characters and one character, respectively.	N

Property	UI Field Name	Description	Specifications	Required
restartOption	Auto-Restart Option	Method of step selection to perform for the restart.	Valid values: - As String = Restart From First Job Step, As Value = 1 - As String = Restart From Matching Job Step, As Value = 2 - As String = Restart Using Directives, As Value = 3 Default is Restart From First Job Step (1).	N
stepCodes	Condition Codes	Integer return codes from the program or ABEND codes.	Integer return codes are specified as a comma-separated list of integer values or ranges. Ranges are specified with a dash (-) separating the lower and upper bounds of the range. The z/OS job step return code range is 0-4095. ABEND codes are specified directly as either a user ABEND or a system ABEND. The ABEND code must be specified verbatim including leading zeroes.	Y
stepName	Step	Job step name to match.	A blank value or an asterisk (*) will match any job step name. Generic matching characters asterisk (*) and question mark (?) match zero or more characters and one character, respectively.	N
sysId	n/a	sys_id used within the Controller to identify this Restart Criteria.		N

4.33.35.3.6 RunTime Parameters

Note

These properties are for the PeopleSoft task only.

Property	UI Field Name	Description	Specifications	Required
parameterName	Parameter Name	Name of this RunTime Parameter.		Y
parameterValue	Parameter Value	Value of this RunTime Parameter.		Y
processName	Process/Job Name	If <code>command</code> in PeopleSoft task = Schedule Process or Schedule Job; Name of this process/job.		Y
processType	Process Type	If <code>command</code> in PeopleSoft task = Schedule Process or Schedule Job; Type of this process.		Y
sysId	n/a	sys_id used within the Controller to identify this RunTime Parameter.		N

4.33.35.3.7 Step Conditions

Note

These properties are for the z/OS task only.

Property	UI Field Name	Description	Specifications	Required
programName	Program	Program name to match.	A blank value or an asterisk (*) will match any program name. Generic matching characters asterisk (*) and question mark (?) match zero or more characters and one character, respectively.	N
pstepName	Procedure	Procedure step name to match.	A blank value or an asterisk (*) will match any procedure step name. Generic matching characters asterisk (*) and question mark (?) match zero or more characters and one character, respectively.	N
stepAction	Action	Action to take and the task status to set if the Step Condition matches.	Valid values: - As String = Continue/Success, As Value = 1 - As String = Continue/Failed, As Value = 2 - As String = Halt/Failed, As Value = 3 - As String = Askoper, As Value = 4 Default is Continue/Success (1).	N
stepCodes	Condition Codes	Integer return codes from the program or ABEND codes.	Integer return codes are specified as a comma-separated list of integer values or ranges. Ranges are specified with a dash (-) separating the lower and upper bounds of the range. The z/OS job step return code range is 0-4095. ABEND codes are specified directly as either a user ABEND or a system ABEND. The ABEND code must be specified verbatim including leading zeroes.	Y
stepName	Step	Job step name to match.	A blank value or an asterisk (*) will match any job step name. Generic matching characters asterisk (*) and question mark (?) match zero or more characters and one character, respectively.	N
stepOrder	Evaluation Order	Order for step condition evaluation.	Integer; Step conditions with a lower order are evaluated before step conditions with a higher order.	N
sysId	n/a	sys_id used within the Controller to identify this Step Condition.		N

4.33.35.3.8 Stored Procedure Parameters

Note

These properties are for the Stored Procedure task only.

Property	UI Field Name	Description	Specifications	Required
description	Description	Description of this parameter.	Integer	N
isNull	Value is Null	Applies to the input part of a stored procedure parameter; Value for the parameter is a database NULL value. That is, if a value in a database is undefined, it is NULL, which means it has no set value. An input value can be NULL and is represented by selecting Value is Null.	Boolean; Valid values: true/false. Default is false.	N
ivalue	Input Value	If paramMode is Input and isNull is false; Input value of the parameter.		N
ovalue	n/a	If paramMode is Input/Output and isNull is false; Output value of the parameter.		N
paramMode	Parameter Mode	Mode of this parameter.	Valid values: - As String = Input, As Value = 1 - As String = Output, As Value = 2 - As String = Input/Output, As Value = 3 Default is Input (1).	N
paramType	Parameter Type	Type of Parameter	Valid values: - As String = NUMERIC, As Value = 2 - As String = DECIMAL, As Value = 3 - As String = INTEGER, As Value = 4 - As String = SMALLINT, As Value = 5 - As String = FLOAT, As Value = 6 - As String = REAL, As Value = 7 - As String = DOUBLE, As Value = 8 - As String = VARCHAR, As Value = 12 - As String = BOOLEAN, As Value = 3 - As String = DATE, As Value = 91 - As String = TIME, As Value = 92 - As String = TIMESTAMP, As Value = 93 - As String = VARBINARY, As Value = -3 - As String = BIGINT, As Value = -5 Default is VARCHAR (12)	N
paramVar	Variable Name	If paramMode is Output or Input/Output; Name of the variable to assign the Output value.		Y
pos	Parameter Position	Position of this parameter within a list of parameters.	Integer	Y
sysId	n/a	sys_id used within the Controller to identify this parameter.		N

Property	UI Field Name	Description	Specifications	Required
<code>variableScope</code>	Variable Scope	If <code>paramMode</code> is Output or Input/Output; Scope of the variable to assign the Output value.	Valid values: - As String = Self, As Value = 1 - As String = Parent, As Value = 2 - As String = Top Level Parent, As Value = 3 - As String = Global, As Value = 4 Default is Self (1).	Y

4.33.35.3.9 Variables in Tasks

Property	UI Field Name	Description	Specifications	Required
<code>description</code>	Description	Description of this variable.		N
<code>name</code>	Name	Name of this variable.	Maximum 40 alphanumerics.	N
<code>sysId</code>	n/a	<code>sys_id</code> used within the Controller to identify this Variable.		N
<code>value</code>	Value	Value of this variable.		Y

4.33.35.3.10 Virtual Resources

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive
<code>amount</code>	Amount	Amount of resources to use for this task.	Integer	Y	
<code>sysId</code>	n/a	<code>sys_id</code> used within the Controller to identify this Virtual Resource.		N	
<code>resource</code>	Resource Name	Name of this Virtual Resource.	Maximum 40 alphanumerics.	Y (unless <code>resourceVar</code> is specified)	<code>resourceVar</code>
<code>resourceVar</code>	Resource [Unresolved]	Name of a variable that will be resolved at run time to the name of the Virtual Resource.	Format: \${variable name}.	Y (unless <code>resource</code> is specified)	<code>resource</code>

4.34 Trigger Web Services

- [Overview](#)
- [Assign an Execution User to a Trigger](#)

- [Delete a Trigger](#)
- [Enable/Disable a Trigger](#)
- [List Triggers](#)
- [List Triggers - Advanced](#)
- [Set Skip Count](#)
- [Trigger Task\(s\) \(Trigger Now\)](#)
- [Unassign an Execution User from a Trigger](#)

4.34.1 Overview

Universal Controller supports the following RESTful-based web services for Trigger operations.

Formatting specifications for each web service, including details about parameter requirements, are provided.

4.34.1.1 Common Web Services

The following web services are common to multiple Trigger types:

- [Assign an Execution User to a Trigger](#)
- [Delete a Trigger](#)
- [Enable/Disable a Trigger](#)
- [List Triggers](#)
- [List Triggers - Advanced](#)
- [Set Skip Count](#)
- [Trigger Task\(s\) \(Trigger Now\)](#)
- [Unassign an Execution User from a Trigger](#)

Detailed information for each of these web services is provided on this page.

4.34.1.2 Trigger-Specific Web Services

The following web services are specific to each Trigger type:

- [Create a Trigger](#)
- [List Trigger Qualifying Times \(Cron and Time Triggers only\)](#)
- [Modify a Trigger](#)
- [Modify Time of Time Trigger \(Time Trigger only\)](#)
- [Read a Trigger](#)

For detail information about these Trigger-specific web services, see:

- [Application Monitor Trigger Web Services](#)
- [Composite Trigger Web Services](#)
- [Cron Trigger Web Services](#)
- [Email Monitor Trigger Web Services](#)
- [Agent File Monitor Trigger Web Services](#)
- [Manual Trigger Web Services](#)
- [Task Monitor Trigger Web Services](#)
- [Temporary Trigger Web Services](#)
- [Time Trigger Web Services](#)

- [Universal Monitor Trigger Web Services](#)
- [Variable Monitor Trigger Web Services](#)
- [z/OS Monitor Trigger Web Services](#)

4.34.2 Assign an Execution User to a Trigger

	Description
URI	http://host_name/uc/resources/trigger/assignexecutionuser
HTTP Method	POST
Description	Assigns an Execution User to the specified trigger .
URI Parameters	See Assign an Execution User to a Trigger: URI Parameters .
Authentication	HTTP Basic
Example URI	• http://localhost:8080/uc/resources/trigger/assignexecutionuser?triggername=testTrigger • http://localhost:8080/uc/resources/trigger/assignexecutionuser?triggerid=410d6c0bc0a801c901838d8ac43b3279
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Assign an Execution User to a Trigger: XML and JSON Request Examples .
Request Properties	See Assign an Execution User to a Trigger: Request Properties .
Example Response	• Status 200 /OK Successfully assigned execution user "test" to trigger "testTrigger". • Status 404 /Not Found Assign Execution User failed. You must provide an execution user.

4.34.2.1 Assign an Execution User to a Trigger: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
<code>triggerid</code>	Unique ID for this trigger.		Y (unless <code>triggername</code> is specified)	<code>triggername</code>
<code>triggername</code>	Name used within the Controller to identify this trigger.	Maximum 40 alphanumerics.	Y (unless <code>triggerid</code> is specified)	<code>triggerid</code>

4.34.2.2 Assign an Execution to a Trigger: XML and JSON Request Examples

Examples	XML	JSON
Request Example	<pre> XML <executionUser> <username>test</ username> <password>pass1< /password> </executionUser> </pre>	<pre> JSON { "username": "test", "password": "pass1" } </pre>

4.34.2.3 Assign an Execution User to a Trigger: Request Properties

Property	UI Field Name	Description	Specifications	Required
password	n/a	If the user executing this web service does not have the ops_admin role; Password of the Execution User.		Y
username	n/a	Name of the Execution User.	Wildcards are supported.	Y

4.34.3 Delete a Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	DELETE
Description	Deletes the specified Trigger.
URI Parameters	See Delete a Trigger: URI Parameters .
Authentication	HTTP Basic
Example URI	http://localhost:8080/uc/resources/trigger?triggername=testTrigger http://localhost:8080/uc/resources/trigger?triggerid=d26265a2c4f345359d9b356f18a462c1
Example Response	- Status 200 /OK Trigger deleted successfully. - Status 404 /Not Found A trigger with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

4.34.3.1 Delete a Trigger: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
triggerid	Unique ID for this trigger.		Y (unless triggername is specified)	triggername
triggername	Name used within the Controller to identify this trigger.	Maximum 40 alphanumerics.	Y (unless triggerid is specified)	triggerid

4.34.4 Enable/Disable a Trigger

	Description
URI	http://host_name/uc/resources/trigger/ops-enable-disable-trigger
HTTP Method	POST
Description	Enables/Disables a list of triggers.
Example URI	http://localhost:8080/uc/resources/trigger/ops-enable-disable-trigger
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Enable/Disable a Trigger: XML and JSON Examples .
Request Properties	See Enable/Disable a Trigger: Request Trigger Properties .
Example Response	See Enable/Disable a Trigger: XML and JSON Examples .

4.34.4.1 Enable/Disable a Trigger: XML and JSON Examples

Examples	XML	JSON
Request Example	<pre> XML <enable-disable-trigger> <trigger enable="true" name="uc - 1st and 15th"></ trigger> <trigger enable="false" name="uc - 1st Sunday of Month"></trigger> </enable-disable-trigger> </pre>	<pre> JSON [{ "enable": true, "name": "uc - 1st and 15th" }, { "enable": false, "name": "uc - 1st Sunday of Month" }] </pre>
Response Example	<pre> XML <command-response> <type>Enable Disable Triggers</type> <success>>true</success> <info>Successfully enabled trigger uc - 1st and 15th, Successfully disabled trigger uc - 1st Sunday of Month</ info> <errors /> </command-response> </pre>	<pre> JSON { "type": Enable/Disable Triggers", "success": true, "info": "Successfully enabled trigger "uc - 1st and 15th"., Successfully disabled trigger "uc - 1st Sunday of Month".", "errors": "" } </pre>

4.34.4.2 Enable/Disable a Trigger: Request Trigger Properties

Property	UI Field Name	Description	Specifications	Required
trigger	n/a	There are two attributes for this property: - enable: Indication of whether to enable or disable the trigger. Only enabled triggers are processed by the Controller. Boolean; Valid values: true/false. - name: Name used within the Controller to identify this trigger. Maximum of 255 alphanumeric. For example: <trigger enable="false" name="uc - 1st Sunday of Month"></trigger>		Y

4.34.5 List Triggers

	Description
URI	http://host_name/uc/resources/trigger/list
HTTP Method	POST
Description	Lists triggers matching specific search criteria.
Example URI	http://localhost:8080/uc/resources/trigger/list
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See List Triggers: XML and JSON Examples .
Request Properties	See List Triggers: Request Properties .
Example Response	See List Triggers: XML and JSON Examples .

4.34.5.1 List Triggers: XML and JSON Examples

Examples	XML	JSON
Request Example	<pre> XML <generic-query-filter> <name>*time*</name> <enabled>true</enabled> <type>Time</type> <tasks>Sleep 0, Sleep 60</tasks> <description>>manual1</ description> </generic-query-filter> </pre>	<pre> JSON { "name": "*time*", "enabled": true, "type": "Time", "tasks": "Sleep 0, Sleep 60", "description": "manual1" } </pre>

Examples	XML	JSON
Response Example	<pre> XML <triggers> <trigger> <enabled>true</enabled> <name>Example time trigger 1</name> <sysID>07e69e9ac0a830016f4e065eb8e4 ffe0</sysID> <type>Time</type> <version>1</version> </trigger> <trigger> <enabled>true</enabled> <name>Example time trigger 2</name> <sysID>07e69051c0a8300135a540b2d5b0 7ade</sysID> <type>Time</type> <version>1</version> </trigger> </triggers> </pre>	<pre> JSON [{ "enabled": true, "name": "Example time trigger 1", "sysId": "68aca9ea398f4d17a7ca23eeaa1d4fa1 ", "type": "Time", "version": 5 }, { "enabled": true, "name": "Example time trigger 2", "sysId": "54c562ceb5e44aeca99f836b65fd86fb ", "type": "Time", "version": 11 }] </pre>

4.34.5.2 List Triggers: Request Properties

Property	UI Field Name	Description	Specifications	Required
description	Description	Filter the trigger list using the description.	Wildcards are supported.	N
enabled	Status	Indication of whether to list enabled (true) or disabled (false) triggers.	Boolean; Valid values: true/false.	N
name	Name	Name or partial name of one or more triggers.	Wildcards are supported.	N
tasks	Task(s)	List Triggers that reference any one of the specified links.	Comma-separated Task names.	N

Property	UI Field Name	Description	Specifications	Required
type	n/a	Type of triggers to list.	Valid values: • As String = Cron, As Value = 1 • As String = Time, As Value = 2 • As String = File Trigger, As Value = 3 • As String = Temporary, As Value = 4 • As String = Task Monitor, As Value = 5 • As String = Manual, As Value = 6 • As String = Application Monitor, As Value = 8 • As String = Composite, As Value = 9 • As String = Variable Monitor, As Value = 10 • As String = Email Monitor, As Value = 11 • As String = Universal Monitor, As Value = 12 • As String = z/OS Monitor, As Value = 13	N

4.34.6 List Triggers - Advanced

	Description
URI	http://host_name/uc/resources/trigger/listadv
HTTP Method	GET
Description	Retrieves trigger details using specific query parameters.
Example URI	• http://localhost:8080/uc/resources/trigger/listadv • http://localhost:8080/uc/resources/trigger/listadv?triggername=*&businessServices=A&type=&enabled=&tasks=task1,task2&description=http://localhost:8080/uc/resources/trigger/listadv?type=time
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
URI Properties	See List Triggers - Advanced: URI Properties .
Example Response	See List Triggers - Advanced: XML and JSON Examples .

4.34.6.1 List Triggers - Advanced: URI Properties

Property	UI Field Name	Description	Specifications	Required
businessServices	Member of Business Services	Business Services that this trigger belongs to.		

Property	UI Field Name	Description	Specifications	Required
description	Description	Filter the trigger list using the description.	Wildcards are supported.	N
enabled	Status	Indication of whether to list enabled (true) or disabled (false) triggers.	Boolean; Valid values: true/false.	N
name	Name	Name or partial name of one or more triggers.	Wildcards are supported.	N
tasks	Task(s)	List Triggers that reference any one of the specified links.	Comma-separated Task names.	N
type	n/a	Type of triggers to list.	Valid values: • As String = Cron, As Value = 1 • As String = Time, As Value = 2 • As String = File Trigger, As Value = 3 • As String = Temporary, As Value = 4 • As String = Task Monitor, As Value = 5 • As String = Manual, As Value = 6 • As String = Application Monitor, As Value = 8 • As String = Composite, As Value = 9 • As String = Variable Monitor, As Value = 10 • As String = Email Monitor, As Value = 11 • As String = Universal Monitor, As Value = 12 • As String = z/OS Monitor, As Value = 13	

4.34.6.2 List Triggers - Advanced: XML and JSON Examples

Examples	XML	JSON
Response Example	<pre> <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <triggers> <triggerCron exportReleaseLevel="7.2.0.0" exportTable="ops_trigger_cron" retainSysIds="true" version="1"> <variables/> <action>Do Not Trigger</ action> </pre>	<pre> [{ "type": "triggerCron", "action": "Do Not Trigger", "calendar": "System Default", "dayLogic": "And", "dayOfMonth": "*", "dayOfWeek": "*", </pre>

Examples	XML	JSON
	<pre> <notes/> <calendar>System Default</calendar> <dayLogic>And</dayLogic> <dayOfMonth>*</dayOfMonth> <dayOfWeek>*</dayOfWeek> <description>cron test</description> <disabledBy></disabledBy> <disabledTime></disabledTime> <enabled>>false</enabled> <enabledBy>ops.admin</enabledBy> <enabledTime>2021-06-01 11:29:48 -0400</enabledTime> <forecast>>false</forecast> <hours>1</hours> <minutes>0</minutes> <month>*</month> <name>cron-1</name> <nextScheduledTime></nextScheduledTime> <opswiseGroups> <opswiseGroup>A</opswiseGroup> <opswiseGroup>B</opswiseGroup> </opswiseGroups> <rdExcludeBackup>>false</rdExcludeBackup> <restriction>>false</restriction> <restrictionAdjective>Every</restrictionAdjective> <restrictionComplex>>false</restrictionComplex> <restrictionMode>Or</restrictionMode> </pre>	<pre> "description": "cron test", "disabledBy": "", "disabledTime": "", "enabled": false, "enabledBy": "ops.admin", "enabledTime": "2021-06-01 11:29:48 -0400", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_trigger_cron", "forecast": false, "hours": "1", "minutes": "0", "month": "*", "name": "cron-1", "nextScheduledTime": "", "notes": [], "opswiseGroups": ["B"], "rdExcludeBackup": false, "restriction": false, "restrictionAdjective": "Every", "restrictionComplex": false, "restrictionMode": "Or", "restrictionNoun": { "value": "Day" }, "restrictionNthAmount": 5, "restrictionQualifier": { "value": "Year" }, "restrictionSimple": </pre>

Examples	XML	JSON
	<pre> <restrictionNoun>Day</ restrictionNoun> <restrictionNthAmount>5</ restrictionNthAmount> <restrictionQualifier>Year</ restrictionQualifier> <restrictionSimple>>false</ restrictionSimple> <retentionDuration>1</ retentionDuration> <retentionDurationPurge>>false</ retentionDurationPurge> <retentionDurationUnit>Days</ retentionDurationUnit> <simulationOption>-- System Default --</simulationOption> <situation>Holiday</ situation> <skipActive>>false</ skipActive> <skipAfterDate /> <skipAfterTime /> <skipBeforeDate /> <skipBeforeTime /> <skipCondition>None</ skipCondition> <skipCount>0</skipCount> <skipDateList/> <skipRestriction>None</ skipRestriction> <sysId>e9b45bc055b24f1abacfcea057af71 1d</sysId> <tasks> <task>bun-task-1</task> </tasks> </pre>	<pre> false, "retainSysIds": true, "retentionDuration": 1, "retentionDurationPurge": false, "retentionDurationUnit": "Days", "simulationOption": "-- System Default --", "situation": "Holiday", "skipActive": false, "skipAfterDate": null, "skipAfterTime": null, "skipBeforeDate": null, "skipBeforeTime": null, "skipCondition": "None", "skipCount": 0, "skipDateList": [], "skipRestriction": "None", "sysId": "e9b45bc055b24f1abacfcea057af711d" , "tasks": ["bun-task-1"], "timeZone": null, "variables": [], "version": 1 }, { "type": "triggerManual", "calendar": "System Default", "description": "Manual test", "disabledTime": "", "enabled": false, "enabledTime": "", </pre>

Examples	XML	JSON
	<pre> <timeZone /> </triggerCron> <triggerManual exportReleaseLevel="7.2.0.0" exportTable="ops_trigger_manual" retainSysIds="true" version="1"> <variables/> <notes/> <calendar>System Default</ calendar> <description>Manual test</ description> <disabledTime></disabledTime> <enabled>>false</enabled> <enabledTime></enabledTime> <name>man-trig-1</name> <nextScheduledTime></ nextScheduledTime> <opswiseGroups/> <rdExcludeBackup>>false</ rdExcludeBackup> <restrictionNthAmount>5</ restrictionNthAmount> <retentionDuration>1</ retentionDuration> <retentionDurationPurge>>false</ retentionDurationPurge> <retentionDurationUnit>Days</ retentionDurationUnit> <sysId>728fc94ce80c4b97ae63ab741e902cc5</sysId> <tasks> <task>bun-task-1</task> </tasks> </triggerManual> <timeZone /> </pre>	<pre> "exportReleaseLevel": "7.2.0.0" "exportTable": "ops_trigger_manual", "name": "man-trig-1", "nextScheduledTime": "", "notes": [], "opswiseGroups": [], "rdExcludeBackup": false, "restrictionNthAmount": 5, "retainSysIds": true, "retentionDuration": 1, "retentionDurationPurge": false, "retentionDurationUnit": "Days", "sysId": "728fc94ce80c4b97ae63ab741e902cc5" , "tasks": ["bun-task-1"], "timeZone": null, "variables": [], "version": 1 }, { "type": "triggerTm", "action": "Do Not Trigger", "calendar": "System Default", "description": "Task Monitor Trigger 1", "disabledTime": "", "enabled": false, "enabledEnd": "00:00", "enabledStart": "00:00", </pre>

Examples	XML	JSON
	<pre> </triggerManual> <triggerTm exportReleaseLevel="7.2.0.0" exportTable="ops_trigger_tm" retainSysIds="true" version="1"> <variables/> <action>Do Not Trigger</ action> <notes/> <calendar>System Default</ calendar> <description>Task Monitor Trigger 1</description> <disabledTime></disabledTime> <enabled>>false</enabled> <enabledTime></enabledTime> <name>Taskmon-trig-1</name> <nextScheduledTime></ nextScheduledTime> <opswiseGroups> <opswiseGroup>A</ opswiseGroup> </opswiseGroups> <rdExcludeBackup>>false</ rdExcludeBackup> <restriction>>false</ restriction> <restrictionAdjective>Every</ restrictionAdjective> <restrictionComplex>>false</ restrictionComplex> <restrictionMode>Or</ restrictionMode> <restrictionNoun>Day</ restrictionNoun> <restrictionNthAmount>5</ restrictionNthAmount> </pre>	<pre> "enabledTime": "", "exportReleaseLevel": "7.2.0.0" "exportTable": "ops_trigger_tm", "name": "Taskmon-trig-1", "nextScheduledTime": "", "notes": [], "opswiseGroups": ["A"], "rdExcludeBackup": false, "restrictedTimes": false, "restriction": false, "restrictionAdjective": "Every", "restrictionComplex": false, "restrictionMode": "Or", "restrictionNoun": { "value": "Day" }, "restrictionNthAmount": 5, "restrictionQualifier": { "value": "Year" }, "restrictionSimple": false, "retainSysIds": true, "retentionDuration": 1, "retentionDurationPurge": false, "retentionDurationUnit": "Days", "situation": "Holiday", "skipActive": false, "skipAfterDate": null, </pre>

Examples	XML	JSON
	<pre> <restrictionQualifier>Year</ restrictionQualifier> <restrictionSimple>false</ restrictionSimple> <retentionDuration>1</ retentionDuration> <retentionDurationPurge>false</ retentionDurationPurge> <retentionDurationUnit>Days</ retentionDurationUnit> <situation>Holiday</ situation> <skipActive>false</ skipActive> <skipAfterDate /> <skipAfterTime /> <skipBeforeDate /> <skipBeforeTime /> <skipCondition>None</ skipCondition> <skipCount>0</skipCount> <skipDateList/> <skipRestriction>None</ skipRestriction> <sysId>808272bdf2aa49a9bb8edcb700c40c fd</sysId> <tasks> <task>bun-task-1</task> </tasks> <timeZone /> <enabledEnd>00:00</ enabledEnd> <enabledStart>00:00</ enabledStart> <restrictedTimes>false</ </pre>	<pre> "skipAfterTime": null, "skipBeforeDate": null, "skipBeforeTime": null, "skipCondition": "None", "skipCount": 0, "skipDateList": [], "skipRestriction": "None", "sysId": "808272bdf2aa49a9bb8edcb700c40cfd" , "taskMonitor": "Task- mon-1", "tasks": ["bun-task-1"], "timeZone": null, "variables": [], "version": 1 }, { "type": "triggerTime", "action": "Do Not Trigger", "adjustInterval": false, "adjustmentAmount": 1, "adjustmentType": "Day", "calendar": "System Default", "dateAdjective": "Every", "dateAdjustment": "None", "dateNoun": { "value": "Day" }, "dateQualifier": { "value": "Year" }, "dayInterval": 2, </pre>

Examples	XML	JSON
	<pre> restrictedTimes> <taskMonitor>Task-mon-1</taskMonitor> </triggerTm> <triggerTime exportReleaseLevel="7.2.0.0" exportTable="ops_trigger_time" retainSysIds="true" version="1"> <variables/> <action>Do Not Trigger</action> <notes/> <adjustInterval>false</adjustInterval> <adjustmentAmount>1</adjustmentAmount> <adjustmentType>Day</adjustmentType> <calendar>System Default</calendar> <dateAdjective>Every</dateAdjective> <dateAdjustment>None</dateAdjustment> <dateNoun>Day</dateNoun> <dateQualifier>Year</dateQualifier> <dayInterval>2</dayInterval> <dayStyle>Simple</dayStyle> <description>Time trigger test</description> <disabledTime></disabledTime> <enabled>false</enabled> <enabledEnd>00:00</enabledEnd> <enabledStart>00:00</enabledStart> <enabledTime></enabledTime> </pre>	<pre> "dayStyle": "Simple", "description": "Time trigger test", "disabledTime": "", "enabled": false, "enabledEnd": "00:00", "enabledStart": "00:00", "enabledTime": "", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_trigger_time", "forecast": false, "fri": false, "intervalStartingDate": "2021-06-01", "mon": false, "name": "time-trig-1", "nextScheduledTime": "", "notes": [], "nthAmount": 5, "opswiseGroups": ["A"], "rdExcludeBackup": false, "restrictedTimes": false, "restriction": false, "restrictionAdjective": "Every", "restrictionComplex": false, "restrictionMode": "Or", "restrictionNoun": { "value": "Day" }, "restrictionNthAmount": 5, "restrictionQualifier": { </pre>

Examples	XML	JSON
	<pre> <forecast>>false</forecast> <fri>>false</fri> <intervalStartingDate>2021-06-01</intervalStartingDate> <mon>>false</mon> <name>time-trig-1</name> <nextScheduledTime></nextScheduledTime> <nthAmount>5</nthAmount> <opswiseGroups> <opswiseGroup>A</opswiseGroup> </opswiseGroups> <rdExcludeBackup>>false</rdExcludeBackup> <restrictedTimes>>false</restrictedTimes> <restriction>>false</restriction> <restrictionAdjective>Every</restrictionAdjective> <restrictionComplex>>false</restrictionComplex> <restrictionMode>Or</restrictionMode> <restrictionNoun>Day</restrictionNoun> <restrictionNthAmount>5</restrictionNthAmount> <restrictionQualifier>Year</restrictionQualifier> <restrictionSimple>>false</restrictionSimple> <retentionDuration>1</retentionDuration> </pre>	<pre> "value": "Year" }, "restrictionSimple": false, "retainSysIds": true, "retentionDuration": 1, "retentionDurationPurge": false, "retentionDurationUnit": "Days", "sat": false, "simpleDateType": "Daily", "simulationOption": "-- System Default --", "situation": "Holiday", "skipActive": false, "skipAfterDate": null, "skipAfterTime": null, "skipBeforeDate": null, "skipBeforeTime": null, "skipCondition": "None", "skipCount": 0, "skipDateList": [], "skipRestriction": "None", "startTimeEnable": false, "startingAt": "*:00", "sun": false, "sysId": "16bde4cef2df4cc3b26dd04a6bcfce91" , "tasks": ["Sleep 30"], "thu": false, "time": "00:00", "timeInterval": null, "timeIntervalUnits": </pre>

Examples	XML	JSON
	<pre> <retentionDurationPurge>false</ retentionDurationPurge> <retentionDurationUnit>Days</ retentionDurationUnit> <sat>false</sat> <simpleDateType>Daily</ simpleDateType> <simulationOption>-- System Default --</simulationOption> <situation>Holiday</ situation> <skipActive>false</ skipActive> <skipAfterDate /> <skipAfterTime /> <skipBeforeDate /> <skipBeforeTime /> <skipCondition>None</ skipCondition> <skipCount>0</skipCount> <skipDateList/> <skipRestriction>None</ skipRestriction> <startTimeEnable>false</ startTimeEnable> <startingAt>*:00</startingAt> <sun>false</sun> <sysId>16bde4cef2df4cc3b26dd04a6bcfce 91</sysId> <tasks> <task>Sleep 30</task> </tasks> <thu>false</thu> <time>00:00</time> <timeInterval /> <timeIntervalUnits>Hours</ timeIntervalUnits> </pre>	<pre> "Hours", "timeStyle": "Absolute", "timeZone": null, "tue": false, "variables": [], "version": 1, "wed": false }] </pre>

Examples	XML	JSON
	<pre> <timeStyle>Absolute</ timeStyle> <timeZone /> <tue>false</tue> <wed>false</wed> </triggerTime> </triggers> </pre>	

4.34.7 Set Skip Count

	Description
URI	http://host_name:port/uc/resources/trigger/setskipcount http://host_name:port/uc/resources/trigger/setSkipCount
HTTP Method	POST
Description	Sets the skip count for a specific trigger. Temporary Triggers and Manual Triggers do not support Skip Count. Therefore, the Set Skip Count API is not applicable for Temporary Triggers and Manual Triggers.
Example URI	http://localhost:8080/uc/resources/trigger/ops-trigger-set-skip-count?triggerid=04257ad80d6e4a62a11b916ede093b37&skipCount=10 http://localhost:8080/uc/resources/trigger/setskipcount?triggerid=04257ad80d6e4a62a11b916ede093b37&skipCount=10 http://localhost:8080/uc/resources/trigger/setskipcount?triggername=time-1&skipCount=10
Authentication	HTTP Basic
Produces Content-Type	Application/XML, Application/JSON
Consumes Content-Type	Application/XML, Application/JSON

	Description
Example Responses	- Status 200 - Status 403 - Operation prohibited due to security constraints. - Status 404 - A trigger with id "triggerid" does not exist. - Status 400 - Mutual exclusion violation. Cannot specify triggername and triggerid at the same time. - Status 500 - Unexpected request failure. See log(s) for more details.

4.34.7.1 Set Skip Count: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
triggername	Name used within the Controller to identify this trigger.	Maximum 40 alphanumerics.	Y (unless triggerid is specified)	triggerid
triggerid	Unique ID for this trigger.		Y (unless triggername is specified)	triggername
skipCount	Skip count to set.	Default is 0.	N	

4.34.7.2 Set Skip Count: XML and JSON Examples

Examples	XML	JSON
Response Example	<pre><?xml version="1.0" encoding="UTF-8" standalone="yes"?> <command-response> <type>set_skip_count</type> <success>true</success> <info>Successfully set skip count "10" to trigger "time-1".</ info> <errors></errors> </command-response></pre>	<pre>{ "type": "set_skip_count", "success": true, "info": "Successfully set skip count \"10\" to trigger \"time-1\".", "errors": "" }</pre>

4.34.8 Trigger Task(s) (Trigger Now)

	Description
URI	http://host_name/uc/resources/trigger/ops-trigger-now
HTTP Method	POST
Description	Launches trigger-associated tasks .
Example URI	http://localhost:8080/uc/resources/trigger/ops-trigger-now
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Trigger Now: XML and JSON Examples .
Example Request Properties	See Trigger Now: Request Properties .
Example Response	See Trigger Now: XML and JSON Examples .

4.34.8.1 Trigger Task(s) (Trigger Now): XML and JSON Examples

Examples	XML	JSON
Request Example	<pre><trigger-now> <name>man-trig1</name> <hold>yes</hold> <holdReason>Waiting for input</ holdReason> <launchReason>testing</ launchReason> <timeZone>America/Chicago</ timeZone> <virtualResourcePriority>10</ virtualResourcePriority> <virtual-resources> <virtual-resource> <name>VR-1</name> <limit>2</limit> </virtual-resource> </virtual-resources> <variables> <variable> <name>testVariable</name> <value>Hello</value> </variable> </variables> <overrideTriggerDateTime>true</ overrideTriggerDateTime> <overrideDate>2022-09-20</ overrideDate> <overrideTime>11:15</overrideTime> <overrideTimeZone>America/Chicago</ overrideTimeZone> </trigger-now></pre>	<pre>{ "name": "man-trig1", "hold": "yes", "holdReason": "Waiting for input", "launchReason": "test1", "timeZone": "America/Chicago", "virtualResourcePriority": 10, "virtualResources": [{ "name": "VR-1", "limit": 2 }], "variables": [{ "name": "testVariable", "value": "Hello" }], "overrideTriggerDateTime": "true", "overrideDate": "2022-09-20", "overrideTime": "11:15", "overrideTimeZone": "America/Chicago" }</pre>

Example s	XML	JSON
Response Example	<pre> XML <command-response> <type>trigger_now</type> <success>true</success> <info>Successfully triggered - Every 15 Minutes MWF 9-5</info> <sys_id>4c7d6b9cc0a801c900e7dac8b24 ef142</sys_id> <errors /> </command-response> </pre>	<pre> JSON { "type": "trigger_now", "success": true, "info": "Successfully triggered \Successfully triggered - Every 15 Minutes MWF 9-5", "errors": "", "sysId": "4c7d6b9cc0a801c900e7dac8b24ef142" } </pre>

4.34.8.2 Trigger Task(s) (Trigger Now): Request Properties

Property	UI Field Name	Description	Specifications	Required
hold	Hold on Start	Indication of whether or not to launch the task in Held status. The task runs when the user releases it.	Boolean; Valid values: Yes, Y, true.	N
holdReason	Hold Reason	Information about why the task instances will be put on hold when the tasks start.		N
launchReason	Launch Reason	Reason for the task launch		N (Y if Task Launch Reason Required system property is True.)
name	Name	Name of the trigger to trigger the task.		Y
overrideDate	Date	Date of the override execution.	YYY-MM-DD	N (Y if overrideTriggerDateTime is true.)
overrideTime	Time	Time of the override execution.	HH:MM	N (Y if overrideTriggerDateTime is true.)

Property	UI Field Name	Description	Specifications	Required
overrideTimeZone	Time Zone	Time zone of the override execution.		N (Y if <code>overrideTriggerDateTime</code> is true.)
overrideTriggerDateTime	Override Trigger Date/ Time	Specification for whether to enable or disable override functionality.	Boolean; Valid values: true/false. Default is false.	N
simulate	Simulate	Specifies if the workflow should execute under simulation mode. You can only enable simulation mode with the Trigger Now command, you cannot disable it if it is already enabled on the Trigger Record.	Boolean; Valid values: true/false. Default is false.	N
timeZone	Time Zone	Time zone in which task is triggered.		N
variables	n/a	<pre> <variables> <variable> <name>testVariable</name> <value>Hello</value> </variable> </variables> </pre> See Trigger Task(s) (Trigger Now): Request Variable Properties .		N

Property	UI Field Name	Description	Specifications	Required
vertices	Vertex Selection	Specifies Root Vertices and/or Specific Vertices to be included in the triggered workflow. A vertex can be specified by <code>taskName</code> , <code>vertexName</code> , or <code>vertexId</code> . If you specify a <code>vertexId</code> , then only a single vertex will match, whereas, if you leave <code>vertexId</code> unspecified, any vertex matching by <code>taskName</code> or <code>vertexName</code> , will be selected. To indicate a vertex selection is a Root Vertex, set the vertex root attribute to true. If vertex root attribute is unspecified or false, it indicates a vertex selection is a Specific Vertex. Duplicate vertex specifications are ignored and do not prevent the operation from completing.	XML <pre> <vertices> <vertex root="true"> <taskName>JOB_A</taskName> </vertex> <vertex> <vertexName>JOB_B</vertexName> </vertex> <vertex root="false"> <vertexId>10</vertexId> </vertex> </vertices> </pre> JSON	N

Property	UI Field Name	Description	Specifications	Required
			<pre> "vertices": [{ "taskName": "JOB_A", "root": true }, { "vertexName": "JOB_B" }, { "vertexId": "10", "root": false }] </pre>	
<code>virtualResourcePriority</code>	Virtual Resource Priority	Priority for acquiring a resource when two or more tasks are waiting for the resource. This priority applies to all resources required by the task.	Integer; Valid values: 1-20 (1 is high priority, 20 is low priority). Default is 10.	N
<code>virtual-resources</code>	n/a	<pre> <virtual-resources> <virtual- resource> <name>uc - Solo</name> <limit>2</ limit> </virtual- resource> </virtual- resources> </pre> See Triger Task(s) (Trigger Now): Request Virtual Resource Properties.	The virtual resource dependencies specified in <code>virtual-resources</code> are merged with the default virtual resource dependencies. - If a default virtual resource dependency already exists for a specified virtual resource amount, the virtual resource dependency is updated. - Any virtual resource specified with an amount of 0 is dropped from the default virtual resource dependencies; if the virtual resource did not exist as a default dependency, the command will fail. - If a default virtual resource dependency does not already exist for a specified virtual resource amount, the virtual resource dependency is added.	N

4.34.8.3 Trigger Task(s) (Trigger Now): Request Variable Properties

Property	UI Field Name	Description	Specifications	Required
name	Name	Name used within the Controller to identify this variable.	Maximum 40 alphanumerics.	Y
value	Value	Value of the variable.		Y

4.34.8.4 Trigger Task(s) (Trigger Now): Request Virtual Resource Properties

Property	UI Field Name	Description	Specifications	Required
limit	Resource Limit	Maximum number of units available for this resource.	Integer; Valid values: 1-20.	N
name	Resource Name	Name used within the Controller to identify this virtual resource.	Maximum 40 alphanumerics.	Y

4.34.9 Unassign an Execution User from a Trigger

	Description
URI	http://host_name/uc/resources/trigger/unassignexecutionuser
HTTP Method	POST
Description	Unassigns an Execution User from the specified trigger .
URI Parameters	See Unassign an Execution User to a Trigger: URI Parameters .
Authentication	HTTP Basic
Example URI	http://localhost:8080/uc/resources/trigger/unassignexecutionuser?triggername=testTrigger http://localhost:8080/uc/resources/trigger/unassignexecutionuser?triggerid=410d6c0bc0a801c901838d8ac43b3279
Example Response	Status 200 /OK Successfully unassigned execution user "test" from trigger "testTrigger".

4.34.9.1 Unassign an Execution User from a Trigger: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
triggerid	Unique ID for this trigger.		Y (unless triggername is specified)	triggername
triggername	Name used within the Controller to identify this trigger.	Maximum 40 alphanumerics.	Y (unless triggerid is specified)	triggerid

4.34.10 Agent File Monitor Trigger Web Services

- [Overview](#)
- [Create an Agent File Monitor Trigger](#)
- [Modify an Agent File Monitor Trigger](#)
- [Read an Agent File Monitor Trigger](#)
 - [Read an Agent File Monitor Trigger: URI Parameters](#)
- [Agent File Monitor Trigger: XML and JSON Examples](#)
- [Properties](#)
 - [Trigger Properties: All Triggers](#)
 - [Trigger Properties: Agent File Monitor Trigger](#)
 - [Trigger-Related Records Properties: Variables](#)
 - [Trigger-Related Records Properties: Notes](#)

4.34.10.1 Overview

Universal Controller supports the following RESTful-based web services for File Monitor Trigger operations, which are listed alphabetically on this page.

- [Create an Agent File Monitor Trigger](#)
- [Modify an Agent File Monitor Trigger](#)
- [Read an Agent File Monitor Trigger](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Note

For information on Trigger web services that are applicable to all trigger types, see:

- [Delete a Trigger](#)
- [Enable/Disable a Trigger](#)

- [List Triggers](#)
- [Trigger a Task](#)

4.34.10.2 Create an Agent File Monitor Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	POST
Description	Creates a new Agent File Monitor Trigger.
Example URI	http://localhost:8080/uc/resources/trigger
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Agent File Monitor Trigger: XML and JSON Examples .
Trigger Properties	• See Trigger Properties: All Triggers. • See Trigger Properties: Agent File Monitor Trigger.
Trigger-Related Record Properties	• See Trigger-Related Records Properties: Variables. • See Trigger-Related Records Properties: Notes.
Example Response	• Status 200 /OK Successfully created the <trigger type> trigger.

4.34.10.3 Modify an Agent File Monitor Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	PUT
Description	Modifies the trigger specified by the sysId in the request. To modify Agent File Monitor Trigger properties without modifying related records, use the excludeRelated property.
Example URI	http://localhost:8080/uc/resources/trigger
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Agent File Monitor Trigger: XML and JSON Examples .

	Description
Trigger Properties	- See Trigger Properties: All Triggers. - See Trigger Properties: Agent File Monitor Trigger.
Trigger-Related Record Properties	- See Trigger-Related Records Properties: Variables. - See Trigger-Related Records Properties: Notes.
Example Response	Status 200 /OK Successfully updated the <trigger type> trigger to version <version>.

4.34.10.4 Read an Agent File Monitor Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	GET
Description	Retrieves information for the specified trigger
URI Parameters	See Read an Agent File Monitor Trigger: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/trigger?triggername=testTrigger http://localhost:8080/uc/resources/trigger?triggerid=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Trigger Properties	- See Trigger Properties: All Triggers. - See Trigger Properties: Agent File Monitor Trigger.
Trigger-Related Record Properties	- See Trigger-Related Records Properties: Variables. - See Trigger-Related Records Properties: Notes.
Example Response	- Status 200 /OK (See Agent File Monitor Trigger: XML and JSON Examples.) - Status 404 /Not Found A trigger with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

4.34.10.4.1 Read an Agent File Monitor Trigger: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
<code>triggerid</code>	Unique ID for this trigger.		Y (unless <code>triggername</code> is specified)	<code>triggername</code>
<code>triggername</code>	Name used within the Controller to identify this trigger.	Maximum 40 alphanumerics.	Y (unless <code>triggerid</code> is specified)	<code>triggerid</code>

4.34.10.5 Agent File Monitor Trigger: XML and JSON Examples

In the XML web service, the [exportReleaseLevel](#), [exportTable](#), [retainSysIds](#), and [version](#) properties are specified as attributes in the <trigger> element.

Examples	XML	JSON
Example for Trigger	<pre> XML <triggerFm exportReleaseLevel="7.2.0.0" " exportTable="ops_trigger_fm" retainSysIds="true" version="1"> <variables /> <action>Do Not Trigger</action> <notes /> <calendar>System Default</calendar> <description>Test File Monitor in Trigger and in Workflow</description> <disabledBy></disabledBy> <disabledTime></disabledTime> <enabled>true</enabled> <enabledBy>ops.admin</enabledBy> <enabledEnd>00:00</enabledEnd> <enabledStart>05:00</enabledStart> <enabledTime>2021-03-03 12:46:11 -0500</enabledTime> <fileMonitor>uc - Windows Text File Create Check</fileMonitor> <name>uc - File Creation Trigger</ name> <nextScheduleTime>2021-03-04 00:00:00 -0500</nextScheduleTime> <opswiseGroups /> <rdExcludeBackup>true</ rdExcludeBackup> <restrictedTimes>false</ restrictedTimes> <restriction>false</restriction> <restrictionAdjective>Every</ restrictionAdjective> <restrictionComplex>false</ restrictionComplex> <restrictionMode>Or</ restrictionMode> <restrictionNouns> <restrictionNoun>Day</ restrictionNoun> </restrictionNouns> <restrictionNthAmount /> <restrictionQualifiers> <restrictionQualifier>Year</ retsrtictionQualifier> </restrictionQualifiers> <restrictionSimple>false</ </pre>	<pre> JSON { "type": "triggerFm", "action": "Do Not Trigger", "calendar": "System Default", "description": "Test File Monitor in Trigger and in Workflow", "disabledBy": "", "disabledTime": "", "enabled": true, "enabledBy": "ops.admin", "enabledEnd": "00:00", "enabledStart": "00:00", "enabledTime": "2021-03-03 12:46:11 -0500", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_trigger_fm", "fileMonitor": "uc - Windows Text File Create Check", "name": "uc - File Creation Trigger", "nextScheduledTime": "2021-03-04 00:00:00 -0500", "notes": [], "opswiseGroups": [], "rdExcludeBackup": true, "restrictedTimes": false, "restriction": false, "restrictionAdjective": "Every", "restrictionComplex": false, "restrictionMode": "Or", "restrictionNouns": [{ "value": "Day" }], "restrictionNthAmount": null, "restrictionQualifiers": [{ "value": "Year" }], </pre>

Examples	XML	JSON
	<pre> restrictionSimple> <retentionDuration>1</ retentionDuration> <retentionDurationPurge>true</ retentionDurationPurge> <retentionDurationUnit>Days</ retentionDurationUnit> <situation>Holiday</situation> <skipAfterDate>2020-05-28</ skipAfterDate> <skipAfterTime>02:15</skipAfterTime> <skipBeforeDate>2020-05-30</ skipBeforeDate> <skipBeforeTime>17:30</ skipBeforeTime> <skipCondition>None</skipCondition> <skipCount>0</skipCount> <skipDateList /> <skipRestriction>Span</ skipRestriction> <sysId>0fc6b7d9c0a801c9017b6c27c259 937e</sysId> <tasks> <task>uc - Demo</task> </ tasks> <timeZone /> </triggerFm> </pre>	<pre> "restrictionSimple": false, "retainSysIds": true, "retentionDuration": 1, "retentionDurationPurge": true, "retentionDurationUnit": "Days", "situation": "Holiday", "skipAfterDate": "2020-05-28", "skipAfterTime": "02:15", "skipBeforeDate": "2020-05-30", "skipBeforeTime": "17:30", "skipCondition": "None", "skipCount": 0, "skipDateList": [], "skipRestriction": "Span", "sysId": "a5ed160ef3124254952c734f9930c45 8", "tasks": ["uc - Demo"] "timeZone": null, "variables": [], "version": 1 } </pre>
Examples for Trigger-Related Records	Variables XML <pre> <variables> <variable> <description /> <name>testVar</name> <value>value</value> </variable> </variables> </pre> Notes XML <pre> <notes> <note> <sysId>76ad570c64b84f84aeaf28 1403856b10</sysId> <text>testNoteText</text> <title>testNoteTitle</title> </note> </notes> </pre>	Variables JSON <pre> "variables": [{ "description": "description", "name": "var1", "value": "value1" }] </pre> Notes JSON <pre> "notes": [{ "sysId": "76ad570c64b84f84aeaf281403856b1 0", "text": "testNoteText", "title": "testNoteTitle" }] </pre>

4.34.10.6 Properties

4.34.10.6.1 Trigger Properties: All Triggers

Property	UI Field Name	Description	Specifications	Required
action	Action	For all trigger types except Manual and Temporary; Action to take on a non-business day or holiday (see <code>situation</code>).	Valid values: - As String = Do Not Trigger, As Value = 1 - As String = Next Day, As Value = 2 - As String = Next Business Day, As Value = 3 - As String = Previous Day, As Value = 4 - As String = Previous Business Day, As Value = 5 Default is Do Not Trigger (1). Note The following values are valid only for Cron and Time triggers: - Next Day (2) - Next Business Day (3) - Previous Day (4) - Previous Business Day (5)	Y (if <code>restriction</code> is true)
calendar	Calendar	Calendar that defines the business days, holidays, and other special days that determine the run dates for the task(s) specified in the trigger. The Calendar will be used to verify any Custom Day references in <code>restrictionNoun</code>.	Default is System Default.	Y
customField1	n/a	User-Defined field. Example: <code><customField1 label="Domain">web.com</customField1></code>	The label is included only if a value has been defined for the User Defined Trigger Field 1 Label Universal Controller system property.	N

Property	UI Field Name	Description	Specifications	Required
customField2	n/a	User-Defined field. Example: <customField2 label="Domain">web.com</customField2>	The label is included only if a value has been defined for the User Defined Trigger Field 2 Label Universal Controller system property.	N
description	Description	Description of this trigger.		N
disabledBy	Disabled By	System-supplied. If Status = Enabled, ID of the user who most recently disabled this trigger.	Read-only.	N
disabledTime	Disabled Time	System-supplied. If Status = Enabled, Date and time that the trigger was disabled.	Read-only.	N
enabled	Status	System-defined; Specification for whether or nor the trigger is enabled. Only enabled triggers are processed by the Controller.	Read-only.	N
enabledBy	Enabled By	System-supplied. If Status = Enabled, ID of the user who most recently enabled this trigger.	Read-only.	N
enabledTime	Enabled Time	System-supplied. If Status = Enabled, Date and time that the trigger was enabled.	Read-only.	N
enforceVariables	Enforce Variables	Specifies whether or not to enforce Override Trigger Variables when using Trigger Now... from the User Interface. Not applicable for Web Service APIs.	Valid values: true/false. Default is false.	N
excludeRelated	n/a	For Modify Trigger web services; specification for whether or not to exclude related records from the update, even if they are provided in the request. Note In XML web services, <code>excludeRelated</code> is specified as an attribute in the <trigger> element.	Valid values: true/false (default is false).	N
exportReleaseLevel	n/a	Universal Controller release that the record was exported from. Note In XML web services, <code>exportReleaseLevel</code> is specified as an attribute in the <trigger> element.	read only	N

Property	UI Field Name	Description	Specifications	Required
exportTable	n/a	Record table information. Note In XML web services, <code>exportTable</code> specified as an attribute in the <code><trigger></code> element.	read only	N
lockVariables	Lock Variables	Specifies whether or not to prevent editing variables when using Trigger Now... from the User Interface. Not applicable for Web Service APIs.	Boolean; Valid values: true/false. Default is false.	N
name	Name	Name used within the Controller to identify this trigger.	Maximum 255 alphanumerics.	Y
nextScheduledTime	Next Scheduled Time	System-supplied; for time-based triggers. If Status = Enabled, the next date and time this trigger will be satisfied. See Displaying Trigger Forecast Information .	Read-only.	N
opswiseGroups	Member of Business Services	List of Business Service(s) that this trigger belongs to. XML <pre><opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups></pre> JSON <pre>"opswiseGroups": ["test"]</pre>		N
rdExcludeBackup	Exclude Backup	Set only if <code>retentionDurationPurge</code> is selected; Specification for whether qualifying task instances can be excluded from the backup when being purged by retention duration.	Boolean; Valid values: true/false. Default is false.	N
restriction	Special Restriction	Indication of whether or not you want to specify additional parameters that tell the Controller how to handle exceptions, such as when the trigger is satisfied on a holiday or non-business day. You can specify simple and/or complex restrictions. For example, you can specify a <code>simpleRestriction</code> that disables the trigger if it is satisfied on a holiday identified in the calendar and/or a <code>restrictionComplex</code> that disables the trigger on the last business day of every month.	Boolean; Valid values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
<code>restrictionAdjective</code>	Restriction Adjective	Type of selection for <code>restrictionNoun</code> .	Valid values: • As String = Every, As Value = 0 • As String = 1st, As Value = 1 • As String = 2nd, As Value = 2 • As String = 3rd, As Value = 3 • As String = 4th, As Value = 4 • As String = Last, As Value = 5 • As String = Nth, As Value = 6 Default is Every (0).	Y (if <code>restrictionComplex</code> is enabled)
<code>restrictionComplex</code>	Complex Restriction	Set only if <code>restriction</code> is true; Set of parameters that determine one or more situations when this trigger should not be satisfied. Used in conjunction with <code>restrictionMode</code> , <code>restrictionAdjective</code> , <code>restrictionNoun</code> , and <code>restrictionQualifier</code> . For example, you can specify that you do not want to satisfy this trigger on the last business day of the year or the first day of each month.	Boolean; Valid values: true/false. Default is false.	Y (if <code>restrictionSimple</code> is false)
<code>restrictionMode</code>	Restriction Mode	Set only if <code>restrictionSimple</code> is true; Specification for whether you want to use <code>restrictionSimple</code> - and/or <code>restrictionComplex</code> -related values.	Valid values: • As String = And, As Value = 1 • As String = Or, As Value = 2 Default is Or (2).	Y (if <code>restrictionSimple</code> and <code>restrictionComplex</code> are true)

Property	UI Field Name	Description	Specifications	Required
restrictionNoun	Restriction Noun	Deprecated. Day to restrict the trigger to. To specify a Custom Day, use the name of the Custom Day. For example: XML <code><restrictionNoun>CustomDay1</restrictionNoun></code> JSON <pre>"restrictionNoun": { "value": "CustomDay1" }</pre> To specify a Local Custom Day, use the local attribute. For example: XML <code><restrictionNoun local="true">CustomDay2</restrictionNoun></code> JSON <pre>"restrictionNoun": { "local": "true", "value": "CustomDay2" }</pre> Note The Calendar for the trigger is used to verify Custom Day references.	Valid values: • As String = Sunday, As Value = 1 • As String = Monday, As Value = 2 • As String = Tuesday, As Value = 3 • As String = Wednesday, As Value = 4 • As String = Thursday, As Value = 5 • As String = Friday, As Value = 6 • As String = Saturday, As Value = 7 • As String = Day, As Value = 8 • As String = Business Day, As Value = 9	Y (if restrictionComplete is true)

Property	UI Field Name	Description	Specifications	Required																																						
restrictionNouns	Restriction Noun(s)	Day to restrict the trigger to. Used with <code>restrictionAdjective</code>, <code>restrictionQualifiers</code>, and <code>restrictionNthAmount</code> (if <code>restrictionAdjective</code> is Nth) to specify the type of days you want to select. For example, to specify "the 1st business day of the month," select <code>restrictionAdjective</code> as 1st, <code>restrictionNouns</code> as Business Day, and <code>restrictionQualifiers</code> as Month. Example: <table><tr><td>1</td><td><restrictionNouns></td></tr><tr><td>2</td><td> <restrictionNoun>Business Day</restrictionNoun></td></tr><tr><td>3</td><td></restrictionNouns></td></tr></table> To specify a Custom Day, use the name of the Custom Day. For example: XML <table><tr><td>1</td><td><restrictionNouns></td></tr><tr><td>2</td><td> <restrictionNoun>Monday</restrictionNoun></td></tr><tr><td>3</td><td> <restrictionNoun>CustomDay1</restrictionNoun></td></tr><tr><td>4</td><td></restrictionNouns></td></tr></table> JSON <table><tr><td>1</td><td>"restrictionNouns": [</td></tr><tr><td>2</td><td> {</td></tr><tr><td>3</td><td> "value": "Monday"</td></tr><tr><td>4</td><td> },</td></tr><tr><td>5</td><td> {</td></tr><tr><td>6</td><td> "value": "CustomDay1"</td></tr><tr><td>7</td><td> }</td></tr><tr><td>8</td><td>]</td></tr></table> To specify a Local Custom Day, use the local attribute. For example: XML <table><tr><td>1</td><td><restrictionNouns></td></tr><tr><td>2</td><td> <restrictionNoun</td></tr><tr><td>3</td><td> local="true">CustomDay2</restrictionNoun></td></tr><tr><td>3</td><td></restrictionNouns></td></tr></table> JSON	1	<restrictionNouns>	2	<restrictionNoun>Business Day</restrictionNoun>	3	</restrictionNouns>	1	<restrictionNouns>	2	<restrictionNoun>Monday</restrictionNoun>	3	<restrictionNoun>CustomDay1</restrictionNoun>	4	</restrictionNouns>	1	"restrictionNouns": [	2	{	3	"value": "Monday"	4	},	5	{	6	"value": "CustomDay1"	7	}	8	]	1	<restrictionNouns>	2	<restrictionNoun	3	local="true">CustomDay2</restrictionNoun>	3	</restrictionNouns>	Valid values: - As String = Sunday, As Value = 1 - As String = Monday, As Value = 2 - As String = Tuesday, As Value = 3 - As String = Wednesday, As Value = 4 - As String = Thursday, As Value = 5 - As String = Friday, As Value = 6 - As String = Saturday, As Value = 7 - As String = Day, As Value = 8 - As String = Business Day, As Value = 9 - Custom Days specified in the calendar selected in a Workflow calendar.	Y (if <code>restrictionComplex</code> is true)
1	<restrictionNouns>																																									
2	<restrictionNoun>Business Day</restrictionNoun>																																									
3	</restrictionNouns>																																									
1	<restrictionNouns>																																									
2	<restrictionNoun>Monday</restrictionNoun>																																									
3	<restrictionNoun>CustomDay1</restrictionNoun>																																									
4	</restrictionNouns>																																									
1	"restrictionNouns": [																																									
2	{																																									
3	"value": "Monday"																																									
4	},																																									
5	{																																									
6	"value": "CustomDay1"																																									
7	}																																									
8	]																																									
1	<restrictionNouns>																																									
2	<restrictionNoun																																									
3	local="true">CustomDay2</restrictionNoun>																																									
3	</restrictionNouns>																																									

Property	UI Field Name	Description	Specifications	Required
		<pre> 1 "restrictionNouns": [2 { 3 "local": true, 4 "value": "CustomDay1" 5 } 6] </pre> Note The Calendar for the trigger is used to verify Custom Day references.		
restrictionNthAmount	Restriction Nth Amount	Set only if <code>restrictionAdjective</code> is Nth (6); value of N.	Integer	Y (if <code>restrictionAdjective</code> is Nth)
restrictionQualifier	Restriction Qualifier	Deprecated. Period to restrict the trigger to. To specify a Custom Day Period, use the name of the Custom Day Period. For example: XML <restrictionQualifier>CustomDayPeriod1</restrictionQualifier> JSON <pre> "restrictionQualifier": { "value": "CustomDayPeriod1" } </pre> To specify a Local Custom Day Period, use the local attribute. For example: XML <restrictionQualifier local="true">CustomDayPeriod2</restrictionQualifier> JSON <pre> "restrictionQualifier": { "local": "true", "value": "CustomDayPeriod2" } </pre> Note The Calendar for the trigger is used to verify Custom Day references.	Valid values: - As String = Jan, As Value = 0 - As String = Feb, As Value = 1 - As String = Mar, As Value = 2 - As String = Apr, As Value = 3 - As String = May, As Value = 4 - As String = Jun, As Value = 5 - As String = Jul, As Value = 6 - As String = Aug, As Value = 7 - As String = Sep, As Value = 8 - As String = Oct, As Value = 9 - As String = Nov, As Value = 10 - As String = Dec, As Value = 11 - As String = Month, As Value = 12 - As String = Year, As Value = 13	Y (if <code>restrictionComplex</code> is true)

Property	UI Field Name	Description	Specifications	Required																																				
restrictionQualifiers	RestrictionQualifier(s)	Period to restrict the trigger to. Used with <code>restrictionAdjective</code>, <code>restrictionQualifiers</code>, and <code>restrictionNthAmount</code> (if <code>restrictionAdjective</code> is Nth) to specify the type of days you want to select. For example, to specify "the 1st business day of the month," select <code>restrictionAdjective</code> as 1st, <code>restrictionNouns</code> as Business Day, and <code>restrictionQualifiers</code> as Month. Example: <table><tr><td>1</td><td><restrictionQualifiers></td></tr><tr><td>2</td><td> <restrictionQualifier>Month</restrictionQualifier></td></tr><tr><td>3</td><td></restrictionQualifiers></td></tr></table> To specify a Custom Day, use the name of the Custom Day. For example: XML <table><tr><td>1</td><td><restrictionQualifiers></td></tr><tr><td>2</td><td> <restrictionQualifier>Jan</restrictionQualifier></td></tr><tr><td>3</td><td> <restrictionQualifier>CustomDay1</restrictionQualifier></td></tr><tr><td>4</td><td></restrictionQualifiers></td></tr></table> JSON <table><tr><td>1</td><td>"restrictionQualifiers": [</td></tr><tr><td>2</td><td> {</td></tr><tr><td>3</td><td> "value": "Jan"</td></tr><tr><td>4</td><td> },</td></tr><tr><td>5</td><td> {</td></tr><tr><td>6</td><td> "value": "CustomDay1"</td></tr><tr><td>7</td><td> }</td></tr><tr><td>8</td><td>]</td></tr></table> To specify a Local Custom Day, use the local attribute. For example: XML <table><tr><td>1</td><td><restrictionQualifiers></td></tr><tr><td>2</td><td> <restrictionQualifier local="true">CustomDay2</restrictionQualifier></td></tr><tr><td>3</td><td></restrictionQualifiers></td></tr></table> JSON	1	<restrictionQualifiers>	2	<restrictionQualifier>Month</restrictionQualifier>	3	</restrictionQualifiers>	1	<restrictionQualifiers>	2	<restrictionQualifier>Jan</restrictionQualifier>	3	<restrictionQualifier>CustomDay1</restrictionQualifier>	4	</restrictionQualifiers>	1	"restrictionQualifiers": [	2	{	3	"value": "Jan"	4	},	5	{	6	"value": "CustomDay1"	7	}	8	]	1	<restrictionQualifiers>	2	<restrictionQualifier local="true">CustomDay2</restrictionQualifier>	3	</restrictionQualifiers>	Valid values: • As String = Jan, As Value = 0 • As String = Feb, As Value = 1 • As String = Mar, As Value = 2 • As String = Apr, As Value = 3 • As String = May, As Value = 4 • As String = Jun, As Value = 5 • As String = Jul, As Value = 6 • As String = Aug, As Value = 7 • As String = Sep, As Value = 8 • As String = Oct, As Value = 9 • As String = Nov, As Value = 10 • As String = Dec, As Value = 11 • As String = Month, As Value = 12 • As String = Year, As Value = 13 • As String = Week, As Value = 14 • As String = Quarter, As Value = 15	
1	<restrictionQualifiers>																																							
2	<restrictionQualifier>Month</restrictionQualifier>																																							
3	</restrictionQualifiers>																																							
1	<restrictionQualifiers>																																							
2	<restrictionQualifier>Jan</restrictionQualifier>																																							
3	<restrictionQualifier>CustomDay1</restrictionQualifier>																																							
4	</restrictionQualifiers>																																							
1	"restrictionQualifiers": [																																							
2	{																																							
3	"value": "Jan"																																							
4	},																																							
5	{																																							
6	"value": "CustomDay1"																																							
7	}																																							
8	]																																							
1	<restrictionQualifiers>																																							
2	<restrictionQualifier local="true">CustomDay2</restrictionQualifier>																																							
3	</restrictionQualifiers>																																							

Property	UI Field Name	Description	Specifications	Required
		<pre> 1 "restrictionQualifiers": [2 { 3 "local": true, 4 "value": "CustomDay1" 5 } 6] </pre> Note The Calendar for the trigger is used to verify Custom Day references.		
retainSysIds	n/a	Specification for whether or not the web service will persist the <code>sysId</code> property. - If <code>retainSysIds</code>="true" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database. - If <code>retainSysIds</code>="false" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller. Note In XML web services, <code>retainSysIds</code> is specified as an attribute in the <trigger> element.	Boolean; Valid values: true/false. Default is true.	N
retentionDuration	Retention Duration	Set only if <code>retentionDurationPurge</code> is selected; Minimum retention duration for the selected <code>retentionDurationUnit</code> before triggered task instances can qualify for purge.	Integer	N
retentionDurationPurge	Purge By Retention Duration	Specification for whether triggered task instances can be purged by retention duration.	Boolean; Valid values: true/false. Default is false.	N
retentionDurationUnit	Retention Duration Unit	Set only if <code>retentionDurationPurge</code> is selected; Retention duration unit.	Valid values: - As String = Hours, As Value = 3 - As String = Days, As Value = 4 Default is Days (4).	N
simulateTasks	Simulate	Specifies if the instances generated by this trigger should execute under <code>simulation</code> mode.	Boolean; Valid values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
simulationOption	Simulate Forecast	For Cron, Temporary, and Time triggers only; Enables the override of the Enable Trigger Simulation Universal Controller system property specification for whether or not to simulate the launching of tasks when triggers are eligible to fire. (If <code>simulationOption</code> is enabled, only the scheduled launch of the task by the trigger is inhibited.)	Valid values: –System Default –, As Value = 0 - As String = True, As Value = 1 - As String = False, As Value = 2 Default is –System Default – (0).	N
situation	Situation	Type of day that causes the Controller to initiate the specified <code>action</code> .	Valid values: - As String = Holiday, As Value = 1 - As String = Non Business Day, As Value = 2 Default is Holiday (1).	Y (if <code>restrictionSimple</code> is true)
skipActive	Skip Trigger if Active	Deprecated. Indication for whether or not the Controller should skip the next run of the specified task(s) if the previous run has not gone to a Complete status (that is, it is still active).	Boolean; Valid values: true/false. Default is false.	N
skipAfterDate	Skip After Date	Date after which the trigger will be skipped.		N
skipAfterTime	Skip After Time	Time after which the trigger will be skipped.		N
skipBeforeDate	Skip Before Date	Date before which the trigger will be skipped.		N
skipBeforeTime	Skip Before Time	Time before which the trigger will be skipped.		N
skipCondition	Task Launch Skip Condition	Controls when launching a task for the trigger will be skipped. Note When reading a Trigger, both <code>skipActive</code> and <code>skipCondition</code> are returned. When creating/updating a Trigger, <code>skipCondition</code> is used if present. If <code>skipCondition</code> is not present, <code>skipActive</code> is used. If both <code>skipActive</code> and <code>skipCondition</code> are present, <code>skipActive</code> can be set to true only if <code>skipCondition</code> is Active (1).	Valid values: - As String = None, As Value = 0 - As String = Active, As Value = 1 - As String = Active By Trigger, As Value = 2 Default is None (0).	N
skipCount	Skip Count	Specification that the Controller should skip the next N times that this task is triggered.	Integer; Default is 0.	N

Property	UI Field Name	Description	Specifications	Required
skipDateList	Skip Date List	Date(s) on which the trigger will be skipped.		
skipRestriction	Skip Restriction	Specification for when the trigger should skip and not launch the task(s).	Valid values: • As String = None, As Value = 0 • As String = Before, As Value = 1 • As String = After, As Value = 2 • As String = Span, As Value = 3 • As String = On, As Value = 4 Default is None (0).	
sysId	n/a	System ID field in the database for this trigger.	Persisted only if retainSysIds is set to true.	N
tasks	Tasks	Name of the task(s) being triggered when this trigger is satisfied. XML <pre><tasks> <task>uc - Demo</task> </tasks></pre> JSON <pre>"tasks": ["uc - Demo"]</pre>		Y
timeZone	Time Zone	Name of the time zone that will be applied to the time(s) specified in the trigger.		Y
version	n/a	For Read and List web services; specification of the version being read or listed. Note In XML web services, <code>version</code> is specified as an attribute in the <code><trigger></code> element.		Y

4.34.10.6.2 Trigger Properties: Agent File Monitor Trigger

Property	UI Field Name	Description	Specifications	Required
<code>enabledEnd</code>	Enabled End	End time of the period during which the trigger should be active.	Use 24-hour time; format is hh:mm	Y (if <code>restrictedTimes</code> is true)
<code>enabledStart</code>	Enabled Start	Start time of the period during which the trigger should be active.	Use 24-hour time; format is hh:mm	Y (if <code>restrictedTimes</code> is true)
<code>restrictedTimes</code>	Restrict Times	Indication that the trigger is active only during the period specified by <code>enabledStart</code> and <code>enabledEnd</code> .	Boolean; Valid values: true/false. Default is false.	N
<code>taskMonitor</code>	File Monitor	Agent File Monitor task being executed.		Y

4.34.10.6.3 Trigger-Related Records Properties: Variables

Property	UI Field Name	Description	Specifications	Required
<code>description</code>	Description	Description of the variable.		N
<code>name</code>	Name	Name of the variable.		Y
<code>value</code>	Value	Value of the variable.		Y

4.34.10.6.4 Trigger-Related Records Properties: Notes

Property	UI Field Name	Description	Specifications	Required
<code>sysId</code>	n/a	System ID field in the database for the Note.		N
<code>text</code>	Text	Text of the Note.		N
<code>title</code>	Title	Title of the Note.		N

4.34.11 Application Monitor Trigger Web Services

- [Overview](#)
- [Create an Application Monitor Trigger](#)

- [Modify an Application Monitor Trigger](#)
- [Read an Application Monitor Trigger](#)
 - [Read an Application Monitor Trigger: URI Parameters](#)
- [Application Monitor Trigger: XML and JSON Examples](#)
- [Properties](#)
 - [Trigger Properties: All Triggers](#)
 - [Trigger Properties: Application Monitor Trigger](#)
 - [Trigger-Related Records Properties: Variables](#)
 - [Trigger-Related Records Properties: Notes](#)

4.34.11.1 Overview

Universal Controller supports the following RESTful-based web services for Application Monitor Trigger operations, which are listed alphabetically on this page.

- [Create an Application Monitor Trigger](#)
- [Modify an Application Monitor Trigger](#)
- [Read an Application Monitor Trigger](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Note

For information on Trigger web services that are applicable to all trigger types, see:

- [Delete a Trigger](#)
- [Enable/Disable a Trigger](#)
- [List Triggers](#)
- [Trigger a Task](#)

4.34.11.2 Create an Application Monitor Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	POST
Description	Creates a new Application Monitor trigger.
Example URI	http://localhost:8080/uc/resources/trigger
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Application Monitor Trigger: XML and JSON Examples .

	Description
Trigger Properties	- See Trigger Properties: All Triggers. - See Trigger Properties: Application Monitor Trigger.
Trigger-Related Record Properties	- See Trigger-Related Records Properties: Variables. - See Trigger-Related Records Properties: Notes.
Example Response	Status 200 /OK Successfully created the <trigger type> trigger.

4.34.11.3 Modify an Application Monitor Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	PUT
Description	Modifies the trigger specified by the sysId in the request. To modify Application Monitor Trigger properties without modifying related records, use the excludeRelated property.
Example URI	http://localhost:8080/uc/resources/trigger
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Application Monitor Trigger: XML and JSON Examples .
Trigger Properties	- See Trigger Properties: All Triggers. - See Trigger Properties: Application Monitor Trigger.
Trigger-Related Record Properties	- See Trigger-Related Records Properties: Variables. - See Trigger-Related Records Properties: Notes.
Example Response	Status 200 /OK Successfully updated the <trigger type> trigger to version <version>.

4.34.11.4 Read an Application Monitor Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	GET
Description	Retrieves information for the specified trigger
URI Parameters	See Read an Application Monitor Trigger: URI Parameters .

	Description
Example URI	http://localhost:8080/uc/resources/trigger?triggername=testTrigger http://localhost:8080/uc/resources/trigger?triggerid=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Trigger Properties	- See Trigger Properties: All Triggers. - See Trigger Properties: Application Monitor Trigger.
Trigger-Related Record Properties	- See Trigger-Related Records Properties: Variables. - See Trigger-Related Records Properties: Notes.
Example Response	- Status 200 /OK (See Application Monitor Trigger: XML and JSON Examples.) - Status 404 /Not Found A trigger with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

4.34.11.4.1 Read an Application Monitor Trigger: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
<code>triggerid</code>	Unique ID for this trigger.		Y (unless <code>triggername</code> is specified)	<code>triggername</code>
<code>triggername</code>	Name used within the Controller to identify this trigger.	Maximum 40 alphanumerics.	Y (unless <code>triggerid</code> is specified)	<code>triggerid</code>

4.34.11.5 Application Monitor Trigger: XML and JSON Examples

In the XML web service, the [exportReleaseLevel](#), [exportTable](#), [retainSysIds](#), and [version](#) properties are specified as attributes in the <trigger> element.

Examples	XML	JSON
Example for Trigger	<pre> <triggerApplMonitor exportReleaseLevel="7.2.0.0" exportTable="ops_trigger_appl_monito r" retainSysIds="true" version="1"> <variables /> <action /> <notes /> <calendar>System Default</ calendar> <description /> <disabledBy></disabledBy> <disabledTime></disabledTime> <enabled>true</enabled> <enabledBy>ops.admin</enabledBy> <enabledTime>2021-03-03 12:46:11 -0500</enabledTime> <name>application monitor trigger</name> <nextScheduleTime>2021-03-04 00:00:00 -0500</nextScheduleTime> <opswiseGroups> <opswiseGroup>bus service 1</ opswiseGroup> </opswiseGroups> <rdExcludeBackup>true</ rdExcludeBackup> <restriction>false</restriction> <restrictionAdjective>Every</ restrictionAdjective> <restrictionComplex>false</ restrictionComplex> <restrictionMode>Or</ restrictionMode> <restrictionNouns> <restrictionNoun>Day</ restrictionNoun> </restrictionNouns> <restrictionNthAmount /> <restrictionQualifiers> <restrictionQualifier>Year</ retsriptionQualifier> </restrictionQualifiers> </pre>	<pre> { "type": "triggerApplMonitor", "action": "Do Not Trigger", "applNameCondition": "All", "applNameValue": null, "applType": "Windows Service, \nLinux/Unix Daemon,\nz/OS Started Task", "application": "app1", "calendar": "System Default", "description": null, "disabledBy": "", "disabledTime": "", "enabled": true, "enabledBy": "ops.admin", "enabledTime": "2021-03-03 12:46:11 -0500", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_trigger_appl_monitor", "monitorType": "Specific", "name": "application monitor trigger", "nextScheduledTime": "2021-03-04 00:00:00 -0500", "notes": [], "opswiseGroups": ["bus service 1"], "rdExcludeBackup": true, "restriction": false, "restrictionAdjective": "Every", "restrictionComplex": false, "restrictionMode": "Or", "restrictionNouns": [{ "value": "Day" }], "restrictionNthAmount": null, "restrictionQualifiers": [{ "value": "Year" }], "restrictionSimple": false, "retainSysIds": true, "retentionDuration": 1, "retentionDurationPurge": true, "retentionDurationUnit": "Days", "situation": "Holiday", </pre>

Examples	XML	JSON
	<pre> <restrictionSimple>false</restrictionSimple> <retentionDuration>1</retentionDuration> <retentionDurationPurge>true</retentionDurationPurge> <retentionDurationUnit>Days</retentionDurationUnit> <simulationOption /> <situation /> <skipAfterDate>2020-05-28</skipAfterDate> <skipAfterTime>02:15</skipAfterTime> <skipBeforeDate>2020-05-30</skipBeforeDate> <skipBeforeTime>17:30</skipBeforeTime> <skipCondition>None</skipCondition> <skipCount>0</skipCount> <skipDateList /> <skipRestriction>Span</skipRestriction> <sysId>0fc6b7d9c0a801c9017b6c27c259937e</sysId> <tasks> <task>Sleep 30</task> </tasks> <timeZone /> <applNameCondition>All</applNameCondition> <applNameValue /> <applType>Windows Service,Linux/Unix Daemon,z/OS Started Task</applType> <application>app1</application> <monitorType>Specific</monitorType> <status>Start Failure</status> </triggerApplMonitor> </pre>	<pre> "skipCondition": "None", "skipCount": 0, "status": "Start Failure", "sysId": "8140b211960d45328bbf96325a6c46bd" , "tasks": ["Sleep 30"], "timeZone": null, "variables": [], "version": 2 } </pre>

Examples	XML	JSON
Examples for Trigger-Related Records	Variables XML <pre><variables> <variable> <description /> <name>testVar</name> <value>value</value> </variable> </variables></pre> Notes XML <pre><notes> <note> <sysId>76ad570c64b84f84aeaf 281403856b10</sysId> <text>testNoteText</text> <title>testNoteTitle</title> </note> </notes></pre>	Variables JSON <pre>"variables": [{ "description": "description", "name": "var1", "value": "value1" }]</pre> Notes JSON <pre>"notes": [{ "sysId": "76ad570c64b84f84aeaf281403856b10" , "text": "testNoteText", "title": "testNoteTitle" }]</pre>

4.34.11.6 Properties

4.34.11.6.1 Trigger Properties: All Triggers

Property	UI Field Name	Description	Specifications	Required
action	Action	For all trigger types except Manual and Temporary; Action to take on a non-business day or holiday (see situation).	Valid values: - As String = Do Not Trigger, As Value = 1 - As String = Next Day, As Value = 2 - As String = Next Business Day, As Value = 3 - As String = Previous Day, As Value = 4 - As String = Previous Business Day, As Value = 5 Default is Do Not Trigger (1). Note The following values are valid only for Cron and Time triggers: - Next Day (2) - Next Business Day (3) - Previous Day (4) - Previous Business Day (5)	Y (if restriction is true)
calendar	Calendar	Calendar that defines the business days, holidays, and other special days that determine the run dates for the task(s) specified in the trigger. The Calendar will be used to verify any Custom Day references in restrictionNoun.	Default is System Default.	Y
customField1	n/a	User-Defined field. Example: <customField1 label="Domain">web.com</customField1>	The label is included only if a value has been defined for the User Defined Trigger Field 1 Label Universal Controller system property.	N
customField2	n/a	User-Defined field. Example: <customField2 label="Domain">web.com</customField2>	The label is included only if a value has been defined for the User Defined Trigger Field 2 Label Universal Controller system property.	N
description	Description	Description of this trigger.		N
disabledBy	Disabled By	System-supplied. If Status = Enabled, ID of the user who most recently disabled this trigger.	Read-only.	N
disabledTime	Disabled Time	System-supplied. If Status = Enabled, Date and time that the trigger was disabled.	Read-only.	N
enabled	Status	System-defined; Specification for whether or nor the trigger is enabled. Only enabled triggers are processed by the Controller.	Read-only.	N

Property	UI Field Name	Description	Specifications	Required
<code>enabledBy</code>	Enabled By	System-supplied. If Status = Enabled, ID of the user who most recently enabled this trigger.	Read-only.	N
<code>enabledTime</code>	Enabled Time	System-supplied. If Status = Enabled, Date and time that the trigger was enabled.	Read-only.	N
<code>enforceVariables</code>	Enforce Variables	Specifies whether or not to enforce Override Trigger Variables when using Trigger Now... from the User Interface. Not applicable for Web Service APIs.	Valid values: true/false. Default is false.	N
<code>excludeRelated</code>	n/a	For Modify Trigger web services; specification for whether or not to exclude related records from the update, even if they are provided in the request. Note In XML web services, <code>excludeRelated</code> is specified as an attribute in the <trigger> element.	Valid values: true/false. Default is false.	N
<code>exportReleaseLevel</code>	n/a	Universal Controller release that the record was exported from. Note In XML web services, <code>exportReleaseLevel</code> is specified as an attribute in the <trigger> element.	Read Only	N
<code>exportTable</code>	n/a	Record table information. Note In XML web services, <code>exportTable</code> is specified as an attribute in the <trigger> element.	Read Only	N
<code>lockVariables</code>	Lock Variables	Specifies whether or not to prevent editing variables when using Trigger Now... from the User Interface. Not applicable for Web Service APIs.	Boolean; Valid values: true/false. Default is false.	N
<code>name</code>	Name	Name used within the Controller to identify this trigger.	Maximum 255 alphanumerics.	Y

Property	UI Field Name	Description	Specifications	Required
<code>nextScheduledTime</code>	Next Scheduled Time	System-supplied; for time-based triggers. If Status = Enabled, the next date and time this trigger will be satisfied. See Displaying Trigger Forecast Information .	Read-only.	N
<code>opswiseGroups</code>	Member of Business Services	List of Business Service(s) that this trigger belongs to. XML <pre><opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups></pre> JSON <pre>"opswiseGroups": ["test"]</pre>		N
<code>rdExcludeBackup</code>	Exclude Backup	Set only if <code>retentionDurationPurge</code> is selected; Specification for whether qualifying task instances can be excluded from the backup when being purged by retention duration.	Boolean; Valid values: true/false. Default is false.	N
<code>restriction</code>	Special Restriction	Indication of whether or not you want to specify additional parameters that tell the Controller how to handle exceptions, such as when the trigger is satisfied on a holiday or non-business day. You can specify simple and/or complex restrictions. For example, you can specify a <code>simpleRestriction</code> that disables the trigger if it is satisfied on a holiday identified in the calendar and/or a <code>restrictionComplex</code> that disables the trigger on the last business day of every month.	Boolean; Valid values: true/false. Default is false.	N
<code>restrictionAdjective</code>	Restriction Adjective	Type of selection for <code>restrictionNoun</code> .	Valid values: - As String = Every, As Value = 0 - As String = 1st, As Value = 1 - As String = 2nd, As Value = 2 - As String = 3rd, As Value = 3 - As String = 4th, As Value = 4 - As String = Last, As Value = 5 - As String = Nth, As Value = 6 Default is Every (0).	Y (if <code>restrictionComplex</code> is enabled)

Property	UI Field Name	Description	Specifications	Required
<code>restrictionComplex</code>	Complex Restriction	Set only if <code>restrictionSimple</code> is true; Set of parameters that determine one or more situations when this trigger should not be satisfied. Used in conjunction with <code>restrictionMode</code> , <code>restrictionAdjective</code> , <code>restrictionNoun</code> , and <code>restrictionQualifier</code> . For example, you can specify that you do not want to satisfy this trigger on the last business day of the year or the first day of each month.	Boolean; Valid values: true/false. Default is false.	Y (if <code>restrictionSimple</code> is false)
<code>restrictionMode</code>	Restriction Mode	Set only if <code>restrictionSimple</code> is true; Specification for whether you want to use <code>restrictionSimple</code> - and/or <code>restrictionComplex</code> -related values.	Valid values: - As String = And, As Value = 1 - As String = Or, As Value = 2 Default is Or (2).	Y (if <code>restrictionSimple</code> and <code>restrictionComplex</code> are true)
<code>restrictionNoun</code>	Restriction Noun	Deprecated. Day to restrict the trigger to. To specify a Custom Day, use the name of the Custom Day. For example: XML <pre><restrictionNoun>CustomDay1</restrictionNoun></pre> JSON <pre>"restrictionNoun": { "value": "CustomDay1" }</pre> To specify a Local Custom Day, use the local attribute. For example: XML <pre><restrictionNoun local="true">CustomDay2</restrictionNoun></pre> JSON <pre>"restrictionNoun": { "local": "true", "value": "CustomDay2" }</pre> Note The Calendar for the trigger is used to verify Custom Day references.	Valid values: - As String = Sunday, As Value = 1 - As String = Monday, As Value = 2 - As String = Tuesday, As Value = 3 - As String = Wednesday, As Value = 4 - As String = Thursday, As Value = 5 - As String = Friday, As Value = 6 - As String = Saturday, As Value = 7 - As String = Day, As Value = 8 - As String = Business Day, As Value = 9	Y (if <code>restrictionComplex</code> is true)

Property	UI Field Name	Description	Specifications	Required																
restrictionNouns	Restriction Noun(s)	Day to restrict the trigger to. Used with <code>restrictionAdjective</code>, <code>restrictionQualifiers</code>, and <code>restrictionNthAmount</code> (if <code>restrictionAdjective</code> is Nth) to specify the type of days you want to select. For example, to specify "the 1st business day of the month," select <code>restrictionAdjective</code> as 1st, <code>restrictionNouns</code> as Business Day, and <code>restrictionQualifiers</code> as Month. Example: <table><tr><td>1</td><td><restrictionNouns></td></tr><tr><td>2</td><td><restrictionNoun>BusinessDay</restrictionNoun></td></tr><tr><td>3</td><td></restrictionNouns></td></tr></table> To specify a Custom Day, use the name of the Custom Day. For example: XML <table><tr><td>1</td><td><restrictionNouns></td></tr><tr><td>2</td><td><restrictionNoun>Monday</restrictionNoun></td></tr><tr><td>3</td><td><restrictionNoun>CustomDay1</restrictionNoun></td></tr><tr><td>4</td><td></restrictionNouns></td></tr></table> JSON <table><tr><td>1</td><td>"restrictionNouns": [</td></tr></table>	1	<restrictionNouns>	2	<restrictionNoun>BusinessDay</restrictionNoun>	3	</restrictionNouns>	1	<restrictionNouns>	2	<restrictionNoun>Monday</restrictionNoun>	3	<restrictionNoun>CustomDay1</restrictionNoun>	4	</restrictionNouns>	1	"restrictionNouns": [	Valid values: • As String = Sunday, As Value = 1 • As String = Monday, As Value = 2 • As String = Tuesday, As Value = 3 • As String = Wednesday, As Value = 4 • As String = Thursday, As Value = 5 • As String = Friday, As Value = 6 • As String = Saturday, As Value = 7 • As String = Day, As Value = 8 • As String = Business Day, As Value = 9 • Custom Days specified in the calendar selected in a Workflow calendar.	Y (if <code>restrictionComplex</code> is true)
1	<restrictionNouns>																			
2	<restrictionNoun>BusinessDay</restrictionNoun>																			
3	</restrictionNouns>																			
1	<restrictionNouns>																			
2	<restrictionNoun>Monday</restrictionNoun>																			
3	<restrictionNoun>CustomDay1</restrictionNoun>																			
4	</restrictionNouns>																			
1	"restrictionNouns": [																			

Property	UI Field Name	Description	Specifications	Required
		2 3 4 5 6 7 8 <pre>{ "value": "Monday" }, { "value": "CustomDay1" }]</pre> To specify a Local Custom Day, use the local attribute. For example: XML 1 2 3 <pre><restrictionNo uns> <restrictionNo un local="true">C ustomDay2</ restrictionNou n> </ restrictionNou ns></pre> JSON 1 2 3 4 5 6 <pre>"restrictionNo uns": [{ "local": true, "value": "CustomDay1" }]</pre> Note The Calendar for the trigger is used to verify Custom Day references.		
restrictionNthAmount	Restriction Nth Amount	Set only if restrictionAdjective is Nth (6); value of N.	Integer	Y (if restrictionAdjective is Nth)

Property	UI Field Name	Description	Specifications	Required
restrictionQualifier	Restriction Qualifier	Deprecated. Period to restrict the trigger to. To specify a Custom Day Period, use the name of the Custom Day Period. For example: XML <restrictionQualifier>CustomDayPeriod1</restrictionQualifier> JSON <pre>"restrictionQualifier": { "value": "CustomDayPeriod1" }</pre> To specify a Local Custom Day Period, use the local attribute. For example: XML <restrictionQualifier local="true">CustomDayPeriod2</restrictionQualifier> JSON <pre>"restrictionQualifier": { "local": "true", "value": "CustomDayPeriod2" }</pre> Note The Calendar for the trigger is used to verify Custom Day references.	Valid values: • As String = Jan, As Value = 0 • As String = Feb, As Value = 1 • As String = Mar, As Value = 2 • As String = Apr, As Value = 3 • As String = May, As Value = 4 • As String = Jun, As Value = 5 • As String = Jul, As Value = 6 • As String = Aug, As Value = 7 • As String = Sep, As Value = 8 • As String = Oct, As Value = 9 • As String = Nov, As Value = 10 • As String = Dec, As Value = 11 • As String = Month, As Value = 12 • As String = Year, As Value = 13	Y (if restrictionComplexis true)

Property	UI Field Name	Description	Specifications	Required																
restrictionQualifiers	Restriction Qualifier(s)	Period to restrict the trigger to. Used with <code>restrictionAdjective</code>, <code>restrictionQualifiers</code>, and <code>restrictionNthAmount</code> (if <code>restrictionAdjective</code> is Nth) to specify the type of days you want to select. For example, to specify "the 1st business day of the month," select <code>restrictionAdjective</code> as 1st, <code>restrictionNouns</code> as Business Day, and <code>restrictionQualifiers</code> as Month. Example: <table><tr><td>1</td><td><restrictionQualifiers></td></tr><tr><td>2</td><td><restrictionQualifier>Month</restrictionQualifier></td></tr><tr><td>3</td><td></restrictionQualifiers></td></tr></table> To specify a Custom Day, use the name of the Custom Day. For example: XML <table><tr><td>1</td><td><restrictionQualifiers></td></tr><tr><td>2</td><td><restrictionQualifier>Jan</restrictionQualifier></td></tr><tr><td>3</td><td><restrictionQualifier>CustomDay1</restrictionQualifier></td></tr><tr><td>4</td><td></restrictionQualifiers></td></tr></table> JSON <table><tr><td>1</td><td>"restrictionQualifiers": [</td></tr></table>	1	<restrictionQualifiers>	2	<restrictionQualifier>Month</restrictionQualifier>	3	</restrictionQualifiers>	1	<restrictionQualifiers>	2	<restrictionQualifier>Jan</restrictionQualifier>	3	<restrictionQualifier>CustomDay1</restrictionQualifier>	4	</restrictionQualifiers>	1	"restrictionQualifiers": [	Valid values: • As String = Jan, As Value = 0 • As String = Feb, As Value = 1 • As String = Mar, As Value = 2 • As String = Apr, As Value = 3 • As String = May, As Value = 4 • As String = Jun, As Value = 5 • As String = Jul, As Value = 6 • As String = Aug, As Value = 7 • As String = Sep, As Value = 8 • As String = Oct, As Value = 9 • As String = Nov, As Value = 10 • As String = Dec, As Value = 11 • As String = Month, As Value = 12 • As String = Year, As Value = 13 • As String = Week, As Value = 14 • As String = Quarter, As Value = 15	Y (if <code>restrictionComplex</code> is true)
1	<restrictionQualifiers>																			
2	<restrictionQualifier>Month</restrictionQualifier>																			
3	</restrictionQualifiers>																			
1	<restrictionQualifiers>																			
2	<restrictionQualifier>Jan</restrictionQualifier>																			
3	<restrictionQualifier>CustomDay1</restrictionQualifier>																			
4	</restrictionQualifiers>																			
1	"restrictionQualifiers": [																			

Property	UI Field Name	Description	Specifications	Required
		2 3 4 5 6 7 8 <pre>{ "value": "Jan" }, { "value": "CustomDay1" }]</pre> To specify a Local Custom Day, use the local attribute. For example: XML 1 2 3 <pre><restrictionQualifiers> <restrictionQualifier local="true">CustomDay2</restrictionQualifier> </restrictionQualifiers></pre> JSON 1 2 3 4 5 6 <pre>"restrictionQualifiers": [{ "local": true, "value": "CustomDay1" }]</pre> Note The Calendar for the trigger is used to verify Custom Day references.		
restrictionSimple	Simple Restriction	Set only if <code>restriction</code> is true; Specification to set a simple restriction based on a specific <code>situation</code> .	Boolean; Valid values: true/false. Default is false.	Y (if <code>restrictionComplex</code> is false)

Property	UI Field Name	Description	Specifications	Required
<code>retainSysIds</code>	n/a	Specification for whether or not the web service will persist the <code>sysId</code> property. - If <code>retainSysIds</code>="true" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database. - If <code>retainSysIds</code>="false" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller. Note In XML web services, <code>retainSysIds</code> is specified as an attribute in the <trigger> element.	Valid values: true/false (default is true).	N
<code>retentionDuration</code>	Retention Duration	Set only if <code>retentionDurationPurge</code> is selected; Minimum retention duration for the selected <code>retentionDurationUnit</code> before triggered task instances can qualify for purge.	Integer	N
<code>retentionDurationPurge</code>	Purge By Retention Duration	Specification for whether triggered task instances can be purged by retention duration.	Boolean; Valid values: true/false. Default is false.	N
<code>retentionDurationUnit</code>	Retention Duration Unit	Set only if <code>retentionDurationPurge</code> is selected; Retention duration unit.	Valid values: - As String = Hours, As Value = 3 - As String = Days, As Value = 4 Default is Days (4).	N
<code>simulateTasks</code>	Simulate	Specifies if the instances generated by this trigger should execute under simulation mode.	Boolean; Valid values: true/false. Default is false.	N
<code>simulationOption</code>	Simulate Forecast	For Cron, Temporary, and Time triggers only; Enables the override of the Enable Trigger Simulation Universal Controller system property specification for whether or not to simulate the launching of tasks when triggers are eligible to fire. (If <code>simulationOption</code> is enabled, only the scheduled launch of the task by the trigger is inhibited.)	Valid values: –System Default –, As Value = 0 - As String = True, As Value = 1 - As String = False, As Value = 2 Default is –System Default – (0).	N
<code>situation</code>	Situation	Type of day that causes the Controller to initiate the specified <code>action</code> .	Valid values: - As String = Holiday, As Value = 1 - As String = Non Business Day, As Value = 2 Default is Holiday (1).	Y (if <code>restrictionSimple</code> is true)

Property	UI Field Name	Description	Specifications	Required
<code>skipActive</code>	Skip Trigger if Active	Deprecated. Indication for whether or not the Controller should skip the next run of the specified task(s) if the previous run has not gone to a Complete status (that is, it is still active).	Boolean; Valid values: true/false. Default is false.	N
<code>skipAfterDate</code>	Skip After Date	Date after which the trigger will be skipped.		N
<code>skipAfterTime</code>	Skip After Time	Time after which the trigger will be skipped.		N
<code>skipBeforeDate</code>	Skip Before Date	Date before which the trigger will be skipped.		N
<code>skipBeforeTime</code>	Skip Before Time	Time before which the trigger will be skipped.		N
<code>skipCondition</code>	Task Launch Skip Condition	Controls when launching a task for the trigger will be skipped. Note When reading a Trigger, both <code>skipActive</code> and <code>skipCondition</code> are returned. When creating/updating a Trigger, <code>skipCondition</code> is used if present. If <code>skipCondition</code> is not present, <code>skipActive</code> is used. If both <code>skipActive</code> and <code>skipCondition</code> are present, <code>skipActive</code> can be set to true only if <code>skipCondition</code> is Active (1).	Valid values: - As String = None, As Value = 0 - As String = Active, As Value = 1 - As String = Active By Trigger, As Value = 2 Default is None (0).	N
<code>skipCount</code>	Skip Count	Specification that the Controller should skip the next N times that this task is triggered.	Integer; Default is 0.	N
<code>skipDateList</code>	Skip Date List	Date(s) on which the trigger will be skipped.		
<code>skipRestriction</code>	Skip Restriction	Specification for when the trigger should skip and not launch the task(s).	Valid values: - As String = None, As Value = 0 - As String = Before, As Value = 1 - As String = After, As Value = 2 - As String = Span, As Value = 3 - As String = On, As Value = 4 Default is None (0).	
<code>sysId</code>	n/a	System ID field in the database for this trigger.	Persisted only if retainSysIds is set to true.	N

Property	UI Field Name	Description	Specifications	Required
tasks	Tasks	Name of the task(s) being triggered when this trigger is satisfied. XML <pre><tasks> <task>uc - Demo</task> </tasks></pre> JSON <pre>"tasks": ["uc - Demo"]</pre>		Y
timeZone	Time Zone	Name of the time zone that will be applied to the time(s) specified in the trigger.		Y
version	n/a	For Read and List web services; specification of the version being read or listed. Note In XML web services, <code>version</code> is specified as an attribute in the <code><trigger></code> element.		Y

4.34.11.6.2 Trigger Properties: Application Monitor Trigger

Property	UI Field Name	Description	Specifications	Required
application	Application	If <code>monitorType</code> is Specific (1); Name of a specific application resource to be monitored.		Y

Property	UI Field Name	Description	Specifications	Required
applNameCondition	Application Monitor Condition	If <code>monitorType</code> is General (2); Allows you to specify selection parameters.	Valid values: - As String = All, As Value = 1 - As String = Starts With, As Value = 2 - As String = Contains, As Value = 3 - As String = Ends With, As Value = 4 Default is All (1).	N
applNameValue	Condition Value	If <code>applNameCondition</code> is Starts With (2), Contains (3), or Ends With (4); Search string.		Y
applType	Application Type(s)	If <code>monitorType</code> is General (2); Comma-separated list of application types to monitor.	Valid values: - As String = Windows Service, As Value = 1 - As String = Linux/Unix Daemon, As Value = 2 - As String = z/OS Started Task, As Value = 3 ..	Y
monitorType	Monitoring Type	Indicates whether you are monitoring one specific Application resource or want to provide selection parameters to monitor multiple Application resources	Valid values: - As String = Specific, As Value = 1 - As String = General, As Value = 2. Default is Specific (1).	N
status	Status(es)	Comma-separated list of application statuses being monitored for.	Valid values: - As String = Inactive, As Value = 10 - As String = Start Failure, As Value = 20 - As String = Starting, As Value = 30 - As String = Active, As Value = 40 - As String = Impaired, As Value = 50 - As String = Query Overdue, As Value = 60	Y

4.34.11.6.3 Trigger-Related Records Properties: Variables

Property	UI Field Name	Description	Specifications	Required
description	Description	Description of the variable.		N
name	Name	Name of the variable.		Y
value	Value	Value of the variable.		Y

4.34.11.6.4 Trigger-Related Records Properties: Notes

Property	UI Field Name	Description	Specifications	Required
sysId	n/a	System ID field in the database for the Note.		N
text	Text	Text of the Note		N
title	Title	Title of the Note		N

4.34.12 Composite Trigger Web Services

- [Overview](#)
- [Create a Composite Trigger](#)
- [List Component Events for a Composite Trigger](#)
- [Modify a Composite Trigger](#)
- [Read a Composite Trigger](#)
- [Composite Trigger: XML and JSON Examples](#)
- [Properties](#)

4.34.12.1 Overview

Universal Controller supports the following RESTful-based web services for Composite Trigger operations, which are listed alphabetically on this page.

- [Create a Composite Trigger](#)
- [List Component Events for a Composite Trigger](#)
- [Modify a Composite Trigger](#)
- [Read a Composite Trigger](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Note

For information on Trigger web services that are applicable to all trigger types, see:

- [Delete a Trigger](#)
- [Enable/Disable a Trigger](#)
- [List Triggers](#)
- [Trigger a Task](#)

4.34.12.2 Create a Composite Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	POST
Description	Retrieves information for the specified trigger .
Example URI	http://localhost:8080/uc/resources/trigger
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Composite Trigger: XML and JSON Examples .
Trigger Properties	• See Trigger Properties: All Triggers. • See Trigger Properties: Composite Trigger.
Trigger Component Properties	• See Trigger Properties: All Composite Trigger Components. • See Trigger Properties: Composite Trigger Time Component. • See Trigger Properties: Composite Trigger File Monitor Component. • See Trigger Properties: Composite Trigger Task Monitor Component. • See Trigger Properties: Composite Trigger Variable Monitor Component. • See Trigger Properties: Composite Trigger Email Monitor Component. • See Trigger Properties: Composite Trigger Universal Monitor Component. • See Trigger Properties: Composite Trigger z/OS Monitor Component.
Trigger-Related Record Properties	• See Trigger-Related Records Properties: Variables. • See Trigger-Related Records Properties: Notes.
Example Response	• Status 200 /OK Successfully created the <trigger type> trigger.

4.34.12.3 List Component Events for a Composite Trigger

	Description
Consumes Content-Type	Application/XML & Application/JSON
Description	List component events
Authentication	HTTP Basic
URI	http://host_name/uc/resources/trigger/listcomponentevents http://host_name/uc/resources/trigger/listComponentEvents
HTTP Method	GET

	Description
Example URI	http://localhost:8080/uc/resources/trigger/listcomponentevents?triggername=test http://localhost:8080/uc/resources/trigger/listComponentEvents?triggername=test http://localhost:8080/uc/resources/trigger/listcomponentevents?triggerid=123456789 http://localhost:8080/uc/resources/trigger/listComponentEvents?triggerid=123456789
Example Response	See List Component Events: XML and JSON Examples
Trigger Properties	See Read a Composite Trigger: URI Parameters .
Produces Content-Type	application/xml, application/json

4.34.12.4 Modify a Composite Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	PUT
Description	Modifies the trigger specified by the sysId in the Example Request. To modify Composite Trigger properties without modifying related records, use the excludeRelated property.
Example URI	http://localhost:8080/uc/resources/trigger
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Composite Trigger: XML and JSON Examples .
Trigger Properties	• See Trigger Properties: All Triggers. • See Trigger Properties: Composite Trigger.
Trigger Component Properties	• See Trigger Properties: All Composite Trigger Components. • See Trigger Properties: Composite Trigger Time Component. • See Trigger Properties: Composite Trigger File Monitor Component. • See Trigger Properties: Composite Trigger Task Monitor Component. • See Trigger Properties: Composite Trigger Variable Monitor Component. • See Trigger Properties: Composite Trigger Email Monitor Component. • See Trigger Properties: Composite Trigger Universal Monitor Component. • See Trigger Properties: Composite Trigger z/OS Monitor Component.
Trigger-Related Record Properties	• See Trigger-Related Records Properties: Variables. • See Trigger-Related Records Properties: Notes.
Example Response	• Status 200 /OK Successfully updated the <trigger type> trigger to version <version>.

4.34.12.5 Read a Composite Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	GET
Description	Retrieves information for the specified trigger .
URI Parameters	See Read a Composite Trigger: URI Parameters .
Example URI	http://localhost:8080/uc/resources/trigger?triggername=testTrigger http://localhost:8080/uc/resources/trigger?triggerid=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Trigger Properties	- See Trigger Properties: All Triggers. - See Trigger Properties: Composite Trigger.
Trigger Component Properties	- See Trigger Properties: All Composite Trigger Components. - See Trigger Properties: Composite Trigger Time Component. - See Trigger Properties: Composite Trigger File Monitor Component. - See Trigger Properties: Composite Trigger Task Monitor Component. - See Trigger Properties: Composite Trigger Variable Monitor Component. - See Trigger Properties: Composite Trigger Email Monitor Component. - See Trigger Properties: Composite Trigger Universal Monitor Component. - See Trigger Properties: Composite Trigger z/OS Monitor Component.
Trigger-Related Record Properties	- See Trigger-Related Records Properties: Variables. - See Trigger-Related Records Properties: Notes.
Example Response	- Status 200 /OK (See Composite Trigger: XML and JSON Examples.) - Status 404 /Not Found A trigger with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

4.34.12.5.1 Read a Composite Trigger: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
<code>triggerid</code>	Unique ID for this trigger.		Y (unless <code>triggername</code> is specified)	<code>triggername</code>
<code>triggername</code>	Name used within the Controller to identify this trigger.	Maximum 40 alphanumerics.	Y (unless <code>triggerid</code> is specified)	<code>triggerid</code>

4.34.12.6 Composite Trigger: XML and JSON Examples

In the XML web service, the [exportReleaseLevel](#), [exportTable](#), [retainSysIds](#), and [version](#) properties are specified as attributes in the <trigger> element.

Examples	XML	JSON
Example for Trigger	<pre> <triggerComposite exportReleaseLevel="7 .2.0.0" exportTable="ops_trigger_compos ite" retainSysIds="true" version="1"> <variables /> <action>Do Not Trigger</action> <notes /> <calendar>System Default</calendar> <description /> <disabledBy /> <disabledTime /> <enabled>true</enabled> <enabledBy>ops.admin</enabledBy> <enabledEnd>00:00</enabledEnd> <enabledStart>05:00</enabledStart> <enabledTime>2021-03-03 12:46:11 -0500</enabledTime> <name>test composite trigger</name> <nextScheduledTime>2021-03-04 00:00:00 -0500</nextScheduledTime> <opswiseGroups /> <queueDepth>100</queueDepth> <rdExcludeBackup>true</ rdExcludeBackup> <restriction>false</restriction> <restrictionAdjective>Every</ restrictionAdjective> <restrictionComplex>false</ restrictionComplex> <restrictionMode>Or</restrictionMode> <restrictionNouns> <restrictionNoun>Day</ restrictionNoun> </restrictionNouns> <restrictionNthAmount /> <restrictionQualifiers> <restrictionQualifier>Year</ retsrtictionQualifier> </restrictionQualifiers> <restrictionSimple>false</ restrictionSimple> <retentionDuration>1</ retentionDuration> <retentionDurationPurge>true</ retentionDurationPurge> <retentionDurationUnit>Days</ </pre>	<pre> { "type": "triggerEm", "action": "Do Not Trigger", "calendar": "System Default", "description": null, "disabledBy": "", "disabledTime": "", "enabled": true, "enabledBy": "ops.admin", "enabledEnd": "00:00", "enabledStart": "00:00", "enabledTime": "2021-03-03 12:46:11 -0500", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_trigger_composite", "name": "test composite trigger", "nextScheduledTime": "2021-03-04 00:00:00 -0500", "notes": [], "opswiseGroups": [], "queueDepth": 100, "rdExcludeBackup": true, "restriction": false, "restrictionAdjective": "Every", "restrictionComplex": false, "restrictionMode": "Or", "restrictionNouns": [{ "value": "Day" }], "restrictionNthAmount": null, "restrictionQualifiers": [{ "value": "Year" }], </pre>

Examples	XML	JSON
	<pre> retentionDurationUnit> <situation>Holiday</situation> <skipAfterDate>2020-05-28</ skipAfterDate> <skipAfterTime>02:15</skipAfterTime> <skipBeforeDate>2020-05-30</ skipBeforeDate> <skipBeforeTime>17:30</ skipBeforeTime> <skipCondition>None</skipCondition> <skipCount>0</skipCount> <skipDateList /> <skipRestriction>Span</ skipRestriction> <sysId>0fc6b7d9c0a801c9017b6c27c2599 37e</sysId> <tasks> <task>Sleep 30</task> </ tasks> <timeLimit /> <timeLimitUnits>Minutes</ timeLimitUnits> <timeZone /> </triggerComposite> </pre>	<pre> "restrictionSimple": false, "retainSysIds": true, "retentionDuration": 1, "retentionDurationPurge": true, "retentionDurationUnit": "Days", "situation": "Holiday", "skipAfterDate": "2020-05-28", "skipAfterTime": "02:15", "skipBeforeDate": "2020-05-30", "skipBeforeTime": "17:30", "skipCondition": "None", "skipCount": 0, "skipDateList": [], "skipRestriction": "Span", "sysId": "9c659c9c2c72460c9a2057663257 b0be", "tasks": ["Sleep 30"], "timeLimit": null, "timeLimitUnits": "Minutes", "timeZone": null, "variables": [], "version": 1 } </pre>
Example for Trigger-Related Records	<pre> XML <variables> <variable> <description /> <name>testVar</name> <value>value</value> </variable> </variables> </pre>	<pre> JSON "variables": [{ "description": "description", "name": "var1", "value": "value1", }] </pre>
Example for Composite Trigger Components	<pre> XML Composite Trigger: Time Component <timeComponent> <action>Do Not Trigger</action> <description /> <disabledBy></disabledBy> <disabledTime></disabledTime> <enabled>true</enabled> <enabledBy>ops.admin</enabledBy> <enabledEnd>00:00</enabledEnd> <enabledStart>05:00</enabledStart> <enabledTime>2021-03-03 12:46:11 -0500</enabledTime> <name>test special day</name> </pre>	<pre> JSON Composite Trigger: Time Component "timeComponents": [{ "action": "Do Not Trigger", "adjustInterval": false, "adjustmentAmount": 1, "adjustmentType": "Day", "dateAdjective": "Every", "dateAdjustment": "None", "dateNoun": { </pre>

Examples	XML	JSON
	<pre> <nextScheduledTime>2021-03-04 00:00:00 -0500</nextScheduledTime> <restrictionAdjective>Every</ restrictionAdjective> <restrictionComplex>>false</ restrictionComplex> <restrictionMode>Or</restrictionMode> <restrictionNouns> <restrictionNoun>Day</ restrictionNoun> </restrictionNouns> <restrictionNthAmount /> <restrictionQualifiers> <restrictionQualifier>Year</ restrictionQualifier> </restrictionQualifiers> <restrictionSimple>>false</ restrictionSimple> <situation>Holiday</situation> <sysId>0fc6b7d9c0a801c9017b6c27c2599 37e</sysId> <variablePrefix /> <adjustInterval>>false</ adjustInterval> <adjustmentAmount>1</ adjustmentAmount> <adjustmentType>Day</adjustmentType> <dateAdjective>Every</dateAdjective> <dateAdjustment>None</dateAdjustment> <dateNoun>Saturday1</dateNoun> <dateQualifier>Year</dateQualifier> <dayInterval>2</dayInterval> <dayStyle>Complex</dayStyle> <eventMatchType>Single</ eventMatchType> <fri>>false</fri> <intervalStartingDate>2015-06-17</ intervalStartingDate> <mon>>false</mon> <nthAmount>5</nthAmount> <sat>>false</sat> <simpleDateType>Daily</ simpleDateType> <startTimeEnable>>false</ startTimeEnable> <startingAt>*:00</startingAt> <sun>>false</sun> <thu>>false</thu> <time>00:00</time> <timeInterval /> <timeIntervalUnits>Hours</ timeIntervalUnits> <timeStyle>Absolute</timeStyle> <tue>>false</tue> <wed>>false</wed> </pre>	<pre> "value": "Day" }, "dateQualifier": { "value": "Year" }, "dayInterval": 2, "dayStyle": "Simple", "description": null, "disabledBy": "", "disabledTime": "", "enabled": true, "enabledBy": "ops.admin", "enabledEnd": "00:00", "enabledStart": "00:00", "enabledTime": "2021-03-03 12:46:11 -0500", "eventMatchType": "Single", "fri": false, "intervalStartingDate": "2017-12-15", "mon": false, "name": "test special day", "nextScheduledTime": "2021-03-04 00:00:00 -0500", "nthAmount": 5, "restrictedTimes": false, "restriction": false, "restrictionAdjective": "Every", "restrictionComplex": false, "restrictionMode": "Or", "restrictionNouns": [{ "value": "Day" }], "restrictionNthAmount": null, "restrictionQualifiers": [{ "value": "Year" }], "restrictionSimple": false, "sat": false, "simpleDateType": "Daily", "situation": "Holiday", "startTimeEnable": false, "startingAt": "*:00", </pre>

Examples	XML	JSON
	<pre> </timeComponent> Composite Trigger: File Monitor Component <fileMonitorComponent> <action>Do Not Trigger</action> <description /> <disabledBy></disabledBy> <disabledTime></disabledTime> <enabled>true</enabled> <enabledBy>ops.admin</enabledBy> <enabledEnd>00:00</enabledEnd> <enabledStart>05:00</enabledStart> <enabledTime>2021-03-03 12:46:11 -0500</enabledTime> <name>test file monitor component</ name> <nextScheduledTime>2021-03-04 00:00:00 -0500</nextScheduledTime> <restrictedTimes>>false</ restrictedTimes> <restriction>>false</restriction> <restrictionAdjective>Every</ restrictionAdjective> <restrictionComplex>>false</ restrictionComplex> <restrictionMode>Or</restrictionMode> <restrictionNoun>Day</ restrictionNoun> <restrictionNthAmount /> <restrictionQualifier>Year</ restrictionQualifier> <restrictionSimple>>false</ restrictionSimple> <situation>Holiday</situation> <sysId>5d2ac48e2dd64b5894bef1809a0e4 d33</sysId> <variablePrefix /> <fileMonitor>file monitor 1</ fileMonitor> </fileMonitorComponent> Composite Trigger: Task Monitor Component </pre>	<pre> "sun": false, "sysId": "b9c462f58a624a41a9a5ed824339 cc00", "thu": false, "time": "00:00", "timeInterval": null, "timeIntervalUnits": "Hours", "timeStyle": "Absolute", "tue": false, "variablePrefix": null, "wed": false }], Composite Trigger: File Monitor Component </pre>

Examples	XML	JSON
	<pre> <taskMonitorComponent> <action>Do Not Trigger</action> <description /> <disabledBy></disabledBy> <disabledTime></disabledTime> <enabled>true</enabled> <enabledBy>ops.admin</enabledBy> <enabledEnd>00:00</enabledEnd> <enabledStart>05:00</enabledStart> <enabledTime>2021-03-03 12:46:11 -0500</enabledTime> <nextScheduledTime>2021-03-04 00:00:00 -0500</nextScheduledTime> <restrictionComplex>false</ restrictionComplex> <restrictionMode>Or</restrictionMode> <restrictionAdjective>Every</ restrictionAdjective> <restrictionNoun>Day</ restrictionNoun> <restrictionNthAmount /> <restrictionQualifier>Year</ restrictionQualifier> <restrictedTimes>false</ restrictedTimes> <restriction>false</restriction> <restrictionComplex>false</ restrictionComplex> <restrictionMode>Or</restrictionMode> <restrictionSimple>false</ restrictionSimple> <situation>Holiday</situation> <sysId>2445dbd9e58546b69e5d5032f1264 6a4</sysId> <variablePrefix /> <taskMonitor>test task monitor</ taskMonitor> </taskMonitorComponent> </pre> Composite Trigger: Variable Monitor Component	<pre> "fileMonitorComponents": [{ "action": "Do Not Trigger", "description": null, "disabledBy": "", "disabledTime": "", "enabled": true, "enabledBy": "ops.admin", "enabledEnd": "00:00", "enabledStart": "00:00", "enabledTime": "2021-03-03 12:46:11 -0500", "fileMonitor": "file monitor 1", "name": "test file monitor component", "nextScheduledTime": "2021-03-04 00:00:00 -0500", "restrictedTimes": false, "restriction": false, "restrictionAdjective": "Every", "restrictionComplex": false, "restrictionMode": "Or", "restrictionNouns": [{ "value": "Day" }], "restrictionNthAmount": null, "restrictionQualifiers": [{ "value": "Year" }], "restrictionSimple": false, "situation": "Holiday", "sysId": "4908349365b34c49998ff2a05116 3fa5", "variablePrefix": null }], </pre> Composite Trigger: Task Monitor Component

Examples	XML	JSON
	<pre> <variableMonitorComponent> <action>Do Not Trigger</action> <description /> <disabledBy></disabledBy> <disabledTime></disabledTime> <enabled>true</enabled> <enabledBy>ops.admin</enabledBy> <enabledEnd>00:00</enabledEnd> <enabledStart>05:00</enabledStart> <enabledTime>2021-03-03 12:46:11 -0500</enabledTime> <name>test variable monitor component</name> <nextScheduledTime>2021-03-04 00:00:00 -0500</nextScheduledTime> <restrictedTimes>false</ restrictedTimes> <restriction>false</restriction> <restrictionAdjective>Every</ restrictionAdjective> <restrictionComplex>false</ restrictionComplex> <restrictionMode>Or</restrictionMode> <restrictionNoun>Day</ restrictionNoun> <restrictionNthAmount /> <restrictionQualifier>Year</ restrictionQualifier> <restrictionSimple>false</ restrictionSimple> <situation>Holiday</situation> <sysId>2445dbd9e58546b69e5d5032f1264 6a4</sysId> <variablePrefix /> <variableMonitor>mon-1</ variableMonitor> </ variableMonitorComponent> Composite Trigger: Email Monitor Component </pre>	<pre> "taskMonitorComponents": [{ "action": "Do Not Trigger", "description": null, "disabledBy": "", "disabledTime": "", "enabled": true, "enabledBy": "ops.admin", "enabledEnd": "00:00", "enabledStart": "00:00", "enabledTime": "2021-03-03 12:46:11 -0500", "name": "test task monitor component", "nextScheduledTime": "2021-03-04 00:00:00 -0500", "restrictedTimes": false, "restriction": false, "restrictionAdjective": "Every", "restrictionComplex": false, "restrictionMode": "Or", "restrictionNouns": [{ "value": "Day" }], "restrictionNthAmount": null, "restrictionQualifiers": [{ "value": "Year" }], "restrictionSimple": false, "situation": "Holiday", "sysId": "4a557c7d82974960a1c9a45457b1 2eb8", "taskMonitor": "test task monitor", "variablePrefix": null }], Composite Trigger: Variable Monitor Component </pre>

Examples	XML	JSON
	<pre> <emailMonitorComponent> <action>Do Not Trigger</action> <description /> <disabledBy></disabledBy> <disabledTime></disabledTime> <enabled>true</enabled> <enabledBy>ops.admin</enabledBy> <enabledEnd>00:00</enabledEnd> <enabledStart>05:00</enabledStart> <enabledTime>2021-03-03 12:46:11 -0500</enabledTime> <name>test email monitor component</ name> <nextScheduledTime>2021-03-04 00:00:00 -0500</nextScheduledTime> <restrictedTimes>false</ restrictedTimes> <restriction>false</restriction> <restrictionAdjective>Every</ restrictionAdjective> <restrictionComplex>false</ restrictionComplex> <restrictionMode>Or</restrictionMode> <restrictionNoun>Day</ restrictionNoun> <restrictionNthAmount /> <restrictionQualifier>Year</ restrictionQualifier> <restrictionSimple>false</ restrictionSimple> <situation>Holiday</situation> <sysId>2445dbd9e58546b69e5d5032f1264 6a4</sysId> <variablePrefix /> <emailMonitor>test-EM</emailMonitor> </emailMonitorComponent> </pre> Composite Trigger: Universal Monitor Component	<pre> "variableMonitorComponents": [{ "action": "Do Not Trigger", "description": null, "disabledBy": "", "disabledTime": "", "enabled": true, "enabledBy": "ops.admin", "enabledEnd": "00:00", "enabledStart": "00:00", "enabledTime": "2021-03-03 12:46:11 -0500", "name": "test variable monitor component", "nextScheduledTime": "2021-03-04 00:00:00 -0500", "restrictedTimes": false, "restriction": false, "restrictionAdjective": "Every", "restrictionComplex": false, "restrictionMode": "Or", "restrictionNouns": [{ "value": "Day" }], "restrictionNthAmount": null, "restrictionQualifiers": [{ "value": "Year" }], "restrictionSimple": false, "situation": "Holiday", "sysId": "4ccf4458aa834b11a3f24dfe994c 1c44", "variableMonitor": "mon-1", "variablePrefix": null }] </pre> Composite Trigger: Email Monitor Component

Examples	XML	JSON
	<pre> <universalMonitorComponent> <action>Do Not Trigger</action> <description /> <disabledBy></disabledBy> <disabledTime></disabledTime> <enabled>true</enabled> <enabledBy>ops.admin</enabledBy> <enabledEnd>00:00</enabledEnd> <enabledStart>05:00</enabledStart> <enabledTime>2021-03-03 12:46:11 -0500</enabledTime> <name>test universal monitor component</name> <nextScheduledTime>2021-03-04 00:00:00 -0500</nextScheduledTime> <restrictedTimes>false</ restrictedTimes> <restriction>false</restriction> <restrictionAdjective>Every</ restrictionAdjective> <restrictionComplex>false</ restrictionComplex> <restrictionMode>Or</restrictionMode> <restrictionNoun>Day</ restrictionNoun> <restrictionNthAmount /> <restrictionQualifier>Year</ restrictionQualifier> <restrictionSimple>false</ restrictionSimple> <situation>Holiday</situation> <sysId>2445dbd9e58546b69e5d5032f1264 6a4</sysId> <variablePrefix /> <universalMonitor>test-UM</ universalMonitor> </universalMonitorComponent> </pre> Composite Trigger: z/OS Monitor Component	<pre> "emailMonitorComponents": [{ "action": "Do Not Trigger", "description": null, "emailMonitor": "test-EM", "disabledBy": "", "disabledTime": "", "enabled": true, "enabledBy": "ops.admin", "enabledEnd": "00:00", "enabledStart": "00:00", "enabledTime": "2021-03-03 12:46:11 -0500", "name": "test email monitor component", "nextScheduledTime": "2021-03-04 00:00:00 -0500", "restrictedTimes": false, "restriction": false, "restrictionAdjective": "Every", "restrictionComplex": false, "restrictionMode": "Or", "restrictionNouns": [{ "value": "Day" }], "restrictionNthAmount": null, "restrictionQualifiers": [{ "value": "Year" }], "restrictionSimple": false, "situation": "Holiday", "sysId": "2c6f4ece771b44ec858e3c2df917 e9ba", "variablePrefix": null }] </pre> Composite Trigger: Universal Monitor Component

Examples	XML	JSON
	<pre> <zsoMonitorComponent> <action>Do Not Trigger</action> <description /> <enabledEnd>00:00</enabledEnd> <enabledStart>00:00</enabledStart> <name>test z/OS monitor component</ name> <restrictedTimes>false</ restrictedTimes> <restriction>false</restriction> <restrictionAdjective>Every</ restrictionAdjective> <restrictionComplex>false</ restrictionComplex> <restrictionMode>Or</ restrictionMode> <restrictionNoun>Day</ restrictionNoun> <restrictionNthAmount>5</ restrictionNthAmount> <restrictionQualifier>Year</ restrictionQualifier> <restrictionSimple>false</ restrictionSimple> <situation>Holiday</situation> <sysId>5362fdbcb42af413988addc71a8abfc4b </sysId> <variablePrefix>zm</variablePrefix> <zsoMonitor>ZOS SB Monitor</ zsoMonitor> </zsoMonitorComponent> </pre>	<pre> "universalMonitorComponents": [{ "action": "Do Not Trigger", "description": null, "universalMonitor": "test-UM", "disabledBy": "", "disabledTime": "", "enabled": true, "enabledBy": "ops.admin", "enabledEnd": "00:00", "enabledStart": "00:00", "enabledTime": "2021-03-03 12:46:11 -0500", "name": "test universal monitor component", "nextScheduledTime": "2021-03-04 00:00:00 -0500", "restrictedTimes": false, "restriction": false, "restrictionAdjective": "Every", "restrictionComplex": false, "restrictionMode": "Or", "restrictionNouns": [{ "value": "Day" }], "restrictionNthAmount": null, "restrictionQualifiers": [{ "value": "Year" }], "restrictionSimple": false, "situation": "Holiday", "sysId": "2c6f4ece771b44ec858e3c2df917e9ba", "variablePrefix": null }] </pre> Composite Trigger: z/OS Monitor Component

Examples	XML	JSON
		<pre> "zosMonitorComponents": [{ "action": "Do Not Trigger", "description": null, "enabledEnd": "00:00", "enabledStart": "00:00", "name": "test z/OS monitor component", "restrictedTimes": false, "restriction": false, "restrictionAdjective": "Every", "restrictionComplex": false, "restrictionMode": "Or", "restrictionNoun": { "value": "Day" }, "restrictionNthAmount": 5, "restrictionQualifier": { "value": "Year" }, "restrictionSimple": false, "situation": "Holiday", "sysId": "5362fdcb42af413988addc71a8ab fc4b", "variablePrefix": "zm", "zosMonitor": "ZOS SB Monitor" } </pre>
List Component Events - Response	<pre> XML <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <triggerComponentEvents> <components> <component> <events> <event> <variables> <variable> <name>ops_agent_hostname trigger_task_type</name> </pre>	<pre> JSON { "components": [{ "description": null, "eventCount": 1, "events": [{ "created": "2022-11-04 14:01:38 -0400", </pre>

Examples	XML	JSON
	<pre> <value>Timer</value> </variable> <variable> <name>ops_agent_hostnametrigger_task_id </name> <value>1667584757059011268LVS3MYPI4DTHN </value> </variable> <variable> <name>ops_agent_hostnametrigger_compone nt_event_time</name> <value>2022-11-04 14:01:38 -0400</ value> </variable> <variable> <name>ops_agent_hostnametrigger_task_na me</name> <value>Sleep 15</value> </variable> <variable> <name>ops_agent_hostnametrigger_task_st atus</name> <value>SUCCESS</value> </variable> </variables> <created>2022-11-04 14:01:38 -0400</created> <position>1</ </pre>	<pre> "position": 1, "variables": [{ "name": "ops_agent_hostnametrigger_ta sk_type", "value": "Timer" }, { "name": "ops_agent_hostnametrigger_ta sk_id", "value": "1667584757059011268LVS3MYPI4 DTHN" }, { "name": "ops_agent_hostnametrigger_co mponent_event_time", "value": "2022-11-04 14:01:38 -0400" }, { "name": "ops_agent_hostnametrigger_ta sk_name", "value": "Sleep 15" }, </pre>

Examples	XML	JSON
	<pre> position> </event> </events> <eventCount>1</eventCount> <name>task-mon-comp</name> <type>Task Monitor</type> </component> <component> <events> <event> <variables> <variable> <name>ops_agent_hostnametrigger_compone nt_event_time</name> <value>2022-11-04 14:00:35 -0400</ value> </variable> </variables> <created>2022-11-04 14:00:35 -0400</created> <position>1</ position> </event> <event> <variables> <variable> <name>ops_agent_hostnametrigger_compone nt_event_time</name> <value>2022-11-04 14:01:35 -0400</ value> </variable> </variables> <created>2022-11-04 14:01:35 -0400</created> </pre>	<pre> { "name": "ops_agent_hostnametrigger_ta sk_status", "value": "SUCCESS" }], "name": "task- mon-comp", "type": "Task Monitor" }, { "description": null, "eventCount": 5, "events": [{ "created": "2022-11-04 14:01:35 -0400", "position": 1, "variables": [{ "name": "ops_agent_hostnametrigger_co mponent_event_time", "value": "2022-11-04 14:01:35 -0400" </pre>

Examples	XML	JSON
	<pre> <position>2</ position> </event> <event> <variables> <variable> <name>ops_agent_hostname_trigger_component_event_time</name> <value>2022-11-04 14:02:35 -0400</ value> </variable> </variables> <created>2022-11-04 14:02:35 -0400</created> <position>3</ position> </event> <event> <variables> <variable> <name>ops_agent_hostname_trigger_component_event_time</name> <value>2022-11-04 14:04:32 -0400</ value> </variable> </variables> <created>2022-11-04 14:04:32 -0400</created> <position>4</ position> </event> <event> <variables> </pre>	<pre> }] }, { "created": "2022-11-04 14:02:35 -0400", "position": 2, "variables": [{ "name": "ops_agent_hostname_trigger_co mponent_event_time", "value": "2022-11-04 14:02:35 -0400" }], }, { "created": "2022-11-04 14:04:32 -0400", "position": 3, "variables": [{ "name": "ops_agent_hostname_trigger_co mponent_event_time", "value": "2022-11-04 14:04:32 </pre>

Examples	XML	JSON
	<pre> <variable> <name>ops_agent_hostnametrigger_compone nt_event_time</name> <value>2022-11-04 14:04:35 -0400</ value> </variable> </variables> <created>2022-11-04 14:04:35 -0400</created> <position>5</ position> </event> </events> <eventCount>5</eventCount> <name>time-comp-1</name> <type>Time</type> </component> <component> <events/> <eventCount>0</eventCount> <name>var-mon-comp</name> <type>Variable Monitor</ type> </component> </components> <description /> <name>comp-trig-1</name> <queueDepth>100</queueDepth> <timeLimit>5</timeLimit> <timeLimitUnits>Minutes</ timeLimitUnits> </triggerComponentEvents> </pre>	<pre> -0400" }] }, { "created": "2022-11-04 14:04:35 -0400", "position": 4, "variables": [{ "name": "ops_agent_hostnametrigger_co mponent_event_time", "value": "2022-11-04 14:04:35 -0400" }], { "created": "2022-11-04 14:05:35 -0400", "position": 5, "variables": [{ "name": "ops_agent_hostnametrigger_co mponent_event_time", "value": "2022-11-04 14:05:35 </pre>

Examples	XML	JSON
		<pre>-0400" }] }], "name": "time- comp-1", "type": "Time" }, { "description": null, "eventCount": 0, "events": [], "name": "var-mon- comp", "type": "Variable Monitor" },], "description": null, "name": "comp-trig-1", "queueDepth": 100, "timeLimit": 5, "timeLimitUnits": "Minutes" }</pre>

Examples	XML	JSON
Examples for Trigger-Related Records	Variables XML <variables> <variable> <description /> <name>testVar</name> <value>value</value> </variable> </variables> Notes XML <notes> <note> <Composite Trigger Web Services#sysId>76ad570c64b84f84aeaf281403856b10</Composite Trigger Web Services#sysId> <Composite Trigger Web Services#text>testNoteText</Composite Trigger Web Services#text> <Composite Trigger Web Services#title>testNoteTitle</Composite Trigger Web Services#title> </note> </notes>	Variables JSON "variables": [{ "description": "description", "name": "var1", "value": "value1" }] Notes JSON "notes": [{ "Composite Trigger Web Services#sysId": "76ad570c64b84f84aeaf281403856b10", "Composite Trigger Web Services#text": "testNoteText", "Composite Trigger Web Services#title": "testNoteTitle" }]

4.34.12.7 Properties

4.34.12.7.1 Trigger Properties - All Triggers

Property	UI Field Name	Description	Specifications	Required
action	Action	For all trigger types except Manual and Temporary; Action to take on a non-business day or holiday (see <code>situation</code>).	Valid values: - As String = Do Not Trigger, As Value = 1 - As String = Next Day, As Value = 2 - As String = Next Business Day, As Value = 3 - As String = Previous Day, As Value = 4 - As String = Previous Business Day, As Value = 5 Default is Do Not Trigger (1). Note The following values are valid only for Cron and Time triggers: - Next Day (2) - Next Business Day (3) - Previous Day (4) - Previous Business Day (5)	Y (if <code>restrictionNoun</code> is true.)
calendar	Calendar	Calendar that defines the business days, holidays, and other special days that determine the run dates for the task(s) specified in the trigger. The Calendar will be used to verify any Custom Day references in <code>restrictionNoun</code> and <code>dateNoun</code> .	Default is System Default.	Y
customField1	n/a	User-Defined field. Example: <code><customField1 label="Domain">web.com</customField1></code>	The label is included only if a value has been defined for the User Defined Trigger Field 1 Label Universal Controller system property.	N
customField2	n/a	User-Defined field. Example: <code><customField2 label="Domain">web.com</customField2></code>	The label is included only if a value has been defined for the User Defined Trigger Field 2 Label Universal Controller system property.	N
description	Description	Description of this trigger.		N
disabledBy	Disabled By	System-supplied. If Status = Enabled, ID of the user who most recently disabled this trigger.	Read-only.	N

Property	UI Field Name	Description	Specifications	Required
<code>disabledTime</code>	Disabled Time	System-supplied. If Status = Enabled, Date and time that the trigger was disabled.	Read-only.	N
<code>enabled</code>	Status	System-defined; Specification for whether or nor the trigger is enabled. Only enabled triggers are processed by the Controller.	Read-only.	N
<code>enabledBy</code>	Enabled By	System-supplied. If Status = Enabled, ID of the user who most recently enabled this trigger.	Read-only.	N
<code>enabledTime</code>	Enabled Time	System-supplied. If Status = Enabled, Date and time that the trigger was enabled.	Read-only.	N
<code>enforceVariables</code>	Enforce Variables	Specifies whether or not to enforce Override Trigger Variables when using Trigger Now... from the User Interface. Not applicable for Web Service APIs.	Valid values: true/false. Default is false.	N
<code>excludeRelated</code>	n/a	For Modify Trigger web services; specification for whether or not to exclude related records from the update, even if they are provided in the request. Note In XML web services, <code>excludeRelated</code> is specified as an attribute in the <trigger> element.	Valid values: true/false (default is false).	N
<code>exportReleaseLevel</code>	n/a	Universal Controller release that the record was exported from. Note In XML web services, <code>exportReleaseLevel</code> is specified as an attribute in the <trigger> element.	read only	N
<code>exportTable</code>	n/a	Record table information. Note In XML web services, <code>exportTable</code> is specified as an attribute in the <trigger> element.	read only	N
<code>forecast</code>	Forecast	For Cron, Temporary, and Time triggers only; Date and time when this trigger will be satisfied for the next number days, as specified in the Forecast Period In Days Universal Controller system property. The Controller writes the forecasting entries to the Forecasts List .	Boolean; Valid values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
lockVariables	Lock Variables	Specifies whether or not to prevent editing variables when using Trigger Now... from the User Interface. Not applicable for Web Service APIs.	Boolean; Valid values: true/false. Default is false.	N
name	Name	Name used within the Controller to identify this trigger.	Maximum 255 alphanumerics.	Y
nextScheduledTime	Next Scheduled Time	System-supplied; for time-based triggers. If Status = Enabled, the next date and time this trigger will be satisfied. See Displaying Trigger Forecast Information .	Read-only.	N
opswiseGroups	Member of Business Services	List of Business Service(s) that this trigger belongs to. XML <pre><opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups></pre> JSON <pre>"opswiseGroups": ["test"]</pre>		N
rdExcludeBackup	Exclude Backup	Set only if <code>retentionDurationPurge</code> is selected; Specification for whether qualifying task instances can be excluded from the backup when being purged by retention duration.	Boolean; Valid values: true/false. Default is false.	N
restriction	Special Restriction	Indication of whether or not you want to specify additional parameters that tell the Controller how to handle exceptions, such as when the trigger is satisfied on a holiday or non-business day. You can specify simple and/or complex restrictions. For example, you can specify a <code>simpleRestriction</code> that disables the trigger if it is satisfied on a holiday identified in the calendar and/or a <code>restrictionComplex</code> that disables the trigger on the last business day of every month.	Boolean; Valid values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
<code>restrictionAdjective</code>	Restriction Adjective	Type of selection for <code>restrictionNoun</code> .	Valid values: - As String = Every, As Value = 0 - As String = 1st, As Value = 1 - As String = 2nd, As Value = 2 - As String = 3rd, As Value = 3 - As String = 4th, As Value = 4 - As String = Last, As Value = 5 - As String = Nth, As Value = 6 Default is Every (0).	Y (if <code>restrictionComplex</code> is enabled)
<code>restrictionComplex</code>	Complex Restriction	Set only if <code>restriction</code> is true; Set of parameters that determine one or more situations when this trigger should not be satisfied. Used in conjunction with <code>restrictionMode</code> , <code>restrictionAdjective</code> , <code>restrictionNoun</code> , and <code>restrictionQualifier</code> . For example, you can specify that you do not want to satisfy this trigger on the last business day of the year or the first day of each month.	Boolean; Valid values: true/false. Default is false.	Y (if <code>restrictionSimple</code> is false.)
<code>restrictionMode</code>	Restriction Mode	Set only if <code>restrictionSimple</code> is true; Specification for whether you want to use <code>restrictionSimple</code> - and/or <code>restrictionComplex</code> -related values.	Valid values: - As String = And, As Value = 1 - As String = Or, As Value = 2 Default is Or (2).	Y (if <code>restrictionSimple</code> and <code>restrictionComplex</code> are true.)

Property	UI Field Name	Description	Specifications	Required
restrictionNoun	Restriction Noun	Day to restrict the trigger to. To specify a Custom Day, use the name of the Custom Day. For example: XML <code><restrictionNoun>CustomDay1</restrictionNoun></code> JSON <pre>"restrictionNoun": { "value": "CustomDay1" }</pre> To specify a Local Custom Day, use the local attribute. For example: XML <code><restrictionNoun local="true">CustomDay2</restrictionNoun></code> JSON <pre>"restrictionNoun": { "local": "true", "value": "CustomDay2" }</pre> Note The Calendar for the trigger is used to verify Custom Day references.	Valid values: - As String = Sunday, As Value = 1 - As String = Monday, As Value = 2 - As String = Tuesday, As Value = 3 - As String = Wednesday, As Value = 4 - As String = Thursday, As Value = 5 - As String = Friday, As Value = 6 - As String = Saturday, As Value = 7 - As String = Day, As Value = 8 - As String = Business Day, As Value = 9	Y (if restrictionComplex is true.)

Property	UI Field Name	Description	Specifications	Required																																
restrictionNouns	Restriction Noun(s)	Day to restrict the trigger to. Used with <code>restrictionAdjective</code>, <code>restrictionQualifiers</code>, and <code>restrictionNthAmount</code> (if <code>restrictionAdjective</code> is Nth) to specify the type of days you want to select. For example, to specify "the 1st business day of the month," select <code>restrictionAdjective</code> as 1st, <code>restrictionNouns</code> as Business Day, and <code>restrictionQualifiers</code> as Month. Example: <table><tr><td>1</td><td><restrictionNouns></td></tr><tr><td>2</td><td><restrictionNoun>Business Day</restrictionNoun></td></tr><tr><td>3</td><td></restrictionNouns></td></tr></table> To specify a Custom Day, use the name of the Custom Day. For example: XML <table><tr><td>1</td><td><restrictionNouns></td></tr><tr><td>2</td><td><restrictionNoun>Monday</restrictionNoun></td></tr><tr><td>3</td><td><restrictionNoun>CustomDay1</restrictionNoun></td></tr><tr><td>4</td><td></restrictionNouns></td></tr></table> JSON <table><tr><td>1</td><td>"restrictionNouns": [</td></tr><tr><td>2</td><td>{</td></tr><tr><td>3</td><td> "value": "Monday"</td></tr><tr><td>4</td><td>},</td></tr><tr><td>5</td><td>{</td></tr><tr><td>6</td><td> "value":</td></tr><tr><td>7</td><td> "CustomDay1"</td></tr><tr><td>8</td><td>}]</td></tr></table> To specify a Local Custom Day, use the local attribute. For example: XML <table><tr><td>1</td><td><restrictionNouns></td></tr></table>	1	<restrictionNouns>	2	<restrictionNoun>Business Day</restrictionNoun>	3	</restrictionNouns>	1	<restrictionNouns>	2	<restrictionNoun>Monday</restrictionNoun>	3	<restrictionNoun>CustomDay1</restrictionNoun>	4	</restrictionNouns>	1	"restrictionNouns": [	2	{	3	"value": "Monday"	4	},	5	{	6	"value":	7	"CustomDay1"	8	}]	1	<restrictionNouns>	Valid values: - As String = Sunday, As Value = 1 - As String = Monday, As Value = 2 - As String = Tuesday, As Value = 3 - As String = Wednesday, As Value = 4 - As String = Thursday, As Value = 5 - As String = Friday, As Value = 6 - As String = Saturday, As Value = 7 - As String = Day, As Value = 8 - As String = Business Day, As Value = 9 - Custom Days specified in the calendar selected in a Workflow calendar.	Y (if <code>restrictionComplex</code> is true)
1	<restrictionNouns>																																			
2	<restrictionNoun>Business Day</restrictionNoun>																																			
3	</restrictionNouns>																																			
1	<restrictionNouns>																																			
2	<restrictionNoun>Monday</restrictionNoun>																																			
3	<restrictionNoun>CustomDay1</restrictionNoun>																																			
4	</restrictionNouns>																																			
1	"restrictionNouns": [																																			
2	{																																			
3	"value": "Monday"																																			
4	},																																			
5	{																																			
6	"value":																																			
7	"CustomDay1"																																			
8	}]																																			
1	<restrictionNouns>																																			

Property	UI Field Name	Description	Specifications	Required
		2 <restrictionNoun local="true">CustomDay2< /restrictionNoun> 3 </restrictionNouns> JSON 1 "restrictionNouns": [2 { 3 "local": true, 4 "value": 5 "CustomDay1" 6 } 6] Note The Calendar for the trigger is used to verify Custom Day references.		
restrictionNthAmount	Restriction Nth Amount	Set only if restrictionAdjective is Nth (6); value of N.	Integer	Y (if restrictionAdjective is Nth.)

Property	UI Field Name	Description	Specifications	Required
restrictionQualifier	RestrictionQualifier	Period to restrict the trigger to. To specify a Custom Day Period, use the name of the Custom Day Period. For example: XML <pre><restrictionQualifier>CustomDayPeriod1</restrictionQualifier></pre> JSON <pre>"restrictionQualifier": { "value": "CustomDayPeriod1" }</pre> To specify a Local Custom Day Period, use the local attribute. For example: XML <pre><restrictionQualifier local="true">CustomDayPeriod2</restrictionQualifier></pre> JSON <pre>"restrictionQualifier": { "local": "true", "value": "CustomDayPeriod2" }</pre> Note The Calendar for the trigger is used to verify Custom Day references.	Valid values: • As String = Jan, As Value = 0 • As String = Feb, As Value = 1 • As String = Mar, As Value = 2 • As String = Apr, As Value = 3 • As String = May, As Value = 4 • As String = Jun, As Value = 5 • As String = Jul, As Value = 6 • As String = Aug, As Value = 7 • As String = Sep, As Value = 8 • As String = Oct, As Value = 9 • As String = Nov, As Value = 10 • As String = Dec, As Value = 11 • As String = Month, As Value = 12 • As String = Year, As Value = 13	Y (if restrictionComplex is true.)

Property	UI Field Name	Description	Specifications	Required																																		
restrictionQualifiers	Restriction Qualifier(s)	Period to restrict the trigger to. Used with <code>restrictionAdjective</code>, <code>restrictionQualifiers</code>, and <code>restrictionNthAmount</code> (if <code>restrictionAdjective</code> is Nth) to specify the type of days you want to select. For example, to specify "the 1st business day of the month," select <code>restrictionAdjective</code> as 1st, <code>restrictionNouns</code> as Business Day, and <code>restrictionQualifiers</code> as Month. Example: <table><tr><td>1</td><td><restrictionQualifiers></td></tr><tr><td>2</td><td><restrictionQualifier>Month</restrictionQualifier></td></tr><tr><td>3</td><td></restrictionQualifiers></td></tr></table> To specify a Custom Day, use the name of the Custom Day. For example: XML <table><tr><td>1</td><td><restrictionQualifiers></td></tr><tr><td>2</td><td><restrictionQualifier>Jan</restrictionQualifier></td></tr><tr><td>3</td><td><restrictionQualifier>CustomDay1</restrictionQualifier></td></tr><tr><td>4</td><td></restrictionQualifiers></td></tr></table> JSON <table><tr><td>1</td><td>"restrictionQualifiers":</td></tr><tr><td>2</td><td>[</td></tr><tr><td>3</td><td>{</td></tr><tr><td>4</td><td> "value": "Jan"</td></tr><tr><td>5</td><td>},</td></tr><tr><td>6</td><td>{</td></tr><tr><td>7</td><td> "value":</td></tr><tr><td>8</td><td> "CustomDay1"</td></tr><tr><td></td><td>}</td></tr><tr><td></td><td>]</td></tr></table> To specify a Local Custom Day, use the local attribute. For example: XML	1	<restrictionQualifiers>	2	<restrictionQualifier>Month</restrictionQualifier>	3	</restrictionQualifiers>	1	<restrictionQualifiers>	2	<restrictionQualifier>Jan</restrictionQualifier>	3	<restrictionQualifier>CustomDay1</restrictionQualifier>	4	</restrictionQualifiers>	1	"restrictionQualifiers":	2	[	3	{	4	"value": "Jan"	5	},	6	{	7	"value":	8	"CustomDay1"		}		]	Valid values: • As String = Jan, As Value = 0 • As String = Feb, As Value = 1 • As String = Mar, As Value = 2 • As String = Apr, As Value = 3 • As String = May, As Value = 4 • As String = Jun, As Value = 5 • As String = Jul, As Value = 6 • As String = Aug, As Value = 7 • As String = Sep, As Value = 8 • As String = Oct, As Value = 9 • As String = Nov, As Value = 10 • As String = Dec, As Value = 11 • As String = Month, As Value = 12 • As String = Year, As Value = 13 • As String = Week, As Value = 14 • As String = Quarter, As Value = 15	Y (if <code>restrictionComplex</code> is true)
1	<restrictionQualifiers>																																					
2	<restrictionQualifier>Month</restrictionQualifier>																																					
3	</restrictionQualifiers>																																					
1	<restrictionQualifiers>																																					
2	<restrictionQualifier>Jan</restrictionQualifier>																																					
3	<restrictionQualifier>CustomDay1</restrictionQualifier>																																					
4	</restrictionQualifiers>																																					
1	"restrictionQualifiers":																																					
2	[																																					
3	{																																					
4	"value": "Jan"																																					
5	},																																					
6	{																																					
7	"value":																																					
8	"CustomDay1"																																					
	}																																					
	]																																					

Property	UI Field Name	Description	Specifications	Required
		1 2 3 <pre><restrictionQualifiers> <restrictionQualifier local="true">CustomDay2< /restrictionQualifier> </restrictionQualifiers></pre> JSON 1 2 3 4 5 6 <pre>"restrictionQualifiers": [{ "local": true, "value": "CustomDay1" }]</pre> Note The Calendar for the trigger is used to verify Custom Day references.		
restrictionSimple	Simple Restriction	Set only if <code>restriction</code> is true; Specification to set a simple restriction based on a specific <code>situation</code> .	Boolean; Valid values: true/false. Default is false.	Y (if <code>restrictionComplex</code> is false.)
retainSysIds	n/a	Specification for whether or not the web service will persist the <code>sysId</code> property. - If <code>retainSysIds</code>="true" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database. - If <code>retainSysIds</code>="false" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller. Note In XML web services, <code>retainSysIds</code> is specified as an attribute in the <code><trigger></code> element.	Valid values: true/false (default is true).	N

Property	UI Field Name	Description	Specifications	Required
retentionDuration	Retention Duration	Set only if <code>retentionDurationPurge</code> is selected; Minimum retention duration for the selected <code>retentionDurationUnit</code> before triggered task instances can qualify for purge.	Integer	N
retentionDurationPurge	Purge By Retention Duration	Specification for whether triggered task instances can be purged by retention duration.	Boolean; Valid values: true/false. Default is false.	N
retentionDurationUnit	Retention Duration Unit	Set only if <code>retentionDurationPurge</code> is selected; Retention duration unit.	Valid values: - As String = Hours, As Value = 3 - As String = Days, As Value = 4 Default is Days (4).	N
simulateTasks	Simulate	Specifies if the instances generated by this trigger should execute under simulation mode.	Boolean; Valid values: true/false. Default is false.	N
simulationOption	Simulate Forecast	For Cron, Temporary, and Time triggers only; Enables the override of the Enable Trigger Simulation Universal Controller system property specification for whether or not to simulate the launching of tasks when triggers are eligible to fire. (If <code>simulationOption</code> is enabled, only the scheduled launch of the task by the trigger is inhibited.)	Valid values: –System Default –, As Value = 0 - As String = True, As Value = 1 - As String = False, As Value = 2 Default is –System Default – (0).	N
situation	Situation	Type of day that causes the Controller to initiate the specified <code>action</code> .	Valid values: - As String = Holiday, As Value = 1 - As String = Non Business Day, As Value = 2 Default is Holiday (1).	Y (if <code>restrictionSimple</code> is true)
skipActive	Skip Trigger if Active	Deprecated. Indication for whether or not the Controller should skip the next run of the specified task(s) if the previous run has not gone to a Complete status (that is, it is still active).	Boolean; Valid values: true/false. Default is false.	N
skipAfterDate	Skip After Date	Date after which the trigger will be skipped.		N
skipAfterTime	Skip After Time	Time after which the trigger will be skipped.		N
skipBeforeDate	Skip Before Date	Date before which the trigger will be skipped.		N

Property	UI Field Name	Description	Specifications	Required
skipBeforeTime	Skip Before Time	Time before which the trigger will be skipped.		N
skipCondition	Task Launch Skip Condition	Controls when launching a task for the trigger will be skipped. Note When reading a Trigger, both skipActive and skipCondition are returned. When creating/ updating a Trigger, skipCondition is used if present. If skipCondition is not present, skipActive is used. If both skipActive and skipCondition are present, skipActive can be set to true only if skipCondition is Active (1).	Valid values: - As String = None, As Value = 0 - As String = Active, As Value = 1 - As String = Active By Trigger, As Value = 2 Default is None (0).	N
skipCount	Skip Count	Specification that the Controller should skip the next N times that this task is triggered.	Integer; Default is 0.	N
skipDateList	Skip Date List	Date(s) on which the trigger will be skipped.		
skipRestriction	Skip Restriction	Specification for when the trigger should skip and not launch the task(s).	Valid values: - As String = None, As Value = 0 - As String = Before, As Value = 1 - As String = After, As Value = 2 - As String = Span, As Value = 3 - As String = On, As Value = 4 Default is None (0).	
sysId	n/a	System ID field in the database for this trigger.	Persisted only if retainSysIds is set to true.	N

Property	UI Field Name	Description	Specifications	Required
tasks	Tasks	Name of the task(s) being triggered when this trigger is satisfied. XML <pre><tasks> <task>uc - Demo</task> </tasks></pre> JSON <pre>"tasks": ["uc - Demo"]</pre>		Y
timeZone	Time Zone	Name of the time zone that will be applied to the time(s) specified in the trigger.		Y
version	n/a	For Read and List web services; specification of the version being read or listed. Note In XML web services, <code>version</code> is specified as an attribute in the <code><trigger></code> element.		Y

4.34.12.7.2 Trigger Properties - Composite Trigger

Property	UI Field Name	Description	Specifications	Required
enabledEnd	Enabled End	End time of the period during which the trigger should be active.	Use 24-hour time; format is hh:mm	Y (if <code>restrictedTimes</code> is true)
enabledStart	Enabled Start	Start time of the period during which the trigger should be active.	Use 24-hour time; format is hh:mm	Y (if <code>restrictedTimes</code> is true)
queueDepth	Queue Depth	Number of events that are maintained in the queue for each component at any time. To maintain <code>queueDepth</code> , the Controller discards the oldest events.	Integer; Valid values: 1-100. Default is 100.	N

Property	UI Field Name	Description	Specifications	Required
<code>restrictedTimes</code>	Restrict Times	Indication that the trigger is active only during the period specified by <code>enabledStart</code> and <code>enabledEnd</code> .	Boolean; Valid values: true/false.	N
<code>timeLimit</code>	Time Limit	Amount of time (in <code>timeLimitUnits</code>) that component events will remain in their queue before being removed.	Integer	N
<code>timeLimitUnits</code>	Time Limit Unit	Unit of time specified in the <code>timeLimit</code> .	Valid Values: • As String = Seconds, As Value = 1 • As String = Minutes, As Value = 2 • As String = Hours, As Value = 3 • As String = Days, As Value = 4 Default is Minutes (2).	N

4.34.12.7.3 Trigger Properties - All Composite Trigger Components

Property	UI Field Name	Description	Specifications	Required
<code>action</code>	Action	For all trigger types except Manual and Temporary; Action to take on a non-business day or holiday (see <code>situation</code>).	Valid values: • As String = Do Not Trigger, As Value = 1 • As String = Next Day, As Value = 2 • As String = Next Business Day, As Value = 3 • As String = Previous Day, As Value = 4 • As String = Previous Business Day, As Value = 5 Default is Do Not Trigger (1). Note The following values are valid only for Cron and Time triggers: • Next Day (2) • Next Business Day (3) • Previous Day (4) • Previous Business Day (5)	Y (if <code>restriction</code> is true)
<code>description</code>	Description	Description of this component.		N

Property	UI Field Name	Description	Specifications	Required
<code>enabledEnd</code>	Enabled End	End time of the period during which the component should be active.	Use 24-hour time; format is hh:mm	Y (if <code>restrictedTimes</code> is true)
<code>enabledStart</code>	Enabled Start	Start time of the period during which the component should be active.	Use 24-hour time; format is hh:mm	Y (if <code>restrictedTimes</code> is true)
<code>name</code>	Name	Name used within the Controller to identify this component.	Maximum 255 alphanumerics.	Y
<code>restrictedTimes</code>	Restrict Times	Indication that the trigger is active only during the period specified by <code>enabledStart</code> and <code>enabledEnd</code> .	Boolean; Valid values: true/false.	N
<code>restriction</code>	Special Restriction	Indication of whether or not you want to specify additional parameters that tell the Controller how to handle exceptions, such as when the trigger is satisfied on a holiday or non-business day. You can specify simple and/or complex restrictions. For example, you can specify a <code>simpleRestriction</code> that disables the trigger if it is satisfied on a holiday identified in the calendar and/or a <code>restrictionComplex</code> that disables the trigger on the last business day of every month.	Boolean; Valid values: true/false. Default is false.	N
<code>restrictionAdjective</code>	Restriction Adjective	Type of selection for <code>restrictionNoun</code> .	Valid values: • As String = Every, As Value = 0 • As String = 1st, As Value = 1 • As String = 2nd, As Value = 2 • As String = 3rd, As Value = 3 • As String = 4th, As Value = 4 • As String = Last, As Value = 5 • As String = Nth, As Value = 6 Default is Every (0).	Y (if <code>restrictionComplex</code> is enabled)
<code>restrictionComplex</code>	Complex Restriction	Set only if <code>restriction</code> is true; Set of parameters that determine one or more situations when this trigger should not be satisfied. Used in conjunction with <code>restrictionMode</code> , <code>restrictionAdjective</code> , <code>restrictionNoun</code> , and <code>restrictionQualifier</code> . For example, you can specify that you do not want to satisfy this trigger on the last business day of the year or the first day of each month.	Boolean; Valid values: true/false. Default is false.	Y (if <code>restrictionSimple</code> is false.)

Property	UI Field Name	Description	Specifications	Required
<code>restrictionMode</code>	Restriction Mode	Set only if <code>restrictionSimple</code> is true; Specification for whether you want to use <code>restrictionSimple</code> - and/or <code>restrictionComplex</code> -related values.	Valid values: - As String = And, As Value = 1 - As String = Or, As Value = 2 Default is Or (2).	Y (if <code>restrictionSimple</code> and <code>restrictionComplex</code> are true).
<code>restrictionNoun</code>	Restriction Noun	Day to restrict the trigger to. To specify a Custom Day, use the name of the Custom Day. For example: XML <pre><restrictionNoun>CustomDay1</restrictionNoun></pre> JSON <pre>"restrictionNoun": { "value": "CustomDay1" }</pre> To specify a Local Custom Day, use the local attribute. For example: XML <pre><restrictionNoun local="true">CustomDay2</restrictionNoun></pre> JSON <pre>"restrictionNoun": { "local": "true", "value": "CustomDay2" }</pre> Note The Calendar for the Composite trigger is used to verify Custom Day references.	Valid values: - As String = Sunday, As Value = 1 - As String = Monday, As Value = 2 - As String = Tuesday, As Value = 3 - As String = Wednesday, As Value = 4 - As String = Thursday, As Value = 5 - As String = Friday, As Value = 6 - As String = Saturday, As Value = 7 - As String = Day, As Value = 8 - As String = Business Day, As Value = 9	Y (if <code>restrictionComplex</code> is true)
<code>restrictionNthAmount</code>	Restriction Nth Amount	Set only if <code>restrictionAdjective</code> is Nth (6); value of N.	Integer	Y (if <code>restrictionAdjective</code> is Nth)

Property	UI Field Name	Description	Specifications	Required
<code>restrictionQualifier</code>	Restriction Qualifier	Period to restrict the trigger to. To specify a Custom Day Period, use the name of the Custom Day Period. For example: XML <pre><restrictionQualifier>CustomDayPeriod1</restrictionQualifier></pre> JSON <pre>"restrictionQualifier": { "value": "CustomDayPeriod1" }</pre> To specify a Local Custom Day Period, use the local attribute. For example: XML <pre><restrictionQualifier local="true">CustomDayPeriod2</restrictionQualifier></pre> JSON <pre>"restrictionQualifier": { "local": "true", "value": "CustomDayPeriod2" }</pre> Note The Calendar for the Composite trigger is used to verify Custom Day references.	Valid values: • As String = Jan, As Value = 0 • As String = Feb, As Value = 1 • As String = Mar, As Value = 2 • As String = Apr, As Value = 3 • As String = May, As Value = 4 • As String = Jun, As Value = 5 • As String = Jul, As Value = 6 • As String = Aug, As Value = 7 • As String = Sep, As Value = 8 • As String = Oct, As Value = 9 • As String = Nov, As Value = 10 • As String = Dec, As Value = 11 • As String = Month, As Value = 12 • As String = Year, As Value = 13 • As String = Week, As Value = 14	Y (if <code>restrictionComplex</code> is true)
<code>restrictionSimple</code>	Simple Restriction	Set only if <code>restriction</code> is true; Specification to set a simple restriction based on a specific <code>situation</code> .	Boolean; Valid values: true/false. Default is false.	Y (if <code>restrictionComplex</code> is false)
<code>situation</code>	Situation	Type of day that causes the Controller to initiate the specified <code>action</code> .	Valid values: • As String = Holiday, As Value = 1 • As String = Non Business Day, As Value = 2 Default is Holiday (1).	Y (if <code>restrictionSimple</code> is true)
<code>variablePrefix</code>	Built-in Variable Prefix	Prefix that enables built-in variables to be propagated up to the Composite trigger.		N

4.34.12.7.4 Trigger Properties - Composite Trigger Time Component

Property	UI Field Name	Description	Specifications	Required
<code>adjustInterval</code>	Adjust Interval To Enable Start	Set only if <code>restrictedTimes</code> is true; Specification for whether to always begin at the <code>enabledStart</code> (true) or based upon the actual interval (false).	Boolean; Valid values: true/false. Default is true.	N
<code>adjustmentAmount</code>	Adjustment Amount	Set only if <code>dayStyle</code> is Complex; Number of Days or Business Days to adjust your date setting.	Integer.	Y (if <code>dateAdjustment</code> is less (1) or plus (2))
<code>adjustmentType</code>	Adjustment Type	Set only if <code>dayStyle</code> is Complex; Type of day by which to adjust your date setting.	Valid values: - As String = Day, As Value = 1 - As String = Business Day, As Value = 2 Default is Day (1).	Y (if <code>dateAdjustment</code> is less (1) or plus (2))
<code>dateAdjective</code>	Date Adjective	If <code>dayStyle</code> is Complex; Which in a series of days to select. Used in conjunction with <code>dateNouns</code> and <code>dateQualifiers</code> . For example, to specify the 2nd to last day of the month (last day of the month less one day), select <code>dateAdjective</code> = Last, <code>dateNouns</code> = Day, <code>dateQualifier s</code> = Month, <code>dateAdjustment</code> = Less, <code>adjustmentAmount</code> = 1, and <code>adjustmentType</code> = Day.	Valid values: - As String = Every, As Value = 0 - As String = 1st, As Value = 1 - As String = 2nd, As Value = 2 - As String = 3rd, As Value = 3 - As String = 4th, As Value = 4 - As String = Last, As Value = 5 - As String = Nth, As Value = 6 Default is Every (0).	Y (if <code>dayStyle</code> is Complex)
<code>dateAdjustment</code>	Date Adjustment	If <code>dayStyle</code> is Complex; Specification for adjusting your date setting by a less or plus number of Days or Business Days. For example, to specify the 2nd to last day of the month (last day of the month less one day), select <code>dateAdjective</code> = Last, <code>dateNouns</code> = Day, <code>dateQualifier s</code> = Month, <code>dateAdjustment</code> = Less, <code>adjustmentAmount</code> = 1, and <code>adjustmentType</code> = Day.	Valid values: - As String = None, As Value = 0 - As String = Less, As Value = 1 - As String = Plus, As Value = 2 Default is None (0).	N

Property	UI Field Name	Description	Specifications	Required
dateNoun	Date Noun	Type of day you want to select. Used in conjunction with <code>dateAdjective</code> and <code>dateQualifier</code>. For example, to specify "the 15th business day of the month," select <code>dateAdjective = Nth</code>, <code>dateNoun = Business Day</code>, <code>dateQualifier = Month</code>, and <code>nthAmount = 15</code>. To specify a Custom Day, use the name of the Custom Day. For example: XML <pre><dateNoun>CustomDay1</dateNoun></pre> JSON <pre>"dateNoun": { "value": "CustomDay1" }</pre> To specify a Local Custom Day, use the local attribute. For example: XML <pre><dateNoun local="true">CustomDay2</dateNoun></pre> JSON <pre>"dateNoun": { "local": "true", "value": "CustomDay2" }</pre> Note The Calendar for the Composite trigger is used to verify Custom Day references.	Valid values: - As String = Sunday, As Value = 1 - As String = Monday, As Value = 2 - As String = Tuesday, As Value = 3 - As String = Wednesday, As Value = 4 - As String = Thursday, As Value = 5 - As String = Friday, As Value = 6 - As String = Saturday, As Value = 7 - As String = Day, As Value = 8 - As String = Business Day, As Value = 9	Y (if <code>dayStyle</code> is Complex)

Property	UI Field Name	Description	Specifications	Required
dateQualifier	Date Qualifier	Period for your date selection. Used in conjunction with <code>dateNoun</code> and <code>dateAdjective</code>. For example, to specify "the 15th business day of the month," select <code>dateAdjective = Nth</code>, <code>dateNoun = Business Day</code>, <code>dateQualifier = Month</code>, and <code>nthAmount = 15</code>. To specify a Custom Day, use the name of the Custom Day. For example: XML <pre><dateQualifier>CustomDayPeriod1</dateQualifier></pre> JSON <pre>"dateQualifier": { "value": "CustomDayPeriod1" }</pre> To specify a Local Custom Day, use the local attribute. For example: XML <pre><dateQualifier local="true">CustomDayPeriod2</dateQualifier></pre> JSON <pre>"dateQualifier": { "local": "true", "value": "CustomDayPeriod2" }</pre> Note The Calendar for the Composite trigger is used to verify Custom Day references.	Valid values: • As String = Jan, As Value = 0 • As String = Feb, As Value = 1 • As String = Mar, As Value = 2 • As String = Apr, As Value = 3 • As String = May, As Value = 4 • As String = Jun, As Value = 5 • As String = Jul, As Value = 6 • As String = Aug, As Value = 7 • As String = Sep, As Value = 8 • As String = Oct, As Value = 9 • As String = Nov, As Value = 10 • As String = Dec, As Value = 11 • As String = Month, As Value = 12 • As String = Year, As Value = 13 • As String = Week, As Value = 14	Y (if <code>dayStyle</code> is Complex)
dayInterval	Day Interval	Interval (number of days) at which this trigger will run.	Integer.	Y (if <code>dayStyle</code> is Every)

Property	UI Field Name	Description	Specifications	Required
dayStyle	Day Style	Indication of when this trigger will be run.	Valid values: - As String = Simple, As Value = 1 - As String = Complex, As Value = 2 - As String = Every, As Value = 3 Default is Simple (1).	Y
eventMatchType	Event Match Type	Controls whether events from the Time component will be used for a single match or multiple matches at the Composite trigger level.	Valid values: - As String = Single, As Value = 1 - As String = Multiple, As Value = 2 Default is Single (1). Note You can select Multiple only if <code>timeLimit</code> is specified in the Composite Trigger Details.	N
fri	Friday	Set only if <code>simpleDateType</code> is Specific Days; Indicates that the this trigger will be run on Friday.	Boolean; Valid values: true/false. Default is false.	N
intervalStartingDate	Interval Start	First day of the interval on which this trigger will run.	Format: yyyy-mm-dd	Y (if <code>dayStyle</code> is Every)
mon	Monday	Set only if <code>simpleDateType</code> is Specific Days; Indicates that the this trigger will be run on Monday.	Boolean; Valid values: true/false. Default is false.	N
nthAmount	Nth Amount	Value of N.	Integer	Y (if <code>dateAdjective</code> is Nth)
sat	Saturday	Set only if <code>simpleDateType</code> is Specific Days; Indicates that the this trigger will be run on Saturday.	Boolean; Valid values: true/false. Default is false.	N
simpleDateType	n/a	Indication of when this trigger will be run.	Valid values: - As String = Daily, As Value = 1 - As String = Business Days, As Value = 2 - As String = Specific Days, As Value = 3 Default is Daily (1).	Y (if <code>dayStyle</code> is Simple)

Property	UI Field Name	Description	Specifications	Required
startingAt	Initial Time Offset	Set only if <code>timeStyle</code> is Interval; Starting time, in minutes offset from the hour.	Format is hh:mm	Y (if <code>startTimeEnable</code> is true)
startTimeEnable	Enable Offset	Set only if <code>timeStyle</code> is Interval; Indication of whether you want to specify (in <code>startingAt</code>) a starting time, in minutes offset from the hour, for the trigger to run.	Boolean; Valid values: true/false. Default is false.	N
sun	Sunday	Set only if <code>simpleDateType</code> is Specific Days; Indicates that the this trigger will be run on Sunday.	Boolean; Valid values: true/false. Default is false.	N
thu	Thursday	Set only if <code>simpleDateType</code> is Specific Days; Indicates that the this trigger will be run on Thursday.	Boolean; Valid values: true/false. Default is false.	N
time	Time	Time when the trigger will be run.	Format is hh:mm, using 24-hour time.	Y (if <code>timeStyle</code> is Absolute)
timeInterval	Time Interval	Number of <code>timeIntervalUnits</code> .	Integer	Y (if <code>timeStyle</code> is Interval)
timeIntervalUnits	Time Interval Units	Type of time interval.	Valid values: - As String = Seconds, As Value = 1 - As String = Minutes, As Value = 2 - As String = Hours, As Value = 3 Default is Hours (3).	Y (if <code>timeStyle</code> is Interval)
timeStyle	Time Style	Indicates whether this trigger is for a specific time or a series of times.	Valid values: - As String = Absolute, As Value = 1 - As String = Interval, As Value = 2 Default is Absolute (1).	N
tue	Tuesday	Set only if <code>simpleDateType</code> is Specific Days; Indicates that the this trigger will be run on Tuesday.	Boolean; Valid values: true/false. Default is false.	N
wed	Wednesday	Set only if <code>simpleDateType</code> is Specific Days; Indicates that the this trigger will be run on Wednesday.	Boolean; Valid values: true/false. Default is false.	N

4.34.12.7.5 Trigger Properties - Composite Trigger File Monitor Component

Property	UI Field Name	Description	Specifications	Required
fileMonitor	File Monitor	Name of the File Monitor task to be triggered.		Y

4.34.12.7.6 Trigger Properties - Composite Trigger Task Monitor Component

Property	UI Field Name	Description	Specifications	Required
taskMonitor	Name	Name of the Task Monitor task to be triggered.		Y

4.34.12.7.7 Trigger Properties - Composite Trigger Variable Monitor Component

Property	UI Field Name	Description	Specifications	Required
variableMonitor	Name	Name of the Variable Monitor task to be triggered.		Y

4.34.12.7.8 Trigger Properties - Composite Trigger Email Monitor Component

Property	UI Field Name	Description	Specifications	Required
emailMonitor	Name	Name of the Email Monitor task to be triggered.		Y

4.34.12.7.9 Trigger Properties - Composite Trigger Universal Monitor Component

Property	UI Field Name	Description	Specifications	Required
universalMonitor	Name	Name of the Universal Monitor task to be triggered.		Y

4.34.12.7.10 Trigger Properties - Composite Trigger z/OS Monitor Component

Property	UI Field Name	Description	Specifications	Required
zosMonitor	Name	Name of the z/OS Monitor task to be triggered.		Y

4.34.12.7.11 Trigger-Related Records Properties: Variables

Property	UI Field Name	Description	Specifications	Required
description	Description	Description of the variable.		N
name	Name	Name of the variable.		Y
value	Value	Value of the variable.		Y

4.34.12.7.12 Trigger-Related Records Properties: Notes

Property	UI Field Name	Description	Specifications	Required
sysId	n/a	System ID field in the database for the Note.		N
text	Text	Text of the Note.		N
title	Title	Title of the Note.		N

4.34.13 Cron Trigger Web Services

- [Overview](#)
- [Create a Cron Trigger](#)
- [Modify a Cron Trigger](#)
- [Read a Cron Trigger](#)
 - [Read a Cron Trigger: URI Parameters](#)
- [Cron Trigger: XML and JSON Examples](#)
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- [Trigger-Related Records Properties: Notes](#)
- [List Trigger Qualifying Times](#)
 - [List Trigger Qualifying Times: URI Parameters](#)
 - [List Trigger Qualifying Times: XML and JSON Examples](#)

4.34.13.1 Overview

Universal Controller supports the following RESTful-based web services for Cron Trigger operations, which are listed alphabetically on this page.

- [Create a Cron Trigger](#)
- [Modify a Cron Trigger](#)
- [Read a Cron Trigger](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Note

For information on Trigger web services that are applicable to all trigger types, see:

- [Delete a Trigger](#)
- [Enable/Disable a Trigger](#)
- [List Triggers](#)
- [Trigger a Task](#)

4.34.13.2 Create a Cron Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	POST
Description	Creates a new Cron trigger.
Example URI	http://localhost:8080/uc/resources/trigger
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Cron Trigger: XML and JSON Examples .
Trigger Properties	• See Trigger Properties: All Triggers. • See Trigger Properties: Cron Trigger.
Trigger-Related Record Properties	• See Trigger-Related Records Properties: Variables. • See Trigger-Related Records Properties: Notes.

	Description
Example Response	Status 200 /OK Successfully created the <trigger type> trigger.

4.34.13.3 Modify a Cron Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	PUT
Description	Modifies the trigger specified by the sysId in the request. To modify Cron Trigger properties without modifying related records, use the excludeRelated property.
Example URI	http://localhost:8080/uc/resources/trigger
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Cron Trigger: XML and JSON Examples .
Trigger Properties	- See Trigger Properties: All Triggers. - See Trigger Properties: Cron Trigger.
Trigger-Related Record Properties	- See Trigger-Related Records Properties: Variables. - See Trigger-Related Records Properties: Notes.
Example Response	Status 200 /OK Successfully updated the <trigger type> trigger to version <version>.

4.34.13.4 Read a Cron Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	GET
Description	Retrieves information for the specified trigger
URI Parameters	See Read a Cron Trigger: URI Parameters .
Example URI	http://localhost:8080/uc/resources/trigger?triggername=testTrigger http://localhost:8080/uc/resources/trigger?triggerid=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json

	Description
Trigger Properties	- See Trigger Properties: All Triggers. - See Trigger Properties: Cron Trigger.
Trigger-Related Record Properties	- See Trigger-Related Records Properties: Variables. - See Trigger-Related Records Properties: Notes.
Example Response	- Status 200 /OK (See Cron Trigger: XML and JSON Examples.) - Status 404 /Not Found A trigger with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

4.34.13.4.1 Read a Cron Trigger: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
triggerid	Unique ID for this trigger.		Y (unless triggername is specified)	triggername
triggername	Name used within the Controller to identify this trigger.	Maximum 40 alphanumerics.	Y (unless triggerid is specified)	triggerid

4.34.13.5 Cron Trigger: XML and JSON Examples

In the XML web service, the [exportReleaseLevel](#), [exportTable](#), [retainSysIds](#), and [version](#) properties are specified as attributes in the <trigger> element.

Examples	XML	JSON
Example for Trigger	<pre>XML <triggerCron exportReleaseLevel="7.2.0.0" exportTable="ops_trigger_cron" retainSysIds="true" version="1"> <variables /> <action>Do Not Trigger</action> <notes /> <calendar>System Default</calendar> <dayLogic>And</dayLogic> <dayOfMonth>*</dayOfMonth> <dayOfWeek>Mon-Fri</dayOfWeek> <description /></pre>	<pre>JSON { "type": "triggerCron", "action": "Do Not Trigger", "calendar": "System Default", "dayLogic": "And", "dayOfMonth": "*", "dayOfWeek": "Mon-Fri", "description": null, "disabledBy": "", "disabledTime": "", "enabled": true, "enabledBy": "ops.admin", "enabledTime": "2021-03-03 12:46:11 -0500", "exportReleaseLevel":</pre>

Examples	XML	JSON
	<pre> <disabledBy></disabledBy> <disabledTime></ disabledTime> <enabled>true</enabled> <enabledBy>ops.admin</ enabledBy> <enabledTime>2021-03-03 12:46:11 -0500</enabledTime> <forecast>>false</forecast> <hours>9-17</hours> <minutes>0</minutes> <month>*</month> <name>Test- Every hour from Mon-Fri between 9am and 5pm</name> <nextScheduleTime>2021-03 -04 00:00:00 -0500</ nextScheduleTime> <opswiseGroups /> <rdExcludeBackup>true</ rdExcludeBackup> <restrictedTimes>>false</ restrictedTimes> <restriction>>false</ restriction> <restrictionAdjective>Eve ry</restrictionAdjective> <restrictionComplex>>false </restrictionComplex> <restrictionMode>Or</ restrictionMode> <restrictionNouns> <restrictionNoun>Day</ restrictionNoun> </restrictionNouns> <restrictionNthAmount /> <restrictionQualifiers> <restrictionQualifier>Year</ restrictionQualifier> </restrictionQualifiers> <restrictionSimple>>false< /restrictionSimple> <retentionDuration>1</ retentionDuration> <retentionDurationPurge>t rue</retentionDurationPurge> <retentionDurationUnit>Da ys</retentionDurationUnit> <simulationOption>-- System Default --</ simulationOption> <situation>Holiday</ situation> <skipAfterDate>2020-05-28 </pre>	<pre> "7.2.0.0", "exportTable": "ops_trigger_cron", "forecast": false, "hours": "9-17", "minutes": "0", "month": "*", "name": "Test- Every hour from Mon-Fri between 9am and 5pm", "nextScheduledTime": "2021-03-04 00:00:00 -0500", "notes": [], "opswiseGroups": [], "rdExcludeBackup": true, "restrictedTimes": false, "restriction": false, "restrictionAdjective": "Every", "restrictionComplex": false, "restrictionMode": "Or", "restrictionNouns": [{ "value": "Day" }], "restrictionNthAmount": null, "restrictionQualifiers": [{ "value": "Year" }], "restrictionSimple": false, "retainSysIds": true, "retentionDuration": 1, "retentionDurationPurge": true, "retentionDurationUnit": "Days", "simulationOption": "-- System Default --", "situation": "Holiday", "skipAfterDate": "2020-05-28", "skipAfterTime": "02:15", "skipBeforeDate": "2020-05-30", "skipBeforeTime": "17:30", "skipCondition": "None", "skipCount": 0, </pre>

Examples	XML	JSON
	<pre> </skipAfterDate> <skipAfterTime>02:15</skipAfterTime> <skipBeforeDate>2020-05-30</skipBeforeDate> <skipBeforeTime>17:30</skipBeforeTime> <skipCondition>None</skipCondition> <skipCount>0</skipCount> <skipDateList /> <skipRestriction>Span</skipRestriction> <sysId>0fc6b7d9c0a801c9017b6c27c259937e</sysId> <tasks> <task>Sleep 30</task> </tasks> <timeZone /> </triggerCron> </pre>	<pre> "skipDateList": [], "skipRestriction": "Span", "sysId": "9c659c9c2c72460c9a2057663257b0be", "tasks": ["Sleep 30"], "timeZone": null, "variables": [], "version": 1 } </pre>
Examples for Trigger-Related Records	Variables XML <pre> <variables> <variable> <description /> <name>testVar</name> <value>value</value> </variable> </variables> </pre> Notes XML <pre> <notes> <note> <sysId>76ad570c64b84f84aeaf281403856b10</sysId> <text>testNoteText</text> <title>testNoteTitle</title> </note> </notes> </pre>	Variables JSON <pre> "variables": [{ "description": "description", "name": "var1", "value": "value1" }] </pre> Notes JSON <pre> "notes": [{ "sysId": "76ad570c64b84f84aeaf281403856b10", "text": "testNoteText", "title": "testNoteTitle" }] </pre>

4.34.13.6 Properties

4.34.13.6.1 Trigger Properties: All Triggers

Note

In the XML web services, the [exportReleaseLevel](#) and [exportTable](#) properties are specified as attributes in the <trigger> element.

Property	UI Field Name	Description	Specifications	Required
<code>action</code>	Action	For all trigger types except Manual and Temporary; Action to take on a non-business day or holiday (see <code>situation</code>).	Valid values: • As String = Do Not Trigger, As Value = 1 • As String = Next Day, As Value = 2 • As String = Next Business Day, As Value = 3 • As String = Previous Day, As Value = 4 • As String = Previous Business Day, As Value = 5 Default is Do Not Trigger (1). Note The following values are valid only for Cron and Time triggers: • Next Day (2) • Next Business Day (3) • Previous Day (4) • Previous Business Day (5)	Y (if <code>restrictionNoun</code> is true)
<code>calendar</code>	Calendar	Calendar that defines the business days, holidays, and other special days that determine the run dates for the task(s) specified in the trigger. The Calendar will be used to verify any Custom Day references in <code>restrictionNoun</code>.	Default is System Default.	Y
<code>customField1</code>	n/a	User-Defined field. Example: <code><customField1 label="Domain">web.com</customField1></code>	The label is included only if a value has been defined for the User Defined Trigger Field 1 Label Universal Controller system property.	N
<code>customField2</code>	n/a	User-Defined field. Example: <code><customField2 label="Domain">web.com</customField2></code>	The label is included only if a value has been defined for the User Defined Trigger Field 2 Label Universal Controller system property.	N
<code>description</code>	Description	Description of this trigger.		N

Property	UI Field Name	Description	Specifications	Required
disabledBy	Disabled By	System-supplied. If Status = Enabled, ID of the user who most recently disabled this trigger.	Read-only.	N
disabledTime	Disabled Time	System-supplied. If Status = Enabled, Date and time that the trigger was disabled.	Read-only.	N
enabled	Status	System-defined; Specification for whether or nor the trigger is enabled. Only enabled triggers are processed by the Controller.	Read-only.	N
enabledBy	Enabled By	System-supplied. If Status = Enabled, ID of the user who most recently enabled this trigger.	Read-only.	N
enabledTime	Enabled Time	System-supplied. If Status = Enabled, Date and time that the trigger was enabled.	Read-only.	N
enforceVariables	Enforce Variables	Specifies whether or not to enforce Override Trigger Variables when using Trigger Now... from the User Interface. Not applicable for Web Service APIs.	Valid values: true/false. Default is false.	N
excludeRelated	n/a	For Modify Trigger web services; specification for whether or not to exclude related records from the update, even if they are provided in the request. Note In XML web services, <code>excludeRelated</code> is specified as an attribute in the <trigger> element.	Valid values: true/false (default is false).	N
exportReleaseLevel	n/a	Universal Controller release that the record was exported from. Note In XML web services, <code>exportReleaseLevel</code> is specified as an attribute in the <trigger> element.	read only	N
exportTable	n/a	Record table information. Note In XML web services, <code>exportTable</code> is specified as an attribute in the <trigger> element.	read only	N
forecast	Forecast	For Cron, Temporary, and Time triggers only; Date and time when this trigger will be satisfied for the next number days, as specified in the Forecast Period In Days Universal Controller system property. The Controller writes the forecasting entries to the Forecasts List .	Boolean; Valid values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
<code>lockVariables</code>	Lock Variables	Specifies whether or not to prevent editing variables when using Trigger Now... from the User Interface. Not applicable for Web Service APIs.	Boolean; Valid values: true/false. Default is false.	N
<code>name</code>	Name	Name used within the Controller to identify this trigger.	Maximum 255 alphanumerics.	Y
<code>nextScheduledTime</code>	Next Scheduled Time	System-supplied; for time-based triggers. If Status = Enabled, the next date and time this trigger will be satisfied. See Displaying Trigger Forecast Information .	Read-only.	N
<code>opswiseGroups</code>	Member of Business Services	List of Business Service(s) that this trigger belongs to. XML <pre><opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups></pre> JSON <pre>"opswiseGroups": ["test"]</pre>		N
<code>rdExcludeBackup</code>	Exclude Backup	Set only if <code>retentionDurationPurge</code> is selected; Specification for whether qualifying task instances can be excluded from the backup when being purged by retention duration.	Boolean; Valid values: true/false. Default is false.	N
<code>restriction</code>	Special Restriction	Indication of whether or not you want to specify additional parameters that tell the Controller how to handle exceptions, such as when the trigger is satisfied on a holiday or non-business day. You can specify simple and/or complex restrictions. For example, you can specify a <code>simpleRestriction</code> that disables the trigger if it is satisfied on a holiday identified in the calendar and/or a <code>restrictionComplex</code> that disables the trigger on the last business day of every month.	Boolean; Valid values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
<code>restrictionAdjective</code>	Restriction Adjective	Type of selection for <code>restrictionNoun</code> .	Valid values: - As String = Every, As Value = 0 - As String = 1st, As Value = 1 - As String = 2nd, As Value = 2 - As String = 3rd, As Value = 3 - As String = 4th, As Value = 4 - As String = Last, As Value = 5 - As String = Nth, As Value = 6 Default is Every (0).	Y (if <code>restrictionComplex</code> is enabled)
<code>restrictionComplex</code>	Complex Restriction	Set only if <code>restriction</code> is true; Set of parameters that determine one or more situations when this trigger should not be satisfied. Used in conjunction with <code>restrictionMode</code> , <code>restrictionAdjective</code> , <code>restrictionNoun</code> , and <code>restrictionQualifier</code> . For example, you can specify that you do not want to satisfy this trigger on the last business day of the year or the first day of each month.	Boolean; Valid values: true/false. Default is false.	Y (if <code>restrictionSimple</code> is false)
<code>restrictionMode</code>	Restriction Mode	Set only if <code>restrictionSimple</code> is true; Specification for whether you want to use <code>restrictionSimple</code> - and/or <code>restrictionComplex</code> -related values.	Valid values: - As String = And, As Value = 1 - As String = Or, As Value = 2 Default is Or (2).	Y (if <code>restrictionSimple</code> and <code>restrictionComplex</code> are true)

Property	UI Field Name	Description	Specifications	Required
restrictionNoun	Restriction Noun	Deprecated. Day to restrict the trigger to. To specify a Custom Day, use the name of the Custom Day. For example: XML <code><restrictionNoun>CustomDay1</restrictionNoun></code> JSON <pre>"restrictionNoun": { "value": "CustomDay1" }</pre> To specify a Local Custom Day, use the local attribute. For example: XML <code><restrictionNoun local="true">CustomDay2</restrictionNoun></code> JSON <pre>"restrictionNoun": { "local": "true", "value": "CustomDay2" }</pre> Note The Calendar for the trigger is used to verify Custom Day references.	Valid values: • As String = Sunday, As Value = 1 • As String = Monday, As Value = 2 • As String = Tuesday, As Value = 3 • As String = Wednesday, As Value = 4 • As String = Thursday, As Value = 5 • As String = Friday, As Value = 6 • As String = Saturday, As Value = 7 • As String = Day, As Value = 8 • As String = Business Day, As Value = 9	Y (if restrictionComplex is true)

Property	UI Field Name	Description	Specifications	Required																																
restrictionNouns	Restriction Noun(s)	Day to restrict the trigger to. Used with <code>restrictionAdjective</code>, <code>restrictionQualifiers</code>, and <code>restrictionNthAmount</code> (if <code>restrictionAdjective</code> is Nth) to specify the type of days you want to select. For example, to specify "the 1st business day of the month," select <code>restrictionAdjective</code> as 1st, <code>restrictionNouns</code> as Business Day, and <code>restrictionQualifiers</code> as Month. Example: <table><tr><td>1</td><td><restrictionNouns></td></tr><tr><td>2</td><td><restrictionNoun>Business Day</restrictionNoun></td></tr><tr><td>3</td><td></restrictionNouns></td></tr></table> To specify a Custom Day, use the name of the Custom Day. For example: XML <table><tr><td>1</td><td><restrictionNouns></td></tr><tr><td>2</td><td><restrictionNoun>Monday</restrictionNoun></td></tr><tr><td>3</td><td><restrictionNoun>CustomDay 1</restrictionNoun></td></tr><tr><td>4</td><td></restrictionNouns></td></tr></table> JSON <table><tr><td>1</td><td>"restrictionNouns": [</td></tr><tr><td>2</td><td>{</td></tr><tr><td>3</td><td> "value": "Monday"</td></tr><tr><td>4</td><td>},</td></tr><tr><td>5</td><td>{</td></tr><tr><td>6</td><td> "value": "CustomDay1"</td></tr><tr><td>7</td><td>}</td></tr><tr><td>8</td><td>]</td></tr></table> To specify a Local Custom Day, use the local attribute. For example: XML <table><tr><td>1</td><td><restrictionNouns></td></tr></table>	1	<restrictionNouns>	2	<restrictionNoun>Business Day</restrictionNoun>	3	</restrictionNouns>	1	<restrictionNouns>	2	<restrictionNoun>Monday</restrictionNoun>	3	<restrictionNoun>CustomDay 1</restrictionNoun>	4	</restrictionNouns>	1	"restrictionNouns": [	2	{	3	"value": "Monday"	4	},	5	{	6	"value": "CustomDay1"	7	}	8	]	1	<restrictionNouns>	Valid values: • As String = Sunday, As Value = 1 • As String = Monday, As Value = 2 • As String = Tuesday, As Value = 3 • As String = Wednesday, As Value = 4 • As String = Thursday, As Value = 5 • As String = Friday, As Value = 6 • As String = Saturday, As Value = 7 • As String = Day, As Value = 8 • As String = Business Day, As Value = 9 • Custom Days specified in the calendar selected in a Workflow calendar.	Y (if <code>restrictionComplex</code> is true)
1	<restrictionNouns>																																			
2	<restrictionNoun>Business Day</restrictionNoun>																																			
3	</restrictionNouns>																																			
1	<restrictionNouns>																																			
2	<restrictionNoun>Monday</restrictionNoun>																																			
3	<restrictionNoun>CustomDay 1</restrictionNoun>																																			
4	</restrictionNouns>																																			
1	"restrictionNouns": [																																			
2	{																																			
3	"value": "Monday"																																			
4	},																																			
5	{																																			
6	"value": "CustomDay1"																																			
7	}																																			
8	]																																			
1	<restrictionNouns>																																			

Property	UI Field Name	Description	Specifications	Required
		2 <restrictionNoun local="true">CustomDay2</ restrictionNoun> 3 </restrictionNouns> JSON 1 "restrictionNouns": [2 { 3 "local": true, 4 "value": "CustomDay1" 5 } 6] Note The Calendar for the trigger is used to verify Custom Day references.		
restrictionNthAmount	Restriction Nth Amount	Set only if restrictionAdjective is Nth (6); value of N.	Integer	Y (if restrictionAdjective is Nth)

Property	UI Field Name	Description	Specifications	Required
restrictionQualifier	Restriction Qualifier	Deprecated. Period to restrict the trigger to. To specify a Custom Day Period, use the name of the Custom Day Period. For example: XML <restrictionQualifier>CustomDayPeriod1</restrictionQualifier> JSON <pre>"restrictionQualifier": { "value": "CustomDayPeriod1" }</pre> To specify a Local Custom Day Period, use the local attribute. For example: XML <restrictionQualifier local="true">CustomDayPeriod2</restrictionQualifier> JSON <pre>"restrictionQualifier": { "local": "true", "value": "CustomDayPeriod2" }</pre> Note The Calendar for the trigger is used to verify Custom Day references.	Valid values: • As String = Jan, As Value = 0 • As String = Feb, As Value = 1 • As String = Mar, As Value = 2 • As String = Apr, As Value = 3 • As String = May, As Value = 4 • As String = Jun, As Value = 5 • As String = Jul, As Value = 6 • As String = Aug, As Value = 7 • As String = Sep, As Value = 8 • As String = Oct, As Value = 9 • As String = Nov, As Value = 10 • As String = Dec, As Value = 11 • As String = Month, As Value = 12 • As String = Year, As Value = 13	Y (if restrictionComplex is true)

Property	UI Field Name	Description	Specifications	Required																																
restrictionQualifiers	RestrictionQualifier(s)	Period to restrict the trigger to. Used with <code>restrictionAdjective</code>, <code>restrictionQualifiers</code>, and <code>restrictionNthAmount</code> (if <code>restrictionAdjective</code> is Nth) to specify the type of days you want to select. For example, to specify "the 1st business day of the month," select <code>restrictionAdjective</code> as 1st, <code>restrictionNouns</code> as Business Day, and <code>restrictionQualifiers</code> as Month. Example: <table><tr><td>1</td><td><restrictionQualifiers></td></tr><tr><td>2</td><td><restrictionQualifier>Month</restrictionQualifier></td></tr><tr><td>3</td><td></restrictionQualifiers></td></tr></table> To specify a Custom Day, use the name of the Custom Day. For example: XML <table><tr><td>1</td><td><restrictionQualifiers></td></tr><tr><td>2</td><td><restrictionQualifier>Jan</restrictionQualifier></td></tr><tr><td>3</td><td><restrictionQualifier>CustomDay1</restrictionQualifier></td></tr><tr><td>4</td><td></restrictionQualifiers></td></tr></table> JSON <table><tr><td>1</td><td>"restrictionQualifiers": [</td></tr><tr><td>2</td><td>{</td></tr><tr><td>3</td><td> "value": "Jan"</td></tr><tr><td>4</td><td>},</td></tr><tr><td>5</td><td>{</td></tr><tr><td>6</td><td> "value": "CustomDay1"</td></tr><tr><td>7</td><td>}</td></tr><tr><td>8</td><td>]</td></tr></table> To specify a Local Custom Day, use the local attribute. For example: XML <table><tr><td>1</td><td><restrictionQualifiers></td></tr></table>	1	<restrictionQualifiers>	2	<restrictionQualifier>Month</restrictionQualifier>	3	</restrictionQualifiers>	1	<restrictionQualifiers>	2	<restrictionQualifier>Jan</restrictionQualifier>	3	<restrictionQualifier>CustomDay1</restrictionQualifier>	4	</restrictionQualifiers>	1	"restrictionQualifiers": [	2	{	3	"value": "Jan"	4	},	5	{	6	"value": "CustomDay1"	7	}	8	]	1	<restrictionQualifiers>	Valid values: • As String = Jan, As Value = 0 • As String = Feb, As Value = 1 • As String = Mar, As Value = 2 • As String = Apr, As Value = 3 • As String = May, As Value = 4 • As String = Jun, As Value = 5 • As String = Jul, As Value = 6 • As String = Aug, As Value = 7 • As String = Sep, As Value = 8 • As String = Oct, As Value = 9 • As String = Nov, As Value = 10 • As String = Dec, As Value = 11 • As String = Month, As Value = 12 • As String = Year, As Value = 13 • As String = Week, As Value = 14 • As String = Quarter, As Value = 15	Y (if <code>restrictionComplex</code> is true)
1	<restrictionQualifiers>																																			
2	<restrictionQualifier>Month</restrictionQualifier>																																			
3	</restrictionQualifiers>																																			
1	<restrictionQualifiers>																																			
2	<restrictionQualifier>Jan</restrictionQualifier>																																			
3	<restrictionQualifier>CustomDay1</restrictionQualifier>																																			
4	</restrictionQualifiers>																																			
1	"restrictionQualifiers": [																																			
2	{																																			
3	"value": "Jan"																																			
4	},																																			
5	{																																			
6	"value": "CustomDay1"																																			
7	}																																			
8	]																																			
1	<restrictionQualifiers>																																			

Property	UI Field Name	Description	Specifications	Required
		2 <restrictionQualifier local="true">CustomDay2</restrictionQualifier> 3 </restrictionQualifiers> JSON 1 "restrictionQualifiers": [2 { 3 "local": true, 4 "value": "CustomDay1" 5 } 6] Note The Calendar for the trigger is used to verify Custom Day references.		
restrictionSimple	Simple Restriction	Set only if <code>restriction</code> is true; Specification to set a simple restriction based on a specific <code>situation</code> .	Boolean; Valid values: true/false. Default is false.	Y (if <code>restrictionComplex</code> is false)
retainSysIds	n/a	Specification for whether or not the web service will persist the <code>sysId</code> property. - If <code>retainSysIds</code>="true" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database. - If <code>retainSysIds</code>="false" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller. Note In XML web services, <code>retainSysIds</code> is specified as an attribute in the <trigger> element.	Valid values: true/false (default is true).	N
retentionDuration	Retention Duration	Set only if <code>retentionDurationPurge</code> is selected; Minimum retention duration for the selected <code>retentionDurationUnit</code> before triggered task instances can qualify for purge.	Integer	N

Property	UI Field Name	Description	Specifications	Required
retentionDurationPurge	Purge By Retention Duration	Specification for whether triggered task instances can be purged by retention duration.	Boolean; Valid values: true/false. Default is false.	N
retentionDurationUnit	Retention Duration Unit	Set only if <code>retentionDurationPurge</code> is selected; Retention duration unit.	Valid values: - As String = Hours, As Value = 3 - As String = Days, As Value = 4 Default is Days (4).	N
simulateTasks	Simulate	Specifies if the instances generated by this trigger should execute under simulation mode.	Boolean; Valid values: true/false. Default is false.	N
simulationOption	Simulate Forecast	For Cron, Temporary, and Time triggers only; Enables the override of the Enable Trigger Simulation Universal Controller system property specification for whether or not to simulate the launching of tasks when triggers are eligible to fire. (If <code>simulationOption</code> is enabled, only the scheduled launch of the task by the trigger is inhibited.)	Valid values: --System Default --, As Value = 0 - As String = True, As Value = 1 - As String = False, As Value = 2 Default is --System Default -- (0).	N
situation	Situation	Type of day that causes the Controller to initiate the specified <code>action</code> .	Valid values: - As String = Holiday, As Value = 1 - As String = Non Business Day, As Value = 2 Default is Holiday (1).	Y (if <code>restrictionSimple</code> is true)
skipActive	Skip Trigger if Active	Deprecated. Indication for whether or not the Controller should skip the next run of the specified task(s) if the previous run has not gone to a Complete status (that is, it is still active).	Boolean; Valid values: true/false. Default is false.	N
skipAfterDate	Skip After Date	Date after which the trigger will be skipped.		N
skipAfterTime	Skip After Time	Time after which the trigger will be skipped.		N
skipBeforeDate	Skip Before Date	Date before which the trigger will be skipped.		N
skipBeforeTime	Skip Before Time	Time before which the trigger will be skipped.		N

Property	UI Field Name	Description	Specifications	Required
skipCondition	Task Launch Skip Condition	Controls when launching a task for the trigger will be skipped. Note When reading a Trigger, both skipActive and skipCondition are returned. When creating/ updating a Trigger, skipCondition is used if present. If skipCondition is not present, skipActive is used. If both skipActive and skipCondition are present, skipActive can be set to true only if skipCondition is Active (1).	Valid values: - As String = None, As Value = 0 - As String = Active, As Value = 1 - As String = Active By Trigger, As Value = 2 Default is None (0).	N
skipCount	Skip Count	Specification that the Controller should skip the next N times that this task is triggered.	Integer; Default is 0.	N
skipDateList	Skip Date List	Date(s) on which the trigger will be skipped.		
skipRestriction	Skip Restriction	Specification for when the trigger should skip and not launch the task(s).	Valid values: - As String = None, As Value = 0 - As String = Before, As Value = 1 - As String = After, As Value = 2 - As String = Span, As Value = 3 - As String = On, As Value = 4 Default is None (0).	
sysId	n/a	System ID field in the database for this trigger.	Persisted only if retainSysIds is set to true.	N
tasks	Tasks	Name of the task(s) being triggered when this trigger is satisfied. XML <pre><tasks> <task>uc - Demo</task> </tasks></pre> JSON <pre>"tasks": ["uc - Demo"]</pre>		Y

Property	UI Field Name	Description	Specifications	Required
timeZone	Time Zone	Name of the time zone that will be applied to the time(s) specified in the trigger.		Y
version	n/a	For Read and List web services; specification of the version being read or listed. Note In XML web services, <code>version</code> is specified as an attribute in the <trigger> element.		Y

4.34.13.6.2 Trigger Properties: Cron Trigger

Property	UI Field Name	Description	Specifications	Required
dayLogic	Day Logic	Specification for whether to And the dayOfMonth with the dayOfWeek criteria or to Or the dayOfMonth with the dayOfWeek criteria.	Valid values: And, Or.	Y
dayOfMonth	Day of Month	Day of the month, using standard Cron syntax.	Valid values: 1-31. Default is *.	Y
dayOfWeek	Day of Week	Day of the week, using standard Cron syntax.	Valid values: 0-7. Default is *.	Y
hours	Hours	Time in hours, using standard Cron syntax. (See also Daylight Saving Time .)	Valid values: 0-23. Default is *.	Y
minutes	Minutes	Time in minutes, using standard Cron syntax.	Valid values: 0-59. Default is 0.	Y
month	Month	Month, using standard Cron syntax.	Valid values: 1-12. Default is *.	Y

4.34.13.6.3 Trigger-Related Records Properties: Variables

Property	UI Field Name	Description	Specifications	Required
description	Description	Description of the variable.		N
name	Name	Name of the variable.		Y
value	Value	Value of the variable.		Y

4.34.13.6.4 Trigger-Related Records Properties: Notes

Property	UI Field Name	Description	Specifications	Required
<code>sysId</code>	n/a	System ID field in the database for the Note.		N
<code>text</code>	Text	Text of the Note.		N
<code>title</code>	Title	Title of the Note.		N

4.34.13.7 List Trigger Qualifying Times

	Description
URI	http://host_name/uc/resources/trigger/qualifyingtimes
HTTP Method	GET
Description	Lists Cron trigger qualifying times from a specific starting date.
URI Parameters	See List Trigger Qualifying Times: URI Parameters , below.
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example URI	http://localhost:8080/uc/resources/trigger/qualifyingtimes?triggername=testTrigger http://localhost:8080/uc/resources/trigger/qualifyingtimes?triggername=testTrigger&count=20&startdate=2017-08-01
Authentication	HTTP Basic
Example Response	See List Trigger Qualifying Times: XML and JSON Examples .

4.34.13.7.1 List Trigger Qualifying Times: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
<code>triggerid</code>	Unique ID for a trigger.		Y (unless <code>triggername</code> is specified)	<code>triggername</code>
<code>triggername</code>	Name used within the Controller to identify a trigger.	Maximum 40 alphanumeric.	Y (unless <code>triggerid</code> is specified)	<code>triggerid</code>
<code>count</code>	Number of qualifying days to list.	Maximum is 1000; default is 30.	N	

Name	Description	Specifications	Required	Mutually Exclusive With
startdate	Starting date of qualifying days to list.	Format: YYYY-MM-DD. Default is current date.	N	

4.34.13.7.2 List Trigger Qualifying Times: XML and JSON Examples

XML	JSON
XML <pre><qualifyingTimes triggerTimeZone="Africa/Accra" userTimeZone="America/Denver"> <qualifyingTime skip="true"> <triggerTimeZone>Tuesday, December 19, 2017 18:00:00 MST -0700 MST -0700</triggerTimeZone> <userTimeZone>Tuesday, December 19, 2017 18:00:00 MST -0700 MST -0700</ userTimeZone> </qualifyingTime> <qualifyingTime skip="true"> <triggerTimeZone>Tuesday, December 19, 2017 19:00:00 MST -0700 MST -0700</triggerTimeZone> <userTimeZone>Tuesday, December 19, 2017 19:00:00 MST -0700 MST -0700</ userTimeZone> </qualifyingTime> ... </qualifyingTimes></pre>	JSON <pre>{ "triggerTimeZone": "America/ Denver", "userTimeZone": "America/Denver", "qualifyingTimes": [{ "triggerTimeZone": "Tuesday, December 19, 2017 18:00:00 MST -0700", "userTimeZone": "Tuesday, December 19, 2017 18:00:00 MST -0700" }, { "triggerTimeZone": "Tuesday, December 19, 2017 19:00:00 MST -0700", "userTimeZone": "Tuesday, December 19, 2017 19:00:00 MST -0700" }] }</pre>

4.34.14 Email Monitor Trigger Web Services

- Overview - Create an Email Monitor Trigger - Modify an Email Monitor Trigger - Read an Email Monitor Trigger - Read an Email Monitor Trigger: URI Parameters - Email Monitor Trigger: XML and JSON Examples - Properties - Trigger Properties: All Triggers

- [Trigger Properties: Email Monitor Trigger](#)
- [Trigger-Related Records Properties: Variables](#)
- [Trigger-Related Records Properties: Notes](#)
- [Overview](#)
- [Create an Email Monitor Trigger](#)
- [Modify an Email Monitor Trigger](#)
- [Read an Email Monitor Trigger](#)
 - [Read an Email Monitor Trigger: URI Parameters](#)
- [Email Monitor Trigger: XML and JSON Examples](#)
- [Properties](#)
 - [Trigger Properties: All Triggers](#)
 - [Trigger Properties: Email Monitor Trigger](#)
 - [Trigger-Related Records Properties: Variables](#)
 - [Trigger-Related Records Properties: Notes](#)

4.34.14.1 Overview

Universal Controller supports the following RESTful-based web services for Email Monitor Trigger operations, which are listed alphabetically on this page.

- [Create an Email Monitor Trigger](#)
- [Modify an Email Monitor Trigger](#)
- [Read an Email Monitor Trigger](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Note

For information on Trigger web services that are applicable to all trigger types, see:

- [Delete a Trigger](#)
- [Enable/Disable a Trigger](#)
- [List Triggers](#)
- [Trigger a Task](#)

4.34.14.2 Create an Email Monitor Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	POST
Description	Creates a new Email Monitor Trigger.

	Description
Example URI	http://localhost:8080/uc/resources/trigger
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Email Monitor Trigger: XML and JSON Examples .
Trigger Properties	• See Trigger Properties: All Triggers. • See Trigger Properties: Email Monitor Trigger.
Trigger-Related Record Properties	• See Trigger-Related Records Properties: Variables. • See Trigger-Related Records Properties: Notes.
Example Response	• Status 200 /OK Successfully created the <trigger type> trigger.

4.34.14.3 Modify an Email Monitor Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	PUT
Description	Modifies the trigger specified by the sysId in the request. To modify Email Monitor Trigger properties without modifying related records, use the excludeRelated property.
Example URI	http://localhost:8080/uc/resources/trigger
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Email Monitor Trigger: XML and JSON Examples .
Trigger Properties	• See Trigger Properties: All Triggers. • See Trigger Properties: Email Monitor Trigger.
Trigger-Related Record Properties	• See Trigger-Related Records Properties: Variables. • See Trigger-Related Records Properties: Notes.
Example Response	• Status 200 /OK Successfully updated the <trigger type> trigger to version <version>.

4.34.14.4 Read an Email Monitor Trigger

	Description
URI	http://host_name/uc/resources/trigger

	Description
HTTP Method	GET
Description	Retrieves information for the specified trigger
URI Parameters	See Read an Email Monitor Trigger: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/trigger?triggername=testTrigger http://localhost:8080/uc/resources/trigger?triggerid=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Trigger Properties	- See Trigger Properties: All Triggers. - See Trigger Properties: Email Monitor Trigger.
Trigger-Related Record Properties	- See Trigger-Related Records Properties: Variables. - See Trigger-Related Records Properties: Notes.
Example Response	- Status 200 /OK (See Email Monitor Trigger: XML and JSON Examples.) - Status 404 /Not Found A trigger with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

4.34.14.4.1 Read an Email Monitor Trigger: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
<code>triggerid</code>	Unique ID for this trigger.		Y (unless <code>triggername</code> is specified)	<code>triggername</code>
<code>triggername</code>	Name used within the Controller to identify this trigger.	Maximum 40 alphanumerics.	Y (unless <code>triggerid</code> is specified)	<code>triggerid</code>

4.34.14.5 Email Monitor Trigger: XML and JSON Examples

In the XML web service, the [exportReleaseLevel](#), [exportTable](#), [retainSysIds](#), and [version](#) properties are specified as attributes in the `<trigger>` element.

Examples	XML	JSON
Example for Trigger	<pre>XML <triggerEm exportReleaseLevel="7.2.0.0" exportTable="ops_trigger_em" retainSysIds="true" version=</pre>	<pre>JSON { "type": "triggerEm", "action": "Do Not Trigger",</pre>

Examples	XML	JSON
	<pre> "1"> <variables /> <action>Do Not Trigger</action> <notes /> <calendar>System Default</calendar> <dayLogic>And</ dayLogic> <dayOfMonth>*</ dayOfMonth> <dayOfWeek>Mon-Fri</ dayOfWeek> <description>Test Email Monitor in Trigger and in Workflow</description> <disabledBy></ disabledBy> <disabledTime></ disabledTime> <enabled>true</ enabled> <enabledBy>ops.admin< /enabledBy> <enabledTime>2021-03- 03 12:46:11 -0500</ enabledTime> <enabledEnd>00:00</ enabledEnd> <enabledStart>05:00</ enabledStart> <name>Test-Email- Monitor-Trigger</name> <nextScheduleTime>202 1-03-04 00:00:00 -0500</ nextScheduleTime> <opswiseGroups /> <rdExcludeBackup>true </rdExcludeBackup> <restrictedTimes>fals e</restrictedTimes> <restriction>false</ restriction> <restrictionAdjective> Every</restrictionAdjective> <restrictionComplex>f alse</restrictionComplex> <restrictionMode>Or</ restrictionMode> <restrictionNouns> <restrictionNoun>Day</ restrictionNoun> </restrictionNouns> <restrictionNthAmount </pre>	<pre> "calendar": "System Default", "dayLogic": "And", "dayOfMonth": "*", "dayOfWeek": "Mon-Fri", "description": "Test Email Monitor in Trigger and in Workflow", "disabledBy": "", "disabledTime": "", "enabled": true, "enabledBy": "ops.admin", "enabledTime": "2021-03-03 12:46:11 -0500", "enabledEnd": "00:00", "enabledStart": "00:00", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_trigger_em", "name": "Test-Email- Monitor-Trigger", "nextScheduledTime": "2021-03-04 00:00:00 -0500", "notes": [], "opswiseGroups": [], "rdExcludeBackup": true, "restrictedTimes": false, "restriction": false, "restrictionAdjective": "Every", "restrictionComplex": false, "restrictionMode": "Or", "restrictionNouns": [{ "value": "Day" }], "restrictionNthAmount": null, "restrictionQualifiers": [{ "value": "Year" }], "restrictionSimple": false, "retainSysIds": true, "retentionDuration": 1, "retentionDurationPurge": true, "retentionDurationUnit": "Days", </pre>

Examples	XML	JSON
	<pre> /> <restrictionQualifiers> <restrictionQualifier>Year</ restrictionQualifier> </ restrictionQualifiers> <restrictionSimple>false</restrictionSimple> <retentionDuration>1</ retentionDuration> <retentionDurationPurge>true </retentionDurationPurge> <retentionDurationUnit>Days</ retentionDurationUnit> <simulationOption>-- System Default --</ simulationOption> <situation>Holiday</ situation> <skipAfterDate>2020-0 5-28</skipAfterDate> <skipAfterTime>02:15</ skipAfterTime> <skipBeforeDate>2020- 05-30</skipBeforeDate> <skipBeforeTime>17:30 </skipBeforeTime> <skipCondition>None</ skipCondition> <skipCount>0</ skipCount> <skipDateList /> <skipRestriction>Span </skipRestriction> <sysId>0fc6b7d9c0a801 c9017b6c27c259937e</sysId> <taskMonitor>Email Monitor Task</taskMonitor> <tasks> <task>Sleep 30</ task> </tasks> <timeZone /> </triggerEm> </pre>	<pre> "simulationOption": "-- System Default --", "situation": "Holiday", "skipAfterDate": "2020-05-28", "skipAfterTime": "02:15", "skipBeforeDate": "2020-05-30", "skipBeforeTime": "17:30", "skipCondition": "None", "skipCount": 0, "skipDateList": [], "skipRestriction": "Span", "sysId": "9c659c9c2c72460c9a205766325 7b0be", "taskMonitor": "Email Monitor Task", "tasks": ["Sleep 30"], "timeZone": null, "variables": [], "version": 1 } </pre>

Examples	XML	JSON
Examples for Trigger-Related Records	Variables XML <variables> <variable> <description /> <name>testVar</name> <value>value</value> </variable> </variables> Notes XML <notes> <note> <sysId>76ad570c64b84f84aeaf281403856b10</sysId> <text>testNoteText</text> <title>testNoteTitl </title> </note> </notes>	Variables JSON "variables": [{ "description": "name": "var1", "value": "value1" }] Notes JSON "notes": [{ "sysId": "76ad570c64b84f84aeaf281403856b10", "text": "testNoteText", "title": "testNoteTitle" }]

4.34.14.6 Properties

4.34.14.6.1 Trigger Properties: All Triggers

Property	UI Field Name	Description	Specifications	Required
action	Action	For all trigger types except Manual and Temporary; Action to take on a non-business day or holiday (see situation).	Valid values: - As String = Do Not Trigger, As Value = 1 - As String = Next Day, As Value = 2 - As String = Next Business Day, As Value = 3 - As String = Previous Day, As Value = 4 - As String = Previous Business Day, As Value = 5 Default is Do Not Trigger (1). Note The following values are valid only for Cron and Time triggers: - Next Day (2) - Next Business Day (3) - Previous Day (4) - Previous Business Day (5)	Y (if restriction is true)
calendar	Calendar	Calendar that defines the business days, holidays, and other special days that determine the run dates for the task(s) specified in the trigger. The Calendar will be used to verify any Custom Day references in restrictionNoun.	Default is System Default.	Y
customField1	n/a	User-Defined field. Example: <customField1 label="Domain">web.com</customField1>	The label is included only if a value has been defined for the User Defined Trigger Field 1 Label Universal Controller system property.	N
customField2	n/a	User-Defined field. Example: <customField2 label="Domain">web.com</customField2>	The label is included only if a value has been defined for the User Defined Trigger Field 2 Label Universal Controller system property.	N
description	Description	Description of this trigger.		N
disabledBy	Disabled By	System-supplied. If Status = Enabled, ID of the user who most recently disabled this trigger.	Read-only.	N
disabledTime	Disabled Time	System-supplied. If Status = Enabled, Date and time that the trigger was disabled.	Read-only.	N
enabled	Status	System-defined; Specification for whether or nor the trigger is enabled. Only enabled triggers are processed by the Controller.	Read-only.	N

Property	UI Field Name	Description	Specifications	Required
<code>enabledBy</code>	Enabled By	System-supplied. If Status = Enabled, ID of the user who most recently enabled this trigger.	Read-only.	N
<code>enabledTime</code>	Enabled Time	System-supplied. If Status = Enabled, Date and time that the trigger was enabled.	Read-only.	N
<code>enforceVariables</code>	Enforce Variables	Specifies whether or not to enforce Override Trigger Variables when using Trigger Now... from the User Interface. Not applicable for Web Service APIs.	Valid values: true/false. Default is false.	N
<code>excludeRelated</code>	n/a	For Modify Trigger web services; specification for whether or not to exclude related records from the update, even if they are provided in the request. Note In XML web services, <code>excludeRelated</code> is specified as an attribute in the <trigger> element.	Valid values: true/false Default is false.	N
<code>exportReleaseLevel</code>	n/a	Universal Controller release that the record was exported from. Note In XML web services, <code>exportReleaseLevel</code> is specified as an attribute in the <trigger> element.	read only	N
<code>exportTable</code>	n/a	Record table information. Note In XML web services, <code>exportTable</code> is specified as an attribute in the <trigger> element.	read only	N
<code>forecast</code>	Forecast	For Cron, Temporary, and Time triggers only; Date and time when this trigger will be satisfied for the next number days, as specified in the Forecast Period In Days Universal Controller system property. The Controller writes the forecasting entries to the Forecasts List .	Boolean; Valid values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
<code>lockVariables</code>	Lock Variables	Specifies whether or not to prevent editing variables when using Trigger Now... from the User Interface. Not applicable for Web Service APIs.	Boolean; Valid values: true/false. Default is false.	N
<code>name</code>	Name	Name used within the Controller to identify this trigger.	Maximum 255 alphanumerics.	Y
<code>nextScheduledTime</code>	Next Scheduled Time	System-supplied; for time-based triggers. If Status = Enabled, the next date and time this trigger will be satisfied. See Displaying Trigger Forecast Information .	Read-only.	N
<code>opswiseGroups</code>	Member of Business Services	List of Business Service(s) that this trigger belongs to. XML <pre><opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups></pre> JSON <pre>"opswiseGroups": ["test"]</pre>		N
<code>rdExcludeBackup</code>	Exclude Backup	Set only if <code>retentionDurationPurge</code> is selected; Specification for whether qualifying task instances can be excluded from the backup when being purged by retention duration.	Boolean; Valid values: true/false. Default is false.	N
<code>restriction</code>	Special Restriction	Indication of whether or not you want to specify additional parameters that tell the Controller how to handle exceptions, such as when the trigger is satisfied on a holiday or non-business day. You can specify simple and/or complex restrictions. For example, you can specify a <code>simpleRestriction</code> that disables the trigger if it is satisfied on a holiday identified in the calendar and/or a <code>restrictionComplex</code> that disables the trigger on the last business day of every month.	Boolean; Valid values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
<code>restrictionAdjective</code>	Restriction Adjective	Type of selection for <code>restrictionNoun</code> .	Valid values: • As String = Every, As Value = 0 • As String = 1st, As Value = 1 • As String = 2nd, As Value = 2 • As String = 3rd, As Value = 3 • As String = 4th, As Value = 4 • As String = Last, As Value = 5 • As String = Nth, As Value = 6 Default is Every (0).	Y (if <code>restrictionComplex</code> is enabled)
<code>restrictionComplex</code>	Complex Restriction	Set only if <code>restriction</code> is true; Set of parameters that determine one or more situations when this trigger should not be satisfied. Used in conjunction with <code>restrictionMode</code> , <code>restrictionAdjective</code> , <code>restrictionNoun</code> , and <code>restrictionQualifier</code> . For example, you can specify that you do not want to satisfy this trigger on the last business day of the year or the first day of each month.	Boolean; Valid values: true/false. Default is false.	Y (if <code>restrictionSimple</code> is false)
<code>restrictionMode</code>	Restriction Mode	Set only if <code>restrictionSimple</code> is true; Specification for whether you want to use <code>restrictionSimple</code> - and/or <code>restrictionComplex</code> -related values.	Valid values: • As String = And, As Value = 1 • As String = Or, As Value = 2 Default is Or (2).	Y (if <code>restrictionSimple</code> and <code>restrictionComplex</code> are true)

Property	UI Field Name	Description	Specifications	Required																
restrictionNoun	Restriction Noun	Deprecated. Period to restrict the trigger to. Used with <code>restrictionAdjective</code>, <code>restrictionQualifiers</code>, and <code>restrictionNthAmount</code> (if <code>restrictionAdjective</code> is Nth) to specify the type of days you want to select. For example, to specify "the 1st business day of the month," select <code>restrictionAdjective</code> as 1st, <code>restrictionNouns</code> as Business Day, and <code>restrictionQualifiers</code> as Month. Example: <table><tr><td>1</td><td><restrictionQualifiers></td></tr><tr><td>2</td><td><restrictionQualifier>Month</restrictionQualifier></td></tr><tr><td>3</td><td></restrictionQualifiers></td></tr></table> To specify a Custom Day, use the name of the Custom Day. For example: XML <table><tr><td>1</td><td><restrictionQualifiers></td></tr><tr><td>2</td><td><restrictionQualifier>Jan</restrictionQualifier></td></tr><tr><td>3</td><td><restrictionQualifier>CustomDay1</restrictionQualifier></td></tr><tr><td>4</td><td></restrictionQualifiers></td></tr></table> JSON <table><tr><td>1</td><td>"restrictionQualifiers": [</td></tr></table>	1	<restrictionQualifiers>	2	<restrictionQualifier>Month</restrictionQualifier>	3	</restrictionQualifiers>	1	<restrictionQualifiers>	2	<restrictionQualifier>Jan</restrictionQualifier>	3	<restrictionQualifier>CustomDay1</restrictionQualifier>	4	</restrictionQualifiers>	1	"restrictionQualifiers": [	Valid values: - As String = Sunday, As Value = 1 - As String = Monday, As Value = 2 - As String = Tuesday, As Value = 3 - As String = Wednesday, As Value = 4 - As String = Thursday, As Value = 5 - As String = Friday, As Value = 6 - As String = Saturday, As Value = 7 - As String = Day, As Value = 8 - As String = Business Day, As Value = 9	Y (if <code>restrictionCompleteness</code> is true)
1	<restrictionQualifiers>																			
2	<restrictionQualifier>Month</restrictionQualifier>																			
3	</restrictionQualifiers>																			
1	<restrictionQualifiers>																			
2	<restrictionQualifier>Jan</restrictionQualifier>																			
3	<restrictionQualifier>CustomDay1</restrictionQualifier>																			
4	</restrictionQualifiers>																			
1	"restrictionQualifiers": [																			

Property	UI Field Name	Description	Specifications	Required
		2 { 3 "value": 4 "Jan" 5 }, 6 { 7 "value": 8 "CustomDay1" 9 } 10 }		
		To specify a Local Custom Day, use the local attribute. For example: XML 1 <restrictionQu 2 alifiers> 3 <restrictionQu 4 alifier 5 local="true">C 6 ustomDay2</ 7 restrictionQua 8 lifier> 9 </ 10 restrictionQua 11 lifiers> JSON 1 "restrictionQu 2 alifiers": [3 { 4 "local": 5 true, 6 "value": 7 "CustomDay1" 8 } 9]		
		Note The Calendar for the trigger is used to verify Custom Day references.		

To specify a Local Custom Day, use the **local** attribute. For example:

XML

1

<restrictionQu

2

alifiers>

3

<restrictionQu

4

alifier

5

local="true">C

6

ustomDay2</

7

restrictionQua

8

lifier>

9

</

10

restrictionQua

11

lifiers>

JSON

1

"restrictionQu

2

alifiers": [

3

{

4

"local":

5

true,

6

"value":

7

"CustomDay1"

8

}

9

]

Note

The Calendar for the trigger is used to verify Custom Day references.

Property	UI Field Name	Description	Specifications	Required																
restrictionNouns	Restriction Noun(s)	Day to restrict the trigger to. Used with <code>restrictionAdjective</code>, <code>restrictionQualifiers</code>, and <code>restrictionNthAmount</code> (if <code>restrictionAdjective</code> is Nth) to specify the type of days you want to select. For example, to specify "the 1st business day of the month," select <code>restrictionAdjective</code> as 1st, <code>restrictionNouns</code> as Business Day, and <code>restrictionQualifiers</code> as Month. Example: <table><tr><td>1</td><td><restrictionNouns></td></tr><tr><td>2</td><td><restrictionNoun>BusinessDay</restrictionNoun></td></tr><tr><td>3</td><td></restrictionNouns></td></tr></table> To specify a Custom Day, use the name of the Custom Day. For example: XML <table><tr><td>1</td><td><restrictionNouns></td></tr><tr><td>2</td><td><restrictionNoun>Monday</restrictionNoun></td></tr><tr><td>3</td><td><restrictionNoun>CustomDay1</restrictionNoun></td></tr><tr><td>4</td><td></restrictionNouns></td></tr></table> JSON <table><tr><td>1</td><td>"restrictionNouns": [</td></tr></table>	1	<restrictionNouns>	2	<restrictionNoun>BusinessDay</restrictionNoun>	3	</restrictionNouns>	1	<restrictionNouns>	2	<restrictionNoun>Monday</restrictionNoun>	3	<restrictionNoun>CustomDay1</restrictionNoun>	4	</restrictionNouns>	1	"restrictionNouns": [	Valid values: • As String = Sunday, As Value = 1 • As String = Monday, As Value = 2 • As String = Tuesday, As Value = 3 • As String = Wednesday, As Value = 4 • As String = Thursday, As Value = 5 • As String = Friday, As Value = 6 • As String = Saturday, As Value = 7 • As String = Day, As Value = 8 • As String = Business Day, As Value = 9 • Custom Days specified in the calendar selected in a Workflow calendar.	Y (if <code>restrictionComplex</code> is true)
1	<restrictionNouns>																			
2	<restrictionNoun>BusinessDay</restrictionNoun>																			
3	</restrictionNouns>																			
1	<restrictionNouns>																			
2	<restrictionNoun>Monday</restrictionNoun>																			
3	<restrictionNoun>CustomDay1</restrictionNoun>																			
4	</restrictionNouns>																			
1	"restrictionNouns": [																			

Property	UI Field Name	Description	Specifications	Required
		2 3 4 5 6 7 8 <pre>{ "value": "Monday" }, { "value": "CustomDay1" }]</pre> To specify a Local Custom Day, use the local attribute. For example: XML 1 2 3 <pre><restrictionNo uns> <restrictionNo un local="true">C ustomDay2</ restrictionNou n> </ restrictionNou ns></pre> JSON 1 2 3 4 5 6 <pre>"restrictionNo uns": [{ "local": true, "value": "CustomDay1" }]</pre> Note The Calendar for the trigger is used to verify Custom Day references.		
restrictionNthAmount	Restriction Nth Amount	Set only if restrictionAdjective is Nth (6); value of N.	Integer	Y (if restrictionAdjective is Nth)

Property	UI Field Name	Description	Specifications	Required
restrictionQualifier	Restriction Qualifier	Deprecated. Period to restrict the trigger to. To specify a Custom Day Period, use the name of the Custom Day Period. For example: XML <restrictionQualifier>CustomDayPeriod1</restrictionQualifier> JSON <pre>"restrictionQualifier": { "value": "CustomDayPeriod1" }</pre> To specify a Local Custom Day Period, use the local attribute. For example: XML <restrictionQualifier local="true">CustomDayPeriod2</restrictionQualifier> JSON <pre>"restrictionQualifier": { "local": "true", "value": "CustomDayPeriod2" }</pre> Note The Calendar for the trigger is used to verify Custom Day references.	Valid values: • As String = Jan, As Value = 0 • As String = Feb, As Value = 1 • As String = Mar, As Value = 2 • As String = Apr, As Value = 3 • As String = May, As Value = 4 • As String = Jun, As Value = 5 • As String = Jul, As Value = 6 • As String = Aug, As Value = 7 • As String = Sep, As Value = 8 • As String = Oct, As Value = 9 • As String = Nov, As Value = 10 • As String = Dec, As Value = 11 • As String = Month, As Value = 12 • As String = Year, As Value = 13	Y (if restrictionComplexis true)

Property	UI Field Name	Description	Specifications	Required																
restrictionQualifiers	Restriction Qualifier(s)	Period to restrict the trigger to. Used with <code>restrictionAdjective</code>, <code>restrictionQualifiers</code>, and <code>restrictionNthAmount</code> (if <code>restrictionAdjective</code> is Nth) to specify the type of days you want to select. For example, to specify "the 1st business day of the month," select <code>restrictionAdjective</code> as 1st, <code>restrictionNouns</code> as Business Day, and <code>restrictionQualifiers</code> as Month. Example: <table><tr><td>1</td><td><restrictionQualifiers></td></tr><tr><td>2</td><td><restrictionQualifier>Month</restrictionQualifier></td></tr><tr><td>3</td><td></restrictionQualifiers></td></tr></table> To specify a Custom Day, use the name of the Custom Day. For example: XML <table><tr><td>1</td><td><restrictionQualifiers></td></tr><tr><td>2</td><td><restrictionQualifier>Jan</restrictionQualifier></td></tr><tr><td>3</td><td><restrictionQualifier>CustomDay1</restrictionQualifier></td></tr><tr><td>4</td><td></restrictionQualifiers></td></tr></table> JSON <table><tr><td>1</td><td>"restrictionQualifiers": [</td></tr></table>	1	<restrictionQualifiers>	2	<restrictionQualifier>Month</restrictionQualifier>	3	</restrictionQualifiers>	1	<restrictionQualifiers>	2	<restrictionQualifier>Jan</restrictionQualifier>	3	<restrictionQualifier>CustomDay1</restrictionQualifier>	4	</restrictionQualifiers>	1	"restrictionQualifiers": [	Valid values: • As String = Jan, As Value = 0 • As String = Feb, As Value = 1 • As String = Mar, As Value = 2 • As String = Apr, As Value = 3 • As String = May, As Value = 4 • As String = Jun, As Value = 5 • As String = Jul, As Value = 6 • As String = Aug, As Value = 7 • As String = Sep, As Value = 8 • As String = Oct, As Value = 9 • As String = Nov, As Value = 10 • As String = Dec, As Value = 11 • As String = Month, As Value = 12 • As String = Year, As Value = 13 • As String = Week, As Value = 14 • As String = Quarter, As Value = 15	Y (if <code>restrictionComplex</code> is true)
1	<restrictionQualifiers>																			
2	<restrictionQualifier>Month</restrictionQualifier>																			
3	</restrictionQualifiers>																			
1	<restrictionQualifiers>																			
2	<restrictionQualifier>Jan</restrictionQualifier>																			
3	<restrictionQualifier>CustomDay1</restrictionQualifier>																			
4	</restrictionQualifiers>																			
1	"restrictionQualifiers": [																			

Property	UI Field Name	Description	Specifications	Required
		2 { 3 "value": 4 "Jan" 5 }, 6 { 7 "value": 8 "CustomDay1" 9 } 10 }		
		To specify a Local Custom Day, use the local attribute. For example: XML 1 <restrictionQu 2 alifiers> 3 <restrictionQu 4 alifier 5 local="true">C 6 ustomDay2</ 7 restrictionQua 8 lifier> 9 </ 10 restrictionQua 11 lifiers> JSON 1 "restrictionQu 2 alifiers": [3 { 4 "local": 5 true, 6 "value": 7 "CustomDay1" 8 } 9] Note The Calendar for the trigger is used to verify Custom Day references.		

To specify a Local Custom Day, use the **local** attribute. For example:

XML

1

<restrictionQu

2

alifiers>

3

<restrictionQu

4

alifier

5

local="true">C

6

ustomDay2</

7

restrictionQua

8

lifier>

9

</

10

restrictionQua

11

lifiers>

JSON

1

"restrictionQu

2

alifiers": [

3

{

4

"local":

5

true,

6

"value":

7

"CustomDay1"

8

}

9

]

Note

The Calendar for the trigger is used to verify Custom Day references.

Property	UI Field Name	Description	Specifications	Required
<code>retainSysIds</code>	n/a	Specification for whether or not the web service will persist the <code>sysId</code> property. - If <code>retainSysIds</code>="true" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database. - If <code>retainSysIds</code>="false" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller. Note In XML web services, <code>retainSysIds</code> is specified as an attribute in the <trigger> element.	Valid values: true/false (default is true).	N
<code>retentionDuration</code>	Retention Duration	Set only if <code>retentionDurationPurge</code> is selected; Minimum retention duration for the selected <code>retentionDurationUnit</code> before triggered task instances can qualify for purge.	Integer	N
<code>retentionDurationPurge</code>	Purge By Retention Duration	Specification for whether triggered task instances can be purged by retention duration.	Boolean; Valid values: true/false. Default is false.	N
<code>retentionDurationUnit</code>	Retention Duration Unit	Set only if <code>retentionDurationPurge</code> is selected; Retention duration unit.	Valid values: - As String = Hours, As Value = 3 - As String = Days, As Value = 4 Default is Days (4).	N
<code>simulateTasks</code>	Simulate	Specifies if the instances generated by this trigger should execute under simulation mode.	Boolean; Valid values: true/false. Default is false.	N
<code>simulationOption</code>	Simulate Forecast	For Cron, Temporary, and Time triggers only; Enables the override of the Enable Trigger Simulation Universal Controller system property specification for whether or not to simulate the launching of tasks when triggers are eligible to fire. (If <code>simulationOption</code> is enabled, only the scheduled launch of the task by the trigger is inhibited.)	Valid values: –System Default –, As Value = 0 - As String = True, As Value = 1 - As String = False, As Value = 2 Default is –System Default – (0).	N
<code>situation</code>	Situation	Type of day that causes the Controller to initiate the specified <code>action</code> .	Valid values: - As String = Holiday, As Value = 1 - As String = Non Business Day, As Value = 2 Default is Holiday (1).	Y (if <code>restrictionSimple</code> is true)

Property	UI Field Name	Description	Specifications	Required
<code>skipActive</code>	Skip Trigger if Active	Deprecated. Indication for whether or not the Controller should skip the next run of the specified task(s) if the previous run has not gone to a Complete status (that is, it is still active).	Boolean; Valid values: true/false. Default is false.	N
<code>skipAfterDate</code>	Skip After Date	Date after which the trigger will be skipped.		N
<code>skipAfterTime</code>	Skip After Time	Time after which the trigger will be skipped.		N
<code>skipBeforeDate</code>	Skip Before Date	Date before which the trigger will be skipped.		N
<code>skipBeforeTime</code>	Skip Before Time	Time before which the trigger will be skipped.		N
<code>skipCondition</code>	Task Launch Skip Condition	Controls when launching a task for the trigger will be skipped. Note When reading a Trigger, both <code>skipActive</code> and <code>skipCondition</code> are returned. When creating/updating a Trigger, <code>skipCondition</code> is used if present. If <code>skipCondition</code> is not present, <code>skipActive</code> is used. If both <code>skipActive</code> and <code>skipCondition</code> are present, <code>skipActive</code> can be set to true only if <code>skipCondition</code> is Active (1).	Valid values: - As String = None, As Value = 0 - As String = Active, As Value = 1 - As String = Active By Trigger, As Value = 2 Default is None (0).	N
<code>skipCount</code>	Skip Count	Specification that the Controller should skip the next N times that this task is triggered.	Integer; Default is 0.	N
<code>skipDateList</code>	Skip Date List	Date(s) on which the trigger will be skipped.		
<code>skipRestriction</code>	Skip Restriction	Specification for when the trigger should skip and not launch the task(s).	Valid values: - As String = None, As Value = 0 - As String = Before, As Value = 1 - As String = After, As Value = 2 - As String = Span, As Value = 3 - As String = On, As Value = 4 Default is None (0).	
<code>sysId</code>	n/a	System ID field in the database for this trigger.	Persisted only if retainSysIds is set to true.	N

Property	UI Field Name	Description	Specifications	Required
taskMonitor	Email Monitor	Email Monitor task being executed.		Y
tasks	Tasks	Name of the task(s) being triggered when this trigger is satisfied. XML <pre><tasks> <task>uc - Demo</task> </tasks></pre> JSON <pre>"tasks": ["uc - Demo"]</pre>		Y
timeZone	Time Zone	Name of the time zone that will be applied to the time(s) specified in the trigger.		Y
version	n/a	For Read and List web services; specification of the version being read or listed. Note In XML web services, version is specified as an attribute in the <trigger> element.		Y

4.34.14.6.2 Trigger Properties: Email Monitor Trigger

Property	UI Field Name	Description	Specifications	Required
enabledEnd	Enabled End	End time of the period during which the trigger should be active.	Use 24-hour time; format is hh:mm	Y (if restrictedTimes is true)
enabledStart	Enabled Start	Start time of the period during which the trigger should be active.	Use 24-hour time; format is hh:mm	Y (if restrictedTimes is true)

Property	UI Field Name	Description	Specifications	Required
<code>restrictedTimes</code>	Restrict Times	Indication that the trigger is active only during the period specified by <code>enabledStart</code> and <code>enabledEnd</code> .	Boolean; Valid values: true/false. Default is false.	N

4.34.14.6.3 Trigger-Related Records Properties: Variables

Property	UI Field Name	Description	Specifications	Required
<code>description</code>	Description	Description of the variable.		N
<code>name</code>	Name	Name of the variable.		Y
<code>value</code>	Value	Value of the variable.		Y

4.34.14.6.4 Trigger-Related Records Properties: Notes

Property	UI Field Name	Description	Specifications	Required
<code>sysId</code>	n/a	System ID field in the database for the Note.		N
<code>text</code>	Text	Text of the Note.		N
<code>title</code>	Title	Title of the Note.		N

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- [Create an Email Monitor Trigger](#)
- [Modify an Email Monitor Trigger](#)
- [Read an Email Monitor Trigger](#)
 - [Read an Email Monitor Trigger: URI Parameters](#)
- [Email Monitor Trigger: XML and JSON Examples](#)
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 - [Trigger Properties: Email Monitor Trigger](#)
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 - [Trigger-Related Records Properties: Notes](#)

4.34.14.7 Overview

Universal Controller supports the following RESTful-based web services for Email Monitor Trigger operations, which are listed alphabetically on this page.

- [Email Monitor Trigger Web Services#Create an Email Monitor Trigger](#)
- [Email Monitor Trigger Web Services#Modify an Email Monitor Trigger](#)
- [Email Monitor Trigger Web Services#Read an Email Monitor Trigger](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Note

For information on Trigger web services that are applicable to all trigger types, see:

- [Delete a Trigger](#)
- [Enable/Disable a Trigger](#)
- [List Triggers](#)
- [Trigger a Task](#)

4.34.14.8 Create an Email Monitor Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	POST
Description	Creates a new Email Monitor Trigger.
Example URI	http://localhost:8080/uc/resources/trigger
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Email Monitor Trigger: XML and JSON Examples .
Trigger Properties	• See Trigger Properties: All Triggers. • See Trigger Properties: Email Monitor Trigger.

	Description
Trigger-Related Record Properties	- See Trigger-Related Records Properties: Variables. - See Trigger-Related Records Properties: Notes.
Example Response	Status 200 /OK Successfully created the <trigger type> trigger.

4.34.14.9 Modify an Email Monitor Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	PUT
Description	Modifies the trigger specified by the sysId in the request. To modify Email Monitor Trigger properties without modifying related records, use the excludeRelated property.
Example URI	http://localhost:8080/uc/resources/trigger
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Email Monitor Trigger: XML and JSON Examples .
Trigger Properties	- See Trigger Properties: All Triggers. - See Trigger Properties: Email Monitor Trigger.
Trigger-Related Record Properties	- See Trigger-Related Records Properties: Variables. - See Trigger-Related Records Properties: Notes.
Example Response	Status 200 /OK Successfully updated the <trigger type> trigger to version <version>.

4.34.14.10 Read an Email Monitor Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	GET
Description	Retrieves information for the specified trigger
URI Parameters	See Read an Email Monitor Trigger: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/trigger?triggername=testTrigger http://localhost:8080/uc/resources/trigger?triggerid=d26265a2c4f345359d9b356f18a462c1

	Description
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Trigger Properties	- See Trigger Properties: All Triggers. - See Trigger Properties: Email Monitor Trigger.
Trigger-Related Record Properties	- See Trigger-Related Records Properties: Variables. - See Trigger-Related Records Properties: Notes.
Example Response	- Status 200 /OK (See Email Monitor Trigger: XML and JSON Examples.) - Status 404 /Not Found A trigger with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

4.34.14.10.1 Read an Email Monitor Trigger: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
triggerid	Unique ID for this trigger.		Y (unless triggername is specified)	triggername
triggername	Name used within the Controller to identify this trigger.	Maximum 40 alphanumerics.	Y (unless triggerid is specified)	triggerid

4.34.14.11 Email Monitor Trigger: XML and JSON Examples

In the XML web service, the [exportReleaseLevel](#), [exportTable](#), [retainSysIds](#), and [version](#) properties are specified as attributes in the <trigger> element.

Examples	XML	JSON
Example for Trigger	<pre> XML <triggerEm exportReleaseLevel="7.2.0.0" exportTable="ops_trigger_em" retainSysIds="true" version= "1"> <variables /> <action>Do Not Trigger</action> <notes /> <calendar>System Default</calendar> <dayLogic>And</ dayLogic> <dayOfMonth>*</ </pre>	<pre> JSON { "type": "triggerEm", "action": "Do Not Trigger", "calendar": "System Default", "dayLogic": "And", "dayOfMonth": "*", "dayOfWeek": "Mon-Fri", "description": "Test Email Monitor in Trigger and in Workflow", "disabledBy": "", "disabledTime": "", </pre>

Examples	XML	JSON
	<pre> dayOfMonth> <dayOfWeek>Mon-Fri</ dayOfWeek> <description>Test Email Monitor in Trigger and in Workflow</description> <disabledBy></ disabledBy> <disabledTime></ disabledTime> <enabled>true</ enabled> <enabledBy>ops.admin< /enabledBy> <enabledTime>2021-03- 03 12:46:11 -0500</ enabledTime> <enabledEnd>00:00</ enabledEnd> <enabledStart>05:00</ enabledStart> <name>Test-Email- Monitor-Trigger</name> <nextScheduleTime>202 1-03-04 00:00:00 -0500</ nextScheduleTime> <opswiseGroups /> <rdExcludeBackup>true </rdExcludeBackup> <restrictedTimes>fals e</restrictedTimes> <restriction>false</ restriction> <restrictionAdjective> Every</restrictionAdjective> <restrictionComplex>f alse</restrictionComplex> <restrictionMode>Or</ restrictionMode> <restrictionNouns> <restrictionNoun>Day</ restrictionNoun> </restrictionNouns> <restrictionNthAmount /> <restrictionQualifiers> <restrictionQualifier>Year</ restrictionQualifier> </ restrictionQualifiers> <restrictionSimple>fa lse</restrictionSimple> </pre>	<pre> "enabled": true, "enabledBy": "ops.admin", "enabledTime": "2021-03-03 12:46:11 -0500", "enabledEnd": "00:00", "enabledStart": "05:00", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_trigger_em", "name": "Test-Email- Monitor-Trigger", "nextScheduledTime": "2021-03-04 00:00:00 -0500", "notes": [], "opswiseGroups": [], "rdExcludeBackup": true, "restrictedTimes": false, "restriction": false, "restrictionAdjective": "Every", "restrictionComplex": false, "restrictionMode": "Or", "restrictionNouns": [{ "value": "Day" }], "restrictionNthAmount": null, "restrictionQualifiers": [{ "value": "Year" }], "restrictionSimple": false, "retainSysIds": true, "retentionDuration": 1, "retentionDurationPurge": true, "retentionDurationUnit": "Days", "simulationOption": "-- System Default --", "situation": "Holiday", "skipAfterDate": "2020-05-28", "skipAfterTime": "02:15", "skipBeforeDate": "2020-05-30", "skipBeforeTime": "17:30", "skipCondition": "None", "skipCount": 0, </pre>

Examples	XML	JSON
	<pre> <retentionDuration>1< /retentionDuration> <retentionDurationPurge>true </retentionDurationPurge> <retentionDurationUnit>Days< /retentionDurationUnit> <simulationOption>-- System Default --</ simulationOption> <situation>Holiday</ situation> <skipAfterDate>2020-0 5-28</skipAfterDate> <skipAfterTime>02:15< /skipAfterTime> <skipBeforeDate>2020- 05-30</skipBeforeDate> <skipBeforeTime>17:30 </skipBeforeTime> <skipCondition>None</ skipCondition> <skipCount>0</ skipCount> <skipDateList /> <skipRestriction>Span </skipRestriction> <sysId>0fc6b7d9c0a801 c9017b6c27c259937e</sysId> <taskMonitor>Email Monitor Task</taskMonitor> <tasks> <task>Sleep 30</ task> </tasks> <timeZone /> </triggerEm> </pre>	<pre> "skipDateList": [], "skipRestriction": "Span", "sysId": "9c659c9c2c72460c9a205766325 7b0be", "taskMonitor": "Email Monitor Task", "tasks": ["Sleep 30"], "timeZone": null, "variables": [], "version": 1 } </pre>

Examples	XML	JSON
Examples for Trigger-Related Records	Variables XML <pre><variables> <variable> <description /> <name>testVar</name> <value>value</value> </variable> </variables></pre> Notes XML <pre><notes> <note> <Email Monitor Trigger Web Services#sysId>76ad570c64b84 f84aeaf281403856b10</Email Monitor Trigger Web Services#sysId> <Email Monitor Trigger Web Services#text>testNoteText</ Email Monitor Trigger Web Services#text> <Email Monitor Trigger Web Services#title>testNoteTitle </Email Monitor Trigger Web Services#title> </note> </notes></pre>	Variables JSON <pre>"variables": [{ "description": "description", "name": "var1", "value": "value1" }]</pre> Notes JSON <pre>"notes": [{ "Email Monitor Trigger Web Services#sysId": "76ad570c64b84f84aeaf2814038 56b10", "Email Monitor Trigger Web Services#text": "testNoteText", "Email Monitor Trigger Web Services#title": "testNoteTitle" }]</pre>

4.34.14.12 Properties

4.34.14.12.1 Trigger Properties: All Triggers

Property	UI Field Name	Description	Specifications	Required
action	Action	For all trigger types except Manual and Temporary; Action to take on a non-business day or holiday (see situation).	Valid values: - As String = Do Not Trigger, As Value = 1 - As String = Next Day, As Value = 2 - As String = Next Business Day, As Value = 3 - As String = Previous Day, As Value = 4 - As String = Previous Business Day, As Value = 5 Default is Do Not Trigger (1). Note The following values are valid only for Cron and Time triggers: - Next Day (2) - Next Business Day (3) - Previous Day (4) - Previous Business Day (5)	Y (if restriction is true)
calendar	Calendar	Calendar that defines the business days, holidays, and other special days that determine the run dates for the task(s) specified in the trigger. The Calendar will be used to verify any Custom Day references in restrictionNoun.	Default is System Default.	Y
customField1	n/a	User-Defined field. Example: <customField1 label="Domain">web.com</customField1>	The label is included only if a value has been defined for the User Defined Trigger Field 1 Label Universal Controller system property.	N
customField2	n/a	User-Defined field. Example: <customField2 label="Domain">web.com</customField2>	The label is included only if a value has been defined for the User Defined Trigger Field 2 Label Universal Controller system property.	N
description	Description	Description of this trigger.		N
disabledBy	Disabled By	System-supplied. If Status = Enabled, ID of the user who most recently disabled this trigger.	Read-only.	N
disabledTime	Disabled Time	System-supplied. If Status = Enabled, Date and time that the trigger was disabled.	Read-only.	N

Property	UI Field Name	Description	Specifications	Required
<code>enabled</code>	Status	System-defined; Specification for whether or nor the trigger is enabled. Only enabled triggers are processed by the Controller.	Read-only.	N
<code>enabledBy</code>	Enabled By	System-supplied. If Status = Enabled, ID of the user who most recently enabled this trigger.	Read-only.	N
<code>enabledTime</code>	Enabled Time	System-supplied. If Status = Enabled, Date and time that the trigger was enabled.	Read-only.	N
<code>enforceVariables</code>	Enforce Variables	Specifies whether or not to enforce Override Trigger Variables when using Trigger Now... from the User Interface. Not applicable for Web Service APIs.	Valid values: true/false. Default is false.	N
<code>excludeRelated</code>	n/a	For Modify Trigger web services; specification for whether or not to exclude related records from the update, even if they are provided in the request. Note In XML web services, <code>excludeRelated</code> is specified as an attribute in the <trigger> element.	Valid values: true/false. Default is false.	N
<code>exportReleaseLevel</code>	n/a	Universal Controller release that the record was exported from. Note In XML web services, <code>exportReleaseLevel</code> is specified as an attribute in the <trigger> element.	read only	N
<code>exportTable</code>	n/a	Record table information. Note In XML web services, <code>exportTable</code> is specified as an attribute in the <trigger> element.	read only	N

Property	UI Field Name	Description	Specifications	Required
forecast	Forecast	For Cron, Temporary, and Time triggers only; Date and time when this trigger will be satisfied for the next number days, as specified in the Forecast Period In Days Universal Controller system property. The Controller writes the forecasting entries to the Forecasts List .	Boolean; Valid values: true/false. Default is false.	N
lockVariables	Lock Variables	Specifies whether or not to prevent editing variables when using Trigger Now... from the User Interface. Not applicable for Web Service APIs.	Boolean; Valid values: true/false. Default is false.	N
name	Name	Name used within the Controller to identify this trigger.	Maximum 255 alphanumerics.	Y
nextScheduledTime	Next Scheduled Time	System-supplied; for time-based triggers. If Status = Enabled, the next date and time this trigger will be satisfied. See Displaying Trigger Forecast Information .	Read-only.	N
opswiseGroups	Member of Business Services	List of Business Service(s) that this trigger belongs to. XML <pre><opswiseGroups> <opswiseGroup>test< /opswiseGroup> </opswiseGroups></pre> JSON <pre>"opswiseGroups": ["test"]</pre>		N
rdExcludeBackup	Exclude Backup	Set only if <code>retentionDurationPurge</code> is selected; Specification for whether qualifying task instances can be excluded from the backup when being purged by retention duration.	Boolean; Valid values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
<code>restriction</code>	Special Restriction	Indication of whether or not you want to specify additional parameters that tell the Controller how to handle exceptions, such as when the trigger is satisfied on a holiday or non-business day. You can specify simple and/or complex restrictions. For example, you can specify a <code>simpleRestriction</code> that disables the trigger if it is satisfied on a holiday identified in the calendar and/or a <code>restrictionComplex</code> that disables the trigger on the last business day of every month.	Boolean; Valid values: true/false. Default is false.	N
<code>restrictionAdjective</code>	Restriction Adjective	Type of selection for <code>restrictionNoun</code> .	Valid values: - As String = Every, As Value = 0 - As String = 1st, As Value = 1 - As String = 2nd, As Value = 2 - As String = 3rd, As Value = 3 - As String = 4th, As Value = 4 - As String = Last, As Value = 5 - As String = Nth, As Value = 6 Default is Every (0).	Y (if <code>restrictionComplex</code> is enabled)
<code>restrictionComplex</code>	Complex Restriction	Set only if <code>restriction</code> is true; Set of parameters that determine one or more situations when this trigger should not be satisfied. Used in conjunction with <code>restrictionMode</code> , <code>restrictionAdjective</code> , <code>restrictionNoun</code> , and <code>restrictionQualifier</code> . For example, you can specify that you do not want to satisfy this trigger on the last business day of the year or the first day of each month.	Boolean; Valid values: true/false. Default is false.	Y (if <code>restrictionSimple</code> is false)
<code>restrictionMode</code>	Restriction Mode	Set only if <code>restrictionSimple</code> is true; Specification for whether you want to use <code>restrictionSimple</code> - and/or <code>restrictionComplex</code> -related values.	Valid values: - As String = And, As Value = 1 - As String = Or, As Value = 2 Default is Or (2).	Y (if <code>restrictionSimple</code> and <code>restrictionComplex</code> are true)

Property	UI Field Name	Description	Specifications	Required												
restrictionNoun	Restriction Noun	Deprecated. Period to restrict the trigger to. Used with restrictionAdjective, restrictionQualifiers, and restrictionNthAmount (if restrictionAdjective is Nth) to specify the type of days you want to select. For example, to specify "the 1st business day of the month," select restrictionAdjective as 1st, restrictionNouns as Business Day, and restrictionQualifiers as Month. Example: <table><tr><td>1</td><td><restrictionQualifiers></td></tr><tr><td>2</td><td><restrictionQualifier>Month</restrictionQualifier></td></tr><tr><td>3</td><td></restrictionQualifiers></td></tr></table> To specify a Custom Day, use the name of the Custom Day. For example: XML <table><tr><td>1</td><td><restrictionQualifiers></td></tr><tr><td>2</td><td><restrictionQualifier>Jan</restrictionQualifier></td></tr><tr><td>3</td><td><restrictionQualifier>CustomDay1</restrictionQualifier></td></tr></table>	1	<restrictionQualifiers>	2	<restrictionQualifier>Month</restrictionQualifier>	3	</restrictionQualifiers>	1	<restrictionQualifiers>	2	<restrictionQualifier>Jan</restrictionQualifier>	3	<restrictionQualifier>CustomDay1</restrictionQualifier>	Valid values: - As String = Sunday, As Value = 1 - As String = Monday, As Value = 2 - As String = Tuesday, As Value = 3 - As String = Wednesday, As Value = 4 - As String = Thursday, As Value = 5 - As String = Friday, As Value = 6 - As String = Saturday, As Value = 7 - As String = Day, As Value = 8 - As String = Business Day, As Value = 9	Y (if restrictionComplex is true)
1	<restrictionQualifiers>															
2	<restrictionQualifier>Month</restrictionQualifier>															
3	</restrictionQualifiers>															
1	<restrictionQualifiers>															
2	<restrictionQualifier>Jan</restrictionQualifier>															
3	<restrictionQualifier>CustomDay1</restrictionQualifier>															

Property	UI Field Name	Description	Specifications	Required
		4 </restrictionQualifiers> JSON 1 "restrictionQualifiers": [2 { 3 "value": 4 "Jan" 5 }, 6 { 7 "value": 8 "CustomDay1" 9 } 10] To specify a Local Custom Day, use the local attribute. For example: XML 1 <restrictionQualifiers 2 <restrictionQualifier 3 local="true">CustomDay2</restrictionQualifier> 4 </restrictionQualifiers> JSON 1 "restrictionQualifiers": [2 { 3 "local": 4 true,		

Property	UI Field Name	Description	Specifications	Required
		4 "value": 5 "CustomDay1" 6 }] Note The Calendar for the trigger is used to verify Custom Day references.		

Property	UI Field Name	Description	Specifications	Required														
restrictionNouns	Restriction Noun(s)	Day to restrict the trigger to. Used with <code>restrictionAdjective</code>, <code>restrictionQualifiers</code>, and <code>restrictionNthAmount</code> (if <code>restrictionAdjective</code> is Nth) to specify the type of days you want to select. For example, to specify "the 1st business day of the month," select <code>restrictionAdjective</code> as 1st, <code>restrictionNouns</code> as Business Day, and <code>restrictionQualifiers</code> as Month. Example: <table><tr><td>1</td><td><restrictionNouns></td></tr><tr><td>2</td><td><restrictionNoun>Business Day</restrictionNoun></td></tr><tr><td>3</td><td></restrictionNouns></td></tr></table> To specify a Custom Day, use the name of the Custom Day. For example: XML <table><tr><td>1</td><td><restrictionNouns></td></tr><tr><td>2</td><td><restrictionNoun>Monday</restrictionNoun></td></tr><tr><td>3</td><td><restrictionNoun>CustomDay1</restrictionNoun></td></tr><tr><td>4</td><td></restrictionNouns></td></tr></table> JSON	1	<restrictionNouns>	2	<restrictionNoun>Business Day</restrictionNoun>	3	</restrictionNouns>	1	<restrictionNouns>	2	<restrictionNoun>Monday</restrictionNoun>	3	<restrictionNoun>CustomDay1</restrictionNoun>	4	</restrictionNouns>	Valid values: - As String = Sunday, As Value = 1 - As String = Monday, As Value = 2 - As String = Tuesday, As Value = 3 - As String = Wednesday, As Value = 4 - As String = Thursday, As Value = 5 - As String = Friday, As Value = 6 - As String = Saturday, As Value = 7 - As String = Day, As Value = 8 - As String = Business Day, As Value = 9 - Custom Days specified in the calendar selected in a Workflow calendar.	Y (if <code>restrictionComplex</code> is true)
1	<restrictionNouns>																	
2	<restrictionNoun>Business Day</restrictionNoun>																	
3	</restrictionNouns>																	
1	<restrictionNouns>																	
2	<restrictionNoun>Monday</restrictionNoun>																	
3	<restrictionNoun>CustomDay1</restrictionNoun>																	
4	</restrictionNouns>																	

Property	UI Field Name	Description	Specifications	Required																																																																	
		<table><tr><td>1</td><td>"restrictio</td></tr><tr><td>2</td><td>nNouns": [</td></tr><tr><td>3</td><td>{</td></tr><tr><td></td><td>"value":</td></tr><tr><td>4</td><td>"Monday"</td></tr><tr><td>5</td><td>},</td></tr><tr><td>6</td><td>{</td></tr><tr><td></td><td>"value":</td></tr><tr><td></td><td>"CustomDay1</td></tr><tr><td>7</td><td>"</td></tr><tr><td>8</td><td>}</td></tr><tr><td></td><td>]</td></tr></table> To specify a Local Custom Day, use the local attribute. For example: XML <table><tr><td>1</td><td><restrictio</td></tr><tr><td>2</td><td>nNouns></td></tr><tr><td></td><td><restrictio</td></tr><tr><td></td><td>nNoun</td></tr><tr><td></td><td>local="true</td></tr><tr><td></td><td">customday< td=""></td">customday<></tr><tr><td></td><td>2</</td></tr><tr><td></td><td>restriction</td></tr><tr><td>3</td><td>Noun></td></tr><tr><td></td><td></</td></tr><tr><td></td><td>restriction</td></tr><tr><td></td><td>Nouns></td></tr></table> JSON <table><tr><td>1</td><td>"restrictio</td></tr><tr><td>2</td><td>nNouns": [</td></tr><tr><td>3</td><td>{</td></tr><tr><td></td><td>"local":</td></tr><tr><td>4</td><td>true,</td></tr><tr><td></td><td>"value":</td></tr><tr><td></td><td>"CustomDay1</td></tr><tr><td></td><td>"</td></tr><tr><td>5</td><td>}</td></tr></table>	1	"restrictio	2	nNouns": [	3	{		"value":	4	"Monday"	5	},	6	{		"value":		"CustomDay1	7	"	8	}		]	1	<restrictio	2	nNouns>		<restrictio		nNoun		local="true			2</		restriction	3	Noun>		</		restriction		Nouns>	1	"restrictio	2	nNouns": [	3	{		"local":	4	true,		"value":		"CustomDay1		"	5	}		
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Property	UI Field Name	Description	Specifications	Required
		6] Note The Calendar for the trigger is used to verify Custom Day references.		
restrictionNthAmount	Restriction Nth Amount	Set only if restrictionAdjective is Nth (6); value of N.	Integer	Y (if restrictionAdjective is Nth)
restrictionQualifier	Restriction Qualifier	Deprecated. Period to restrict the trigger to. To specify a Custom Day Period, use the name of the Custom Day Period. For example: XML <code><restrictionQualifier>CustomDayPeriod1</restrictionQualifier></code> JSON <pre>"restrictionQualifier": { "value": "CustomDayPeriod1" }</pre> To specify a Local Custom Day Period, use the local attribute. For example: XML <code><restrictionQualifier local="true">CustomDayPeriod2</restrictionQualifier></code> JSON <pre>"restrictionQualifier": { "local": "true", "value": "CustomDayPeriod2" }</pre> Note The Calendar for the trigger is used to verify Custom Day references.	Valid values: - As String = Jan, As Value = 0 - As String = Feb, As Value = 1 - As String = Mar, As Value = 2 - As String = Apr, As Value = 3 - As String = May, As Value = 4 - As String = Jun, As Value = 5 - As String = Jul, As Value = 6 - As String = Aug, As Value = 7 - As String = Sep, As Value = 8 - As String = Oct, As Value = 9 - As String = Nov, As Value = 10 - As String = Dec, As Value = 11 - As String = Month, As Value = 12 - As String = Year, As Value = 13	Y (if restrictionComplex is true)

Property	UI Field Name	Description	Specifications	Required												
restrictionQualifiers	Restriction Qualifier(s)	Period to restrict the trigger to. Used with <code>restrictionAdjective</code>, <code>restrictionQualifiers</code>, and <code>restrictionNthAmount</code> (if <code>restrictionAdjective</code> is Nth) to specify the type of days you want to select. For example, to specify "the 1st business day of the month," select <code>restrictionAdjective</code> as 1st, <code>restrictionNouns</code> as Business Day, and <code>restrictionQualifiers</code> as Month. Example: <table><tr><td>1</td><td><restrictionQualifiers></td></tr><tr><td>2</td><td><restrictionQualifier>Month</restrictionQualifier></td></tr><tr><td>3</td><td></restrictionQualifiers></td></tr></table> To specify a Custom Day, use the name of the Custom Day. For example: XML <table><tr><td>1</td><td><restrictionQualifiers></td></tr><tr><td>2</td><td><restrictionQualifier>Jan</restrictionQualifier></td></tr><tr><td>3</td><td><restrictionQualifier>CustomDay1</restrictionQualifier></td></tr></table>	1	<restrictionQualifiers>	2	<restrictionQualifier>Month</restrictionQualifier>	3	</restrictionQualifiers>	1	<restrictionQualifiers>	2	<restrictionQualifier>Jan</restrictionQualifier>	3	<restrictionQualifier>CustomDay1</restrictionQualifier>	Valid values: • As String = Jan, As Value = 0 • As String = Feb, As Value = 1 • As String = Mar, As Value = 2 • As String = Apr, As Value = 3 • As String = May, As Value = 4 • As String = Jun, As Value = 5 • As String = Jul, As Value = 6 • As String = Aug, As Value = 7 • As String = Sep, As Value = 8 • As String = Oct, As Value = 9 • As String = Nov, As Value = 10 • As String = Dec, As Value = 11 • As String = Month, As Value = 12 • As String = Year, As Value = 13 • As String = Week, As Value = 14 • As String = Quarter, As Value = 15	Y (if <code>restrictionComplex</code> is true)
1	<restrictionQualifiers>															
2	<restrictionQualifier>Month</restrictionQualifier>															
3	</restrictionQualifiers>															
1	<restrictionQualifiers>															
2	<restrictionQualifier>Jan</restrictionQualifier>															
3	<restrictionQualifier>CustomDay1</restrictionQualifier>															

Property	UI Field Name	Description	Specifications	Required
		4 </restrictionQualifiers> JSON 1 "restrictionQualifiers": [2 { 3 "value": 4 "Jan" 5 }, 6 { 7 "value": 8 "CustomDay1" 9 } 10] To specify a Local Custom Day, use the local attribute. For example: XML 1 <restrictionQualifiers 2 <restrictionQualifier 3 local="true">CustomDay2</restrictionQualifier> 4 </restrictionQualifiers> JSON 1 "restrictionQualifiers": [2 { 3 "local": 4 true,		

Property	UI Field Name	Description	Specifications	Required
		4 "value": "CustomDay1" 5 } 6] Note The Calendar for the trigger is used to verify Custom Day references.		
<pre><restrictionQualifier> <restrictionQualifier>Month</restrictionQualifier> </restrictionQualifiers></pre>				
<pre><restrictionQualifier> <restrictionQualifier>Jan</restrictionQualifier> <restrictionQualifier>CustomDay1</restrictionQualifier> </restrictionQualifiers></pre>				
<pre>"restrictionQualifiers": [{ "value": "Jan" }, { "value": "CustomDay1" }]</pre>				

Property	UI Field Name	Description	Specifications	Required
<pre><restrictionQualifier s> <restrictionQualifier local="true">CustomDa y2</ restrictionQualifier> </ restrictionQualifiers ></pre>				
<pre>"restrictionQualifier s": [{ "local": true, "value": "CustomDay1" }]</pre>				
The Calendar for the trigger is used to verify Custom Day references.				
retainSysIds	n/a	Specification for whether or not the web service will persist the <code>sysId</code> property. - If <code>retainSysIds="true"</code> and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database. - If <code>retainSysIds="false"</code> and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller. Note In XML web services, <code>retainSysIds</code> is specified as an attribute in the <code><trigger></code> element.	Valid values: true/false (default is true).	N
retentionDuration	Retention Duration	Set only if <code>retentionDurationPurge</code> is selected; Minimum retention duration for the selected <code>retentionDurationUnit</code> before triggered task instances can qualify for purge.	Integer	N
retentionDurationPurge	Purge By Retention Duration	Specification for whether triggered task instances can be purged by retention duration.	Boolean; Valid values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
retentionDurationUnit	Retention Duration Unit	Set only if retentionDurationPurge is selected; Retention duration unit.	Valid values: - As String = Hours, As Value = 3 - As String = Days, As Value = 4 Default is Days (4).	N
simulationOption	Simulate	For Cron, Temporary, and Time triggers only; Enables the override of the Enable Trigger Simulation Universal Controller system property specification for whether or not to simulate the launching of tasks when triggers are eligible to fire. (If simulationOption is enabled, only the scheduled launch of the task by the trigger is inhibited.)	Valid values: --System Default --, As Value = 0 - As String = True, As Value = 1 - As String = False, As Value = 2 Default is --System Default -- (0).	N
situation	Situation	Type of day that causes the Controller to initiate the specified action .	Valid values: - As String = Holiday, As Value = 1 - As String = Non Business Day, As Value = 2 Default is Holiday (1).	Y (if restrictionSimple is true)
skipActive	Skip Trigger if Active	Deprecated. Indication for whether or not the Controller should skip the next run of the specified task(s) if the previous run has not gone to a Complete status (that is, it is still active).	Boolean; Valid values: true/false. Default is false.	N
skipAfterDate	Skip After Date	Date after which the trigger will be skipped.		N
skipAfterTime	Skip After Time	Time after which the trigger will be skipped.		N
skipBeforeDate	Skip Before Date	Date before which the trigger will be skipped.		N
skipBeforeTime	Skip Before Time	Time before which the trigger will be skipped.		N

Property	UI Field Name	Description	Specifications	Required
skipCondition	Task Launch Skip Condition	Controls when launching a task for the trigger will be skipped. Note When reading a Trigger, both skipActive and skipCondition are returned. When creating/updating a Trigger, skipCondition is used if present. If skipCondition is not present, skipActive is used. If both skipActive and skipCondition are present, skipActive can be set to true only if skipCondition is Active (1).	Valid values: - As String = None, As Value = 0 - As String = Active, As Value = 1 - As String = Active By Trigger, As Value = 2 Default is None (0).	N
skipCount	Skip Count	Specification that the Controller should skip the next N times that this task is triggered.	Integer; Default is 0.	N
skipDateList	Skip Date List	Date(s) on which the trigger will be skipped.		
skipRestriction	Skip Restriction	Specification for when the trigger should skip and not launch the task(s).	Valid values: - As String = None, As Value = 0 - As String = Before, As Value = 1 - As String = After, As Value = 2 - As String = Span, As Value = 3 - As String = On, As Value = 4 Default is None (0).	
sysId	n/a	System ID field in the database for this trigger.	Persisted only if retainSysIds is set to true.	N
taskMonitor	Email Monitor	Email Monitor task being executed.		Y

Property	UI Field Name	Description	Specifications	Required
tasks	Tasks	Name of the task(s) being triggered when this trigger is satisfied. XML <pre><tasks> <task>uc - Demo</task> </tasks></pre> JSON <pre>"tasks": ["uc - Demo"]</pre>		Y
timeZone	Time Zone	Name of the time zone that will be applied to the time(s) specified in the trigger.		Y
version	n/a	For Read and List web services; specification of the version being read or listed. Note In XML web services, <code>version</code> is specified as an attribute in the <code><trigger></code> element.		Y

4.34.14.12.2 Trigger Properties: Email Monitor Trigger

Property	UI Field Name	Description	Specifications	Required
enabledEnd	Enabled End	End time of the period during which the trigger should be active.	Use 24-hour time; format is hh:mm	Y (if <code>restrictedTimes</code> is true)
enabledStart	Enabled Start	Start time of the period during which the trigger should be active.	Use 24-hour time; format is hh:mm	Y (if <code>restrictedTimes</code> is true)
restrictedTimes	Restrict Times	Indication that the trigger is active only during the period specified by <code>enabledStart</code> and <code>enabledEnd</code> .	Boolean; Valid values: true/false. Default is false.	N

4.34.14.12.3 Trigger-Related Records Properties: Variables

Property	UI Field Name	Description	Specifications	Required
<code>description</code>	Description	Description of the variable.		N
<code>name</code>	Name	Name of the variable.		Y
<code>value</code>	Value	Value of the variable.		Y

4.34.14.12.4 Trigger-Related Records Properties: Notes

Property	UI Field Name	Description	Specifications	Required
<code>sysId</code>	n/a	System ID field in the database for the Note.		N
<code>text</code>	Text	Text of the Note.		N
<code>title</code>	Title	Title of the Note.		N

4.34.15 Manual Trigger Web Services

- [Overview](#)
- [Create a Manual Trigger](#)
- [Modify a Manual Trigger](#)
- [Read a Manual Trigger](#)
 - [Read a Manual Trigger: URI Parameters](#)
- [Manual Trigger: XML and JSON Examples](#)
- [Properties](#)
 - [Trigger Properties: All Triggers](#)
 - [Trigger Properties: Manual Trigger](#)
 - [Trigger-Related Records Properties: Variables](#)
 - [Trigger-Related Records Properties: Notes](#)

4.34.15.1 Overview

Universal Controller supports the following RESTful-based web services for Manual Trigger operations, which are listed alphabetically on this page.

- [Create a Manual Trigger](#)
- [Modify a Manual Trigger](#)

- [Read a Manual Trigger](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Note

For information on Trigger web services that are applicable to all trigger types, see:

- [Delete a Trigger](#)
- [Enable/Disable a Trigger](#)
- [List Triggers](#)
- [Trigger a Task](#)

4.34.15.2 Create a Manual Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	POST
Description	Creates a new Manual Trigger.
Example URI	http://localhost:8080/uc/resources/trigger
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Manual Trigger: XML and JSON Examples .
Trigger Properties	• See Trigger Properties: All Triggers. • See Trigger Properties: Manual Trigger.
Trigger-Related Record Properties	• See Trigger-Related Records Properties: Variables. • See Trigger-Related Records Properties: Notes.
Example Response	• Status 200 /OK Successfully created the <trigger type> trigger.

4.34.15.3 Modify a Manual Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	PUT

	Description
Description	Modifies the trigger specified by the sysId in the request. To modify Manual Trigger properties without modifying related records, use the excludeRelated property.
Example URI	http://localhost:8080/uc/resources/trigger
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Manual Trigger: XML and JSON Examples .
Trigger Properties	• See Trigger Properties: All Triggers. • See Trigger Properties: Manual Trigger.
Trigger-Related Record Properties	• See Trigger-Related Records Properties: Variables. • See Trigger-Related Records Properties: Notes.
Example Response	• Status 200 /OK Successfully updated the <trigger type> trigger to version <version>.

4.34.15.4 Read a Manual Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	GET
Description	Retrieves information for the specified trigger
URI Parameters	See Read a Manual Trigger: URI Parameters , below.
Example URI	• http://localhost:8080/uc/resources/trigger?triggername=testTrigger • http://localhost:8080/uc/resources/trigger?triggerid=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Trigger Properties	• See Trigger Properties: All Triggers. • See Trigger Properties: Manual Trigger.
Trigger-Related Record Properties	• See Trigger-Related Records Properties: Variables. • See Trigger-Related Records Properties: Notes.
Example Response	• Status 200 /OK (See Manual Trigger: XML and JSON Examples.) • Status 404 /Not Found A trigger with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

4.34.15.4.1 Read a Manual Trigger: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
triggerid	Unique ID for this trigger.		Y (unless triggername is specified)	triggername
triggername	Name used within the Controller to identify this trigger.	Maximum 40 alphanumerics.	Y (unless triggerid is specified)	triggerid

4.34.15.5 Manual Trigger: XML and JSON Examples

In the XML web service, the [exportReleaseLevel](#), [exportTable](#), [retainSysIds](#), and [version](#) properties are specified as attributes in the <trigger> element.

Examples	XML	JSON
Example for Trigger	<pre> XML <triggerManual exportReleaseLevel="7.2.0.0" exportTable="ops_trigger_manual" retainSysIds="true" version="1"> <variables /> <notes /> <calendar>System Default</calendar> <description /> <disabledBy></ disabledBy> <disabledTime></ disabledTime> <enabled>true</enabled> <enabledBy>ops.admin</ enabledBy> <enabledTime>2021-03-03 12:46:11 -0500</enabledTime> <name>test manual trigger</name> <nextScheduleTime>2021- 03-04 00:00:00 -0500</ nextScheduleTime> <opswiseGroups> <opswiseGroup>bus service 1</opswiseGroup> </ opswiseGroups> <rdExcludeBackup>true</ rdExcludeBackup> <retentionDuration>1</ retentionDuration> <retentionDurationPurge> true</retentionDurationPurge> <retentionDurationUnit> Days</retentionDurationUnit> <sysId>0fc6b7d9c0a801c9 017b6c27c259937e</sysId> <tasks> <task>Sleep 30</ task> </tasks> </triggerManual> </pre>	<pre> JSON { "type": "triggerManual", "calendar": "System Default", "description": null, "disabledBy": "", "disabledTime": "", "enabled": true, "enabledBy": "ops.admin", "enabledTime": "2021-03-03 12:46:11 -0500", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_trigger_fm", "name": "test manual trigger", "nextScheduledTime": "2021-03-04 00:00:00 -0500", "notes": [], "opswiseGroups": ["bus service 1"], "rdExcludeBackup": true, "retainSysIds": true, "retentionDuration": 1, "retentionDurationPurge": true, "retentionDurationUnit": "Days", "sysId": "0fc6b7d9c0a801c9017b6c27c2 59937e", "tasks": ["Sleep 30"], "variables": [], "version": 2 } </pre>

Examples	XML	JSON
Examples for Trigger-Related Records	Variables XML <variables> <variable> <description /> <name>testVar</name> <value>value</value> </variable> </variables> Notes XML <notes> <note> <sysId>76ad570c64b84f84aeaf281403856b10</sysId> <text>testNoteText</text> <title>testNoteTitle</title> </note> </notes> Variables JSON "variables": [{ "description": "description", "name": "var1", "value": "value1" }] Notes JSON "notes": [{ "sysId": "76ad570c64b84f84aeaf281403856b10", "text": "testNoteText", "title": "testNoteTitle" }]	

4.34.15.6 Properties

4.34.15.6.1 Trigger Properties: All Triggers

Property	UI Field Name	Description	Specifications	Required
action	Action	For all trigger types except Manual and Temporary; Action to take on a non-business day or holiday (see situation).	Valid values: - As String = Do Not Trigger, As Value = 1 - As String = Next Day, As Value = 2 - As String = Next Business Day, As Value = 3 - As String = Previous Day, As Value = 4 - As String = Previous Business Day, As Value = 5 Default is Do Not Trigger (1). Note The following values are valid only for Cron and Time triggers: - Next Day (2) - Next Business Day (3) - Previous Day (4) - Previous Business Day (5)	Y (if restriction is true.)
calendar	Calendar	Calendar that defines the business days, holidays, and other special days that determine the run dates for the task(s) specified in the trigger. The Calendar will be used to verify any Custom Day references in restrictionNoun.	Default is System Default.	Y
customField1	n/a	User-Defined field. Example: <customField1 label="Domain">web.com</customField1>	The label is included only if a value has been defined for the User Defined Trigger Field 1 Label Universal Controller system property.	N
customField2	n/a	User-Defined field. Example: <customField2 label="Domain">web.com</customField2>	The label is included only if a value has been defined for the User Defined Trigger Field 2 Label Universal Controller system property.	N
description	Description	Description of this trigger.		N
disabledBy	Disabled By	System-supplied. If Status = Enabled, ID of the user who most recently disabled this trigger.	Read-only.	N
disabledTime	Disabled Time	System-supplied. If Status = Enabled, Date and time that the trigger was disabled.	Read-only.	N
enabled	Status	System-defined; Specification for whether or nor the trigger is enabled. Only enabled triggers are processed by the Controller.	Read-only.	N

Property	UI Field Name	Description	Specifications	Required
<code>enabledBy</code>	Enabled By	System-supplied. If Status = Enabled, ID of the user who most recently enabled this trigger.	Read-only.	N
<code>enabledTime</code>	Enabled Time	System-supplied. If Status = Enabled, Date and time that the trigger was enabled.	Read-only.	N
<code>enforceVariables</code>	Enforce Variables	Specifies whether or not to enforce Override Trigger Variables when using Trigger Now... from the User Interface. Not applicable for Web Service APIs.	Valid values: true/false. Default is false.	N
<code>excludeRelated</code>	n/a	For Modify Trigger web services; specification for whether or not to exclude related records from the update, even if they are provided in the request. Note In XML web services, <code>excludeRelated</code> is specified as an attribute in the <trigger> element.	Valid values: true/false Default is false.	N
<code>exportReleaseLevel</code>	n/a	Universal Controller release that the record was exported from. Note In XML web services, <code>exportReleaseLevel</code> is specified as an attribute in the <trigger> element.	read only	N
<code>exportTable</code>	n/a	Record table information. Note In XML web services, <code>exportTable</code> is specified as an attribute in the <trigger> element.	read only	N
<code>forecast</code>	Forecast	For Cron, Temporary, and Time triggers only; Date and time when this trigger will be satisfied for the next number days, as specified in the Forecast Period In Days Universal Controller system property. The Controller writes the forecasting entries to the Forecasts List .	Boolean; Valid values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
<code>lockVariables</code>	Lock Variables	Specifies whether or not to prevent editing variables when using Trigger Now... from the User Interface. Not applicable for Web Service APIs.	Boolean; Valid values: true/false. Default is false.	N
<code>name</code>	Name	Name used within the Controller to identify this trigger.	Maximum 255 alphanumerics.	Y
<code>nextScheduledTime</code>	Next Scheduled Time	System-supplied; for time-based triggers. If Status = Enabled, the next date and time this trigger will be satisfied. See Displaying Trigger Forecast Information .	Read-only.	N
<code>opswiseGroups</code>	Member of Business Services	List of Business Service(s) that this trigger belongs to. XML <pre><opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups></pre> JSON <pre>"opswiseGroups": ["test"]</pre>		N
<code>rdExcludeBackup</code>	Exclude Backup	Set only if <code>retentionDurationPurge</code> is selected; Specification for whether qualifying task instances can be excluded from the backup when being purged by retention duration.	Boolean; Valid values: true/false. Default is false.	N
<code>restriction</code>	Special Restriction	Indication of whether or not you want to specify additional parameters that tell the Controller how to handle exceptions, such as when the trigger is satisfied on a holiday or non-business day. You can specify simple and/or complex restrictions. For example, you can specify a <code>simpleRestriction</code> that disables the trigger if it is satisfied on a holiday identified in the calendar and/or a <code>restrictionComplex</code> that disables the trigger on the last business day of every month.	Boolean; Valid values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
<code>restrictionAdjective</code>	Restriction Adjective	Type of selection for <code>restrictionNoun</code> .	Valid values: - As String = Every, As Value = 0 - As String = 1st, As Value = 1 - As String = 2nd, As Value = 2 - As String = 3rd, As Value = 3 - As String = 4th, As Value = 4 - As String = Last, As Value = 5 - As String = Nth, As Value = 6 Default is Every (0).	Y (if <code>restrictionComplex</code> is enabled)
<code>restrictionComplex</code>	Complex Restriction	Set only if <code>restriction</code> is true; Set of parameters that determine one or more situations when this trigger should not be satisfied. Used in conjunction with <code>restrictionMode</code> , <code>restrictionAdjective</code> , <code>restrictionNoun</code> , and <code>restrictionQualifier</code> . For example, you can specify that you do not want to satisfy this trigger on the last business day of the year or the first day of each month.	Boolean; Valid values: true/false. Default is false.	Y (if <code>restrictionSimple</code> is false.)
<code>restrictionMode</code>	Restriction Mode	Set only if <code>restrictionSimple</code> is true; Specification for whether you want to use <code>restrictionSimple</code> - and/or <code>restrictionComplex</code> -related values.	Valid values: - As String = And, As Value = 1 - As String = Or, As Value = 2 Default is Or (2).	Y if <code>restrictionSimple</code> and <code>restrictionComplex</code> are true.

Property	UI Field Name	Description	Specifications	Required
restrictionNoun	Restriction Noun	Deprecated. Day to restrict the trigger to. To specify a Custom Day, use the name of the Custom Day. For example: XML <pre><restrictionNoun>CustomDay1</restrictionNoun></pre> JSON <pre>"restrictionNoun": { "value": "CustomDay1" }</pre> To specify a Local Custom Day, use the local attribute. For example: XML <pre><restrictionNoun local="true">CustomDay2</restrictionNoun></pre> JSON <pre>"restrictionNoun": { "local": "true", "value": "CustomDay2" }</pre>	Valid values: • As String = Sunday, As Value = 1 • As String = Monday, As Value = 2 • As String = Tuesday, As Value = 3 • As String = Wednesday, As Value = 4 • As String = Thursday, As Value = 5 • As String = Friday, As Value = 6 • As String = Saturday, As Value = 7 • As String = Day, As Value = 8 • As String = Business Day, As Value = 9	Y (if restrictionCompl ex is true.

Note

The Calendar for the trigger is used to verify Custom Day references.

Property	UI Field Name	Description	Specifications	Required																
restrictionNouns	Restriction Noun(s)	Day to restrict the trigger to. Used with <code>restrictionAdjective</code>, <code>restrictionQualifiers</code>, and <code>restrictionNthAmount</code> (if <code>restrictionAdjective</code> is Nth) to specify the type of days you want to select. For example, to specify "the 1st business day of the month," select <code>restrictionAdjective</code> as 1st, <code>restrictionNouns</code> as Business Day, and <code>restrictionQualifiers</code> as Month. Example: <table><tr><td>1</td><td><restrictionNouns></td></tr><tr><td>2</td><td><restrictionNoun>Business Day</restrictionNoun></td></tr><tr><td>3</td><td></restrictionNouns></td></tr></table> To specify a Custom Day, use the name of the Custom Day. For example: XML <table><tr><td>1</td><td><restrictionNouns></td></tr><tr><td>2</td><td><restrictionNoun>Monday</restrictionNoun></td></tr><tr><td>3</td><td><restrictionNoun>CustomDay1</restrictionNoun></td></tr><tr><td>4</td><td></restrictionNouns></td></tr></table> JSON <table><tr><td>1</td><td>"restrictionNouns": [</td></tr></table>	1	<restrictionNouns>	2	<restrictionNoun>Business Day</restrictionNoun>	3	</restrictionNouns>	1	<restrictionNouns>	2	<restrictionNoun>Monday</restrictionNoun>	3	<restrictionNoun>CustomDay1</restrictionNoun>	4	</restrictionNouns>	1	"restrictionNouns": [	Valid values: - As String = Sunday, As Value = 1 - As String = Monday, As Value = 2 - As String = Tuesday, As Value = 3 - As String = Wednesday, As Value = 4 - As String = Thursday, As Value = 5 - As String = Friday, As Value = 6 - As String = Saturday, As Value = 7 - As String = Day, As Value = 8 - As String = Business Day, As Value = 9 - Custom Days specified in the calendar selected in a Workflow calendar.	Y (if <code>restrictionComplete</code> is true)
1	<restrictionNouns>																			
2	<restrictionNoun>Business Day</restrictionNoun>																			
3	</restrictionNouns>																			
1	<restrictionNouns>																			
2	<restrictionNoun>Monday</restrictionNoun>																			
3	<restrictionNoun>CustomDay1</restrictionNoun>																			
4	</restrictionNouns>																			
1	"restrictionNouns": [																			

Property	UI Field Name	Description	Specifications	Required
		2 { 3 "value": 4 "Monday" 5 }, 6 { 7 "value": 8 "CustomDay1" 9 } 10] To specify a Local Custom Day, use the local attribute. For example: XML 1 <restrictionNo 2 uns> 3 <restrictionNo 4 un 5 local="true">C 6 ustomDay2</ 7 restrictionNou 8 n> 9 </ 10 restrictionNou 11 ns> JSON 1 "restrictionNo 2 uns": [3 { 4 "local": 5 true, 6 "value": 7 "CustomDay1" 8 } 9] Note The Calendar for the trigger is used to verify Custom Day references.		

Note

The Calendar for the trigger is used to verify Custom Day references.

Property	UI Field Name	Description	Specifications	Required
restrictionQualifier	Restriction Qualifier	Deprecated. Period to restrict the trigger to. To specify a Custom Day Period, use the name of the Custom Day Period. For example: XML <restrictionQualifier>CustomDayPeriod1</restrictionQualifier> JSON <pre>"restrictionQualifier": { "value": "CustomDayPeriod1" }</pre> To specify a Local Custom Day Period, use the local attribute. For example: XML <restrictionQualifier local="true">CustomDayPeriod2</restrictionQualifier> JSON <pre>"restrictionQualifier": { "local": "true", "value": "CustomDayPeriod2" }</pre> Note The Calendar for the trigger is used to verify Custom Day references.	Valid values: • As String = Jan, As Value = 0 • As String = Feb, As Value = 1 • As String = Mar, As Value = 2 • As String = Apr, As Value = 3 • As String = May, As Value = 4 • As String = Jun, As Value = 5 • As String = Jul, As Value = 6 • As String = Aug, As Value = 7 • As String = Sep, As Value = 8 • As String = Oct, As Value = 9 • As String = Nov, As Value = 10 • As String = Dec, As Value = 11 • As String = Month, As Value = 12 • As String = Year, As Value = 13	Y (if restrictionCompleteness is true.

Property	UI Field Name	Description	Specifications	Required																
restrictionQualifiers	Restriction Qualifier(s)	Period to restrict the trigger to. Used with <code>restrictionAdjective</code>, <code>restrictionQualifiers</code>, and <code>restrictionNthAmount</code> (if <code>restrictionAdjective</code> is Nth) to specify the type of days you want to select. For example, to specify "the 1st business day of the month," select <code>restrictionAdjective</code> as 1st, <code>restrictionNouns</code> as Business Day, and <code>restrictionQualifiers</code> as Month. Example: <table><tr><td>1</td><td><restrictionQualifiers></td></tr><tr><td>2</td><td><restrictionQualifier>Month</restrictionQualifier></td></tr><tr><td>3</td><td></restrictionQualifiers></td></tr></table> To specify a Custom Day, use the name of the Custom Day. For example: XML <table><tr><td>1</td><td><restrictionQualifiers></td></tr><tr><td>2</td><td><restrictionQualifier>Jan</restrictionQualifier></td></tr><tr><td>3</td><td><restrictionQualifier>CustomDay1</restrictionQualifier></td></tr><tr><td>4</td><td></restrictionQualifiers></td></tr></table> JSON <table><tr><td>1</td><td>"restrictionQualifiers": [</td></tr></table>	1	<restrictionQualifiers>	2	<restrictionQualifier>Month</restrictionQualifier>	3	</restrictionQualifiers>	1	<restrictionQualifiers>	2	<restrictionQualifier>Jan</restrictionQualifier>	3	<restrictionQualifier>CustomDay1</restrictionQualifier>	4	</restrictionQualifiers>	1	"restrictionQualifiers": [	Valid values: • As String = Jan, As Value = 0 • As String = Feb, As Value = 1 • As String = Mar, As Value = 2 • As String = Apr, As Value = 3 • As String = May, As Value = 4 • As String = Jun, As Value = 5 • As String = Jul, As Value = 6 • As String = Aug, As Value = 7 • As String = Sep, As Value = 8 • As String = Oct, As Value = 9 • As String = Nov, As Value = 10 • As String = Dec, As Value = 11 • As String = Month, As Value = 12 • As String = Year, As Value = 13 • As String = Week, As Value = 14 • As String = Quarter, As Value = 15	Y (if <code>restrictionComplete</code> is true)
1	<restrictionQualifiers>																			
2	<restrictionQualifier>Month</restrictionQualifier>																			
3	</restrictionQualifiers>																			
1	<restrictionQualifiers>																			
2	<restrictionQualifier>Jan</restrictionQualifier>																			
3	<restrictionQualifier>CustomDay1</restrictionQualifier>																			
4	</restrictionQualifiers>																			
1	"restrictionQualifiers": [																			

Property	UI Field Name	Description	Specifications	Required
		2 3 4 5 6 7 8 <pre>{ "value": "Jan" }, { "value": "CustomDay1" }</pre> To specify a Local Custom Day, use the local attribute. For example: XML 1 2 3 <pre><restrictionQu alifiers> <restrictionQu alifier local="true">C ustomDay2</ restrictionQua lifier> </ restrictionQua lifiers></pre> JSON 1 2 3 4 5 6 <pre>"restrictionQu alifiers": [{ "local": true, "value": "CustomDay1" }]</pre> Note The Calendar for the trigger is used to verify Custom Day references.		
restrictionSimple	Simple Restriction	Set only if restriction is true; Specification to set a simple restriction based on a specific situation .	Boolean; Valid values: true/false. Default is false.	Y (if restrictionCompl ex is false.

Property	UI Field Name	Description	Specifications	Required
<code>retainSysIds</code>	n/a	Specification for whether or not the web service will persist the <code>sysId</code> property. - If <code>retainSysIds</code>="true" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database. - If <code>retainSysIds</code>="false" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller. Note In XML web services, <code>retainSysIds</code> is specified as an attribute in the <trigger> element.	Valid values: true/false (default is true).	N
<code>retentionDuration</code>	Retention Duration	Set only if <code>retentionDurationPurge</code> is selected; Minimum retention duration for the selected <code>retentionDurationUnit</code> before triggered task instances can qualify for purge.	Integer	N
<code>retentionDurationPurge</code>	Purge By Retention Duration	Specification for whether triggered task instances can be purged by retention duration.	Boolean; Valid values: true/false. Default is false.	N
<code>retentionDurationUnit</code>	Retention Duration Unit	Set only if <code>retentionDurationPurge</code> is selected; Retention duration unit.	Valid values: - As String = Hours, As Value = 3 - As String = Days, As Value = 4 Default is Days (4).	N
<code>simulateTasks</code>	Simulate	Specifies if the instances generated by this trigger should execute under simulation mode.	Boolean; Valid values: true/false. Default is false.	N
<code>simulationOption</code>	Simulate Forecast	For Cron, Temporary, and Time triggers only; Enables the override of the Enable Trigger Simulation Universal Controller system property specification for whether or not to simulate the launching of tasks when triggers are eligible to fire. (If <code>simulationOption</code> is enabled, only the scheduled launch of the task by the trigger is inhibited.)	Valid values: --System Default --, As Value = 0 - As String = True, As Value = 1 - As String = False, As Value = 2 Default is --System Default -- (0).	N
<code>situation</code>	Situation	Type of day that causes the Controller to initiate the specified <code>action</code> .	Valid values: - As String = Holiday, As Value = 1 - As String = Non Business Day, As Value = 2 Default is Holiday (1).	Y (if <code>restrictionSimple</code> is true)

Property	UI Field Name	Description	Specifications	Required
<code>skipActive</code>	Skip Trigger if Active	Indication for whether or not the Controller should skip the next run of the specified task(s) if the previous run has not gone to a Complete status (that is, it is still active).	Boolean; Valid values: true/false. Default is false.	N
<code>skipCount</code>	Skip Count	Specification that the Controller should skip the next N times that this task is triggered.	Integer; Default is 0.	N
<code>sysId</code>	n/a	System ID field in the database for this trigger.	Persisted only if retainSysIds is set to true.	N
<code>tasks</code>	Tasks	Name of the task(s) being triggered when this trigger is satisfied. XML <pre><tasks> <task>uc - Demo</task> </tasks></pre> JSON <pre>"tasks": ["uc - Demo"]</pre>		Y
<code>timeZone</code>	Time Zone	Name of the time zone that will be applied to the time(s) specified in the trigger.		Y
<code>version</code>	n/a	For Read and List web services; specification of the version being read or listed. Note In XML web services, <code>version</code> is specified as an attribute in the <code><trigger></code> element.		Y

4.34.15.6.2 Trigger Properties: Manual Trigger

(There are no Manual Trigger-specific trigger properties.)

4.34.15.6.3 Trigger-Related Records Properties: Variables

Property	UI Field Name	Description	Specifications	Required
description	Description	Description of the variable.		N
name	Name	Name of the variable.		Y
value	Value	Value of the variable.		Y

4.34.15.6.4 Trigger-Related Records Properties: Notes

Property	UI Field Name	Description	Specifications	Required
sysId	n/a	System ID field in the database for the Note.		N
text	Text	Text of the Note.		N
title	Title	Title of the Note.		N

4.34.16 Task Monitor Trigger Web Services

- [Overview](#)
- [Create a Task Monitor Trigger](#)
- [Modify a Task Monitor Trigger](#)
- [Read a Task Monitor Trigger](#)
 - [Read a Task Monitor Trigger: URI Parameters](#)
- [Task Monitor Trigger: XML and JSON Examples](#)
- [Properties](#)
 - [Trigger Properties: All Triggers](#)
 - [Trigger Properties: Task Monitor Trigger](#)
 - [Trigger-Related Records Properties: Variables](#)
 - [Trigger-Related Records Properties: Notes](#)

4.34.16.1 Overview

Universal Controller supports the following RESTful-based web services for Task Monitor Trigger operations, which are listed alphabetically on this page.

- [Create a Task Monitor Trigger](#)
- [Modify a Task Monitor Trigger](#)

- [Read a Task Monitor Trigger](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Note

For information on Trigger web services that are applicable to all trigger types, see:

- [Delete a Trigger](#)
- [Enable/Disable a Trigger](#)
- [List Triggers](#)
- [Trigger a Task](#)

4.34.16.2 Create a Task Monitor Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	POST
Description	Creates a new Task Monitor Trigger.
Example URI	http://localhost:8080/uc/resources/trigger
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Task Monitor Trigger: XML and JSON Examples .
Trigger Properties	• See Trigger Properties: All Triggers. • See Trigger Properties: Task Monitor Trigger.
Trigger-Related Record Properties	• See Trigger-Related Records Properties: Variables. • See Trigger-Related Records Properties: Notes.
Example Response	• Status 200 /OK Successfully created the <trigger type> trigger.

4.34.16.3 Modify a Task Monitor Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	PUT

	Description
Description	Modifies the trigger specified by the <code>sysId</code> in the <code>request</code>. To modify Task Monitor Trigger properties without modifying related records, use the <code>excludeRelated</code> property.
Example URI	http://localhost:8080/uc/resources/trigger
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Task Monitor Trigger: XML and JSON Examples .
Trigger Properties	• See Trigger Properties: All Triggers. • See Trigger Properties: Task Monitor Trigger.
Trigger-Related Record Properties	• See Trigger-Related Records Properties: Variables. • See Trigger-Related Records Properties: Notes.
Example Response	• Status 200 /OK Successfully updated the <trigger type> trigger to version <version>.

4.34.16.4 Read a Task Monitor Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	GET
Description	Retrieves information for the specified <code>trigger</code>
URI Parameters	See Read a Task Monitor Trigger: URI Parameters , below.
Example URI	• http://localhost:8080/uc/resources/trigger?triggername=testTrigger • http://localhost:8080/uc/resources/trigger?triggerid=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Trigger Properties	• See Trigger Properties: All Triggers. • See Trigger Properties: Task Monitor Trigger.
Trigger-Related Record Properties	• See Trigger-Related Records Properties: Variables. • See Trigger-Related Records Properties: Notes.
Example Response	• Status 200 /OK (See Task Monitor Trigger: XML and JSON Examples.) • Status 404 /Not Found A trigger with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

4.34.16.4.1 Read a Task Monitor Trigger: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
triggerid	Unique ID for this trigger.		Y (unless triggername is specified)	triggername
triggername	Name used within the Controller to identify this trigger.	Maximum 40 alphanumerics.	Y (unless triggerid is specified)	triggerid

4.34.16.5 Task Monitor Trigger: XML and JSON Examples

In the XML web service, the [exportReleaseLevel](#), [exportTable](#), [retainSysIds](#), and [version](#) properties are specified as attributes in the <trigger> element.

Examples	XML	JSON
Example for Trigger	<pre> XML <triggerTm exportReleaseLevel="7.2.0.0" exportTable="ops_trigger_tm" retainSysIds="true" version= "1"> <variables /> <action>Do Not Trigger</action> <notes /> <calendar>System Default</calendar> <dayLogic>And</ dayLogic> <dayOfMonth>*</ dayOfMonth> <dayOfWeek>Mon-Fri</ dayOfWeek> <description>Test Task Monitor in Trigger and in Workflow</description> <disabledBy></ disabledBy> <disabledTime></ disabledTime> <enabled>true</ enabled> <enabledBy>ops.admin< /enabledBy> <enabledTime>2021-03- 03 12:46:11 -0500</ </pre>	<pre> JSON { "type": "triggerTm", "action": "Do Not Trigger", "calendar": "System Default", "dayLogic": "And", "dayOfMonth": "*", "dayOfWeek": "Mon-Fri", "description": "Test Task Monitor in Trigger and in Workflow", "disabledBy": "", "disabledTime": "", "enabled": true, "enabledBy": "ops.admin", "enabledTime": "2021-03-03 12:46:11 -0500", "enabledEnd": "00:00", "enabledStart": "00:00", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_trigger_tm", "name": "test task monitor trigger", "nextScheduledTime": "2021-03-04 00:00:00 -0500", "notes": [], "opswiseGroups": [], </pre>

Examples	XML	JSON
	<pre> enabledTime> <enabledEnd>00:00</ enabledEnd> <enabledStart>05:00</ enabledStart> <name>test task monitor trigger</name> <nextScheduleTime>202 1-03-04 00:00:00 -0500</ nextScheduleTime> <opswiseGroups /> <rdExcludeBackup>true </rdExcludeBackup> <restrictedTimes>fals e</restrictedTimes> <restriction>>false</ restriction> <restrictionAdjective> Every</restrictionAdjective> <restrictionComplex>f alse</restrictionComplex> <restrictionMode>Or</ restrictionMode> <restrictionNouns> <restrictionNoun>Day</ restrictionNoun> </restrictionNouns> <restrictionNthAmount /> <restrictionQualifiers> <restrictionQualifier>Year</ restrictionQualifier> </ restrictionQualifiers> <restrictionSimple>fa lse</restrictionSimple> <retentionDuration>1< /retentionDuration> <retentionDurationPurge>true </retentionDurationPurge> <retentionDurationUnit>Days< /retentionDurationUnit> <simulationOption>-- System Default --</ simulationOption> <situation>Holiday</ situation> <skipAfterDate>2020-0 5-28</skipAfterDate> <skipAfterTime>02:15< </pre>	<pre> "rdExcludeBackup": true, "restrictedTimes": false, "restriction": false, "restrictionAdjective": "Every", "restrictionComplex": false, "restrictionMode": "Or", "restrictionNouns": [{ "value": "Day" }], "restrictionNthAmount": null, "restrictionQualifiers": [{ "value": "Year" }], "restrictionSimple": false, "retainSysIds": true, "retentionDuration": 1, "retentionDurationPurge": true, "retentionDurationUnit": "Days", "simulationOption": "-- System Default --", "situation": "Holiday", "skipAfterDate": "2020-05-28", "skipAfterTime": "02:15", "skipBeforeDate": "2020-05-30", "skipBeforeTime": "17:30", "skipCondition": "None", "skipCount": 0, "skipDateList": [], "skipRestriction": "Span", "sysId": "9c659c9c2c72460c9a205766325 7b0be", "taskMonitor": "uc - Windows Set Variable Monitor", "tasks": ["Sleep 30"], "timeZone": null, "variables": [], "version": 1 } </pre>

Examples	XML	JSON
	<pre> /skipAfterTime> <skipBeforeDate>2020- 05-30</skipBeforeDate> <skipBeforeTime>17:30 </skipBeforeTime> <skipCondition>None</ skipCondition> <skipCount>0</ skipCount> <skipDateList /> <skipRestriction>Span </skipRestriction> <sysId>0fc6b7d9c0a801 c9017b6c27c259937e</sysId> <taskMonitor>uc - Windows Set Variable Monitor</taskMonitor> <tasks> <task>Sleep 30</ task> </tasks> <timeZone /> </triggerEm> </pre>	
Examples for Trigger-Related Records	Variables XML <pre> <variables> <variable> <description /> <name>testVar</name> <value>value</value> </variable> </variables> </pre> Notes XML <pre> <notes> <note> <sysId>76ad570c64b8 4f84aeaf281403856b10</sysId> <text>testNoteText< /text> <title>testNoteTitl e</title> </note> </notes> </pre>	Variables JSON <pre> "variables": [{ "description": "description", "name": "var1", "value": "value1" }] </pre> Notes JSON <pre> "notes": [{ "sysId": "76ad570c64b84f84aeaf2814038 56b10", "text": "testNoteText", "title": "testNoteTitle" }] </pre>

4.34.16.6 Properties

4.34.16.6.1 Trigger Properties: All Triggers

Property	UI Field Name	Description	Specifications	Required
action	Action	For all trigger types except Manual and Temporary; Action to take on a non-business day or holiday (see <code>situation</code>).	Valid values: - As String = Do Not Trigger, As Value = 1 - As String = Next Day, As Value = 2 - As String = Next Business Day, As Value = 3 - As String = Previous Day, As Value = 4 - As String = Previous Business Day, As Value = 5 Default is Do Not Trigger (1). Note The following values are valid only for Cron and Time triggers: - Next Day (2) - Next Business Day (3) - Previous Day (4) - Previous Business Day (5)	Y (if <code>restriction</code> is true)
calendar	Calendar	Calendar that defines the business days, holidays, and other special days that determine the run dates for the task(s) specified in the trigger. The Calendar will be used to verify any Custom Day references in <code>restrictionNoun</code>.	Default is System Default.	Y
customField1	n/a	User-Defined field. Example: <customField1 label="Domain">web.com</customField1>	The label is included only if a value has been defined for the User Defined Trigger Field 1 Label Universal Controller system property.	N
customField2	n/a	User-Defined field. Example: <customField2 label="Domain">web.com</customField2>	The label is included only if a value has been defined for the User Defined Trigger Field 2 Label Universal Controller system property.	N
description	Description	Description of this trigger.		N

Property	UI Field Name	Description	Specifications	Required
<code>disabledBy</code>	Disabled By	System-supplied. If Status = Enabled, ID of the user who most recently disabled this trigger.	Read-only.	N
<code>disabledTime</code>	Disabled Time	System-supplied. If Status = Enabled, Date and time that the trigger was disabled.	Read-only.	N
<code>enabled</code>	Status	System-defined; Specification for whether or nor the trigger is enabled. Only enabled triggers are processed by the Controller.	Read-only.	N
<code>enabledBy</code>	Enabled By	System-supplied. If Status = Enabled, ID of the user who most recently enabled this trigger.	Read-only.	N
<code>enabledTime</code>	Enabled Time	System-supplied. If Status = Enabled, Date and time that the trigger was enabled.	Read-only.	N
<code>enforceVariables</code>	Enforce Variables	Specifies whether or not to enforce Override Trigger Variables when using Trigger Now... from the User Interface. Not applicable for Web Service APIs.	Valid values: true/false. Default is false.	N
<code>excludeRelated</code>	n/a	For Modify Trigger web services; specification for whether or not to exclude related records from the update, even if they are provided in the request. Note In XML web services, <code>excludeRelated</code> is specified as an attribute in the <trigger> element.	Valid values: true/false Default is false.	N
<code>exportReleaseLevel</code>	n/a	Universal Controller release that the record was exported from. Note In XML web services, <code>exportReleaseLevel</code> is specified as an attribute in the <trigger> element.	read only	N

Property	UI Field Name	Description	Specifications	Required
<code>exportTable</code>	n/a	Record table information. Note In XML web services, <code>exportTable</code> is specified as an attribute in the <trigger> element.	read only	N
<code>forecast</code>	Forecast	For Cron, Temporary, and Time triggers only; Date and time when this trigger will be satisfied for the next number days, as specified in the Forecast Period In Days Universal Controller system property. The Controller writes the forecasting entries to the Forecasts List .	Boolean; Valid values: true/false. Default is false.	N
<code>lockVariables</code>	Lock Variables	Specifies whether or not to prevent editing variables when using Trigger Now... from the User Interface. Not applicable for Web Service APIs.	Boolean; Valid values: true/false. Default is false.	N
<code>name</code>	Name	Name used within the Controller to identify this trigger.	Maximum 255 alphanumerics.	Y
<code>nextScheduledTime</code>	Next Scheduled Time	System-supplied; for time-based triggers. If Status = Enabled, the next date and time this trigger will be satisfied. See Displaying Trigger Forecast Information .	Read-only.	N
<code>opswiseGroups</code>	Member of Business Services	List of Business Service(s) that this trigger belongs to. XML <pre><opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups></pre> JSON <pre>"opswiseGroups": ["test"]</pre>		N
<code>rdExcludeBackup</code>	Exclude Backup	Set only if <code>retentionDurationPurge</code> is selected; Specification for whether qualifying task instances can be excluded from the backup when being purged by retention duration.	Boolean; Valid values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
<code>restriction</code>	Special Restriction	Indication of whether or not you want to specify additional parameters that tell the Controller how to handle exceptions, such as when the trigger is satisfied on a holiday or non-business day. You can specify simple and/or complex restrictions. For example, you can specify a <code>simpleRestriction</code> that disables the trigger if it is satisfied on a holiday identified in the calendar and/or a <code>restrictionComplex</code> that disables the trigger on the last business day of every month.	Boolean; Valid values: true/false. Default is false.	N
<code>restrictionAdjective</code>	Restriction Adjective	Type of selection for <code>restrictionNoun</code> .	Valid values: - As String = Every, As Value = 0 - As String = 1st, As Value = 1 - As String = 2nd, As Value = 2 - As String = 3rd, As Value = 3 - As String = 4th, As Value = 4 - As String = Last, As Value = 5 - As String = Nth, As Value = 6 Default is Every (0).	Y (if <code>restrictionComplex</code> is enabled)
<code>restrictionComplex</code>	Complex Restriction	Set only if <code>restriction</code> is true; Set of parameters that determine one or more situations when this trigger should not be satisfied. Used in conjunction with <code>restrictionMode</code> , <code>restrictionAdjective</code> , <code>restrictionNoun</code> , and <code>restrictionQualifier</code> . For example, you can specify that you do not want to satisfy this trigger on the last business day of the year or the first day of each month.	Boolean; Valid values: true/false. Default is false.	Y (if <code>restrictionSimple</code> is false)
<code>restrictionMode</code>	Restriction Mode	Set only if <code>restrictionSimple</code> is true; Specification for whether you want to use <code>restrictionSimple</code> -and/or <code>restrictionComplex</code> -related values.	Valid values: - As String = And, As Value = 1 - As String = Or, As Value = 2 Default is Or (2).	Y (if <code>restrictionSimple</code> and <code>restrictionComplex</code> are true)

Property	UI Field Name	Description	Specifications	Required
restrictionNoun	Restriction Noun	Deprecated. Day to restrict the trigger to. To specify a Custom Day, use the name of the Custom Day. For example: XML <restrictionNoun>CustomDay1</restrictionNoun> JSON <pre>"restrictionNoun": { "value": "CustomDay1" }</pre> To specify a Local Custom Day, use the local attribute. For example: XML <restrictionNoun local="true">CustomDay2</restrictionNoun> JSON <pre>"restrictionNoun": { "local": "true", "value": "CustomDay2" }</pre> Note The Calendar for the trigger is used to verify Custom Day references.	Valid values: • As String = Sunday, As Value = 1 • As String = Monday, As Value = 2 • As String = Tuesday, As Value = 3 • As String = Wednesday, As Value = 4 • As String = Thursday, As Value = 5 • As String = Friday, As Value = 6 • As String = Saturday, As Value = 7 • As String = Day, As Value = 8 • As String = Business Day, As Value = 9	Y (if restrictionCompleteness is true)

Property	UI Field Name	Description	Specifications	Required																
restrictionNouns	Restriction Noun(s)	Day to restrict the trigger to. Used with <code>restrictionAdjective</code>, <code>restrictionQualifiers</code>, and <code>restrictionNthAmount</code> (if <code>restrictionAdjective</code> is Nth) to specify the type of days you want to select. For example, to specify "the 1st business day of the month," select <code>restrictionAdjective</code> as 1st, <code>restrictionNouns</code> as Business Day, and <code>restrictionQualifiers</code> as Month. Example: <table><tr><td>1</td><td><restrictionNouns></td></tr><tr><td>2</td><td><restrictionNoun>BusinessDay</restrictionNoun></td></tr><tr><td>3</td><td></restrictionNouns></td></tr></table> To specify a Custom Day, use the name of the Custom Day. For example: XML <table><tr><td>1</td><td><restrictionNouns></td></tr><tr><td>2</td><td><restrictionNoun>Monday</restrictionNoun></td></tr><tr><td>3</td><td><restrictionNoun>CustomDay1</restrictionNoun></td></tr><tr><td>4</td><td></restrictionNouns></td></tr></table> JSON <table><tr><td>1</td><td>"restrictionNouns": [</td></tr></table>	1	<restrictionNouns>	2	<restrictionNoun>BusinessDay</restrictionNoun>	3	</restrictionNouns>	1	<restrictionNouns>	2	<restrictionNoun>Monday</restrictionNoun>	3	<restrictionNoun>CustomDay1</restrictionNoun>	4	</restrictionNouns>	1	"restrictionNouns": [	Valid values: • As String = Sunday, As Value = 1 • As String = Monday, As Value = 2 • As String = Tuesday, As Value = 3 • As String = Wednesday, As Value = 4 • As String = Thursday, As Value = 5 • As String = Friday, As Value = 6 • As String = Saturday, As Value = 7 • As String = Day, As Value = 8 • As String = Business Day, As Value = 9 • Custom Days specified in the calendar selected in a Workflow calendar.	Y (if <code>restrictionComplex</code> is true)
1	<restrictionNouns>																			
2	<restrictionNoun>BusinessDay</restrictionNoun>																			
3	</restrictionNouns>																			
1	<restrictionNouns>																			
2	<restrictionNoun>Monday</restrictionNoun>																			
3	<restrictionNoun>CustomDay1</restrictionNoun>																			
4	</restrictionNouns>																			
1	"restrictionNouns": [																			

Property	UI Field Name	Description	Specifications	Required
		2 3 4 5 6 7 8 <pre>{ "value": "Monday" }, { "value": "CustomDay1" }]</pre> To specify a Local Custom Day, use the local attribute. For example: XML 1 2 3 <pre><restrictionNo uns> <restrictionNo un local="true">C ustomDay2</ restrictionNou n> </ restrictionNou ns></pre> JSON 1 2 3 4 5 6 <pre>"restrictionNo uns": [{ "local": true, "value": "CustomDay1" }]</pre> Note The Calendar for the trigger is used to verify Custom Day references.		
restrictionNthAmount	Restriction Nth Amount	Set only if restrictionAdjective is Nth (6); value of N.	Integer	Y (if restrictionAdjective is Nth)

Property	UI Field Name	Description	Specifications	Required
restrictionQualifier	Restriction Qualifier	Deprecated. Period to restrict the trigger to. To specify a Custom Day Period, use the name of the Custom Day Period. For example: XML <restrictionQualifier>CustomDayPeriod1</restrictionQualifier> JSON <pre>"restrictionQualifier": { "value": "CustomDayPeriod1" }</pre> To specify a Local Custom Day Period, use the local attribute. For example: XML <restrictionQualifier local="true">CustomDayPeriod2</restrictionQualifier> JSON <pre>"restrictionQualifier": { "local": "true", "value": "CustomDayPeriod2" }</pre> Note The Calendar for the trigger is used to verify Custom Day references.	Valid values: • As String = Jan, As Value = 0 • As String = Feb, As Value = 1 • As String = Mar, As Value = 2 • As String = Apr, As Value = 3 • As String = May, As Value = 4 • As String = Jun, As Value = 5 • As String = Jul, As Value = 6 • As String = Aug, As Value = 7 • As String = Sep, As Value = 8 • As String = Oct, As Value = 9 • As String = Nov, As Value = 10 • As String = Dec, As Value = 11 • As String = Month, As Value = 12 • As String = Year, As Value = 13	Y (if restrictionComplex is true)

Property	UI Field Name	Description	Specifications	Required																
restrictionQualifiers	Restriction Qualifier(s)	Period to restrict the trigger to. Used with <code>restrictionAdjective</code>, <code>restrictionQualifiers</code>, and <code>restrictionNthAmount</code> (if <code>restrictionAdjective</code> is Nth) to specify the type of days you want to select. For example, to specify "the 1st business day of the month," select <code>restrictionAdjective</code> as 1st, <code>restrictionNouns</code> as Business Day, and <code>restrictionQualifiers</code> as Month. Example: <table><tr><td>1</td><td><restrictionQualifiers></td></tr><tr><td>2</td><td><restrictionQualifier>Month</restrictionQualifier></td></tr><tr><td>3</td><td></restrictionQualifiers></td></tr></table> To specify a Custom Day, use the name of the Custom Day. For example: XML <table><tr><td>1</td><td><restrictionQualifiers></td></tr><tr><td>2</td><td><restrictionQualifier>Jan</restrictionQualifier></td></tr><tr><td>3</td><td><restrictionQualifier>CustomDay1</restrictionQualifier></td></tr><tr><td>4</td><td></restrictionQualifiers></td></tr></table> JSON <table><tr><td>1</td><td>"restrictionQualifiers": [</td></tr></table>	1	<restrictionQualifiers>	2	<restrictionQualifier>Month</restrictionQualifier>	3	</restrictionQualifiers>	1	<restrictionQualifiers>	2	<restrictionQualifier>Jan</restrictionQualifier>	3	<restrictionQualifier>CustomDay1</restrictionQualifier>	4	</restrictionQualifiers>	1	"restrictionQualifiers": [	Valid values: • As String = Jan, As Value = 0 • As String = Feb, As Value = 1 • As String = Mar, As Value = 2 • As String = Apr, As Value = 3 • As String = May, As Value = 4 • As String = Jun, As Value = 5 • As String = Jul, As Value = 6 • As String = Aug, As Value = 7 • As String = Sep, As Value = 8 • As String = Oct, As Value = 9 • As String = Nov, As Value = 10 • As String = Dec, As Value = 11 • As String = Month, As Value = 12 • As String = Year, As Value = 13 • As String = Week, As Value = 14 • As String = Quarter, As Value = 15	Y (if <code>restrictionComplex</code> is true)
1	<restrictionQualifiers>																			
2	<restrictionQualifier>Month</restrictionQualifier>																			
3	</restrictionQualifiers>																			
1	<restrictionQualifiers>																			
2	<restrictionQualifier>Jan</restrictionQualifier>																			
3	<restrictionQualifier>CustomDay1</restrictionQualifier>																			
4	</restrictionQualifiers>																			
1	"restrictionQualifiers": [																			

Property	UI Field Name	Description	Specifications	Required
		2 3 4 5 6 7 8 <pre>{ "value": "Jan" }, { "value": "CustomDay1" }]</pre> To specify a Local Custom Day, use the local attribute. For example: XML 1 2 3 <pre><restrictionQualifiers> <restrictionQualifier local="true">CustomDay2</restrictionQualifier> </restrictionQualifiers></pre> JSON 1 2 3 4 5 6 <pre>"restrictionQualifiers": [{ "local": true, "value": "CustomDay1" }]</pre> Note The Calendar for the trigger is used to verify Custom Day references.		
restrictionSimple	Simple Restriction	Set only if <code>restriction</code> is true; Specification to set a simple restriction based on a specific situation.	Boolean; Valid values: true/false. Default is false.	Y (if <code>restrictionComplex</code> is false)

Property	UI Field Name	Description	Specifications	Required
<code>retainSysIds</code>	n/a	Specification for whether or not the web service will persist the <code>sysId</code> property. - If <code>retainSysIds</code>="true" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database. - If <code>retainSysIds</code>="false" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller. Note In XML web services, <code>retainSysIds</code> is specified as an attribute in the <trigger> element.	Valid values: true/false (default is true).	N
<code>retentionDuration</code>	Retention Duration	Set only if <code>retentionDurationPurge</code> is selected; Minimum retention duration for the selected <code>retentionDurationUnit</code> before triggered task instances can qualify for purge.	Integer	N
<code>retentionDurationPurge</code>	Purge By Retention Duration	Specification for whether triggered task instances can be purged by retention duration.	Boolean; Valid values: true/false. Default is false.	N
<code>retentionDurationUnit</code>	Retention Duration Unit	Set only if <code>retentionDurationPurge</code> is selected; Retention duration unit.	Valid values: - As String = Hours, As Value = 3 - As String = Days, As Value = 4 Default is Days (4).	N
<code>simulateTasks</code>	Simulate	Specifies if the instances generated by this trigger should execute under simulation mode.	Boolean; Valid values: true/false. Default is false.	N
<code>simulationOption</code>	Simulate Forecast	For Cron, Temporary, and Time triggers only; Enables the override of the Enable Trigger Simulation Universal Controller system property specification for whether or not to simulate the launching of tasks when triggers are eligible to fire. (If <code>simulationOption</code> is enabled, only the scheduled launch of the task by the trigger is inhibited.)	Valid values: --System Default --, As Value = 0 - As String = True, As Value = 1 - As String = False, As Value = 2 Default is --System Default -- (0).	N
<code>situation</code>	Situation	Type of day that causes the Controller to initiate the specified <code>action</code> .	Valid values: - As String = Holiday, As Value = 1 - As String = Non Business Day, As Value = 2 Default is Holiday (1).	Y (if <code>restrictionSimple</code> is true)

Property	UI Field Name	Description	Specifications	Required
<code>skipActive</code>	Skip Trigger if Active	Deprecated. Indication for whether or not the Controller should skip the next run of the specified task(s) if the previous run has not gone to a Complete status (that is, it is still active).	Boolean; Valid values: true/false. Default is false.	N
<code>skipAfterDate</code>	Skip After Date	Date after which the trigger will be skipped.		N
<code>skipAfterTime</code>	Skip After Time	Time after which the trigger will be skipped.		N
<code>skipBeforeDate</code>	Skip Before Date	Date before which the trigger will be skipped.		N
<code>skipBeforeTime</code>	Skip Before Time	Time before which the trigger will be skipped.		N
<code>skipCondition</code>	Task Launch Skip Condition	Controls when launching a task for the trigger will be skipped. Note When reading a Trigger, both <code>skipActive</code> and <code>skipCondition</code> are returned. When creating/updating a Trigger, <code>skipCondition</code> is used if present. If <code>skipCondition</code> is not present, <code>skipActive</code> is used. If both <code>skipActive</code> and <code>skipCondition</code> are present, <code>skipActive</code> can be set to true only if <code>skipCondition</code> is Active (1).	Valid values: - As String = None, As Value = 0 - As String = Active, As Value = 1 - As String = Active By Trigger, As Value = 2 Default is None (0).	N
<code>skipCount</code>	Skip Count	Specification that the Controller should skip the next N times that this task is triggered.	Integer; Default is 0.	N
<code>skipDateList</code>	Skip Date List	Date(s) on which the trigger will be skipped.		
<code>skipRestriction</code>	Skip Restriction	Specification for when the trigger should skip and not launch the task(s).	Valid values: - As String = None, As Value = 0 - As String = Before, As Value = 1 - As String = After, As Value = 2 - As String = Span, As Value = 3 - As String = On, As Value = 4 Default is None (0).	
<code>sysId</code>	n/a	System ID field in the database for this trigger.	Persisted only if retainSysIds is set to true.	N

Property	UI Field Name	Description	Specifications	Required
tasks	Tasks	Name of the task(s) being triggered when this trigger is satisfied. XML <pre><tasks> <task>uc - Demo</task> </tasks></pre> JSON <pre>"tasks": ["uc - Demo"]</pre>		Y
timeZone	Time Zone	Name of the time zone that will be applied to the time(s) specified in the trigger.		Y
version	n/a	For Read and List web services; specification of the version being read or listed. Note In XML web services, <code>version</code> is specified as an attribute in the <code><trigger></code> element.		Y

4.34.16.6.2 Trigger Properties: Task Monitor Trigger

Property	UI Field Name	Description	Specifications	Required
enabledEnd	Enabled End	End time of the period during which the trigger should be active.	Use 24-hour time; format is hh:mm	Y (if <code>restrictedTimes</code> is true)
enabledStart	Enabled Start	Start time of the period during which the trigger should be active.	Use 24-hour time; format is hh:mm	Y (if <code>restrictedTimes</code> is true)
restrictedTimes	Restrict Times	Indication that the trigger is active only during the period specified by <code>enabledStart</code> and <code>enabledEnd</code> .	Boolean; Valid values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
taskMonitor	Task Monitor	Task Monitor task being executed.		Y

4.34.16.6.3 Trigger-Related Records Properties: Variables

Property	UI Field Name	Description	Specifications	Required
description	Description	Description of the variable.		N
name	Name	Name of the variable.		Y
value	Value	Value of the variable.		Y

4.34.16.6.4 Trigger-Related Records Properties: Notes

Property	UI Field Name	Description	Specifications	Required
sysId	n/a	System ID field in the database for the Note.		N
text	Text	Text of the Note.		N
title	Title	Title of the Note.		N

4.34.17 Temporary Trigger Web Services

- [Overview](#)
- [Create a Temporary Trigger](#)
- [Modify a Temporary Trigger](#)
- [Read a Temporary Trigger](#)
 - [Read a Temporary Trigger: URI Parameters](#)
- [Temporary Trigger: XML and JSON Examples](#)
- [Properties](#)
 - [Trigger Properties: All Triggers](#)
 - [Trigger Properties: Temporary Trigger](#)
 - [Trigger-Related Records Properties: Variables](#)
 - [Trigger-Related Records Properties: Notes](#)

4.34.17.1 Overview

Universal Controller supports the following RESTful-based web services for Temporary Trigger operations, which are listed alphabetically on this page.

- [Create a Temporary Trigger](#)
- [Modify a Temporary Trigger](#)
- [Read a Temporary Trigger](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Note

For information on Trigger web services that are applicable to all trigger types, see:

- [Delete a Trigger](#)
- [Enable/Disable a Trigger](#)
- [List Triggers](#)
- [Trigger a Task](#)

4.34.17.2 Create a Temporary Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	POST
Description	Creates a new Temporary Trigger.
Example URI	http://localhost:8080/uc/resources/trigger
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Temporary Trigger: XML and JSON Examples .
Trigger Properties	• See Trigger Properties: All Triggers. • See Trigger Properties: Temporary Trigger.
Trigger-Related Record Properties	• See Trigger-Related Records Properties: Variables. • See Trigger-Related Records Properties: Notes.
Example Response	• Status 200 /OK Successfully created the <trigger type> trigger.

4.34.17.3 Modify a Temporary Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	PUT
Description	Modifies the trigger specified by the sysId in the request. To modify Temporary Trigger properties without modifying related records, use the excludeRelated property.
Example URI	http://localhost:8080/uc/resources/trigger
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Temporary Trigger: XML and JSON Examples .
Trigger Properties	• See Trigger Properties: All Triggers. • See Trigger Properties: Temporary Trigger.
Trigger-Related Record Properties	• See Trigger-Related Records Properties: Variables. • See Trigger-Related Records Properties: Notes.
Example Response	• Status 200 /OK Successfully updated the <trigger type> trigger to version <version>.

4.34.17.4 Read a Temporary Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	GET
Description	Retrieves information for the specified trigger
URI Parameters	See Read a Temporary Trigger: URI Parameters , below.
Example URI	• http://localhost:8080/uc/resources/trigger?triggername=testTrigger • http://localhost:8080/uc/resources/trigger?triggerid=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Trigger Properties	• See Trigger Properties: All Triggers. • See Trigger Properties: Temporary Trigger.
Trigger-Related Record Properties	• See Trigger-Related Records Properties: Variables. • See Trigger-Related Records Properties: Notes.

	Description
Example Response	- Status 200 /OK (See Temporary Trigger: XML and JSON Examples.) - Status 404 /Not Found A trigger with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

4.34.17.4.1 Read a Temporary Trigger: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
triggerid	Unique ID for this trigger.		Y (unless triggername is specified)	triggername
triggername	Name used within the Controller to identify this trigger.	Maximum 40 alphanumerics.	Y (unless triggerid is specified)	triggerid

4.34.17.5 Temporary Trigger: XML and JSON Examples

In the XML web service, the [exportReleaseLevel](#), [exportTable](#), [retainSysIds](#), and [version](#) properties are specified as attributes in the <trigger> element.

Examples	XML	JSON
Example for Trigger	<pre> XML <triggerTemp exportReleaseLevel="7.2.0.0" exportTable="ops_trigger_temp" retainSysIds="true" version="1"> <variables /> <notes /> <action>Do Not Trigger</action> <calendar>System Default</calendar> <dayLogic>And</dayLogic> <dayOfMonth>*</dayOfMonth> <dayOfWeek>Mon-Fri</dayOfWeek> <description>Run task once in the future</description> <disabledBy></disabledBy> <disabledTime></disabledTime> <enabled>true</enabled> <enabledBy>ops.admin</enabledBy> <enabledTime>2021-03-03 12:46:11 -0500</enabledTime> <forecast>>false</forecast> <keepTrigger>>false</keepTrigger> <name>uc - Future Task</name> <nextScheduleTime>2021-03-04 00:00:00 -0500</nextScheduleTime> <opswiseGroups /> <rdExcludeBackup>true</rdExcludeBackup> <retentionDuration>1</retentionDuration> <retentionDurationPurge>true</retentionDurationPurge> <retentionDurationUnit>Days</retentionDurationUnit> <simulationOption>-- System Default --</simulationOption> </pre>	<pre> JSON { "type": "triggerTemp", "action": "Do Not Trigger", "calendar": "System Default", "dayLogic": "And", "dayOfMonth": "*", "dayOfWeek": "Mon-Fri", "description": "Run task once in the future", "disabledBy": "", "disabledTime": "", "enabled": true, "enabledBy": "ops.admin", "enabledTime": "2021-03-03 12:46:11 -0500", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_trigger_temp", "forecast": false, "keepTrigger": false, "name": "uc - Future Task", "nextScheduledTime": "2021-03-04 00:00:00 -0500", "notes": [], "opswiseGroups": [], "rdExcludeBackup": true, "retainSysIds": true, "retentionDuration": 1, "retentionDurationPurge": true, "retentionDurationUnit": "Days", "simulationOption": "-- System Default --", "situation": "Holiday", "skipCondition": "None", "sysId": "9c659c9c2c72460c9a2057663257b0be", "tasks": ["Sleep 30"], "tdate": "2020-10-13", "timeZone": null, "ttime": "09:15", "variables": [], "version": 1 } </pre>

Examples	XML	JSON
	<pre> simulationOption> <situation>Holiday</ simulation> <skipCondition>None</ skipCondition> <sysId>0fc6b7d9c0a801c 9017b6c27c259937e</sysId> <tasks> <task>Sleep 30</task> </tasks> <tdate>2020-10-13</ tdate> <timeZone /> <ttime>09:15</ttime> </triggerTemp> </pre>	
Examples for Trigger-Related Records	Variables XML <pre> <variables> <variable> <description /> <name>testVar</ name> <value>value</ value> </variable> </variables> </pre> Notes XML <pre> <notes> <note> <sysId>76ad570c64 b84f84aeaf281403856b10</ sysId> <text>testNoteTex t</text> <title>testNoteTi tle</title> </note> </notes> </pre>	Variables JSON <pre> "variables": [{ "description": "description", "name": "var1", "value": "value1" }] </pre> Notes JSON <pre> "notes": [{ "sysId": "76ad570c64b84f84aeaf2814038 56b10", "text": "testNoteText", "title": "testNoteTitle" }] </pre>

4.34.17.6 Properties

4.34.17.6.1 Trigger Properties: All Triggers

Property	UI Field Name	Description	Specifications	Required
action	Action	For all trigger types except Manual and Temporary; Action to take on a non-business day or holiday (see situation).	Valid values: - As String = Do Not Trigger, As Value = 1 - As String = Next Day, As Value = 2 - As String = Next Business Day, As Value = 3 - As String = Previous Day, As Value = 4 - As String = Previous Business Day, As Value = 5 Default is Do Not Trigger (1). Note The following values are valid only for Cron and Time triggers: - Next Day (2) - Next Business Day (3) - Previous Day (4) - Previous Business Day (5)	Y (if restriction is true.)
calendar	Calendar	Calendar that defines the business days, holidays, and other special days that determine the run dates for the task(s) specified in the trigger. The Calendar will be used to verify any Custom Day references in restrictionNoun.	Default is System Default.	Y
customField1	n/a	User-Defined field. Example: <customField1 label="Domain">web.com</customField1>	The label is included only if a value has been defined for the User Defined Trigger Field 1 Label Universal Controller system property.	N
customField2	n/a	User-Defined field. Example: <customField2 label="Domain">web.com</customField2>	The label is included only if a value has been defined for the User Defined Trigger Field 2 Label Universal Controller system property.	N
description	Description	Description of this trigger.		N
disabledBy	Disabled By	System-supplied. If Status = Enabled, ID of the user who most recently disabled this trigger.	Read-only.	N
disabledTime	Disabled Time	System-supplied. If Status = Enabled, Date and time that the trigger was disabled.	Read-only.	N
enabled	Status	System-defined; Specification for whether or nor the trigger is enabled. Only enabled triggers are processed by the Controller.	Read-only.	N

Property	UI Field Name	Description	Specifications	Required
<code>enabledBy</code>	Enabled By	System-supplied. If Status = Enabled, ID of the user who most recently enabled this trigger.	Read-only.	N
<code>enabledTime</code>	Enabled Time	System-supplied. If Status = Enabled, Date and time that the trigger was enabled.	Read-only.	N
<code>enforceVariables</code>	Enforce Variables	Specifies whether or not to enforce Override Trigger Variables when using Trigger Now... from the User Interface. Not applicable for Web Service APIs.	Valid values: true/false. Default is false.	N
<code>excludeRelated</code>	n/a	For Modify Trigger web services; specification for whether or not to exclude related records from the update, even if they are provided in the request. Note In XML web services, <code>excludeRelated</code> is specified as an attribute in the <trigger> element.	Valid values: true/false Default is false.	N
<code>exportReleaseLevel</code>	n/a	Universal Controller release that the record was exported from. Note In XML web services, <code>exportReleaseLevel</code> is specified as an attribute in the <trigger> element.	read only	N
<code>exportTable</code>	n/a	Record table information. Note In XML web services, <code>exportTable</code> is specified as an attribute in the <trigger> element.	read only	N
<code>forecast</code>	Forecast	For Cron, Temporary, and Time triggers only; Date and time when this trigger will be satisfied for the next number days, as specified in the Forecast Period In Days Universal Controller system property. The Controller writes the forecasting entries to the Forecasts List .	Boolean; Valid values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
<code>lockVariables</code>	Lock Variables	Specifies whether or not to prevent editing variables when using Trigger Now... from the User Interface. Not applicable for Web Service APIs.	Boolean; Valid values: true/false. Default is false.	N
<code>name</code>	Name	Name used within the Controller to identify this trigger.	Maximum 255 alphanumerics.	Y
<code>nextScheduledTime</code>	Next Scheduled Time	System-supplied; for time-based triggers. If Status = Enabled, the next date and time this trigger will be satisfied. See Displaying Trigger Forecast Information .	Read-only.	N
<code>opswiseGroups</code>	Member of Business Services	List of Business Service(s) that this trigger belongs to. XML <pre><opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups></pre> JSON <pre>"opswiseGroups": ["test"]</pre>		N
<code>rdExcludeBackup</code>	Exclude Backup	Set only if <code>retentionDurationPurge</code> is selected; Specification for whether qualifying task instances can be excluded from the backup when being purged by retention duration.	Boolean; Valid values: true/false. Default is false.	N
<code>restriction</code>	Special Restriction	Indication of whether or not you want to specify additional parameters that tell the Controller how to handle exceptions, such as when the trigger is satisfied on a holiday or non-business day. You can specify simple and/or complex restrictions. For example, you can specify a <code>simpleRestriction</code> that disables the trigger if it is satisfied on a holiday identified in the calendar and/or a <code>restrictionComplex</code> that disables the trigger on the last business day of every month.	Boolean; Valid values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
<code>restrictionAdjective</code>	Restriction Adjective	Type of selection for <code>restrictionNoun</code> .	Valid values: • As String = Every, As Value = 0 • As String = 1st, As Value = 1 • As String = 2nd, As Value = 2 • As String = 3rd, As Value = 3 • As String = 4th, As Value = 4 • As String = Last, As Value = 5 • As String = Nth, As Value = 6 Default is Every (0).	Y (if <code>restrictionComplex</code> is enabled)
<code>restrictionComplex</code>	Complex Restriction	Set only if <code>restriction</code> is true; Set of parameters that determine one or more situations when this trigger should not be satisfied. Used in conjunction with <code>restrictionMode</code> , <code>restrictionAdjective</code> , <code>restrictionNoun</code> , and <code>restrictionQualifier</code> . For example, you can specify that you do not want to satisfy this trigger on the last business day of the year or the first day of each month.	Boolean; Valid values: true/false. Default is false.	Y (if <code>restrictionSimple</code> is false.)
<code>restrictionMode</code>	Restriction Mode	Set only if <code>restrictionSimple</code> is true; Specification for whether you want to use <code>restrictionSimple</code> - and/or <code>restrictionComplex</code> -related values.	Valid values: • As String = And, As Value = 1 • As String = Or, As Value = 2 Default is Or (2).	Y if <code>restrictionSimple</code> and <code>restrictionComplex</code> are true.

Property	UI Field Name	Description	Specifications	Required
restrictionNoun	Restriction Noun	Deprecated. Day to restrict the trigger to. To specify a Custom Day, use the name of the Custom Day. For example: XML <pre><restrictionNoun>CustomDay1</restrictionNoun></pre> JSON <pre>"restrictionNoun": { "value": "CustomDay1" }</pre> To specify a Local Custom Day, use the local attribute. For example: XML <pre><restrictionNoun local="true">CustomDay2</restrictionNoun></pre> JSON <pre>"restrictionNoun": { "local": "true", "value": "CustomDay2" }</pre> Note The Calendar for the trigger is used to verify Custom Day references.	Valid values: • As String = Sunday, As Value = 1 • As String = Monday, As Value = 2 • As String = Tuesday, As Value = 3 • As String = Wednesday, As Value = 4 • As String = Thursday, As Value = 5 • As String = Friday, As Value = 6 • As String = Saturday, As Value = 7 • As String = Day, As Value = 8 • As String = Business Day, As Value = 9	Y (if restrictionCompleteness is true.

Property	UI Field Name	Description	Specifications	Required																
restrictionNouns	Restriction Noun(s)	Day to restrict the trigger to. Used with <code>restrictionAdjective</code>, <code>restrictionQualifiers</code>, and <code>restrictionNthAmount</code> (if <code>restrictionAdjective</code> is Nth) to specify the type of days you want to select. For example, to specify "the 1st business day of the month," select <code>restrictionAdjective</code> as 1st, <code>restrictionNouns</code> as Business Day, and <code>restrictionQualifiers</code> as Month. Example: <table><tr><td>1</td><td><restrictionNouns></td></tr><tr><td>2</td><td><restrictionNoun>BusinessDay</restrictionNoun></td></tr><tr><td>3</td><td></restrictionNouns></td></tr></table> To specify a Custom Day, use the name of the Custom Day. For example: XML <table><tr><td>1</td><td><restrictionNouns></td></tr><tr><td>2</td><td><restrictionNoun>Monday</restrictionNoun></td></tr><tr><td>3</td><td><restrictionNoun>CustomDay1</restrictionNoun></td></tr><tr><td>4</td><td></restrictionNouns></td></tr></table> JSON <table><tr><td>1</td><td>"restrictionNouns": [</td></tr></table>	1	<restrictionNouns>	2	<restrictionNoun>BusinessDay</restrictionNoun>	3	</restrictionNouns>	1	<restrictionNouns>	2	<restrictionNoun>Monday</restrictionNoun>	3	<restrictionNoun>CustomDay1</restrictionNoun>	4	</restrictionNouns>	1	"restrictionNouns": [	Valid values: • As String = Sunday, As Value = 1 • As String = Monday, As Value = 2 • As String = Tuesday, As Value = 3 • As String = Wednesday, As Value = 4 • As String = Thursday, As Value = 5 • As String = Friday, As Value = 6 • As String = Saturday, As Value = 7 • As String = Day, As Value = 8 • As String = Business Day, As Value = 9 • Custom Days specified in the calendar selected in a Workflow calendar.	Y (if <code>restrictionComplex</code> is true)
1	<restrictionNouns>																			
2	<restrictionNoun>BusinessDay</restrictionNoun>																			
3	</restrictionNouns>																			
1	<restrictionNouns>																			
2	<restrictionNoun>Monday</restrictionNoun>																			
3	<restrictionNoun>CustomDay1</restrictionNoun>																			
4	</restrictionNouns>																			
1	"restrictionNouns": [																			

Property	UI Field Name	Description	Specifications	Required
		2 3 4 5 6 7 8 <pre>{ "value": "Monday" }, { "value": "CustomDay1" }]</pre> To specify a Local Custom Day, use the local attribute. For example: XML 1 2 3 <pre><restrictionNo uns> <restrictionNo un local="true">C ustomDay2</ restrictionNou n> </ restrictionNou ns></pre> JSON 1 2 3 4 5 6 <pre>"restrictionNo uns": [{ "local": true, "value": "CustomDay1" }]</pre> Note The Calendar for the trigger is used to verify Custom Day references.		
restrictionNthAmount	Restriction Nth Amount	Set only if restrictionAdjective is Nth (6); value of N.	Integer	Y (if restrictionAdjective is Nth)

Property	UI Field Name	Description	Specifications	Required
restrictionQualifier	Restriction Qualifier	Deprecated. Period to restrict the trigger to. To specify a Custom Day Period, use the name of the Custom Day Period. For example: XML <restrictionQualifier>CustomDayPeriod1</restrictionQualifier> JSON <pre>"restrictionQualifier": { "value": "CustomDayPeriod1" }</pre> To specify a Local Custom Day Period, use the local attribute. For example: XML <restrictionQualifier local="true">CustomDayPeriod2</restrictionQualifier> JSON <pre>"restrictionQualifier": { "local": "true", "value": "CustomDayPeriod2" }</pre> Note The Calendar for the trigger is used to verify Custom Day references.	Valid values: • As String = Jan, As Value = 0 • As String = Feb, As Value = 1 • As String = Mar, As Value = 2 • As String = Apr, As Value = 3 • As String = May, As Value = 4 • As String = Jun, As Value = 5 • As String = Jul, As Value = 6 • As String = Aug, As Value = 7 • As String = Sep, As Value = 8 • As String = Oct, As Value = 9 • As String = Nov, As Value = 10 • As String = Dec, As Value = 11 • As String = Month, As Value = 12 • As String = Year, As Value = 13	Y (if restrictionCompleteness is true).

Property	UI Field Name	Description	Specifications	Required																
restrictionQualifiers	Restriction Qualifier(s)	Period to restrict the trigger to. Used with <code>restrictionAdjective</code>, <code>restrictionQualifiers</code>, and <code>restrictionNthAmount</code> (if <code>restrictionAdjective</code> is Nth) to specify the type of days you want to select. For example, to specify "the 1st business day of the month," select <code>restrictionAdjective</code> as 1st, <code>restrictionNouns</code> as Business Day, and <code>restrictionQualifiers</code> as Month. Example: <table><tr><td>1</td><td><restrictionQualifiers></td></tr><tr><td>2</td><td><restrictionQualifier>Month</restrictionQualifier></td></tr><tr><td>3</td><td></restrictionQualifiers></td></tr></table> To specify a Custom Day, use the name of the Custom Day. For example: XML <table><tr><td>1</td><td><restrictionQualifiers></td></tr><tr><td>2</td><td><restrictionQualifier>Jan</restrictionQualifier></td></tr><tr><td>3</td><td><restrictionQualifier>CustomDay1</restrictionQualifier></td></tr><tr><td>4</td><td></restrictionQualifiers></td></tr></table> JSON <table><tr><td>1</td><td>"restrictionQualifiers": [</td></tr></table>	1	<restrictionQualifiers>	2	<restrictionQualifier>Month</restrictionQualifier>	3	</restrictionQualifiers>	1	<restrictionQualifiers>	2	<restrictionQualifier>Jan</restrictionQualifier>	3	<restrictionQualifier>CustomDay1</restrictionQualifier>	4	</restrictionQualifiers>	1	"restrictionQualifiers": [	Valid values: • As String = Jan, As Value = 0 • As String = Feb, As Value = 1 • As String = Mar, As Value = 2 • As String = Apr, As Value = 3 • As String = May, As Value = 4 • As String = Jun, As Value = 5 • As String = Jul, As Value = 6 • As String = Aug, As Value = 7 • As String = Sep, As Value = 8 • As String = Oct, As Value = 9 • As String = Nov, As Value = 10 • As String = Dec, As Value = 11 • As String = Month, As Value = 12 • As String = Year, As Value = 13 • As String = Week, As Value = 14 • As String = Quarter, As Value = 15	Y (if <code>restrictionComplex</code> is true)
1	<restrictionQualifiers>																			
2	<restrictionQualifier>Month</restrictionQualifier>																			
3	</restrictionQualifiers>																			
1	<restrictionQualifiers>																			
2	<restrictionQualifier>Jan</restrictionQualifier>																			
3	<restrictionQualifier>CustomDay1</restrictionQualifier>																			
4	</restrictionQualifiers>																			
1	"restrictionQualifiers": [																			

Property	UI Field Name	Description	Specifications	Required
		2 { 3 "value": 4 "Jan" 5 }, 6 { 7 "value": 8 "CustomDay1" 9 } 10 } To specify a Local Custom Day, use the local attribute. For example: XML 1 <restrictionQualifiers> 2 <restrictionQualifier 3 local="true">CustomDay2</restrictionQualifier> 4 </restrictionQualifiers> JSON 1 "restrictionQualifiers": [2 { 3 "local": 4 true, 5 "value": 6 "CustomDay1" 7 } 8] Note The Calendar for the trigger is used to verify Custom Day references.		
restrictionSimple	Simple Restriction	Set only if restriction is true; Specification to set a simple restriction based on a specific situation .	Boolean; Valid values: true/false. Default is false.	Y (if restrictionCompl ex is false.

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"value":

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"CustomDay1"

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}

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]

Note

The Calendar for the trigger is used to verify Custom Day references.

Property	UI Field Name	Description	Specifications	Required
<code>retainSysIds</code>	n/a	Specification for whether or not the web service will persist the <code>sysId</code> property. - If <code>retainSysIds</code>="true" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database. - If <code>retainSysIds</code>="false" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller. Note In XML web services, <code>retainSysIds</code> is specified as an attribute in the <trigger> element.	Valid values: true/false (default is true).	N
<code>retentionDuration</code>	Retention Duration	Set only if <code>retentionDurationPurge</code> is selected; Minimum retention duration for the selected <code>retentionDurationUnit</code> before triggered task instances can qualify for purge.	Integer	N
<code>retentionDurationPurge</code>	Purge By Retention Duration	Specification for whether triggered task instances can be purged by retention duration.	Boolean; Valid values: true/false. Default is false.	N
<code>retentionDurationUnit</code>	Retention Duration Unit	Set only if <code>retentionDurationPurge</code> is selected; Retention duration unit.	Valid values: - As String = Hours, As Value = 3 - As String = Days, As Value = 4 Default is Days (4).	N
<code>simulateTasks</code>	Simulate	Specifies if the instances generated by this trigger should execute under simulation mode.	Boolean; Valid values: true/false. Default is false.	N
<code>simulationOption</code>	Simulate	For Cron, Temporary, and Time triggers only; Enables the override of the Enable Trigger Simulation Universal Controller system property specification for whether or not to simulate the launching of tasks when triggers are eligible to fire. (If <code>simulationOption</code> is enabled, only the scheduled launch of the task by the trigger is inhibited.)	Valid values: --System Default --, As Value = 0 - As String = True, As Value = 1 - As String = False, As Value = 2 Default is --System Default -- (0).	N
<code>situation</code>	Situation	Type of day that causes the Controller to initiate the specified <code>action</code> .	Valid values: - As String = Holiday, As Value = 1 - As String = Non Business Day, As Value = 2 Default is Holiday (1).	Y (if <code>restrictionSimple</code> is true)

Property	UI Field Name	Description	Specifications	Required
skipActive	Skip Trigger if Active	Deprecated. Indication for whether or not the Controller should skip the next run of the specified task(s) if the previous run has not gone to a Complete status (that is, it is still active).	Boolean; Valid values: true/false. Default is false.	N
skipCondition	Task Launch Skip Condition	Controls when launching a task for the trigger will be skipped. Note When reading a Trigger, both skipActive and skipCondition are returned. When creating/updating a Trigger, skipCondition is used if present. If skipCondition is not present, skipActive is used. If both skipActive and skipCondition are present, skipActive can be set to true only if skipCondition is Active (1).	Valid values: - As String = None, As Value = 0 - As String = Active, As Value = 1 - As String = Active By Trigger, As Value = 2 Default is None (0).	N
sysId	n/a	System ID field in the database for this trigger.	Persisted only if retainSysIds is set to true.	N
tasks	Tasks	Name of the task(s) being triggered when this trigger is satisfied. XML <pre><tasks> <task>uc - Demo</task> </tasks></pre> JSON <pre>"tasks": ["uc - Demo"]</pre>		Y
timeZone	Time Zone	Name of the time zone that will be applied to the time(s) specified in the trigger.		Y

Property	UI Field Name	Description	Specifications	Required
version	n/a	For Read and List web services; specification of the version being read or listed. Note In XML web services, <code>version</code> is specified as an attribute in the <code><trigger></code> element.		Y

4.34.17.6.2 Trigger Properties: Temporary Trigger

Property	UI Field Name	Description	Specifications	Required
keepTrigger	Keep Trigger	Specification for whether the trigger will be set to Disabled (true) or Deleted (false) after the Next Schedule Time.	Boolean; Valid values: true/false. Default is false.	N
tdate	Date	Date when the trigger will be run.	Format: yyyy-mm-dd	Y
ttime	Time	Time when the trigger will be run.	Format: hh:mm	Y

4.34.17.6.3 Trigger-Related Records Properties: Variables

Property	UI Field Name	Description	Specifications	Required
description	Description	Description of the variable.		N
name	Name	Name of the variable.		Y
value	Value	Value of the variable.		Y

4.34.17.6.4 Trigger-Related Records Properties: Notes

Property	UI Field Name	Description	Specifications	Required
sysId	n/a	System ID field in the database for the Note.		N
text	Text	Text of the Note.		N
title	Title	Title of the Note.		N

4.34.18 Time Trigger Web Services

- [Overview](#)
- [Create a Time Trigger](#)
- [Modify a Time Trigger](#)
- [Read a Time Trigger](#)
 - [Read a Time Trigger: URI Parameters](#)
- [Time Trigger: XML and JSON Examples](#)
- [Properties](#)
 - [Trigger Properties: All Triggers](#)
 - [Trigger Properties: Time Trigger](#)
 - [Trigger-Related Records Properties: Variables](#)
 - [Trigger-Related Records Properties: Notes](#)
- [Modify Time of Time Trigger](#)
 - [Modify Time of Time Trigger: XML and JSON Examples](#)
 - [Modify Time of Time Trigger: Request Properties](#)
- [List Trigger Qualifying Times](#)
 - [List Trigger Qualifying Times: URI Parameters](#)
 - [List Trigger Qualifying Times: XML and JSON Examples](#)

4.34.18.1 Overview

Universal Controller supports the following RESTful-based web services for Time Trigger operations, which are listed alphabetically on this page.

- [Create a Time Trigger](#)
- [Modify a Time Trigger](#)
- [Read a Time Trigger](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Note

For information on Trigger web services that are applicable to all trigger types, see:

- [Delete a Trigger](#)
- [Enable/Disable a Trigger](#)
- [List Triggers](#)
- [Trigger a Task](#)

4.34.18.2 Create a Time Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	POST
Description	Creates a new Time trigger.
Example URI	http://localhost:8080/uc/resources/trigger
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Time Trigger: XML and JSON Examples .
Trigger Properties	• See Trigger Properties: All Triggers. • See Trigger Properties: Time Trigger.
Trigger-Related Record Properties	• See Trigger-Related Records Properties: Variables. • See Trigger-Related Records Properties: Notes.
Example Response	• Status 200 /OK Successfully created the <trigger type> trigger.

4.34.18.3 Modify a Time Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	PUT
Description	Modifies the trigger specified by the sysId in the request. To modify Time Trigger properties without modifying related records, use the excludeRelated property.
Example URI	http://localhost:8080/uc/resources/trigger
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Time Trigger: XML and JSON Examples .
Trigger Properties	• See Trigger Properties: All Triggers. • See Trigger Properties: Time Trigger.
Trigger-Related Record Properties	• See Trigger-Related Records Properties: Variables. • See Trigger-Related Records Properties: Notes.

	Description
Example Response	Status 200 /OK Successfully updated the <trigger type> trigger to version <version>.

4.34.18.4 Read a Time Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	GET
Description	Retrieves information for the specified trigger
URI Parameters	See Read a Time Trigger: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/trigger?triggername=testTrigger http://localhost:8080/uc/resources/trigger?triggerid=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Trigger Properties	- See Trigger Properties: All Triggers. - See Trigger Properties: Time Trigger.
Trigger-Related Record Properties	- See Trigger-Related Records Properties: Variables. - See Trigger-Related Records Properties: Notes.
Example Response	- Status 200 /OK (See Time Trigger: XML and JSON Examples.) - Status 404 /Not Found A trigger with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

4.34.18.4.1 Read a Time Trigger: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
<code>triggerid</code>	Unique ID for this trigger.		Y (unless <code>triggername</code> is specified)	<code>triggername</code>
<code>triggername</code>	Name used within the Controller to identify this trigger.	Maximum 40 alphanumerics.	Y (unless <code>triggerid</code> is specified)	<code>triggerid</code>

4.34.18.5 Time Trigger: XML and JSON Examples

In the XML web service, the `exportReleaseLevel`, `exportTable`, `retainSysIds`, and `version` properties are specified as attributes in the `<trigger>` element.

Exam ples	XML	JSON
Example for Trigger	<pre> XML <triggerTime exportReleaseLevel="7. 2.0.0" exportTable="ops_trigger_tim e" retainSysIds="true" version="1"> <variables /> <action>Do Not Trigger</ action> <notes /> <adjustInterval>true</ adjustInterval> <adjustmentAmount>1</ adjustmentAmount> <adjustmentType>Day</ adjustmentType> <calendar>System Default</ calendar> <dateAdjective>Every</ dateAdjective> <dateAdjustment>None</ dateAdjustment> <dateNouns> <dateNoun>Saturday</ dateNoun> </dateNouns> <dateQualifiers> <dateQualifier>Year</dateQualifier> </dateQualifiers> <dayInterval>2</dayInterval> <dayStyle>Complex</dayStyle> <description /> <disabledBy></disabledBy> <disabledTime></disabledTime> <enabled>true</enabled> <enabledBy>ops.admin</ enabledBy> <enabledTime>2021-03-03 12:46:11 -0500</enabledTime> <enabledEnd>00:00</ enabledEnd> <enabledStart>00:00</ enabledStart> <forecast>false</forecast> <fri>false</fri> <intervalStartingDate>2015-0 </pre>	<pre> JSON { "type": "triggerTime", "action": "Do Not Trigger", "adjustInterval": true, "adjustmentAmount": 1, "adjustmentType": "Day", "calendar": "System Default", "dateAdjective": "Every", "dateAdjustment": "None", "dateNouns": { "value": "Saturday" }, "dateQualifiers": { "value": "Year" }, "dayInterval": 2, "dayStyle": "Complex", "description": null, "disabledBy": "", "disabledTime": "", "enabled": true, "enabledBy": "ops.admin", "enabledTime": "2021-03-03 12:46:11 -0500", "enabledEnd": "00:00", "enabledStart": "00:00", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_trigger_fm", "forecast": false, "fri": false, "intervalStartingDate": null, "mon": false, "name": "test special day", "nextScheduledTime": "2021-03-04 00:00:00 -0500", "notes": [], "opswiseGroups": [], "rdExcludeBackup": true, "restrictedTimes": false, "restriction": false, "restrictionAdjective": "Every", "restrictionComplex": false, "restrictionMode": "Or", "restrictionNouns": [{ </pre>

Exam ples	XML	JSON
	<pre> 6-17</intervalStartingDate> <mon>>false</mon> <name>test special day</name> <nextScheduleTime>2021-03-04 00:00:00 -0500</nextScheduleTime> <opswiseGroups /> <rdExcludeBackup>true</ rdExcludeBackup> <restrictedTimes>>false</ restrictedTimes> <restriction>>false</ restriction> <restrictionAdjective>Every< /restrictionAdjective> <restrictionComplex>>false</ restrictionComplex> <restrictionMode>Or</ restrictionMode> <restrictionNouns> <restrictionNoun>Day</ restrictionNoun> </restrictionNouns> <restrictionNthAmount /> <restrictionQualifiers> <restrictionQualifier>Year</ restrictionQualifier> </restrictionQualifiers> <restrictionSimple>>false</ restrictionSimple> <retentionDuration>1</ retentionDuration> <retentionDurationPurge>>true </retentionDurationPurge> <retentionDurationUnit>Days< /restrictionDurationUnit> <sat>>false</sat> <simpleDateType>Daily</ simpleDateType> <simulationOption>-- System Default --</simulationOption> <situation>Holiday</ situation> <skipAfterDate>2020-05-28</ skipAfterDate> <skipAfterTime>02:15</ skipAfterTime> <skipBeforeDate>2020-05-30</ skipBeforeDate> <skipBeforeTime>17:30</ skipBeforeTime> <skipCondition>None</ skipCondition> <skipCount>0</skipCount> </pre>	<pre> "value": "Day" }], "restrictionNthAmount": null, "restrictionQualifiers": [{ "value": "Year" }], "restrictionSimple": false, "retainSysIds": true, "retentionDuration": 1, "retentionDurationPurge": true, "retentionDurationUnit": "Days", "sat": false, "simpleDateType": "Daily", "simulationOption": "-- System Default --", "situation": "Holiday", "skipAfterDate": "2020-05-28", "skipAfterTime": "02:15", "skipBeforeDate": "2020-05-30", "skipBeforeTime": "17:30", "skipCondition": "None", "skipCount": 0, "skipDateList": [], "skipRestriction": "Span", "startTimeEnable": false, "startingAt": " *:00", "sun": false, "sysId": "9c659c9c2c72460c9a2057663257b0be", "tasks": ["Sleep 30"], "thu": false, "time": "00:00", "timeInterval": null, "timeIntervalUnits": "Hours", "timeStyle": "Absolute", "timeZone": null, "tue": false, "variables": [], "version": 1 "wed": false, } </pre>

Exam ples	XML	JSON
	<pre> <skipDateList /> <skipRestriction>Span</ skipRestriction <startTimeEnable>>false</ startTimeEnable <startingAt>*:00</startingAt> <sun>>false</sun <sysId>0fc6b7d9c0a801c9017b6 c27c259937e</sysId> <tasks> <task>Sleep 30</task> </tasks> <thu>>false</thu> <time>00:00</time> <timeInterval /> <timeIntervalUnits>Hours</ timeIntervalUnits> <timeStyle>Absolute</ timeStyle> <timeZone /> <tue>>false</tue> <wed>>false</wed> </triggerTime> </pre>	
Example s for Trigger- Related Records	Variables XML <pre> <variables> <variable> <description /> <name>testVar</name> <value>value</value> </variable> </variables> </pre> Notes XML <pre> <notes> <note> <sysId>76ad570c64b84f84aea f281403856b10</sysId> <text>testNoteText</text> <title>testNoteTitle</ title> </note> </notes> </pre>	Variables JSON <pre> "variables": [{ "description": "description", "name": "var1", "value": "value1" }] </pre> Notes JSON <pre> "notes": [{ "sysId": "76ad570c64b84f84aeaf281403856b10", "text": "testNoteText", "title": "testNoteTitle" }] </pre>

4.34.18.6 Properties

4.34.18.6.1 Trigger Properties: All Triggers

Property	UI Field Name	Description	Specifications	Required
action	Action	For all trigger types except Manual and Temporary; Action to take on a non-business day or holiday (see <code>situation</code>).	Valid values: - As String = Do Not Trigger, As Value = 1 - As String = Next Day, As Value = 2 - As String = Next Business Day, As Value = 3 - As String = Previous Day, As Value = 4 - As String = Previous Business Day, As Value = 5 Default is Do Not Trigger (1). Note The following values are valid only for Cron and Time triggers: - Next Day (2) - Next Business Day (3) - Previous Day (4) - Previous Business Day (5)	Y (if <code>restriction</code> is true)
calendar	Calendar	Calendar that defines the business days, holidays, and other special days that determine the run dates for the task(s) specified in the trigger. The Calendar will be used to verify any Custom Day references in <code>restrictionNoun</code> and <code>dateNoun</code>.	Default is System Default.	Y
customField1	n/a	User-Defined field. Example: <customField1 label="Domain">web.com</customField1>	The label is included only if a value has been defined for the User Defined Trigger Field 1 Label Universal Controller system property.	N
customField2	n/a	User-Defined field. Example: <customField2 label="Domain">web.com</customField2>	The label is included only if a value has been defined for the User Defined Trigger Field 2 Label Universal Controller system property.	N
description	Description	Description of this trigger.		N

Property	UI Field Name	Description	Specifications	Required
<code>disabledBy</code>	Disabled By	System-supplied. If Status = Enabled, ID of the user who most recently disabled this trigger.	Read-only.	N
<code>disabledTime</code>	Disabled Time	System-supplied. If Status = Enabled, Date and time that the trigger was disabled.	Read-only.	N
<code>enabled</code>	Status	System-defined; Specification for whether or nor the trigger is enabled. Only enabled triggers are processed by the Controller.	Read-only.	N
<code>enabledBy</code>	Enabled By	System-supplied. If Status = Enabled, ID of the user who most recently enabled this trigger.	Read-only.	N
<code>enabledTime</code>	Enabled Time	System-supplied. If Status = Enabled, Date and time that the trigger was enabled.	Read-only.	N
<code>enforceVariables</code>	Enforce Variables	Specifies whether or not to enforce Override Trigger Variables when using Trigger Now... from the User Interface. Not applicable for Web Service APIs.	Valid values: true/false. Default is false.	N
<code>excludeRelated</code>	n/a	For Modify Trigger web services; specification for whether or not to exclude related records from the update, even if they are provided in the request. Note In XML web services, <code>excludeRelated</code> is specified as an attribute in the <trigger> element.	Valid values: true/false. Default is false.	N
<code>exportReleaseLevel</code>	n/a	Universal Controller release that the record was exported from. Note In XML web services, <code>exportReleaseLevel</code> is specified as an attribute in the <trigger> element.	read only	N

Property	UI Field Name	Description	Specifications	Required
<code>exportTable</code>	n/a	Record table information. Note In XML web services, <code>exportTable</code> is specified as an attribute in the <trigger> element.	read only	N
<code>forecast</code>	Forecast	For Cron, Temporary, and Time triggers only; Date and time when this trigger will be satisfied for the next number days, as specified in the Forecast Period In Days Universal Controller system property. The Controller writes the forecasting entries to the Forecasts List .	Boolean; Valid values: true/false. Default is false.	N
<code>lockVariables</code>	Lock Variables	Specifies whether or not to prevent editing variables when using Trigger Now... from the User Interface. Not applicable for Web Service APIs.	Boolean; Valid values: true/false. Default is false.	N
<code>name</code>	Name	Name used within the Controller to identify this trigger.	Maximum 255 alphanumerics.	Y
<code>nextScheduledTime</code>	Next Scheduled Time	System-supplied; for time-based triggers. If Status = Enabled, the next date and time this trigger will be satisfied. See Displaying Trigger Forecast Information .	Read-only.	N
<code>opswiseGroups</code>	Member of Business Services	List of Business Service(s) that this trigger belongs to. XML <pre><opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups></pre> JSON <pre>"opswiseGroups": ["test"]</pre>		N
<code>rdExcludeBackup</code>	Exclude Backup	Set only if <code>retentionDurationPurge</code> is selected; Specification for whether qualifying task instances can be excluded from the backup when being purged by retention duration.	Boolean; Valid values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
<code>restriction</code>	Special Restriction	Indication of whether or not you want to specify additional parameters that tell the Controller how to handle exceptions, such as when the trigger is satisfied on a holiday or non-business day. You can specify simple and/or complex restrictions. For example, you can specify a <code>simpleRestriction</code> that disables the trigger if it is satisfied on a holiday identified in the calendar and/or a <code>restrictionComplex</code> that disables the trigger on the last business day of every month.	Boolean; Valid values: true/false. Default is false.	N
<code>restrictionAdjective</code>	Restriction Adjective	Type of selection for <code>restrictionNoun</code> .	Valid values: - As String = Every, As Value = 0 - As String = 1st, As Value = 1 - As String = 2nd, As Value = 2 - As String = 3rd, As Value = 3 - As String = 4th, As Value = 4 - As String = Last, As Value = 5 - As String = Nth, As Value = 6 Default is Every (0).	Y (if <code>restrictionComplex</code> is enabled)
<code>restrictionComplex</code>	Complex Restriction	Set only if <code>restriction</code> is true; Set of parameters that determine one or more situations when this trigger should not be satisfied. Used in conjunction with <code>restrictionMode</code> , <code>restrictionAdjective</code> , <code>restrictionNoun</code> , and <code>restrictionQualifier</code> . For example, you can specify that you do not want to satisfy this trigger on the last business day of the year or the first day of each month.	Boolean; Valid values: true/false. Default is false.	Y (if <code>restrictionSimple</code> is false)
<code>restrictionMode</code>	Restriction Mode	Set only if <code>restrictionSimple</code> is true; Specification for whether you want to use <code>restrictionSimple</code> -and/or <code>restrictionComplex</code> -related values.	Valid values: - As String = And, As Value = 1 - As String = Or, As Value = 2 Default is Or (2).	Y (if <code>restrictionSimple</code> and <code>restrictionComplex</code> are true)

Property	UI Field Name	Description	Specifications	Required																
restrictionNoun	Restriction Noun	Deprecated. Period to restrict the trigger to. Used with <code>restrictionAdjective</code>, <code>restrictionQualifiers</code>, and <code>restrictionNthAmount</code> (if <code>restrictionAdjective</code> is Nth) to specify the type of days you want to select. For example, to specify "the 1st business day of the month," select <code>restrictionAdjective</code> as 1st, <code>restrictionNouns</code> as Business Day, and <code>restrictionQualifiers</code> as Month. Example: <table><tr><td>1</td><td><restrictionQualifiers></td></tr><tr><td>2</td><td><restrictionQualifier>Month</restrictionQualifier></td></tr><tr><td>3</td><td></restrictionQualifiers></td></tr></table> To specify a Custom Day, use the name of the Custom Day. For example: XML <table><tr><td>1</td><td><restrictionQualifiers></td></tr><tr><td>2</td><td><restrictionQualifier>Jan</restrictionQualifier></td></tr><tr><td>3</td><td><restrictionQualifier>CustomDay1</restrictionQualifier></td></tr><tr><td>4</td><td></restrictionQualifiers></td></tr></table> JSON <table><tr><td>1</td><td>"restrictionQualifiers": [</td></tr></table>	1	<restrictionQualifiers>	2	<restrictionQualifier>Month</restrictionQualifier>	3	</restrictionQualifiers>	1	<restrictionQualifiers>	2	<restrictionQualifier>Jan</restrictionQualifier>	3	<restrictionQualifier>CustomDay1</restrictionQualifier>	4	</restrictionQualifiers>	1	"restrictionQualifiers": [	Valid values: • As String = Sunday, As Value = 1 • As String = Monday, As Value = 2 • As String = Tuesday, As Value = 3 • As String = Wednesday, As Value = 4 • As String = Thursday, As Value = 5 • As String = Friday, As Value = 6 • As String = Saturday, As Value = 7 • As String = Day, As Value = 8 • As String = Business Day, As Value = 9	Y (if <code>restrictionCompleteness</code> is true)
1	<restrictionQualifiers>																			
2	<restrictionQualifier>Month</restrictionQualifier>																			
3	</restrictionQualifiers>																			
1	<restrictionQualifiers>																			
2	<restrictionQualifier>Jan</restrictionQualifier>																			
3	<restrictionQualifier>CustomDay1</restrictionQualifier>																			
4	</restrictionQualifiers>																			
1	"restrictionQualifiers": [																			

Property	UI Field Name	Description	Specifications	Required
		2 3 4 5 6 7 8 <pre>{ "value": "Jan" }, { "value": "CustomDay1" }]</pre> To specify a Local Custom Day, use the local attribute. For example: XML 1 2 3 <pre><restrictionQu alifiers> <restrictionQu alifier local="true">C ustomDay2</ restrictionQua lifier> </ restrictionQua lifiers></pre> JSON 1 2 3 4 5 6 <pre>"restrictionQu alifiers": [{ "local": true, "value": "CustomDay1" }]</pre> Note The Calendar for the trigger is used to verify Custom Day references.		

Property	UI Field Name	Description	Specifications	Required																
restrictionNouns	Restriction Noun(s)	Day to restrict the trigger to. Used with <code>restrictionAdjective</code>, <code>restrictionQualifiers</code>, and <code>restrictionNthAmount</code> (if <code>restrictionAdjective</code> is Nth) to specify the type of days you want to select. For example, to specify "the 1st business day of the month," select <code>restrictionAdjective</code> as 1st, <code>restrictionNouns</code> as Business Day, and <code>restrictionQualifiers</code> as Month. Example: <table><tr><td>1</td><td><restrictionNouns></td></tr><tr><td>2</td><td><restrictionNoun>BusinessDay</restrictionNoun></td></tr><tr><td>3</td><td></restrictionNouns></td></tr></table> To specify a Custom Day, use the name of the Custom Day. For example: XML <table><tr><td>1</td><td><restrictionNouns></td></tr><tr><td>2</td><td><restrictionNoun>Monday</restrictionNoun></td></tr><tr><td>3</td><td><restrictionNoun>CustomDay1</restrictionNoun></td></tr><tr><td>4</td><td></restrictionNouns></td></tr></table> JSON <table><tr><td>1</td><td>"restrictionNouns": [</td></tr></table>	1	<restrictionNouns>	2	<restrictionNoun>BusinessDay</restrictionNoun>	3	</restrictionNouns>	1	<restrictionNouns>	2	<restrictionNoun>Monday</restrictionNoun>	3	<restrictionNoun>CustomDay1</restrictionNoun>	4	</restrictionNouns>	1	"restrictionNouns": [	Valid values: - As String = Sunday, As Value = 1 - As String = Monday, As Value = 2 - As String = Tuesday, As Value = 3 - As String = Wednesday, As Value = 4 - As String = Thursday, As Value = 5 - As String = Friday, As Value = 6 - As String = Saturday, As Value = 7 - As String = Day, As Value = 8 - As String = Business Day, As Value = 9 - Custom Days specified in the calendar selected in a Workflow calendar.	Y (if <code>restrictionComplex</code> is true)
1	<restrictionNouns>																			
2	<restrictionNoun>BusinessDay</restrictionNoun>																			
3	</restrictionNouns>																			
1	<restrictionNouns>																			
2	<restrictionNoun>Monday</restrictionNoun>																			
3	<restrictionNoun>CustomDay1</restrictionNoun>																			
4	</restrictionNouns>																			
1	"restrictionNouns": [																			

Property	UI Field Name	Description	Specifications	Required
		2 3 4 5 6 7 8 <pre>{ "value": "Monday" }, { "value": "CustomDay1" }]</pre> To specify a Local Custom Day, use the local attribute. For example: XML 1 2 3 <pre><restrictionNo uns> <restrictionNo un local="true">C ustomDay2</ restrictionNou n> </ restrictionNou ns></pre> JSON 1 2 3 4 5 6 <pre>"restrictionNo uns": [{ "local": true, "value": "CustomDay1" }]</pre> Note The Calendar for the trigger is used to verify Custom Day references.		
restrictionNthAmount	Restriction Nth Amount	Set only if restrictionAdjective is Nth (6); value of N.	Integer	Y (if restrictionAdjective is Nth)

Property	UI Field Name	Description	Specifications	Required
restrictionQualifier	Restriction Qualifier	Deprecated. Period to restrict the trigger to. To specify a Custom Day Period, use the name of the Custom Day Period. For example: XML <restrictionQualifier>CustomDayPeriod1</restrictionQualifier> JSON <pre>"restrictionQualifier": { "value": "CustomDayPeriod1" }</pre> To specify a Local Custom Day Period, use the local attribute. For example: XML <restrictionQualifier local="true">CustomDayPeriod2</restrictionQualifier> JSON <pre>"restrictionQualifier": { "local": "true", "value": "CustomDayPeriod2" }</pre> Note The Calendar for the trigger is used to verify Custom Day references.	Valid values: • As String = Jan, As Value = 0 • As String = Feb, As Value = 1 • As String = Mar, As Value = 2 • As String = Apr, As Value = 3 • As String = May, As Value = 4 • As String = Jun, As Value = 5 • As String = Jul, As Value = 6 • As String = Aug, As Value = 7 • As String = Sep, As Value = 8 • As String = Oct, As Value = 9 • As String = Nov, As Value = 10 • As String = Dec, As Value = 11 • As String = Month, As Value = 12 • As String = Year, As Value = 13 • As String = Week, As Value = 14	Y (if restrictionComplex is true)

Property	UI Field Name	Description	Specifications	Required																
restrictionQualifiers	Restriction Qualifier(s)	Period to restrict the trigger to. Used with <code>restrictionAdjective</code>, <code>restrictionQualifiers</code>, and <code>restrictionNthAmount</code> (if <code>restrictionAdjective</code> is Nth) to specify the type of days you want to select. For example, to specify "the 1st business day of the month," select <code>restrictionAdjective</code> as 1st, <code>restrictionNouns</code> as Business Day, and <code>restrictionQualifiers</code> as Month. Example: <table><tr><td>1</td><td><restrictionQualifiers></td></tr><tr><td>2</td><td><restrictionQualifier>Month</restrictionQualifier></td></tr><tr><td>3</td><td></restrictionQualifiers></td></tr></table> To specify a Custom Day, use the name of the Custom Day. For example: XML <table><tr><td>1</td><td><restrictionQualifiers></td></tr><tr><td>2</td><td><restrictionQualifier>Jan</restrictionQualifier></td></tr><tr><td>3</td><td><restrictionQualifier>CustomDay1</restrictionQualifier></td></tr><tr><td>4</td><td></restrictionQualifiers></td></tr></table> JSON <table><tr><td>1</td><td>"restrictionQualifiers": [</td></tr></table>	1	<restrictionQualifiers>	2	<restrictionQualifier>Month</restrictionQualifier>	3	</restrictionQualifiers>	1	<restrictionQualifiers>	2	<restrictionQualifier>Jan</restrictionQualifier>	3	<restrictionQualifier>CustomDay1</restrictionQualifier>	4	</restrictionQualifiers>	1	"restrictionQualifiers": [	Valid values: • As String = Jan, As Value = 0 • As String = Feb, As Value = 1 • As String = Mar, As Value = 2 • As String = Apr, As Value = 3 • As String = May, As Value = 4 • As String = Jun, As Value = 5 • As String = Jul, As Value = 6 • As String = Aug, As Value = 7 • As String = Sep, As Value = 8 • As String = Oct, As Value = 9 • As String = Nov, As Value = 10 • As String = Dec, As Value = 11 • As String = Month, As Value = 12 • As String = Year, As Value = 13 • As String = Week, As Value = 14 • As String = Quarter, As Value = 15	Y (if <code>restrictionComplex</code> is true)
1	<restrictionQualifiers>																			
2	<restrictionQualifier>Month</restrictionQualifier>																			
3	</restrictionQualifiers>																			
1	<restrictionQualifiers>																			
2	<restrictionQualifier>Jan</restrictionQualifier>																			
3	<restrictionQualifier>CustomDay1</restrictionQualifier>																			
4	</restrictionQualifiers>																			
1	"restrictionQualifiers": [																			

Property	UI Field Name	Description	Specifications	Required
		2 { 3 "value": 4 "Jan" 5 }, 6 { 7 "value": 8 "CustomDay1" 9 } 10 } To specify a Local Custom Day, use the local attribute. For example: XML 1 <restrictionQualifiers> 2 <restrictionQualifier 3 local="true">CustomDay2</restrictionQualifier> 4 </restrictionQualifiers> JSON 1 "restrictionQualifiers": [2 { 3 "local": 4 true, 5 "value": 6 "CustomDay1" 7 } 8] Note The Calendar for the trigger is used to verify Custom Day references.		
restrictionSimple	Simple Restriction	Set only if restriction is true; Specification to set a simple restriction based on a specific situation .	Boolean; Valid values: true/false. Default is false.	Y (if restrictionCompl ex is false)

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"value":

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"CustomDay1"

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]

Note

The Calendar for the trigger is used to verify Custom Day references.

Property	UI Field Name	Description	Specifications	Required
<code>retainSysIds</code>	n/a	Specification for whether or not the web service will persist the <code>sysId</code> property. - If <code>retainSysIds</code>="true" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database. - If <code>retainSysIds</code>="false" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller. Note In XML web services, <code>retainSysIds</code> is specified as an attribute in the <trigger> element.	Valid values: true/false (default is true).	N
<code>retentionDuration</code>	Retention Duration	Set only if <code>retentionDurationPurge</code> is selected; Minimum retention duration for the selected <code>retentionDurationUnit</code> before triggered task instances can qualify for purge.	Integer	N
<code>retentionDurationPurge</code>	Purge By Retention Duration	Specification for whether triggered task instances can be purged by retention duration.	Boolean; Valid values: true/false. Default is false.	N
<code>retentionDurationUnit</code>	Retention Duration Unit	Set only if <code>retentionDurationPurge</code> is selected; Retention duration unit.	Valid values: - As String = Hours, As Value = 3 - As String = Days, As Value = 4 Default is Days (4).	N
<code>simulateTasks</code>	Simulate	Specifies if the instances generated by this trigger should execute under simulation mode.	Boolean; Valid values: true/false. Default is false.	N
<code>simulationOption</code>	Simulate Forecast	For Cron, Temporary, and Time triggers only; Enables the override of the Enable Trigger Simulation Universal Controller system property specification for whether or not to simulate the launching of tasks when triggers are eligible to fire. (If <code>simulationOption</code> is enabled, only the scheduled launch of the task by the trigger is inhibited.)	Valid values: –System Default –, As Value = 0 - As String = True, As Value = 1 - As String = False, As Value = 2 Default is –System Default – (0).	N

Property	UI Field Name	Description	Specifications	Required
situation	Situation	Type of day that causes the Controller to initiate the specified action .	Valid values: - As String = Holiday, As Value = 1 - As String = Non Business Day, As Value = 2 Default is Holiday (1).	Y (if restrictionSimple is true)
skipActive	Skip Trigger if Active	Deprecated. Indication for whether or not the Controller should skip the next run of the specified task(s) if the previous run has not gone to a Complete status (that is, it is still active).	Boolean; Valid values: true/false. Default is false.	N
skipAfterDate	Skip After Date	Date after which the trigger will be skipped.		N
skipAfterTime	Skip After Time	Time after which the trigger will be skipped.		N
skipBeforeDate	Skip Before Date	Date before which the trigger will be skipped.		N
skipBeforeTime	Skip Before Time	Time before which the trigger will be skipped.		N
skipCondition	Task Launch Skip Condition	Controls when launching a task for the trigger will be skipped. Note When reading a Trigger, both skipActive and skipCondition are returned. When creating/updating a Trigger, skipCondition is used if present. If skipCondition is not present, skipActive is used. If both skipActive and skipCondition are present, skipActive can be set to true only if skipCondition is Active (1).	Valid values: - As String = None, As Value = 0 - As String = Active, As Value = 1 - As String = Active By Trigger, As Value = 2 Default is None (0).	N
skipCount	Skip Count	Specification that the Controller should skip the next N times that this task is triggered.	Integer; Default is 0.	N
skipDateList	Skip Date List	Date(s) on which the trigger will be skipped.		

Property	UI Field Name	Description	Specifications	Required
<code>skipRestriction</code>	Skip Restriction	Specification for when the trigger should skip and not launch the task(s).	Valid values: • As String = None, As Value = 0 • As String = Before, As Value = 1 • As String = After, As Value = 2 • As String = Span, As Value = 3 • As String = On, As Value = 4 Default is None (0).	
<code>sysId</code>	n/a	System ID field in the database for this trigger.	Persisted only if retainSysIds is set to true.	N
<code>tasks</code>	Tasks	Name of the task(s) being triggered when this trigger is satisfied. XML <pre><tasks> <task>uc - Demo</task> </tasks></pre> JSON <pre>"tasks": ["uc - Demo"]</pre>		Y
<code>timeZone</code>	Time Zone	Name of the time zone that will be applied to the time(s) specified in the trigger.		Y
<code>version</code>	n/a	For Read and List web services; specification of the version being read or listed. Note In XML web services, <code>version</code> is specified as an attribute in the <code><trigger></code> element.		Y

4.34.18.6.2 Trigger Properties: Time Trigger

Property	UI Field Name	Description	Specifications	Required
<code>adjustInterval</code>	Adjust Interval To Enable Start	Set only if <code>restrictedTimes</code> is true; Specification for whether to always begin at the <code>enabledStart</code> (true) or based upon the actual interval (false).	Boolean; Valid values: true/false. Default is true.	N
<code>adjustmentAmount</code>	Adjustment Amount	Set only if <code>dayStyle</code> is Complex; Number of Days or Business Days to adjust your date setting.	Integer.	Y (if <code>dateAdjustment</code> is less (1) or plus (2))
<code>adjustmentType</code>	Adjustment Type	Set only if <code>dayStyle</code> is Complex; Type of day by which to adjust your date setting.	Valid values: - As String = Day, As Value = 1 - As String = Business Day, As Value = 2 Default is Day (1).	Y (if <code>dateAdjustment</code> is less (1) or plus (2))
<code>dateAdjective</code>	Date Adjective	If <code>dayStyle</code> is Complex; Which in a series of days to select. Used in conjunction with <code>dateNouns</code> and <code>dateQualifiers</code> . For example, to specify the 2nd to last day of the month (last day of the month less one day), select <code>dateAdjective</code> = Last, <code>dateNouns</code> = Day, <code>dateQualifiers</code> = Month, <code>dateAdjustment</code> = Less, <code>adjustmentAmount</code> = 1, and <code>adjustmentType</code> = Day.	Valid values: - As String = Every, As Value = 0 - As String = 1st, As Value = 1 - As String = 2nd, As Value = 2 - As String = 3rd, As Value = 3 - As String = 4th, As Value = 4 - As String = Last, As Value = 5 - As String = Nth, As Value = 6 Default is Every (0).	Y (if <code>dayStyle</code> is Complex)
<code>dateAdjustment</code>	Date Adjustment	If <code>dayStyle</code> is Complex; Specification for adjusting your date setting by a less or plus number of Days or Business Days. For example, to specify the 2nd to last day of the month (last day of the month less one day), select <code>dateAdjective</code> = Last, <code>dateNouns</code> = Day, <code>dateQualifiers</code> = Month, <code>dateAdjustment</code> = Less, <code>adjustmentAmount</code> = 1, and <code>adjustmentType</code> = Day.	Valid values: - As String = None, As Value = 0 - As String = Less, As Value = 1 - As String = Plus, As Value = 2 Default is None (0).	N

Property	UI Field Name	Description	Specifications	Required
dateNoun	Date Noun	Deprecated. Type of day you want to select. Used in conjunction with <code>dateAdjective</code> and <code>dateQualifier</code>. For example, to specify "the 15th business day of the month," select <code>dateAdjective = Nth</code>, <code>dateNoun = Business Day</code>, <code>dateQualifier = Month</code>, and <code>nthAmount = 15</code>. To specify a Custom Day, use the name of the Custom Day. For example: XML <code><dateNoun>CustomDay1</dateNoun></code> JSON <pre>"dateNoun": { "value": "CustomDay1" }</pre> To specify a Local Custom Day, use the local attribute. For example: XML <code><dateNoun local="true">CustomDay2</dateNoun></code> JSON <pre>"dateNoun": { "local": "true", "value": "CustomDay2" }</pre> Note The Calendar for the trigger is used to verify Custom Day references.	Valid values: • As String = Sunday, As Value = 1 • As String = Monday, As Value = 2 • As String = Tuesday, As Value = 3 • As String = Wednesday, As Value = 4 • As String = Thursday, As Value = 5 • As String = Friday, As Value = 6 • As String = Saturday, As Value = 7 • As String = Day, As Value = 8 • As String = Business Day, As Value = 9	Y (if <code>dayStyle</code> is Complex)

Property	UI Field Name	Description	Specifications	Required
dateNouns	Date Noun(s)	If <code>dayStyle</code> is Complex; Type of day you want to select. Used in conjunction with <code>dateAdjective</code> and <code>dateQualifiers</code>. For example, to specify "the 2nd Monday and Tuesday or January and December," select <code>dateAdjective = Nth</code>, <code>nthAmount = 2</code>, <code>dateNouns = Monday, Tuesday</code>, and <code>dateQualifiers = Jan, Dec</code>. To specify a Custom Day, use the name of the Custom Day. For example: XML <pre><dateNouns> <dateNoun>Monday</dateNoun> <dateNoun>CustomDay1</dateNoun> </dateNouns></pre> JSON <pre>"dateNouns": [{ "value": "Monday" }, { "value": "CustomDay1" }]</pre> To specify a Local Custom Day, use the <code>local</code> attribute. For example: XML <pre><dateNouns> <dateNoun local="true">CustomDay2</dateNoun> </dateNouns></pre> JSON	Valid values: - As String = Sunday, As Value = 1 - As String = Monday, As Value = 2 - As String = Tuesday, As Value = 3 - As String = Wednesday, As Value = 4 - As String = Thursday, As Value = 5 - As String = Friday, As Value = 6 - As String = Saturday, As Value = 7 - As String = Day, As Value = 8 - As String = Business Day, As Value = 9	Y (if <code>dayStyle</code> is Complex)

Property	UI Field Name	Description	Specifications	Required
		<pre>"dateNouns": [{ "local": true, "value": "CustomDay1" }]</pre> Note The Calendar for the trigger is used to verify Custom Day references.		

Property	UI Field Name	Description	Specifications	Required
dateQualifier	Date Qualifier	Deprecated. Period for your date selection. Used in conjunction with dateNoun and dateAdjective. For example, to specify "the 15th business day of the month," select dateAdjective = Nth, dateNoun = Business Day, dateQualifier = Month, and nthAmount = 15. To specify a Custom Day Period, use the name of the Custom Day Period. For example: XML <dateQualifier>CustomDayPeriod1</dateQualifier> JSON <pre>"dateQualifier": { "value": "CustomDayPeriod1" }</pre> To specify a Local Custom Day Period, use the local attribute. For example: XML <dateQualifier local="true">CustomDayPeriod2</dateQualifier> JSON <pre>"dateQualifier": { "local": "true", "value": "CustomDayPeriod2" }</pre> Note The Calendar for the trigger is used to verify Custom Day references.	Valid values: • As String = Jan, As Value = 0 • As String = Feb, As Value = 1 • As String = Mar, As Value = 2 • As String = Apr, As Value = 3 • As String = May, As Value = 4 • As String = Jun, As Value = 5 • As String = Jul, As Value = 6 • As String = Aug, As Value = 7 • As String = Sep, As Value = 8 • As String = Oct, As Value = 9 • As String = Nov, As Value = 10 • As String = Dec, As Value = 11 • As String = Month, As Value = 12 • As String = Year, As Value = 13 • As String = Week, As Value = 14	Y (if dayStyle is Complex)

Property	UI Field Name	Description	Specifications	Required
dateQualifiers	Date Qualifier(s)	If <code>dayStyle</code> is Complex Period for your date selection. Used in conjunction with <code>dateNouns</code> and <code>dateAdjective</code>. For example, to specify "the 2nd Monday and Tuesday or January and December," select <code>dateAdjective</code> = Nth, <code>nthAmount</code> = 2, <code>dateNouns</code> = Monday, Tuesday, and <code>dateQualifiers</code> = Jan, Dec. To specify a Custom Day, use the name of the Custom Day. For example: XML <pre><dateQualifiers> <dateQualifier>Jan</dateQualifier> <dateQualifier>CustomDay1</dateQualifier> </dateQualifiers></pre> JSON <pre>"dateQualifiers": [{ "value": "Monday" }, { "value": "CustomDay1" }]</pre> To specify a Local Custom Day, use the local attribute. For example: XML	Valid values: • As String = Jan, As Value = 0 • As String = Feb, As Value = 1 • As String = Mar, As Value = 2 • As String = Apr, As Value = 3 • As String = May, As Value = 4 • As String = Jun, As Value = 5 • As String = Jul, As Value = 6 • As String = Aug, As Value = 7 • As String = Sep, As Value = 8 • As String = Oct, As Value = 9 • As String = Nov, As Value = 10 • As String = Dec, As Value = 11 • As String = Month, As Value = 12 • As String = Year, As Value = 13 • As String = Week, As Value = 14	Y (if <code>dayStyle</code> is Complex)

Property	UI Field Name	Description	Specifications	Required
		<pre><dateQualifiers> <dateQualifier local="true">CustomDay2< /dateQualifier> </dateQualifiers></pre> JSON <pre>"dateQualifiers": [{ "local": true, "value": "CustomDay1" }]</pre> Note The Calendar for the trigger is used to verify Custom Day references.		
dayInterval	Day Interval	Interval (number of days) at which this trigger will run.	Integer.	Y (if dayStyle \ is Every)
dayStyle	Day Style	Indication of when this trigger will be run.	Valid values: - As String = Simple, As Value = 1 - As String = Complex, As Value = 2 - As String = Every, As Value = 3 Default is Simple (1).	Y
enabledEnd	Enabled End	End time of the period during which the trigger should be active.	Use 24-hour time; format is hh:mm	Y (if restrictedTimes is true)
enabledStart	Enabled Start	Start time of the period during which the trigger should be active.	Use 24-hour time; format is hh:mm	Y (if restrictedTimes is true)

Property	UI Field Name	Description	Specifications	Required
fri	Friday	Set only if simpleDateType is Specific Days; Indicates that the this trigger will be run on Friday.	Boolean; Valid values: true/false. Default is false.	N
intervalStartingDate	Interval Start	First day of the interval on which this trigger will run.	Format: yyyy-mm-dd	Y (if dayStyle is Every)
mon	Monday	Set only if simpleDateType is Specific Days; Indicates that the this trigger will be run on Monday.	Boolean; Valid values: true/false. Default is false.	N
nthAmount	Nth Amount	Value of N.	Integer	Y (if dateAdjective is Nth)
restrictedTimes	Restrict Times	If timeStyle is Interval; Indication that the trigger is active only during the period specified by enabledStart and enabledEnd .	Boolean; Valid values: true/false.	N
sat	Saturday	Set only if simpleDateType is Specific Days; Indicates that the this trigger will be run on Saturday.	Boolean; Valid values: true/false. Default is false.	N
simpleDateType	n/a	Indication of when this trigger will be run.	Valid values: - As String = Daily, As Value = 1 - As String = Business Days, As Value = 2 - As String = Specific Days, As Value = 3 Default is Daily (1).	Y (if dayStyle is Simple)
startingAt	Initial Time Offset	Set only if timeStyle is Interval; Starting time, in minutes offset from the hour.	Format is hh:mm	Y (if startTimeEnable is true)
startTimeEnable	Enable Offset	Set only if timeStyle is Interval; Indication of whether you want to specify (in startingAt) a starting time, in minutes offset from the hour, for the trigger to run.	Boolean; Valid values: true/false. Default is false.	N
sun	Sunday	Set only if simpleDateType is Specific Days; Indicates that the this trigger will be run on Sunday.	Boolean; Valid values: true/false. Default is false.	N
thu	Thursday	Set only if simpleDateType is Specific Days; Indicates that the this trigger will be run on Thursday.	Boolean; Valid values: true/false. Default is false.	N
time	Time	Time when the trigger will be run.	Format is hh:mm, using 24-hour time.	Y (if timeStyle is Absolute)

Property	UI Field Name	Description	Specifications	Required
<code>timeInterval</code>	Time Interval	Number of <code>timeIntervalUnits</code> .	Integer	Y (if <code>timeStyle</code> is Interval)
<code>timeIntervalUnits</code>	Time Interval Units	Type of time interval.	Valid values: - As String = Seconds, As Value = 1 - As String = Minutes, As Value = 2 - As String = Hours, As Value = 3 Default is Hours (3).	Y (if <code>timeStyle</code> is Interval)
<code>timeStyle</code>	Time Style	Indicates whether this trigger is for a specific time or a series of times.	Valid values: - As String = Absolute, As Value = 1 - As String = Interval, As Value = 2 Default is Absolute (1).	N
<code>tue</code>	Tuesday	Set only if <code>simpleDateType</code> is Specific Days; Indicates that the this trigger will be run on Tuesday.	Boolean; Valid values: true/false. Default is false.	N
<code>wed</code>	Wednesday	Set only if <code>simpleDateType</code> is Specific Days; Indicates that the this trigger will be run on Wednesday.	Boolean; Valid values: true/false. Default is false.	N

4.34.18.6.3 Trigger-Related Records Properties: Variables

Property	UI Field Name	Description	Specifications	Required
<code>description</code>	Description	Description of the variable.		N
<code>name</code>	Name	Name of the variable.		Y
<code>value</code>	Value	Value of the variable.		Y

4.34.18.6.4 Trigger-Related Records Properties: Notes

Property	UI Field Name	Description	Specifications	Required
<code>sysId</code>	n/a	System ID field in the database for the Note.		N
<code>text</code>	Text	Text of the Note.		N
<code>title</code>	Title	Title of the Note.		N

4.34.18.7 Modify Time of Time Trigger

	Description
URI	http://host_name/uc/resources/trigger/ops-trigger-set-time
HTTP Method	POST
Description	Modifies the Time field of a Time Trigger with the Time Style field set to time .
Example URI	http://localhost:8080/uc/resources/trigger/ops-trigger-set-time
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Modify Time of Time Trigger: XML and JSON Examples .
Example Request Properties	See Modify Time of Time Trigger: XML Request Properties .
Example Response	See Modify Time of Time Trigger: XML and JSON Examples .

4.34.18.7.1 Modify Time of Time Trigger: XML and JSON Examples

Examples	XML	JSON
Example Request	XML <pre><trigger> <id>410d6c0bc0a801c901838d8ac4 3b3279</id> <time>21:00</time> </trigger> or <trigger> <name>Test Trigger</name> <time>21:00</time> </trigger></pre>	JSON <pre>{ "id": "ca85aa671ced45e192c17f6caf89bd1 2", "time": "21:00" } or { "name": "test trigger", "time": "21:00" }</pre>

Examples	XML	JSON
Example Response	<pre> XML <command-response> <type>set_trigger_time</type> <success>true</success> <info>Successfully set time for trigger "Test Trigger"</info> <errors></errors> </command-response> </pre>	<pre> JSON { "type": "set_trigger_time", "success": true, "info": "Successfully set time for trigger "test trigger".", "errors": "" } </pre>

4.34.18.7.2 Modify Time of Time Trigger: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
id	n/a	sys_id used within the Controller to identify this trigger.		Y (unless name is specified)	name
name	Name	Name of the trigger.		Y (unless id is specified)	id
time	Time	Time that the trigger will be run.		Y	

4.34.18.8 List Trigger Qualifying Times

	Description
URI	http://host_name/uc/resources/trigger/qualifyingtimes
HTTP Method	GET
Description	Lists Time trigger qualifying times from a specific starting date.
URI Parameters	See List Trigger Qualifying Times: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/trigger/qualifyingtimes?triggername=testTrigger http://localhost:8080/uc/resources/trigger/qualifyingtimes?triggername=testTrigger&count=20&startdate=2017-08-01
Authentication	HTTP Basic

	Description
Example XML Response	<pre> <qualifyingTimes triggerTimeZone="Africa/Accra" userTimeZone="America/Denver"> <qualifyingTime skip="true"> <triggerTimeZone>Monday, January 01, 2018 09:00:00 GMT +0000</triggerTimeZone> <userTimeZone>Monday, January 01, 2018 02:00:00 MST -0700</userTimeZone> </qualifyingTime> <qualifyingTime skip="true"> <triggerTimeZone>Tuesday, January 01, 2019 09:00:00 GMT +0000</triggerTimeZone> <userTimeZone>Tuesday, January 01, 2019 02:00:00 MST -0700</userTimeZone> </qualifyingTime> <qualifyingTime skip="true"> <triggerTimeZone>Wednesday, January 01, 2020 09:00:00 GMT +0000</triggerTimeZone> <userTimeZone>Wednesday, January 01, 2020 02:00:00 MST -0700</userTimeZone> </qualifyingTime> <qualifyingTime> <triggerTimeZone>Friday, January 01, 2021 09:00:00 GMT +0000</triggerTimeZone> <userTimeZone>Friday, January 01, 2021 02:00:00 MST -0700</userTimeZone> </qualifyingTime> ... </qualifyingTimes> </pre>

4.34.18.8.1 List Trigger Qualifying Times: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
triggerid	Unique ID for a trigger.		Y (unless triggername is specified)	triggername
triggername	Name used within the Controller to identify a trigger.	Maximum 40 alphanumerics.	Y (unless triggerid is specified)	triggerid
count	Number of qualifying events to list.	Maximum is 1000; default is 30.	N	
startdate	Starting date of qualifying days to list.	Format: YYYY-MM-DD. Default is current date.	N	

4.34.18.8.2 List Trigger Qualifying Times: XML and JSON Examples

XML	JSON
XML <pre><qualifyingTimes triggerTimeZone="Africa/ Accra" userTimeZone="America/Denver"> <qualifyingTime skip="true"> <triggerTimeZone>Tuesday, December 19, 2017 18:00:00 MST -0700 MST -0700</ triggerTimeZone> <userTimeZone>Tuesday, December 19, 2017 18:00:00 MST -0700 MST -0700</ userTimeZone> </qualifyingTime> <qualifyingTime skip="true"> <triggerTimeZone>Tuesday, December 19, 2017 19:00:00 MST -0700 MST -0700</ triggerTimeZone> <userTimeZone>Tuesday, December 19, 2017 19:00:00 MST -0700 MST -0700</ userTimeZone> </qualifyingTime> ... </qualifyingTimes></pre>	JSON <pre>{ "triggerTimeZone": "America/Denver", "userTimeZone": "America/Denver", "qualifyingTimes": [{ "triggerTimeZone": "Tuesday, December 19, 2017 18:00:00 MST -0700", "userTimeZone": "Tuesday, December 19, 2017 18:00:00 MST -0700" }, { "triggerTimeZone": "Tuesday, December 19, 2017 19:00:00 MST -0700", "userTimeZone": "Tuesday, December 19, 2017 19:00:00 MST -0700" } ...] }</pre>

4.34.19 Universal Monitor Trigger Web Services

• Overview • Create a Universal Monitor Trigger • Modify a Universal Monitor Trigger • Read a Universal Monitor Trigger • Read a Universal Monitor Trigger: URI Parameters • Universal Monitor Trigger: XML and JSON Examples • Properties • Trigger Properties: All Triggers • Trigger Properties: Universal Monitor Trigger • Trigger-Related Records Properties: Variables • Trigger-Related Records Properties: Notes

4.34.19.1 Overview

Universal Controller supports the following RESTful-based web services for Universal Monitor Trigger operations, which are listed alphabetically on this page.

- [Create a Universal Monitor Trigger](#)
- [Modify a Universal Monitor Trigger](#)
- [Read a Universal Monitor Trigger](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Note

For information on Trigger web services that are applicable to all trigger types, see:

- [Delete a Trigger](#)
- [Enable/Disable a Trigger](#)
- [List Triggers](#)
- [Trigger a Task](#)

4.34.19.2 Create a Universal Monitor Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	POST
Description	Creates a new Universal Monitor Trigger.
Example URI	http://localhost:8080/uc/resources/trigger
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Universal Monitor Trigger: XML and JSON Examples .
Trigger Properties	• See Trigger Properties: All Triggers. • See Trigger Properties: Universal Monitor Trigger.
Trigger-Related Record Properties	• See Trigger-Related Records Properties: Variables. • See Trigger-Related Records Properties: Notes.
Example Response	• Status 200 /OK Successfully created the <trigger type> trigger.

4.34.19.3 Modify a Universal Monitor Trigger

	Description
URI	http://host_name/uc/resources/trigger

	Description
HTTP Method	PUT
Description	Modifies the trigger specified by the sysId in the request. To modify Universal Monitor Trigger properties without modifying related records, use the excludeRelated property.
Example URI	http://localhost:8080/uc/resources/trigger
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Universal Monitor Trigger: XML and JSON Examples .
Trigger Properties	• See Trigger Properties: All Triggers. • See Trigger Properties: Universal Monitor Trigger.
Trigger-Related Record Properties	• See Trigger-Related Records Properties: Variables. • See Trigger-Related Records Properties: Notes.
Example Response	• Status 200 /OK Successfully updated the <trigger type> trigger to version <version>.

4.34.19.4 Read a Universal Monitor Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	GET
Description	Retrieves information for the specified trigger
URI Parameters	See Read a Universal Monitor Trigger: URI Parameters , below.
Example URI	• http://localhost:8080/uc/resources/trigger?triggername=testTrigger • http://localhost:8080/uc/resources/trigger?triggerid=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Trigger Properties	• See Trigger Properties: All Triggers. • See Trigger Properties: Universal Monitor Trigger.
Trigger-Related Record Properties	• See Trigger-Related Records Properties: Variables. • See Trigger-Related Records Properties: Notes.
Example Response	• Status 200 /OK (See Universal Monitor Trigger: XML and JSON Examples.) • Status 404 /Not Found A trigger with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

4.34.19.4.1 Read a Universal Monitor Trigger: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
triggerid	Unique ID for this trigger.		Y (unless triggername is specified)	triggername
triggername	Name used within the Controller to identify this trigger.	Maximum 40 alphanumerics.	Y (unless triggerid is specified)	triggerid

4.34.19.5 Universal Monitor Trigger: XML and JSON Examples

In the XML web service, the [exportReleaseLevel](#), [exportTable](#), [retainSysIds](#), and [version](#) properties are specified as attributes in the <trigger> element.

Examples	XML	JSON
Example for Trigger	<pre> XML <triggerUm exportReleaseLevel="7.2.0.0" exportTable="ops_trigger_um" retainSysIds="true" version="1"> <variables /> <notes /> <action>Do Not Trigger</action> <calendar>System Default</calendar> <customField1 /> <customField2 /> <description>description</description> <disabledBy></disabledBy> <disabledTime></disabledTime> <enabled>true</enabled> <enabledBy>ops.admin</enabledBy> <enabledEnd>00:00</enabledEnd> <enabledStart>00:00</enabledStart> <enabledTime>2021-03-03 12:46:11 -0500</enabledTime> <name>test universal monitor trigger</name> <nextScheduleTime>2021-03-04 00:00:00 -0500</ </pre>	<pre> JSON { "type": "triggerUm", "action": "Do Not Trigger", "calendar": "System Default", "description": "description", "disabledBy": "", "disabledTime": "", "enabled": true, "enabledBy": "ops.admin", "enabledTime": "2021-03-03 12:46:11 -0500", "enabledEnd": "00:00", "enabledStart": "00:00", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_trigger_um", "name": "test universal monitor trigger", "nextScheduledTime": "2021-03-04 00:00:00 -0500", "notes": [], "opswiseGroups": [], "rdExcludeBackup": true, </pre>

Examples	XML	JSON
	<pre> nextScheduleTime> <opswiseGroups /> <rdExcludeBackup>true</rdExcludeBackup> <restrictedTimes>>false</restrictedTimes> <restriction>>false</restriction> <restrictionAdjective>Every</restrictionAdjective> <restrictionComplex>>false</restrictionComplex> <restrictionMode>Or</restrictionMode> <restrictionNouns> <restrictionNoun>Day</restrictionNoun> </restrictionNouns> <restrictionNthAmount /> <restrictionQualifiers> <restrictionQualifier>Year</restrictionQualifier> </restrictionQualifiers> <restrictionSimple>>false</restrictionSimple> <retentionDuration>1</retentionDuration> <retentionDurationPurge>>true</retentionDurationPurge> <retentionDurationUnit>Days</retentionDurationUnit> <simulationOption>--System Default --</simulationOption> <situation>Holiday</situation> <skipAfterDate>2020-05-28</skipAfterDate> <skipAfterTime>02:15</skipAfterTime> <skipBeforeDate>2020-05-30</skipBeforeDate> <skipBeforeTime>17:30</skipBeforeTime> <skipCondition>None</skipCondition> <skipCount>0</skipCount> <skipDateList /> <skipRestriction>Span</skipRestriction> <sysId>0fc6b7d9c0a801c9017b6c27c259937e</sysId> <taskMonitor>test um</taskMonitor> </pre>	<pre> "restrictedTimes": false, "restriction": false, "restrictionAdjective": "Every", "restrictionComplex": false, "restrictionMode": "Or", "restrictionNouns": [{ "value": "Day" }], "restrictionNthAmount": null, "restrictionQualifiers": [{ "value": "Year" }], "restrictionSimple": false, "retainSysIds": true, "retentionDuration": 1, "retentionDurationPurge": true, "retentionDurationUnit": "Days", "simulationOption": "--System Default --", "situation": "Holiday", "skipAfterDate": "2020-05-28", "skipAfterTime": "02:15", "skipBeforeDate": "2020-05-30", "skipBeforeTime": "17:30", "skipCondition": "None", "skipCount": 0, "skipDateList": [], "skipRestriction": "Span", "sysId": "9c659c9c2c72460c9a2057663257b0be", "taskMonitor": "test um", "tasks": ["stonebranch-universalmonitor-01"], "timeZone": null, "variables": [], "version": 1 </pre>

Examples	XML	JSON
	<pre><tasks> <task>stonebranch- universalmonitor-01</task> </tasks> <timeZone /> </triggerUm></pre>	<pre>}</pre>
Examples for Trigger-Related Records	Variables XML<pre><variables> <variable> <description /> <name>testVar</name> <value>value</value> </variable> </variables></pre> Notes XML<pre><notes> <note> <sysId>76ad570c64b84 f84aeaf281403856b10</sysId> <text>testNoteText</ text> <title>testNoteTitle </title> </note> </notes></pre>	Variables JSON<pre>"variables": [{ "description": "description", "name": "var1", "value": "value1" }]</pre> Notes JSON<pre>"notes": [{ "sysId": "76ad570c64b84f84aeaf281403 856b10", "text": "testNoteText", "title": "testNoteTitle" }]</pre>

4.34.19.6 Properties

4.34.19.6.1 Trigger Properties: All Triggers

Property	UI Field Name	Description	Specifications	Required
action	Action	For all trigger types except Manual and Temporary; Action to take on a non-business day or holiday (see situation).	Valid values: - As String = Do Not Trigger, As Value = 1 - As String = Next Day, As Value = 2 - As String = Next Business Day, As Value = 3 - As String = Previous Day, As Value = 4 - As String = Previous Business Day, As Value = 5 Default is Do Not Trigger (1). Note The following values are valid only for Cron and Time triggers: - Next Day (2) - Next Business Day (3) - Previous Day (4) - Previous Business Day (5)	Y (if restriction is true)
calendar	Calendar	Calendar that defines the business days, holidays, and other special days that determine the run dates for the task(s) specified in the trigger. The Calendar will be used to verify any Custom Day references in restrictionNoun.	Default is System Default.	Y
customField1	n/a	User-Defined field. Example: <customField1 label="Domain">web.com</customField1>	The label is included only if a value has been defined for the User Defined Trigger Field 1 Label Universal Controller system property.	N
customField2	n/a	User-Defined field. Example: <customField2 label="Domain">web.com</customField2>	The label is included only if a value has been defined for the User Defined Trigger Field 2 Label Universal Controller system property.	N
description	Description	Description of this trigger.		N
disabledBy	Disabled By	System-supplied. If Status = Enabled, ID of the user who most recently disabled this trigger.	Read-only.	N
disabledTime	Disabled Time	System-supplied. If Status = Enabled, Date and time that the trigger was disabled.	Read-only.	N
enabled	Status	System-defined; Specification for whether or nor the trigger is enabled. Only enabled triggers are processed by the Controller.	Read-only.	N

Property	UI Field Name	Description	Specifications	Required
<code>enabledBy</code>	Enabled By	System-supplied. If Status = Enabled, ID of the user who most recently enabled this trigger.	Read-only.	N
<code>enabledTime</code>	Enabled Time	System-supplied. If Status = Enabled, Date and time that the trigger was enabled.	Read-only.	N
<code>enforceVariables</code>	Enforce Variables	Specifies whether or not to enforce Override Trigger Variables when using Trigger Now... from the User Interface. Not applicable for Web Service APIs.	Valid values: true/false. Default is false.	N
<code>excludeRelated</code>	n/a	For Modify Trigger web services; specification for whether or not to exclude related records from the update, even if they are provided in the request. Note In XML web services, <code>excludeRelated</code> is specified as an attribute in the <trigger> element.	Valid values: true/false. Default is false.	N
<code>exportReleaseLevel</code>	n/a	Universal Controller release that the record was exported from. Note In XML web services, <code>exportReleaseLevel</code> is specified as an attribute in the <trigger> element.	read only	N
<code>exportTable</code>	n/a	Record table information. Note In XML web services, <code>exportTable</code> is specified as an attribute in the <trigger> element.	read only	N
<code>forecast</code>	Forecast	For Cron, Temporary, and Time triggers only; Date and time when this trigger will be satisfied for the next number days, as specified in the Forecast Period In Days Universal Controller system property. The Controller writes the forecasting entries to the Forecasts List .	Boolean; Valid values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
<code>lockVariables</code>	Lock Variables	Specifies whether or not to prevent editing variables when using Trigger Now... from the User Interface. Not applicable for Web Service APIs.	Boolean; Valid values: true/false. Default is false.	N
<code>name</code>	Name	Name used within the Controller to identify this trigger.	Maximum 255 alphanumerics.	Y
<code>nextScheduledTime</code>	Next Scheduled Time	System-supplied; for time-based triggers. If Status = Enabled, the next date and time this trigger will be satisfied. See Displaying Trigger Forecast Information .	Read-only.	N
<code>opswiseGroups</code>	Member of Business Services	List of Business Service(s) that this trigger belongs to. XML <pre><opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups></pre> JSON <pre>"opswiseGroups": ["test"]</pre>		N
<code>rdExcludeBackup</code>	Exclude Backup	Set only if <code>retentionDurationPurge</code> is selected; Specification for whether qualifying task instances can be excluded from the backup when being purged by retention duration.	Boolean; Valid values: true/false. Default is false.	N
<code>restriction</code>	Special Restriction	Indication of whether or not you want to specify additional parameters that tell the Controller how to handle exceptions, such as when the trigger is satisfied on a holiday or non-business day. You can specify simple and/or complex restrictions. For example, you can specify a <code>simpleRestriction</code> that disables the trigger if it is satisfied on a holiday identified in the calendar and/or a <code>restrictionComplex</code> that disables the trigger on the last business day of every month.	Boolean; Valid values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
<code>restrictionAdjective</code>	Restriction Adjective	Type of selection for <code>restrictionNoun</code> .	Valid values: - As String = Every, As Value = 0 - As String = 1st, As Value = 1 - As String = 2nd, As Value = 2 - As String = 3rd, As Value = 3 - As String = 4th, As Value = 4 - As String = Last, As Value = 5 - As String = Nth, As Value = 6 Default is Every (0).	Y (if <code>restrictionComplex</code> is enabled)
<code>restrictionComplex</code>	Complex Restriction	Set only if <code>restriction</code> is true; Set of parameters that determine one or more situations when this trigger should not be satisfied. Used in conjunction with <code>restrictionMode</code> , <code>restrictionAdjective</code> , <code>restrictionNoun</code> , and <code>restrictionQualifier</code> . For example, you can specify that you do not want to satisfy this trigger on the last business day of the year or the first day of each month.	Boolean; Valid values: true/false. Default is false.	Y (if <code>restrictionSimple</code> is false)
<code>restrictionMode</code>	Restriction Mode	Set only if <code>restrictionSimple</code> is true; Specification for whether you want to use <code>restrictionSimple</code> - and/or <code>restrictionComplex</code> -related values.	Valid values: - As String = And, As Value = 1 - As String = Or, As Value = 2 Default is Or (2).	Y (if <code>restrictionSimple</code> and <code>restrictionComplex</code> are true)

Property	UI Field Name	Description	Specifications	Required
restrictionNoun	Restriction Noun	Deprecated. Day to restrict the trigger to. To specify a Custom Day, use the name of the Custom Day. For example: XML <restrictionNoun>CustomDay1</restrictionNoun> JSON <pre>"restrictionNoun": { "value": "CustomDay1" }</pre> To specify a Local Custom Day, use the local attribute. For example: XML <restrictionNoun local="true">CustomDay2</restrictionNoun> JSON <pre>"restrictionNoun": { "local": "true", "value": "CustomDay2" }</pre> Note The Calendar for the trigger is used to verify Custom Day references.	Valid values: • As String = Sunday, As Value = 1 • As String = Monday, As Value = 2 • As String = Tuesday, As Value = 3 • As String = Wednesday, As Value = 4 • As String = Thursday, As Value = 5 • As String = Friday, As Value = 6 • As String = Saturday, As Value = 7 • As String = Day, As Value = 8 • As String = Business Day, As Value = 9	Y (if restrictionCompleteness is true)

Property	UI Field Name	Description	Specifications	Required																
restrictionNouns	Restriction Noun(s)	Day to restrict the trigger to. Used with <code>restrictionAdjective</code>, <code>restrictionQualifiers</code>, and <code>restrictionNthAmount</code> (if <code>restrictionAdjective</code> is Nth) to specify the type of days you want to select. For example, to specify "the 1st business day of the month," select <code>restrictionAdjective</code> as 1st, <code>restrictionNouns</code> as Business Day, and <code>restrictionQualifiers</code> as Month. Example: <table><tr><td>1</td><td><restrictionNouns></td></tr><tr><td>2</td><td><restrictionNoun>Business Day</restrictionNoun></td></tr><tr><td>3</td><td></restrictionNouns></td></tr></table> To specify a Custom Day, use the name of the Custom Day. For example: XML <table><tr><td>1</td><td><restrictionNouns></td></tr><tr><td>2</td><td><restrictionNoun>Monday</restrictionNoun></td></tr><tr><td>3</td><td><restrictionNoun>CustomDay1</restrictionNoun></td></tr><tr><td>4</td><td></restrictionNouns></td></tr></table> JSON <table><tr><td>1</td><td>"restrictionNouns": [</td></tr></table>	1	<restrictionNouns>	2	<restrictionNoun>Business Day</restrictionNoun>	3	</restrictionNouns>	1	<restrictionNouns>	2	<restrictionNoun>Monday</restrictionNoun>	3	<restrictionNoun>CustomDay1</restrictionNoun>	4	</restrictionNouns>	1	"restrictionNouns": [	Valid values: - As String = Sunday, As Value = 1 - As String = Monday, As Value = 2 - As String = Tuesday, As Value = 3 - As String = Wednesday, As Value = 4 - As String = Thursday, As Value = 5 - As String = Friday, As Value = 6 - As String = Saturday, As Value = 7 - As String = Day, As Value = 8 - As String = Business Day, As Value = 9 - Custom Days specified in the calendar selected in a Workflow calendar.	Y (if <code>restrictionComplex</code> is true)
1	<restrictionNouns>																			
2	<restrictionNoun>Business Day</restrictionNoun>																			
3	</restrictionNouns>																			
1	<restrictionNouns>																			
2	<restrictionNoun>Monday</restrictionNoun>																			
3	<restrictionNoun>CustomDay1</restrictionNoun>																			
4	</restrictionNouns>																			
1	"restrictionNouns": [																			

Property	UI Field Name	Description	Specifications	Required
		2 3 4 5 6 7 8 <pre>{ "value": "Monday" }, { "value": "CustomDay1" }]</pre> To specify a Local Custom Day, use the local attribute. For example: XML 1 2 3 <pre><restrictionNo uns> <restrictionNo un local="true">C ustomDay2</ restrictionNou n> </ restrictionNou ns></pre> JSON 1 2 3 4 5 6 <pre>"restrictionNo uns": [{ "local": true, "value": "CustomDay1" }]</pre> Note The Calendar for the trigger is used to verify Custom Day references.		
restrictionNthAmount	Restriction Nth Amount	Set only if restrictionAdjective is Nth (6); value of N.	Integer	Y (if restrictionAdjective is Nth)

Property	UI Field Name	Description	Specifications	Required
restrictionQualifier	Restriction Qualifier	Deprecated. Period to restrict the trigger to. To specify a Custom Day Period, use the name of the Custom Day Period. For example: XML <restrictionQualifier>CustomDayPeriod1</restrictionQualifier> JSON <pre>"restrictionQualifier": { "value": "CustomDayPeriod1" }</pre> To specify a Local Custom Day Period, use the local attribute. For example: XML <restrictionQualifier local="true">CustomDayPeriod2</restrictionQualifier> JSON <pre>"restrictionQualifier": { "local": "true", "value": "CustomDayPeriod2" }</pre> Note The Calendar for the trigger is used to verify Custom Day references.	Valid values: • As String = Jan, As Value = 0 • As String = Feb, As Value = 1 • As String = Mar, As Value = 2 • As String = Apr, As Value = 3 • As String = May, As Value = 4 • As String = Jun, As Value = 5 • As String = Jul, As Value = 6 • As String = Aug, As Value = 7 • As String = Sep, As Value = 8 • As String = Oct, As Value = 9 • As String = Nov, As Value = 10 • As String = Dec, As Value = 11 • As String = Month, As Value = 12 • As String = Year, As Value = 13	Y (if restrictionComplex is true)

Property	UI Field Name	Description	Specifications	Required																
restrictionQualifiers	Restriction Qualifier(s)	Period to restrict the trigger to. Used with <code>restrictionAdjective</code>, <code>restrictionQualifiers</code>, and <code>restrictionNthAmount</code> (if <code>restrictionAdjective</code> is Nth) to specify the type of days you want to select. For example, to specify "the 1st business day of the month," select <code>restrictionAdjective</code> as 1st, <code>restrictionNouns</code> as Business Day, and <code>restrictionQualifiers</code> as Month. Example: <table><tr><td>1</td><td><restrictionQualifiers></td></tr><tr><td>2</td><td><restrictionQualifier>Month</restrictionQualifier></td></tr><tr><td>3</td><td></restrictionQualifiers></td></tr></table> To specify a Custom Day, use the name of the Custom Day. For example: XML <table><tr><td>1</td><td><restrictionQualifiers></td></tr><tr><td>2</td><td><restrictionQualifier>Jan</restrictionQualifier></td></tr><tr><td>3</td><td><restrictionQualifier>CustomDay1</restrictionQualifier></td></tr><tr><td>4</td><td></restrictionQualifiers></td></tr></table> JSON <table><tr><td>1</td><td>"restrictionQualifiers": [</td></tr></table>	1	<restrictionQualifiers>	2	<restrictionQualifier>Month</restrictionQualifier>	3	</restrictionQualifiers>	1	<restrictionQualifiers>	2	<restrictionQualifier>Jan</restrictionQualifier>	3	<restrictionQualifier>CustomDay1</restrictionQualifier>	4	</restrictionQualifiers>	1	"restrictionQualifiers": [	Valid values: • As String = Jan, As Value = 0 • As String = Feb, As Value = 1 • As String = Mar, As Value = 2 • As String = Apr, As Value = 3 • As String = May, As Value = 4 • As String = Jun, As Value = 5 • As String = Jul, As Value = 6 • As String = Aug, As Value = 7 • As String = Sep, As Value = 8 • As String = Oct, As Value = 9 • As String = Nov, As Value = 10 • As String = Dec, As Value = 11 • As String = Month, As Value = 12 • As String = Year, As Value = 13 • As String = Week, As Value = 14 • As String = Quarter, As Value = 15	Y (if <code>restrictionComplex</code> is true)
1	<restrictionQualifiers>																			
2	<restrictionQualifier>Month</restrictionQualifier>																			
3	</restrictionQualifiers>																			
1	<restrictionQualifiers>																			
2	<restrictionQualifier>Jan</restrictionQualifier>																			
3	<restrictionQualifier>CustomDay1</restrictionQualifier>																			
4	</restrictionQualifiers>																			
1	"restrictionQualifiers": [																			

Property	UI Field Name	Description	Specifications	Required
		2 3 4 5 6 7 8 <pre>{ "value": "Jan" }, { "value": "CustomDay1" }]</pre> To specify a Local Custom Day, use the local attribute. For example: XML 1 2 3 <pre><restrictionQualifiers> <restrictionQualifier local="true">CustomDay2</restrictionQualifier> </restrictionQualifiers></pre> JSON 1 2 3 4 5 6 <pre>"restrictionQualifiers": [{ "local": true, "value": "CustomDay1" }]</pre> Note The Calendar for the trigger is used to verify Custom Day references.		
restrictionSimple	Simple Restriction	Set only if <code>restriction</code> is true; Specification to set a simple restriction based on a specific situation.	Boolean; Valid values: true/false. Default is false.	Y (if <code>restrictionComplex</code> is false)

Property	UI Field Name	Description	Specifications	Required
<code>retainSysIds</code>	n/a	Specification for whether or not the web service will persist the <code>sysId</code> property. - If <code>retainSysIds</code>="true" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database. - If <code>retainSysIds</code>="false" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller. Note In XML web services, <code>retainSysIds</code> is specified as an attribute in the <trigger> element.	Valid values: true/false (default is true).	N
<code>retentionDuration</code>	Retention Duration	Set only if <code>retentionDurationPurge</code> is selected; Minimum retention duration for the selected <code>retentionDurationUnit</code> before triggered task instances can qualify for purge.	Integer	N
<code>retentionDurationPurge</code>	Purge By Retention Duration	Specification for whether triggered task instances can be purged by retention duration.	Boolean; Valid values: true/false. Default is false.	N
<code>retentionDurationUnit</code>	Retention Duration Unit	Set only if <code>retentionDurationPurge</code> is selected; Retention duration unit.	Valid values: - As String = Hours, As Value = 3 - As String = Days, As Value = 4 Default is Days (4).	N
<code>simulateTasks</code>	Simulate	Specifies if the instances generated by this trigger should execute under simulation mode.	Boolean; Valid values: true/false. Default is false.	N
<code>simulationOption</code>	Simulate Forecast	For Cron, Temporary, and Time triggers only; Enables the override of the Enable Trigger Simulation Universal Controller system property specification for whether or not to simulate the launching of tasks when triggers are eligible to fire. (If <code>simulationOption</code> is enabled, only the scheduled launch of the task by the trigger is inhibited.)	Valid values: --System Default --, As Value = 0 - As String = True, As Value = 1 - As String = False, As Value = 2 Default is --System Default -- (0).	N
<code>situation</code>	Situation	Type of day that causes the Controller to initiate the specified <code>action</code> .	Valid values: - As String = Holiday, As Value = 1 - As String = Non Business Day, As Value = 2 Default is Holiday (1).	Y (if <code>restrictionSimple</code> is true)

Property	UI Field Name	Description	Specifications	Required
<code>skipActive</code>	Skip Trigger if Active	Deprecated. Indication for whether or not the Controller should skip the next run of the specified task(s) if the previous run has not gone to a Complete status (that is, it is still active).	Boolean; Valid values: true/false. Default is false.	N
<code>skipAfterDate</code>	Skip After Date	Date after which the trigger will be skipped.		N
<code>skipAfterTime</code>	Skip After Time	Time after which the trigger will be skipped.		N
<code>skipBeforeDate</code>	Skip Before Date	Date before which the trigger will be skipped.		N
<code>skipBeforeTime</code>	Skip Before Time	Time before which the trigger will be skipped.		N
<code>skipCondition</code>	Task Launch Skip Condition	Controls when launching a task for the trigger will be skipped. Note When reading a Trigger, both <code>skipActive</code> and <code>skipCondition</code> are returned. When creating/updating a Trigger, <code>skipCondition</code> is used if present. If <code>skipCondition</code> is not present, <code>skipActive</code> is used. If both <code>skipActive</code> and <code>skipCondition</code> are present, <code>skipActive</code> can be set to true only if <code>skipCondition</code> is Active (1).	Valid values: - As String = None, As Value = 0 - As String = Active, As Value = 1 - As String = Active By Trigger, As Value = 2 Default is None (0).	N
<code>skipCount</code>	Skip Count	Specification that the Controller should skip the next N times that this task is triggered.	Integer; Default is 0.	N
<code>skipDateList</code>	Skip Date List	Date(s) on which the trigger will be skipped.		
<code>skipRestriction</code>	Skip Restriction	Specification for when the trigger should skip and not launch the task(s).	Valid values: - As String = None, As Value = 0 - As String = Before, As Value = 1 - As String = After, As Value = 2 - As String = Span, As Value = 3 - As String = On, As Value = 4 Default is None (0).	
<code>sysId</code>	n/a	System ID field in the database for this trigger.	Persisted only if retainSysIds is set to true.	N

Property	UI Field Name	Description	Specifications	Required
taskMonitor	Universal Monitor	Universal Monitor task being executed.		Y
tasks	Tasks	Name of the task(s) being triggered when this trigger is satisfied. XML <pre><tasks> <task>uc - Demo</task> </tasks></pre> JSON <pre>"tasks": ["uc - Demo"]</pre>		Y
timeZone	Time Zone	Name of the time zone that will be applied to the time(s) specified in the trigger.		Y
version	n/a	For Read and List web services; specification of the version being read or listed. Note In XML web services, version is specified as an attribute in the <trigger> element.		Y

4.34.19.6.2 Trigger Properties: Universal Monitor Trigger

Property	UI Field Name	Description	Specifications	Required
enabledEnd	Enabled End	End time of the period during which the trigger should be active.	Use 24-hour time; format is hh:mm	Y (if restrictedTimes is true)
enabledStart	Enabled Start	Start time of the period during which the trigger should be active.	Use 24-hour time; format is hh:mm	Y (if restrictedTimes is true)

Property	UI Field Name	Description	Specifications	Required
<code>restrictedTimes</code>	Restrict Times	Indication that the trigger is active only during the period specified by <code>enabledStart</code> and <code>enabledEnd</code> .	Boolean; Valid values: true/false. Default is false.	N

4.34.19.6.3 Trigger-Related Records Properties: Variables

Property	UI Field Name	Description	Specifications	Required
<code>description</code>	Description	Description of the variable.		N
<code>name</code>	Name	Name of the variable.		Y
<code>value</code>	Value	Value of the variable.		Y

4.34.19.6.4 Trigger-Related Records Properties: Notes

Property	UI Field Name	Description	Specifications	Required
<code>sysId</code>	n/a	System ID field in the database for the Note.		N
<code>text</code>	Text	Text of the Note.		N
<code>title</code>	Title	Title of the Note.		N

4.34.20 Variable Monitor Trigger Web Services

- [Overview](#)
- [Create a Variable Monitor Trigger](#)
- [Modify a Variable Monitor Trigger](#)
- [Read a Variable Monitor Trigger](#)
 - [Read a Variable Monitor Trigger: URI Parameters](#)
- [Variable Monitor Trigger: XML and JSON Examples](#)
- [Properties](#)
 - [Trigger Properties: All Triggers](#)
 - [Trigger Properties: Variable Monitor Trigger](#)
 - [Trigger-Related Records Properties: Variables](#)
 - [Trigger-Related Records Properties: Notes](#)

4.34.20.1 Overview

Universal Controller supports the following RESTful-based web services for Variable Monitor Trigger operations, which are listed alphabetically on this page.

- [Create a Variable Monitor Trigger](#)
- [Modify a Variable Monitor Trigger](#)
- [Read a Variable Monitor Trigger](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Note

For information on Trigger web services that are applicable to all trigger types, see:

- [Delete a Trigger](#)
- [Enable/Disable a Trigger](#)
- [List Triggers](#)
- [Trigger a Task](#)

4.34.20.2 Create a Variable Monitor Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	POST
Description	Creates a new Variable Monitor Trigger.
Example URI	http://localhost:8080/uc/resources/trigger
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Variable Monitor Trigger: XML and JSON Examples .
Trigger Properties	• See Trigger Properties: All Triggers. • See Trigger Properties: Variable Monitor Trigger.
Trigger-Related Record Properties	• See Trigger-Related Records Properties: Variables. • See Trigger-Related Records Properties: Notes.
Example Response	• Status 200 /OK Successfully created the <trigger type> trigger.

4.34.20.3 Modify a Variable Monitor Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	PUT
Description	Modifies the trigger specified by the sysId in the request. To modify Variable Monitor Trigger properties without modifying related records, use the excludeRelated property.
Example URI	http://localhost:8080/uc/resources/trigger
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Variable Monitor Trigger: XML and JSON Examples .
Trigger Properties	• See Trigger Properties: All Triggers. • See Trigger Properties: Variable Monitor Trigger.
Trigger-Related Record Properties	• See Trigger-Related Records Properties: Variables. • See Trigger-Related Records Properties: Notes.
Example Response	• Status 200 /OK Successfully updated the <trigger type> trigger to version <version>.

4.34.20.4 Read a Variable Monitor Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	GET
Description	Retrieves information for the specified trigger
URI Parameters	See Read a Variable Monitor Trigger: URI Parameters , below.
Example URI	• http://localhost:8080/uc/resources/trigger?triggername=testTrigger • http://localhost:8080/uc/resources/trigger?triggerid=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Trigger Properties	• See Trigger Properties: All Triggers. • See Trigger Properties: Variable Monitor Trigger.
Trigger-Related Record Properties	• See Trigger-Related Records Properties: Variables. • See Trigger-Related Records Properties: Notes.

	Description
Example Response	- Status 200 /OK (See Variable Monitor Trigger: XML and JSON Examples.) - Status 404 /Not Found A trigger with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

4.34.20.4.1 Read a Variable Monitor Trigger: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
triggerid	Unique ID for this trigger.		Y (unless triggername is specified)	triggername
triggername	Name used within the Controller to identify this trigger.	Maximum 40 alphanumeric.	Y (unless triggerid is specified)	triggerid

4.34.20.5 Variable Monitor Trigger: XML and JSON Examples

In the XML web service, the [exportReleaseLevel](#), [exportTable](#), [retainSysIds](#), and [version](#) properties are specified as attributes in the <trigger> element.

Examples	XML	JSON
Example for Trigger	<pre> XML <triggerVm exportReleaseLevel="7.2.0.0" exportTable="ops_trigger_vm" retainSysIds="true" version="1"> <variables /> <action>Do Not Trigger</action> <notes /> <calendar>System Default</calendar> <description>description</description> <disabledBy></disabledBy> <disabledTime></disabledTime> <enabled>true</enabled> <enabledBy>ops.admin</enabledBy> <enabledTime>2021-03-03 12:46:11 -0500</enabledTime> <name>test variable monitor trigger</name> <nextScheduleTime>2021-03 </pre>	<pre> JSON { "type": "triggerVm", "action": "Do Not Trigger", "calendar": "System Default", "description": "description", "disabledBy": "", "disabledTime": "", "enabled": true, "enabledBy": "ops.admin", "enabledTime": "2021-03-03 12:46:11 -0500", "enabledEnd": "00:00", "enabledStart": "00:00", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_trigger_vm", "name": "test variable </pre>

Examples	XML	JSON
	<pre> -04 00:00:00 -0500</ nextScheduleTime> <opswiseGroups /> <rdExcludeBackup>true</ rdExcludeBackup> <restrictedTimes>>false</ restrictedTimes> <restriction>>false</ restriction> <restrictionAdjective>Eve ry</restrictionAdjective> <restrictionComplex>>false </restrictionComplex> <restrictionMode>Or</ restrictionMode> <restrictionNouns> <restrictionNoun>Day</ restrictionNoun> </restrictionNouns> <restrictionNthAmount /> <restrictionQualifiers> <restrictionQualifier>Year</ restrictionQualifier> </restrictionQualifiers> <restrictionSimple>>false< /restrictionSimple> <retentionDuration>1</ retentionDuration> <retentionDurationPurge>t rue</retentionDurationPurge> <retentionDurationUnit>Da ys</retentionDurationUnit> <simulationOption>-- System Default --</ simulationOption> <situation>Holiday</ situation> <skipAfterDate>2020-05-28 </skipAfterDate> <skipAfterTime>02:15</ skipAfterTime> <skipBeforeDate>2020-05-3 0</skipBeforeDate> <skipBeforeTime>17:30</ skipBeforeTime> <skipCondition>None</ skipCondition> <skipCount>0</skipCount> <skipDateList /> <skipRestriction>Span</ skipRestriction> <sysId>0fc6b7d9c0a801c901 7b6c27c259937e</sysId> <taskMonitor>test vm</ </pre>	<pre> monitor trigger", "nextScheduledTime": "2021-03-04 00:00:00 -0500", "notes": [], "opswiseGroups": [], "rdExcludeBackup": true, "restrictedTimes": false, "restriction": false, "restrictionAdjective": "Every", "restrictionComplex": false, "restrictionMode": "Or", "restrictionNouns": [{ "value": "Day" }], "restrictionNthAmount": null, "restrictionQualifiers": [{ "value": "Year" }], "restrictionSimple": false, "retainSysIds": true, "retentionDuration": 1, "retentionDurationPurge" : true, "retentionDurationUnit": "Days", "simulationOption": "-- System Default --", "situation": "Holiday", "skipAfterDate": "2020-05-28", "skipAfterTime": "02:15", "skipBeforeDate": "2020-05-30", "skipBeforeTime": "17:30", "skipCondition": "None", "skipCount": 0, "skipDateList": [], "skipRestriction": "Span", "sysId": "9c659c9c2c72460c9a2057663 257b0be", </pre>

Examples	XML	JSON
	<pre>taskMonitor> <tasks> <task>Sleep 30</task> </tasks> <timeZone /> <enabledEnd>00:00</ enabledEnd> <enabledStart>00:00</ enabledStart> <restrictedTimes>>false</ restrictedTimes> </triggerVm></pre>	<pre>"taskMonitor": "test vm", "tasks": ["Sleep 30"], "timeZone": null, "variables": [], "version": 1 }</pre>
Examples for Trigger-Related Records	Variables XML <pre><variables> <variable> <description /> <name>testVar</name> <value>value</value> </variable> </variables></pre> Notes XML <pre><notes> <note> <sysId>76ad570c64b84 f84aeaf281403856b10</sysId> <text>testNoteText</ text> <title>testNoteTitle </title> </note> </notes></pre>	Variables JSON <pre>"variables": [{ "description": "description", "name": "var1", "value": "value1" }]</pre> Notes JSON <pre>"notes": [{ "sysId": "76ad570c64b84f84aeaf28140 3856b10", "text": "testNoteText", "title": "testNoteTitle" }]</pre>

4.34.20.6 Properties

4.34.20.6.1 Trigger Properties: All Triggers

Property	UI Field Name	Description	Specifications	Required
action	Action	For all trigger types except Manual and Temporary; Action to take on a non-business day or holiday (see situation).	Valid values: - As String = Do Not Trigger, As Value = 1 - As String = Next Day, As Value = 2 - As String = Next Business Day, As Value = 3 - As String = Previous Day, As Value = 4 - As String = Previous Business Day, As Value = 5 Default is Do Not Trigger (1). Note The following values are valid only for Cron and Time triggers: - Next Day (2) - Next Business Day (3) - Previous Day (4) - Previous Business Day (5)	Y (if restriction is true)
calendar	Calendar	Calendar that defines the business days, holidays, and other special days that determine the run dates for the task(s) specified in the trigger. The Calendar will be used to verify any Custom Day references in restrictionNoun.	Default is System Default.	Y
customField1	n/a	User-Defined field. Example: <customField1 label="Domain">web.com</customField1>	The label is included only if a value has been defined for the User Defined Trigger Field 1 Label Universal Controller system property.	N
customField2	n/a	User-Defined field. Example: <customField2 label="Domain">web.com</customField2>	The label is included only if a value has been defined for the User Defined Trigger Field 2 Label Universal Controller system property.	N
description	Description	Description of this trigger.		N
disabledBy	Disabled By	System-supplied. If Status = Enabled, ID of the user who most recently disabled this trigger.	Read-only.	N
disabledTime	Disabled Time	System-supplied. If Status = Enabled, Date and time that the trigger was disabled.	Read-only.	N
enabled	Status	System-defined; Specification for whether or nor the trigger is enabled. Only enabled triggers are processed by the Controller.	Read-only.	N

Property	UI Field Name	Description	Specifications	Required
<code>enabledBy</code>	Enabled By	System-supplied. If Status = Enabled, ID of the user who most recently enabled this trigger.	Read-only.	N
<code>enabledTime</code>	Enabled Time	System-supplied. If Status = Enabled, Date and time that the trigger was enabled.	Read-only.	N
<code>enforceVariables</code>	Enforce Variables	Specifies whether or not to enforce Override Trigger Variables when using Trigger Now... from the User Interface. Not applicable for Web Service APIs.	Valid values: true/false. Default is false.	N
<code>excludeRelated</code>	n/a	For Modify Trigger web services; specification for whether or not to exclude related records from the update, even if they are provided in the request. Note In XML web services, <code>excludeRelated</code> is specified as an attribute in the <trigger> element.	Valid values: true/false. Default is false.	N
<code>exportReleaseLevel</code>	n/a	Universal Controller release that the record was exported from. Note In XML web services, <code>exportReleaseLevel</code> is specified as an attribute in the <trigger> element.	Read-only.	N
<code>exportTable</code>	n/a	Record table information. Note In XML web services, <code>exportTable</code> is specified as an attribute in the <trigger> element.	Read-only.	N
<code>forecast</code>	Forecast	For Cron, Temporary, and Time triggers only; Date and time when this trigger will be satisfied for the next number days, as specified in the Forecast Period In Days Universal Controller system property. The Controller writes the forecasting entries to the Forecasts List .	Boolean; Valid values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
<code>lockVariables</code>	Lock Variables	Specifies whether or not to prevent editing variables when using Trigger Now... from the User Interface. Not applicable for Web Service APIs.	Boolean; Valid values: true/false. Default is false.	N
<code>name</code>	Name	Name used within the Controller to identify this trigger.	Maximum 255 alphanumerics.	Y
<code>nextScheduledTime</code>	Next Scheduled Time	System-supplied; for time-based triggers. If Status = Enabled, the next date and time this trigger will be satisfied. See Displaying Trigger Forecast Information .	Read-only.	N
<code>opswiseGroups</code>	Member of Business Services	List of Business Service(s) that this trigger belongs to. XML <pre><opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups></pre> JSON <pre>"opswiseGroups": ["test"]</pre>		N
<code>rdExcludeBackup</code>	Exclude Backup	Set only if <code>retentionDurationPurge</code> is selected; Specification for whether qualifying task instances can be excluded from the backup when being purged by retention duration.	Boolean; Valid values: true/false. Default is false.	N
<code>restriction</code>	Special Restriction	Indication of whether or not you want to specify additional parameters that tell the Controller how to handle exceptions, such as when the trigger is satisfied on a holiday or non-business day. You can specify simple and/or complex restrictions. For example, you can specify a <code>simpleRestriction</code> that disables the trigger if it is satisfied on a holiday identified in the calendar and/or a <code>restrictionComplex</code> that disables the trigger on the last business day of every month.	Boolean; Valid values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
<code>restrictionAdjective</code>	Restriction Adjective	Type of selection for <code>restrictionNoun</code> .	Valid values: • As String = Every, As Value = 0 • As String = 1st, As Value = 1 • As String = 2nd, As Value = 2 • As String = 3rd, As Value = 3 • As String = 4th, As Value = 4 • As String = Last, As Value = 5 • As String = Nth, As Value = 6 Default is Every (0).	Y (if <code>restrictionComplex</code> is enabled)
<code>restrictionComplex</code>	Complex Restriction	Set only if <code>restriction</code> is true; Set of parameters that determine one or more situations when this trigger should not be satisfied. Used in conjunction with <code>restrictionMode</code> , <code>restrictionAdjective</code> , <code>restrictionNoun</code> , and <code>restrictionQualifier</code> . For example, you can specify that you do not want to satisfy this trigger on the last business day of the year or the first day of each month.	Boolean; Valid values: true/false. Default is false.	Y (if <code>restrictionSimple</code> is false)
<code>restrictionMode</code>	Restriction Mode	Set only if <code>restrictionSimple</code> is true; Specification for whether you want to use <code>restrictionSimple</code> - and/or <code>restrictionComplex</code> -related values.	Valid values: • As String = And, As Value = 1 • As String = Or, As Value = 2 Default is Or (2).	Y (if <code>restrictionSimple</code> and <code>restrictionComplex</code> are true)

Property	UI Field Name	Description	Specifications	Required
restrictionNoun	Restriction Noun	Deprecated. Day to restrict the trigger to. To specify a Custom Day, use the name of the Custom Day. For example: XML <restrictionNoun>CustomDay1</restrictionNoun> JSON <pre>"restrictionNoun": { "value": "CustomDay1" }</pre> To specify a Local Custom Day, use the local attribute. For example: XML <restrictionNoun local="true">CustomDay2</restrictionNoun> JSON <pre>"restrictionNoun": { "local": "true", "value": "CustomDay2" }</pre> Note The Calendar for the trigger is used to verify Custom Day references.	Valid values: • As String = Sunday, As Value = 1 • As String = Monday, As Value = 2 • As String = Tuesday, As Value = 3 • As String = Wednesday, As Value = 4 • As String = Thursday, As Value = 5 • As String = Friday, As Value = 6 • As String = Saturday, As Value = 7 • As String = Day, As Value = 8 • As String = Business Day, As Value = 9	Y (if restrictionCompleteness is true)

Property	UI Field Name	Description	Specifications	Required																
restrictionNouns	Restriction Noun(s)	Day to restrict the trigger to. Used with <code>restrictionAdjective</code>, <code>restrictionQualifiers</code>, and <code>restrictionNthAmount</code> (if <code>restrictionAdjective</code> is Nth) to specify the type of days you want to select. For example, to specify "the 1st business day of the month," select <code>restrictionAdjective</code> as 1st, <code>restrictionNouns</code> as Business Day, and <code>restrictionQualifiers</code> as Month. Example: <table><tr><td>1</td><td><restrictionNouns></td></tr><tr><td>2</td><td><restrictionNoun>BusinessDay</restrictionNoun></td></tr><tr><td>3</td><td></restrictionNouns></td></tr></table> To specify a Custom Day, use the name of the Custom Day. For example: XML <table><tr><td>1</td><td><restrictionNouns></td></tr><tr><td>2</td><td><restrictionNoun>Monday</restrictionNoun></td></tr><tr><td>3</td><td><restrictionNoun>CustomDay1</restrictionNoun></td></tr><tr><td>4</td><td></restrictionNouns></td></tr></table> JSON <table><tr><td>1</td><td>"restrictionNouns": [</td></tr></table>	1	<restrictionNouns>	2	<restrictionNoun>BusinessDay</restrictionNoun>	3	</restrictionNouns>	1	<restrictionNouns>	2	<restrictionNoun>Monday</restrictionNoun>	3	<restrictionNoun>CustomDay1</restrictionNoun>	4	</restrictionNouns>	1	"restrictionNouns": [	Valid values: • As String = Sunday, As Value = 1 • As String = Monday, As Value = 2 • As String = Tuesday, As Value = 3 • As String = Wednesday, As Value = 4 • As String = Thursday, As Value = 5 • As String = Friday, As Value = 6 • As String = Saturday, As Value = 7 • As String = Day, As Value = 8 • As String = Business Day, As Value = 9 • Custom Days specified in the calendar selected in a Workflow calendar.	Y (if <code>restrictionComplex</code> is true)
1	<restrictionNouns>																			
2	<restrictionNoun>BusinessDay</restrictionNoun>																			
3	</restrictionNouns>																			
1	<restrictionNouns>																			
2	<restrictionNoun>Monday</restrictionNoun>																			
3	<restrictionNoun>CustomDay1</restrictionNoun>																			
4	</restrictionNouns>																			
1	"restrictionNouns": [																			

Property	UI Field Name	Description	Specifications	Required
		2 3 4 5 6 7 8 <pre>{ "value": "Monday" }, { "value": "CustomDay1" }]</pre> To specify a Local Custom Day, use the local attribute. For example: XML 1 2 3 <pre><restrictionNo uns> <restrictionNo un local="true">C ustomDay2</ restrictionNou n> </ restrictionNou ns></pre> JSON 1 2 3 4 5 6 <pre>"restrictionNo uns": [{ "local": true, "value": "CustomDay1" }]</pre> Note The Calendar for the trigger is used to verify Custom Day references.		
restrictionNthAmount	Restriction Nth Amount	Set only if restrictionAdjective is Nth (6); value of N.	Integer	Y (if restrictionAdjective is Nth)

Property	UI Field Name	Description	Specifications	Required
restrictionQualifier	Restriction Qualifier	Deprecated. Period to restrict the trigger to. To specify a Custom Day Period, use the name of the Custom Day Period. For example: XML <restrictionQualifier>CustomDayPeriod1</restrictionQualifier> JSON <pre>"restrictionQualifier": { "value": "CustomDayPeriod1" }</pre> To specify a Local Custom Day Period, use the local attribute. For example: XML <restrictionQualifier local="true">CustomDayPeriod2</restrictionQualifier> JSON <pre>"restrictionQualifier": { "local": "true", "value": "CustomDayPeriod2" }</pre> Note The Calendar for the trigger is used to verify Custom Day references.	Valid values: • As String = Jan, As Value = 0 • As String = Feb, As Value = 1 • As String = Mar, As Value = 2 • As String = Apr, As Value = 3 • As String = May, As Value = 4 • As String = Jun, As Value = 5 • As String = Jul, As Value = 6 • As String = Aug, As Value = 7 • As String = Sep, As Value = 8 • As String = Oct, As Value = 9 • As String = Nov, As Value = 10 • As String = Dec, As Value = 11 • As String = Month, As Value = 12 • As String = Year, As Value = 13	Y (if restrictionComplex is true)

Property	UI Field Name	Description	Specifications	Required																
restrictionQualifiers	Restriction Qualifier(s)	Period to restrict the trigger to. Used with <code>restrictionAdjective</code>, <code>restrictionQualifiers</code>, and <code>restrictionNthAmount</code> (if <code>restrictionAdjective</code> is Nth) to specify the type of days you want to select. For example, to specify "the 1st business day of the month," select <code>restrictionAdjective</code> as 1st, <code>restrictionNouns</code> as Business Day, and <code>restrictionQualifiers</code> as Month. Example: <table><tr><td>1</td><td><restrictionQualifiers></td></tr><tr><td>2</td><td><restrictionQualifier>Month</restrictionQualifier></td></tr><tr><td>3</td><td></restrictionQualifiers></td></tr></table> To specify a Custom Day, use the name of the Custom Day. For example: XML <table><tr><td>1</td><td><restrictionQualifiers></td></tr><tr><td>2</td><td><restrictionQualifier>Jan</restrictionQualifier></td></tr><tr><td>3</td><td><restrictionQualifier>CustomDay1</restrictionQualifier></td></tr><tr><td>4</td><td></restrictionQualifiers></td></tr></table> JSON <table><tr><td>1</td><td>"restrictionQualifiers": [</td></tr></table>	1	<restrictionQualifiers>	2	<restrictionQualifier>Month</restrictionQualifier>	3	</restrictionQualifiers>	1	<restrictionQualifiers>	2	<restrictionQualifier>Jan</restrictionQualifier>	3	<restrictionQualifier>CustomDay1</restrictionQualifier>	4	</restrictionQualifiers>	1	"restrictionQualifiers": [	Valid values: • As String = Jan, As Value = 0 • As String = Feb, As Value = 1 • As String = Mar, As Value = 2 • As String = Apr, As Value = 3 • As String = May, As Value = 4 • As String = Jun, As Value = 5 • As String = Jul, As Value = 6 • As String = Aug, As Value = 7 • As String = Sep, As Value = 8 • As String = Oct, As Value = 9 • As String = Nov, As Value = 10 • As String = Dec, As Value = 11 • As String = Month, As Value = 12 • As String = Year, As Value = 13 • As String = Week, As Value = 14 • As String = Quarter, As Value = 15	Y (if <code>restrictionComplex</code> is true)
1	<restrictionQualifiers>																			
2	<restrictionQualifier>Month</restrictionQualifier>																			
3	</restrictionQualifiers>																			
1	<restrictionQualifiers>																			
2	<restrictionQualifier>Jan</restrictionQualifier>																			
3	<restrictionQualifier>CustomDay1</restrictionQualifier>																			
4	</restrictionQualifiers>																			
1	"restrictionQualifiers": [																			

Property	UI Field Name	Description	Specifications	Required
		2 3 4 5 6 7 8 <pre>{ "value": "Jan" }, { "value": "CustomDay1" }</pre> To specify a Local Custom Day, use the local attribute. For example: XML 1 2 3 <pre><restrictionQu alifiers> <restrictionQu alifier local="true">C ustomDay2</ restrictionQua lifier> </ restrictionQua lifiers></pre> JSON 1 2 3 4 5 6 <pre>"restrictionQu alifiers": [{ "local": true, "value": "CustomDay1" }]</pre> Note The Calendar for the trigger is used to verify Custom Day references.		
restrictionSimple	Simple Restriction	Set only if restriction is true; Specification to set a simple restriction based on a specific situation .	Boolean; Valid values: true/false. Default is false.	Y (if restrictionComplex is false)

Property	UI Field Name	Description	Specifications	Required
<code>retainSysIds</code>	n/a	Specification for whether or not the web service will persist the <code>sysId</code> property. - If <code>retainSysIds</code>="true" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database. - If <code>retainSysIds</code>="false" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller. Note In XML web services, <code>retainSysIds</code> is specified as an attribute in the <trigger> element.	Valid values: true/false (default is true).	N
<code>retentionDuration</code>	Retention Duration	Set only if <code>retentionDurationPurge</code> is selected; Minimum retention duration for the selected <code>retentionDurationUnit</code> before triggered task instances can qualify for purge.	Integer	N
<code>retentionDurationPurge</code>	Purge By Retention Duration	Specification for whether triggered task instances can be purged by retention duration.	Boolean; Valid values: true/false. Default is false.	N
<code>retentionDurationUnit</code>	Retention Duration Unit	Set only if <code>retentionDurationPurge</code> is selected; Retention duration unit.	Valid values: - As String = Hours, As Value = 3 - As String = Days, As Value = 4 Default is Days (4).	N
<code>simulateTasks</code>	Simulate	Specifies if the instances generated by this trigger should execute under simulation mode.	Boolean; Valid values: true/false. Default is false.	N
<code>simulationOption</code>	Simulate Forecast	For Cron, Temporary, and Time triggers only; Enables the override of the Enable Trigger Simulation Universal Controller system property specification for whether or not to simulate the launching of tasks when triggers are eligible to fire. (If <code>simulationOption</code> is enabled, only the scheduled launch of the task by the trigger is inhibited.)	Valid values: --System Default --, As Value = 0 - As String = True, As Value = 1 - As String = False, As Value = 2 Default is --System Default -- (0).	N
<code>situation</code>	Situation	Type of day that causes the Controller to initiate the specified <code>action</code> .	Valid values: - As String = Holiday, As Value = 1 - As String = Non Business Day, As Value = 2 Default is Holiday (1).	Y (if <code>restrictionSimple</code> is true)

Property	UI Field Name	Description	Specifications	Required
<code>skipActive</code>	Skip Trigger if Active	Deprecated. Indication for whether or not the Controller should skip the next run of the specified task(s) if the previous run has not gone to a Complete status (that is, it is still active).	Boolean; Valid values: true/false. Default is false.	N
<code>skipAfterDate</code>	Skip After Date	Date after which the trigger will be skipped.		N
<code>skipAfterTime</code>	Skip After Time	Time after which the trigger will be skipped.		N
<code>skipBeforeDate</code>	Skip Before Date	Date before which the trigger will be skipped.		N
<code>skipBeforeTime</code>	Skip Before Time	Time before which the trigger will be skipped.		N
<code>skipCondition</code>	Task Launch Skip Condition	Controls when launching a task for the trigger will be skipped. Note When reading a Trigger, both <code>skipActive</code> and <code>skipCondition</code> are returned. When creating/updating a Trigger, <code>skipCondition</code> is used if present. If <code>skipCondition</code> is not present, <code>skipActive</code> is used. If both <code>skipActive</code> and <code>skipCondition</code> are present, <code>skipActive</code> can be set to true only if <code>skipCondition</code> is Active (1).	Valid values: - As String = None, As Value = 0 - As String = Active, As Value = 1 - As String = Active By Trigger, As Value = 2 Default is None (0).	N
<code>skipCount</code>	Skip Count	Specification that the Controller should skip the next N times that this task is triggered.	Integer; Default is 0.	N
<code>skipDateList</code>	Skip Date List	Date(s) on which the trigger will be skipped.		
<code>skipRestriction</code>	Skip Restriction	Specification for when the trigger should skip and not launch the task(s).	Valid values: - As String = None, As Value = 0 - As String = Before, As Value = 1 - As String = After, As Value = 2 - As String = Span, As Value = 3 - As String = On, As Value = 4 Default is None (0).	
<code>sysId</code>	n/a	System ID field in the database for this trigger.	Persisted only if retainSysIds is set to true.	N

Property	UI Field Name	Description	Specifications	Required
taskMonitor	Variable Monitor	Variable Monitor task being executed.		Y
tasks	Tasks	Name of the task(s) being triggered when this trigger is satisfied. XML <pre><tasks> <task>uc - Demo</task> </tasks></pre> JSON <pre>"tasks": ["uc - Demo"]</pre>		Y
timeZone	Time Zone	Name of the time zone that will be applied to the time(s) specified in the trigger.		Y
version	n/a	For Read and List web services; specification of the version being read or listed. Note In XML web services, <code>version</code> is specified as an attribute in the <code><trigger></code> element.		Y

4.34.20.6.2 Trigger Properties: Variable Monitor Trigger

Property	UI Field Name	Description	Specifications	Required
enabledEnd	Enabled End	End time of the period during which the trigger should be active.	Use 24-hour time; format is hh:mm	Y (if <code>restrictedTimes</code> is true)
enabledStart	Enabled Start	Start time of the period during which the trigger should be active.	Use 24-hour time; format is hh:mm	Y (if <code>restrictedTimes</code> is true)

Property	UI Field Name	Description	Specifications	Required
<code>restrictedTimes</code>	Restrict Times	Indication that the trigger is active only during the period specified by <code>enabledStart</code> and <code>enabledEnd</code> .	Boolean; Valid values: true/false. Default is false.	N

4.34.20.6.3 Trigger-Related Records Properties: Variables

Property	UI Field Name	Description	Specifications	Required
<code>description</code>	Description	Description of the variable.		N
<code>name</code>	Name	Name of the variable.		Y
<code>value</code>	Value	Value of the variable.		Y

4.34.20.6.4 Trigger-Related Records Properties: Notes

Property	UI Field Name	Description	Specifications	Required
<code>sysId</code>	n/a	System ID field in the database for the Note.		N
<code>text</code>	Text	Text of the Note.		N
<code>title</code>	Title	Title of the Note.		N

4.34.21 z/OS Monitor Trigger Web Services

- [Overview](#)
- [Create a z/OS Monitor Trigger](#)
- [Modify a z/OS Monitor Trigger](#)
- [Read a z/OS Monitor Trigger](#)
 - [Read a z/OS Monitor Trigger: URI Parameters](#)
- [z/OS Monitor Trigger: XML and JSON Examples](#)
- [Properties](#)
 - [Trigger Properties: All Triggers](#)
 - [Trigger Properties: z/OS Monitor Trigger](#)
 - [Trigger-Related Records Properties: Variables](#)
 - [Trigger-Related Records Properties: Notes](#)

4.34.21.1 Overview

Universal Controller supports the following RESTful-based web services for z/OS Monitor Trigger operations, which are listed alphabetically on this page.

- [Create a z/OS Monitor Trigger](#)
- [Modify a z/OS Monitor Trigger](#)
- [Read a z/OS Monitor Trigger](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Note

For information on Trigger web services that are applicable to all trigger types, see:

- [Delete a Trigger](#)
- [Enable/Disable a Trigger](#)
- [List Triggers](#)
- [Trigger a Task](#)

4.34.21.2 Create a z/OS Monitor Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	POST
Description	Creates a new z/OS Monitor Trigger.
Example URI	http://localhost:8080/uc/resources/trigger
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See z/OS Monitor Trigger: XML and JSON Examples .
Trigger Properties	• See Trigger Properties: All Triggers. • See Trigger Properties: z/OS Monitor Trigger.
Trigger-Related Record Properties	• See Trigger-Related Records Properties: Variables. • See Trigger-Related Records Properties: Notes.
Example Response	• Status 200 /OK Successfully created the <trigger type> trigger.

4.34.21.3 Modify a z/OS Monitor Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	PUT
Description	Modifies the trigger specified by the sysId in the request. To modify z/OS Monitor Trigger properties without modifying related records, use the excludeRelated property.
Example URI	http://localhost:8080/uc/resources/trigger
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See z/OS Monitor Trigger: XML and JSON Examples .
Trigger Properties	• See Trigger Properties: All Triggers. • See Trigger Properties: z/OS Monitor Trigger.
Trigger-Related Record Properties	• See Trigger-Related Records Properties: Variables. • See Trigger-Related Records Properties: Notes.
Example Response	• Status 200 /OK Successfully updated the <trigger type> trigger to version <version>.

4.34.21.4 Read a z/OS Monitor Trigger

	Description
URI	http://host_name/uc/resources/trigger
HTTP Method	GET
Description	Retrieves information for the specified trigger
URI Parameters	See Read a z/OS Monitor Trigger: URI Parameters , below.
Example URI	• http://localhost:8080/uc/resources/trigger?triggername=testTrigger • http://localhost:8080/uc/resources/trigger?triggerid=d26265a2c4f345359d9b356f18a462c1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Trigger Properties	• See Trigger Properties: All Triggers. • See Trigger Properties: z/OS Monitor Trigger.
Trigger-Related Record Properties	• See Trigger-Related Records Properties: Variables. • See Trigger-Related Records Properties: Notes.

	Description
Example Response	- Status 200 /OK (See z/OS Monitor Trigger: XML and JSON Examples.) - Status 404 /Not Found A trigger with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

4.34.21.4.1 Read a z/OS Monitor Trigger: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
triggerid	Unique ID for this trigger.		Y (unless triggername is specified)	triggername
triggername	Name used within the Controller to identify this trigger.	Maximum 40 alphanumerics.	Y (unless triggerid is specified)	triggerid

4.34.21.5 z/OS Monitor Trigger: XML and JSON Examples

In the XML web service, the [exportReleaseLevel](#), [exportTable](#), [retainSyslds](#), and [version](#) properties are specified as attributes in the <trigger> element.

Examples	XML	JSON
Example for Trigger	<pre> XML <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <triggerZm exportReleaseLevel="7.7.0.0" exportTable="ops_trigger_zm" retainSysIds="true" version="1"> <variables/> <notes/> <action>Do Not Trigger</action> <calendar>System Default</calendar> <customField1/> <customField2/> <description /> <disabledBy>ops.admin</disabledBy> <disabledTime>2024-09-30 12:54:38 -0400</ disabledTime> <enabled>false</enabled> <enabledBy></enabledBy> <enabledTime></enabledTime> <enforceVariables>false</enforceVariables> <lockVariables>false</lockVariables> <name>z/OS Mon Trig</name> <nextScheduledTime></nextScheduledTime> <opswiseGroups/> <rdExcludeBackup>false</rdExcludeBackup> <restriction>false</restriction> <restrictionAdjective>Every</ restrictionAdjective> <restrictionComplex>false</ restrictionComplex> <restrictionMode>Or</restrictionMode> <restrictionNoun>Day</restrictionNoun> <restrictionNouns> <restrictionNoun>Day</restrictionNoun> </restrictionNouns> <restrictionNthAmount>5</ restrictionNthAmount> <restrictionQualifier>Year</restrictionQualifier> <restrictionQualifiers> <restrictionQualifier>Year</ restrictionQualifier> </restrictionQualifiers> <restrictionSimple>false</restrictionSimple> <retentionDuration>1</retentionDuration> <retentionDurationPurge>false</ retentionDurationPurge> <retentionDurationUnit>Days</ retentionDurationUnit> <simulateTasks>false</simulateTasks> <situation>Holiday</situation> <skipActive>false</skipActive> <skipAfterDate /> <skipAfterTime /> <skipBeforeDate /> <skipBeforeTime /> <skipCondition>None</skipCondition> <skipCount>0</skipCount> <skipDateList/> <skipRestriction>None</skipRestriction> <sysId>f20e60bc8d1c42cab939a15e0169e80d</ sysId> <tasks> <task>Sleep 10</task> </tasks> <timeZone /> <enabledEnd>00:00</enabledEnd> </pre>	<pre> JSON { "type": "triggerZm", "action": "Do Not Trigger", "calendar": "System Default", "customField1": { "label": null, "value": null }, "customField2": { "label": null, "value": null }, "description": null, "disabledBy": "ops.admin", "disabledTime": "2024-09-30 12:54:38 -0400", "enabled": false, "enabledBy": "", "enabledEnd": "00:00", "enabledStart": "00:00", "enabledTime": "", "enforceVariables": false, "exportReleaseLevel": "7.7.0.0", "exportTable": "ops_trigger_zm", "lockVariables": false, "name": "z/OS Mon Trig", "nextScheduledTime": "", "notes": [], "opswiseGroups": [], "rdExcludeBackup": false, "restrictedTimes": false, "restriction": false, "restrictionAdjective": "Every", "restrictionComplex": false, "restrictionMode": "Or", "restrictionNoun": { "value": "Day" }, "restrictionNouns": [{ "value": "Day" }], "restrictionNthAmount": 5, "restrictionQualifier": { "value": "Year" }, "restrictionQualifiers": [{ "value": "Year" }], "restrictionSimple": false, "retainSysIds": true, "retentionDuration": 1, "retentionDurationPurge": false, "retentionDurationUnit": "Days", "simulateTasks": false, "situation": "Holiday", "skipActive": false, "skipAfterDate": null, "skipAfterTime": null, "skipBeforeDate": null, "skipBeforeTime": null, "skipCondition": "None", "skipCount": 0, "skipDateList": [], </pre>

Examples	XML	JSON
	<pre> <enabledStart>00:00</enabledStart> <restrictedTimes>false</restrictedTimes> <taskMonitor>z0s mon test #1.0</ taskMonitor> </triggerZm> </pre>	<pre> "skipRestriction": "None", "sysId": "f20e60bc8d1c42cab939a15e0169e80d", "taskMonitor": "zos mon test #1.0", "tasks": ["Sleep 10"], "timeZone": null, "variables": [], "version": 1 } </pre>

4.34.21.6 Properties

4.34.21.6.1 Trigger Properties: All Triggers

Property	UI Field Name	Description	Specifications	Required
action	Action	For all trigger types except Manual and Temporary; Action to take on a non-business day or holiday (see situation).	Valid values: - As String = Do Not Trigger, As Value = 1 - As String = Next Day, As Value = 2 - As String = Next Business Day, As Value = 3 - As String = Previous Day, As Value = 4 - As String = Previous Business Day, As Value = 5 Default is Do Not Trigger (1). Note The following values are valid only for Cron and Time triggers: - Next Day (2) - Next Business Day (3) - Previous Day (4) - Previous Business Day (5)	Y (if restriction is true)

Property	UI Field Name	Description	Specifications	Required
calendar	Calendar	Calendar that defines the business days, holidays, and other special days that determine the run dates for the task(s) specified in the trigger. The Calendar will be used to verify any Custom Day references in <code>restrictionNoun</code> .	Default is System Default.	Y
customField1	n/a	User-Defined field. Example: <code><customField1 label="Domain">web.com</customField1></code>	The label is included only if a value has been defined for the User Defined Trigger Field 1 Label Universal Controller system property.	N
customField2	n/a	User-Defined field. Example: <code><customField2 label="Domain">web.com</customField2></code>	The label is included only if a value has been defined for the User Defined Trigger Field 2 Label Universal Controller system property.	N
description	Description	Description of this trigger.		N
disabledBy	Disabled By	System-supplied. If Status = Enabled, ID of the user who most recently disabled this trigger.	Read-only.	N
disabledTime	Disabled Time	System-supplied. If Status = Enabled, Date and time that the trigger was disabled.	Read-only.	N
enabled	Status	System-defined; Specification for whether or not the trigger is enabled. Only enabled triggers are processed by the Controller.	Read-only.	N
enabledBy	Enabled By	System-supplied. If Status = Enabled, ID of the user who most recently enabled this trigger.	Read-only.	N
enabledTime	Enabled Time	System-supplied. If Status = Enabled, Date and time that the trigger was enabled.	Read-only.	N
enforceVariables	Enforce Variables	Specifies whether or not to enforce Override Trigger Variables when using Trigger Now... from the User Interface. Not applicable for Web Service APIs.	Valid values: true/false. Default is false.	N
excludeRelated	n/a	For Modify Trigger web services; specification for whether or not to exclude related records from the update, even if they are provided in the request. Note In XML web services, <code>excludeRelated</code> is specified as an attribute in the <code><trigger></code> element.	Valid values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
exportReleaseLevel	n/a	Universal Controller release that the record was exported from. Note In XML web services, <code>exportReleaseLevel</code> is specified as an attribute in the <trigger> element.	read only	N
exportTable	n/a	Record table information. Note In XML web services, <code>exportTable</code> is specified as an attribute in the <trigger> element.	read only	N
forecast	Forecast	For Cron, Temporary, and Time triggers only; Date and time when this trigger will be satisfied for the next number days, as specified in the Forecast Period In Days Universal Controller system property. The Controller writes the forecasting entries to the Forecasts List .	Boolean; Valid values: true/false. Default is false.	N
lockVariables	Lock Variables	Specifies whether or not to prevent editing variables when using Trigger Now... from the User Interface. Not applicable for Web Service APIs.	Boolean; Valid values: true/false. Default is false.	N
name	Name	Name used within the Controller to identify this trigger.	Maximum 255 alphanumerics.	Y
nextScheduledTime	Next Scheduled Time	System-supplied; for time-based triggers. If Status = Enabled, the next date and time this trigger will be satisfied. See Displaying Trigger Forecast Information .	Read-only.	N

Property	UI Field Name	Description	Specifications	Required
opswiseGroups	Member of Business Services	List of Business Service(s) that this trigger belongs to. XML <pre><opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups></pre> JSON <pre>"opswiseGroups": ["test"]</pre>		N
rdExcludeBackup	Exclude Backup	Set only if <code>retentionDurationPurge</code> is selected; Specification for whether qualifying task instances can be excluded from the backup when being purged by retention duration.	Boolean; Valid values: true/false. Default is false.	N
restriction	Special Restriction	Indication of whether or not you want to specify additional parameters that tell the Controller how to handle exceptions, such as when the trigger is satisfied on a holiday or non-business day. You can specify simple and/or complex restrictions. For example, you can specify a <code>simpleRestriction</code> that disables the trigger if it is satisfied on a holiday identified in the calendar and/or a <code>restrictionComplex</code> that disables the trigger on the last business day of every month.	Boolean; Valid values: true/false. Default is false.	N
restrictionAdjective	Restriction Adjective	Type of selection for <code>restrictionNoun</code> .	Valid values: - As String = Every, As Value = 0 - As String = 1st, As Value = 1 - As String = 2nd, As Value = 2 - As String = 3rd, As Value = 3 - As String = 4th, As Value = 4 - As String = Last, As Value = 5 - As String = Nth, As Value = 6 Default is Every (0).	Y (if <code>restrictionComplex</code> is enabled)

Property	UI Field Name	Description	Specifications	Required
restrictionComplex	Complex Restriction	Set only if <code>restriction</code> is true; Set of parameters that determine one or more situations when this trigger should not be satisfied. Used in conjunction with <code>restrictionMode</code> , <code>restrictionAdjective</code> , <code>restrictionNoun</code> , and <code>restrictionQualifier</code> . For example, you can specify that you do not want to satisfy this trigger on the last business day of the year or the first day of each month.	Boolean; Valid values: true/false. Default is false.	Y (if <code>restrictionSimple</code> is false)
restrictionMode	Restriction Mode	Set only if <code>restrictionSimple</code> is true; Specification for whether you want to use <code>restrictionSimple</code> - and/or <code>restrictionComplex</code> -related values.	Valid values: - As String = And, As Value = 1 - As String = Or, As Value = 2 Default is Or (2).	Y (if <code>restrictionSimple</code> and <code>restrictionComplex</code> are true)
restrictionNoun	Restriction Noun	Deprecated. Day to restrict the trigger to. To specify a Custom Day, use the name of the Custom Day. For example: XML <code><restrictionNoun>CustomDay1</restrictionNoun></code> JSON <pre>"restrictionNoun": { "value": "CustomDay1" }</pre> To specify a Local Custom Day, use the local attribute. For example: XML <code><restrictionNoun local="true">CustomDay2</restrictionNoun></code> JSON <pre>"restrictionNoun": { "local": "true", "value": "CustomDay2" }</pre> Note The Calendar for the trigger is used to verify Custom Day references.	Valid values: - As String = Sunday, As Value = 1 - As String = Monday, As Value = 2 - As String = Tuesday, As Value = 3 - As String = Wednesday, As Value = 4 - As String = Thursday, As Value = 5 - As String = Friday, As Value = 6 - As String = Saturday, As Value = 7 - As String = Day, As Value = 8 - As String = Business Day, As Value = 9	Y (if <code>restrictionComplex</code> is true)

Property	UI Field Name	Description	Specifications	Required																																								
restrictionNouns	Restriction Noun(s)	Day to restrict the trigger to. Used with <code>restrictionAdjective</code>, <code>restrictionQualifiers</code>, and <code>restrictionNthAmount</code> (if <code>restrictionAdjective</code> is Nth) to specify the type of days you want to select. For example, to specify "the 1st business day of the month," select <code>restrictionAdjective</code> as 1st, <code>restrictionNouns</code> as Business Day, and <code>restrictionQualifiers</code> as Month. Example: <table><tr><td>1</td><td><restrictionNouns></td></tr><tr><td>2</td><td><restrictionNoun>Business</td></tr><tr><td>3</td><td>Day</restrictionNoun></td></tr><tr><td>3</td><td></restrictionNouns></td></tr></table> To specify a Custom Day, use the name of the Custom Day. For example: XML <table><tr><td>1</td><td><restrictionNouns></td></tr><tr><td>2</td><td><restrictionNoun>Monday</restrictionNoun></td></tr><tr><td>3</td><td><restrictionNoun>CustomDay1</restrictionNoun></td></tr><tr><td>4</td><td></restrictionNouns></td></tr></table> JSON <table><tr><td>1</td><td>"restrictionNouns": [</td></tr><tr><td>2</td><td>{</td></tr><tr><td>3</td><td> "value": "Monday"</td></tr><tr><td>4</td><td>},</td></tr><tr><td>5</td><td>{</td></tr><tr><td>6</td><td> "value": "CustomDay1"</td></tr><tr><td>7</td><td>}</td></tr><tr><td>8</td><td>]</td></tr></table> To specify a Local Custom Day, use the local attribute. For example: XML <table><tr><td>1</td><td><restrictionNouns></td></tr><tr><td>2</td><td><restrictionNoun</td></tr><tr><td>3</td><td> local="true">CustomDay2</restrictionNoun></td></tr><tr><td>3</td><td></restrictionNouns></td></tr></table> JSON	1	<restrictionNouns>	2	<restrictionNoun>Business	3	Day</restrictionNoun>	3	</restrictionNouns>	1	<restrictionNouns>	2	<restrictionNoun>Monday</restrictionNoun>	3	<restrictionNoun>CustomDay1</restrictionNoun>	4	</restrictionNouns>	1	"restrictionNouns": [	2	{	3	"value": "Monday"	4	},	5	{	6	"value": "CustomDay1"	7	}	8	]	1	<restrictionNouns>	2	<restrictionNoun	3	local="true">CustomDay2</restrictionNoun>	3	</restrictionNouns>	Valid values: - As String = Sunday, As Value = 1 - As String = Monday, As Value = 2 - As String = Tuesday, As Value = 3 - As String = Wednesday, As Value = 4 - As String = Thursday, As Value = 5 - As String = Friday, As Value = 6 - As String = Saturday, As Value = 7 - As String = Day, As Value = 8 - As String = Business Day, As Value = 9 - Custom Days specified in the calendar selected in a Workflow calendar.	Y (if restrictionComplex is true)
1	<restrictionNouns>																																											
2	<restrictionNoun>Business																																											
3	Day</restrictionNoun>																																											
3	</restrictionNouns>																																											
1	<restrictionNouns>																																											
2	<restrictionNoun>Monday</restrictionNoun>																																											
3	<restrictionNoun>CustomDay1</restrictionNoun>																																											
4	</restrictionNouns>																																											
1	"restrictionNouns": [																																											
2	{																																											
3	"value": "Monday"																																											
4	},																																											
5	{																																											
6	"value": "CustomDay1"																																											
7	}																																											
8	]																																											
1	<restrictionNouns>																																											
2	<restrictionNoun																																											
3	local="true">CustomDay2</restrictionNoun>																																											
3	</restrictionNouns>																																											

Property	UI Field Name	Description	Specifications	Required
		<pre> 1 "restrictionNouns": [2 { 3 "local": true, 4 "value": "CustomDay1" 5 } 6] </pre> Note The Calendar for the trigger is used to verify Custom Day references.		
restrictionNthAmount	Restriction Nth Amount	Set only if <code>restrictionAdjective</code> is Nth (6); value of N.	Integer	Y (if <code>restrictionAdjective</code> is Nth)
restrictionQualifier	Restriction Qualifier	Deprecated. Period to restrict the trigger to. To specify a Custom Day Period, use the name of the Custom Day Period. For example: XML <restrictionQualifier>CustomDayPeriod1</restrictionQualifier> JSON "restrictionQualifier": { "value": "CustomDayPeriod1" } To specify a Local Custom Day Period, use the local attribute. For example: XML <restrictionQualifier local="true">CustomDayPeriod2</restrictionQualifier> JSON "restrictionQualifier": { "local": "true", "value": "CustomDayPeriod2" } Note The Calendar for the trigger is used to verify Custom Day references.	Valid values: - As String = Jan, As Value = 0 - As String = Feb, As Value = 1 - As String = Mar, As Value = 2 - As String = Apr, As Value = 3 - As String = May, As Value = 4 - As String = Jun, As Value = 5 - As String = Jul, As Value = 6 - As String = Aug, As Value = 7 - As String = Sep, As Value = 8 - As String = Oct, As Value = 9 - As String = Nov, As Value = 10 - As String = Dec, As Value = 11 - As String = Month, As Value = 12 - As String = Year, As Value = 13	Y (if <code>restrictionComplex</code> is true)

Property	UI Field Name	Description	Specifications	Required																																				
restrictionQualifiers	Restriction Qualifier(s)	Period to restrict the trigger to. Used with <code>restrictionAdjective</code>, <code>restrictionQualifiers</code>, and <code>restrictionNthAmount</code> (if <code>restrictionAdjective</code> is Nth) to specify the type of days you want to select. For example, to specify "the 1st business day of the month," select <code>restrictionAdjective</code> as 1st, <code>restrictionNouns</code> as Business Day, and <code>restrictionQualifiers</code> as Month. Example: <table><tr><td>1</td><td><restrictionQualifiers></td></tr><tr><td>2</td><td><restrictionQualifier>Month</restrictionQualifier></td></tr><tr><td>3</td><td></restrictionQualifiers></td></tr></table> To specify a Custom Day, use the name of the Custom Day. For example: XML <table><tr><td>1</td><td><restrictionQualifiers></td></tr><tr><td>2</td><td><restrictionQualifier>Jan</restrictionQualifier></td></tr><tr><td>3</td><td><restrictionQualifier>CustomDay1</restrictionQualifier></td></tr><tr><td>4</td><td></restrictionQualifiers></td></tr></table> JSON <table><tr><td>1</td><td>"restrictionQualifiers": [</td></tr><tr><td>2</td><td>{</td></tr><tr><td>3</td><td> "value": "Jan"</td></tr><tr><td>4</td><td>},</td></tr><tr><td>5</td><td>{</td></tr><tr><td>6</td><td> "value": "CustomDay1"</td></tr><tr><td>7</td><td>}</td></tr><tr><td>8</td><td>]</td></tr></table> To specify a Local Custom Day, use the local attribute. For example: XML <table><tr><td>1</td><td><restrictionQualifiers></td></tr><tr><td>2</td><td><restrictionQualifier local="true">CustomDay2</restrictionQualifier></td></tr><tr><td>3</td><td></restrictionQualifiers></td></tr></table> JSON	1	<restrictionQualifiers>	2	<restrictionQualifier>Month</restrictionQualifier>	3	</restrictionQualifiers>	1	<restrictionQualifiers>	2	<restrictionQualifier>Jan</restrictionQualifier>	3	<restrictionQualifier>CustomDay1</restrictionQualifier>	4	</restrictionQualifiers>	1	"restrictionQualifiers": [	2	{	3	"value": "Jan"	4	},	5	{	6	"value": "CustomDay1"	7	}	8	]	1	<restrictionQualifiers>	2	<restrictionQualifier local="true">CustomDay2</restrictionQualifier>	3	</restrictionQualifiers>	Valid values: - As String = Jan, As Value = 0 - As String = Feb, As Value = 1 - As String = Mar, As Value = 2 - As String = Apr, As Value = 3 - As String = May, As Value = 4 - As String = Jun, As Value = 5 - As String = Jul, As Value = 6 - As String = Aug, As Value = 7 - As String = Sep, As Value = 8 - As String = Oct, As Value = 9 - As String = Nov, As Value = 10 - As String = Dec, As Value = 11 - As String = Month, As Value = 12 - As String = Year, As Value = 13 - As String = Week, As Value = 14 - As String = Quarter, As Value = 15	Y (if <code>restrictionComplex</code> is true)
1	<restrictionQualifiers>																																							
2	<restrictionQualifier>Month</restrictionQualifier>																																							
3	</restrictionQualifiers>																																							
1	<restrictionQualifiers>																																							
2	<restrictionQualifier>Jan</restrictionQualifier>																																							
3	<restrictionQualifier>CustomDay1</restrictionQualifier>																																							
4	</restrictionQualifiers>																																							
1	"restrictionQualifiers": [																																							
2	{																																							
3	"value": "Jan"																																							
4	},																																							
5	{																																							
6	"value": "CustomDay1"																																							
7	}																																							
8	]																																							
1	<restrictionQualifiers>																																							
2	<restrictionQualifier local="true">CustomDay2</restrictionQualifier>																																							
3	</restrictionQualifiers>																																							

Property	UI Field Name	Description	Specifications	Required
		<pre> 1 "restrictionQualifiers": [2 { 3 "local": true, 4 "value": "CustomDay1" 5 } 6] </pre> Note The Calendar for the trigger is used to verify Custom Day references.		
restrictionSimple	Simple Restriction	Set only if <code>restriction</code> is true; Specification to set a simple restriction based on a specific situation.	Boolean; Valid values: true/false. Default is false.	Y (if <code>restrictionComplex</code> is false)
retainSysIds	n/a	Specification for whether or not the web service will persist the <code>sysId</code> property. - If <code>retainSysIds</code>="true" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database. - If <code>retainSysIds</code>="false" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller. Note In XML web services, <code>retainSysIds</code> is specified as an attribute in the <trigger> element.	Valid values: true/false (default is true).	N
retentionDuration	Retention Duration	Set only if <code>retentionDurationPurge</code> is selected; Minimum retention duration for the selected <code>retentionDurationUnit</code> before triggered task instances can qualify for purge.	Integer	N
retentionDurationPurge	Purge By Retention Duration	Specification for whether triggered task instances can be purged by retention duration.	Boolean; Valid values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
retentionDurationUnit	Retention Duration Unit	Set only if retentionDurationPurge is selected; Retention duration unit.	Valid values: - As String = Hours, As Value = 3 - As String = Days, As Value = 4 Default is Days (4).	N
simulateTasks	Simulate	Specifies if the instances generated by this trigger should execute under simulation mode.	Boolean; Valid values: true/false. Default is false.	N
simulationOption	Simulate Forecast	For Cron, Temporary, and Time triggers only; Enables the override of the Enable Trigger Simulation Universal Controller system property specification for whether or not to simulate the launching of tasks when triggers are eligible to fire. (If simulationOption is enabled, only the scheduled launch of the task by the trigger is inhibited.)	Valid values: --System Default --, As Value = 0 - As String = True, As Value = 1 - As String = False, As Value = 2 Default is --System Default -- (0).	N
situation	Situation	Type of day that causes the Controller to initiate the specified action.	Valid values: - As String = Holiday, As Value = 1 - As String = Non Business Day, As Value = 2 Default is Holiday (1).	Y (if restrictionSimple is true)
skipActive	Skip Trigger if Active	Deprecated. Indication for whether or not the Controller should skip the next run of the specified task(s) if the previous run has not gone to a Complete status (that is, it is still active).	Boolean; Valid values: true/false. Default is false.	N
skipAfterDate	Skip After Date	Date after which the trigger will be skipped.		N
skipAfterTime	Skip After Time	Time after which the trigger will be skipped.		N
skipBeforeDate	Skip Before Date	Date before which the trigger will be skipped.		N
skipBeforeTime	Skip Before Time	Time before which the trigger will be skipped.		N

Property	UI Field Name	Description	Specifications	Required
skipCondition	Task Launch Skip Condition	Controls when launching a task for the trigger will be skipped. Note When reading a Trigger, both skipActive and skipCondition are returned. When creating/updating a Trigger, skipCondition is used if present. If skipCondition is not present, skipActive is used. If both skipActive and skipCondition are present, skipActive can be set to true only if skipCondition is Active (1).	Valid values: - As String = None, As Value = 0 - As String = Active, As Value = 1 - As String = Active By Trigger, As Value = 2 Default is None (0).	N
skipCount	Skip Count	Specification that the Controller should skip the next N times that this task is triggered.	Integer; Default is 0.	N
skipDateList	Skip Date List	Date(s) on which the trigger will be skipped.		
skipRestriction	Skip Restriction	Specification for when the trigger should skip and not launch the task(s).	Valid values: - As String = None, As Value = 0 - As String = Before, As Value = 1 - As String = After, As Value = 2 - As String = Span, As Value = 3 - As String = On, As Value = 4 Default is None (0).	
sysId	n/a	System ID field in the database for this trigger.	Persisted only if retainSysIds is set to true.	N
taskMonitor	z/OS Monitor	z/OS Monitor task being executed.		Y

Property	UI Field Name	Description	Specifications	Required
tasks	Tasks	Name of the task(s) being triggered when this trigger is satisfied. XML <pre><tasks> <task>uc - Demo</task> </tasks></pre> JSON <pre>"tasks": ["uc - Demo"]</pre>		Y
timeZone	Time Zone	Name of the time zone that will be applied to the time(s) specified in the trigger.		Y
version	n/a	For Read and List web services; specification of the version being read or listed. Note In XML web services, <code>version</code> is specified as an attribute in the <code><trigger></code> element.		Y

4.34.21.6.2 Trigger Properties: z/OS Monitor Trigger

Property	UI Field Name	Description	Specifications	Required
enabledEnd	Enabled End	End time of the period during which the trigger should be active.	Use 24-hour time; format is hh:mm	Y (if <code>restrictedTimes</code> is true)
enabledStart	Enabled Start	Start time of the period during which the trigger should be active.	Use 24-hour time; format is hh:mm	Y (if <code>restrictedTimes</code> is true)
restrictedTimes	Restrict Times	Indication that the trigger is active only during the period specified by <code>enabledStart</code> and <code>enabledEnd</code> .	Boolean; Valid values: true/false. Default is false.	N

4.34.21.6.3 Trigger-Related Records Properties: Variables

Property	UI Field Name	Description	Required
description	Description	Description of the variable.	N
name	Name	Name of the variable.	Y
value	Value	Value of the variable.	Y

4.34.21.6.4 Trigger-Related Records Properties: Notes

Property	UI Field Name	Description	Required
sysId	n/a	System ID field in the database for the Note.	N
text	Text	Text of the Note.	N
title	Title	Title of the Note.	N

4.35 Universal Event Web Services

- [Overview](#)
- [Publish Universal Event](#)
- [Push Universal Event](#)

4.35.1 Overview

Universal Controller supports the following RESTful-based web service for Universal Events.

- [Publish Universal Event](#)
- [Push Universal Event](#)

Formatting specifications for the web service, including details about parameter requirements, are provided.

Authorization to publish or push a Universal Event is assigned by the [Universal Event](#) Create permission, or by the [ops_admin](#) role.

Note

When publishing or pushing Universal Events through the Web Service API, take into consideration both Universal Controller server and Database server sizings.

4.35.2 Publish Universal Event

	Description
URI	http://host_name/uc/resources/universalevent/publish
Description	Publish a global Universal Event.
HTTP Method	POST
Example URI	http://localhost:8080/uc/resources/universalevent/publish
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	text/plain
Example Responses	• Status 200 • Universal Event "{eventname}" published. • Status 400 • Invalid Time To Live. Value must be non-negative or empty. • Universal Event attributes unknown for Universal Event Template "{eventname}". • Universal Event attribute name required. • Universal Event attribute "{attributename}" duplicated. • Universal Event attribute "{attributename}" unknown for Universal Event Template "{eventname}". • Universal Event attribute value "{attributevalue}" for attribute "{attributename}" is not a valid integer. • Universal Event attribute value "{attributevalue}" for attribute "{attributename}" is not a valid float. • Status 403 • Operation prohibited due to security constraints. • Status 404 • Universal Event Template "{eventname}" not found. • Status 500 • Unexpected request failure. See log(s) for more details.

4.35.2.1 Publish Universal Event: XML and JSON Example Request

XML Request	JSON Request
XML <pre><?xml version="1.0" encoding="UTF-8" ?> <universalEvent> <name>ExampleEvent</name> <businessServices> <businessService>BusinessServiceName1</ businessService> <businessService>BusinessServiceName2</ businessService> </businessServices> <ttl>60</ttl> <attributes> <attribute> <name>example_attribute1</name> <value>Value1</value> </attribute> <attribute> <name>example_attribute2</name> <value>Value2</value> </attribute> </attributes> </universalEvent></pre>	JSON <pre>{ "name": "ExampleEvent", "businessServices": ["BusinessServiceName1", "BusinessServiceName2"], "ttl": 60, "attributes": [{ "name": "example_attribute1", "value": "Value1" }, { "name": "example_attribute2", "value": "Value2" }] }</pre>

4.35.3 Push Universal Event

The push endpoint provides an Inbound Webhook endpoint for third party Webhook integration with Universal Events.

- The request body is captured as the `payload` attribute.
- `ttl` and `businessService` (multi-value) query parameters specify the Universal Event **TTL** and **Member of Business Services**, respectively.
- All other query parameters are captured as attributes with the exception of an `access_token` query parameter.
 - Any character in a query parameter name that is not a letter or digit is converted to an underscore (`_`).
- All headers are captured as attributes with the exception of `authorization` and `connection`.
 - Any character in a header name that is not a letter or digit is converted to an underscore (`_`).

	Description
URL	http://host_name/uc/resources/universalevent/push/\${eventName}
HTTP Method	POST If you cannot use the POST HTTP Method, you can alternatively use the GET HTTP Method with the <code>payload</code> specified as a query parameter.
Description	Publish a global Universal Event.
Consumes Content-Type	application/xml, application/json, text/plain, text/xml
Produces Content-Type	text/plain
Example URI	http://localhost:8080/uc/resources/universalevent/push/MyUniversalEvent?ttl=0&businessService=A&businessService=B&query_parameter1=value1
Example Responses	• Status 200 • Universal Event "{eventName}" published. • Status 400 • Invalid Time To Live. Value must be non-negative or empty. • Universal Event Template "{eventName}" not found. • Status 403 • Operation prohibited due to security constraints. • Status 404 • Universal Event Template "{eventName}" not found. • Status 500 • Unexpected request failure. See log(s) for more details.

4.36 Universal Event Template Web Services

- [Overview](#)
 - [Auditing Universal Events](#)
- [Create a Universal Event Template](#)
- [Create, Modify, and Read a Universal Event Template: XML and JSON Examples](#)
- [Delete a Universal Event Template](#)
 - [Delete a Universal Event Template - URI Parameters](#)
- [List Universal Event Templates](#)
 - [List Universal Event Templates - URI Parameters](#)
 - [List Universal Event Templates: XML and JSON Examples](#)
- [Modify a Universal Event Template](#)
- [Read a Universal Event Template](#)

- [Properties](#)
 - [Universal Event Template Properties](#)
 - [Universal Event Template - Attribute Properties](#)

4.36.1 Overview

Universal Controller supports the following RESTful-based web services for Global Universal Event Templates, which are listed alphabetically on this page.

- [Create a Universal Event Template](#)
- [Delete a Universal Event Template](#)
- [List Universal Event Templates](#)
- [Modify a Universal Event Template](#)
- [Read a Universal Event Template](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

4.36.1.1 Auditing Universal Events

[Universal Event Web Service Publish Audit](#) lets you specify whether or not an audit record is generated for each Universal Event published through the [Universal Event Web Services](#).

([Universal Event Extension Publish Audit](#) lets you specify whether or not an audit record is generated for each Universal Event published through an Extension-based Universal Task Instance.)

Note

Enabling these audit properties can generate a large quantity of audit.

4.36.2 Create a Universal Event Template

	Description
URI	http://host_name/uc/resources/universaleventtemplate
HTTP Method	POST
Description	Creates a Universal Event Template .
Example URI	http://localhost:8080/uc/resources/universaleventtemplate
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a

	Description
Example	See Create, Modify, and Read a Universal Event Template: XML and JSON Examples , below.
Universal Event Template Properties	See Universal Event Template Properties .
Example Response	• Status 200 /OK Successfully created the universal event template with id <id>. • Status 400 /Bad Request Create universal template failed. (message).

4.36.3 Create, Modify, and Read a Universal Event Template: XML and JSON Examples

XML	JSON
XML <pre><? xml version="1.0" encoding="UTF-8" standalone ="yes"?> <eventTemplate retainSysIds="true"> <attributes> <attribute> <label>attribute_label1</label> <name>attribute_name1</name> <type>Text</type> </attribute> <attribute> <label>attribute_label2</label> <name>attribute_name2</name> <type>Integer</type> </attribute> <attribute> <label>attribute_label3</label> <name>attribute_name3</name> <type>Boolean</type> </attribute> <attribute> <label>attribute_label4</label> <name>attribute_name4</name> <type>Float</type> </attribute> </attributes> <attributesPolicy>Include Attributes</ attributesPolicy> <description>Global universal event templ ate description.</description> <label>Global Universal Event - Label</ label> <name>global_universal_event_template</ name> <sysId>66c6e90f5a334378809884a11cb12ac0</ sysId> <ttl>11</ttl> </eventTemplate></pre>	JSON

XML	JSON
	<pre>{ "attributes": [{ "label": "attribute_label1", "name": "attribute_name1", "type": "Text" }, { "label": "attribute_label2", "name": "attribute_name2", "type": "Integer" }, { "label": "attribute_label3", "name": "attribute_name3", "type": "Boolean" }, { "label": "attribute_label4", "name": "attribute_name4", "type": "Float" }], "attributesPolicy": "Include Attributes", "description": "Global universal event template description.", "label": "Global Universal Event - Label", "name": "global_universal_event_template", "retainSysIds": true, "sysId": "66c6e90f5a334378809884a11cb12ac0", "ttl": 11 }</pre>

4.36.4 Delete a Universal Event Template

	Description
URI	http://host_name/uc/resources/universaleventtemplate
HTTP Method	DELETE
Description	Deletes a Universal Event Template .
URI Parameters	See Delete a Universal Template URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/universaleventtemplate?templatename=global_universal_event_template http://localhost:8080/uc/resources/universaleventtemplate?templateid=66c6e90f5a334378809884a11cb12ac0
Example Response	- Status 200 /OK Universal event template deleted successfully. - Status 400 /Bad Request Mutual exclusion violation. Cannot specify templatename and templateid at the same time. - Status 404 /Not Found A universal event template with "<{name/id}>" does not exist.

4.36.4.1 Delete a Universal Event Template - URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
templateid	ID used within the Controller to identify this Universal Event Template.	String; URI parameter.	Y (unless templatename is specified)	templatename
templatename	Name used within the Controller to identify this Universal Event Template.	String; URI parameter.	Y (unless templateid is specified)	templateid

4.36.5 List Universal Event Templates

	Description
URI	<code>http://host_name/uc/resources/universaleventtemplate/list</code>
HTTP Method	GET
Description	Retrieves information on Universal Event Templates using specific query parameters. Note System event template will not be included in the list response.
Example URI	http://localhost:8080/uc/resources/universaleventtemplate/list http://localhost:8080/uc/resources/universaleventtemplate/list?templatename=*universal_event_template*
Authentication	HTTP Basic
Produces Content-Type	application/xml, application/json
Example	See List Universal Event Templates: XML and JSON Examples , below.
Universal Event Template Properties	See Universal Event Template Properties .

4.36.5.1 List Universal Event Templates - URI Parameters

Parameter	Description	Specifications	Required
<code>templatename</code>	Name used within the Controller to identify this Universal Event Template.	Wildcards are supported.	N

4.36.5.2 List Universal Event Templates: XML and JSON Examples

XML	JSON
<pre> XML <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <universalEventTemplates> <eventTemplate> <attributes> <attribute> <label>attribute_label1</label> <name>attribute_name1</name> <type>Text</type> </attribute> <attribute> <label>attribute_label2</label> <name>attribute_name2</name> <type>Integer</type> </attribute> <attribute> <label>attribute_label3</label> <name>attribute_name3</name> <type>Boolean</type> </attribute> <attribute> <label>attribute_label4</label> <name>attribute_name4</name> <type>Float</type> </attribute> </attributes> <attributesPolicy>Include Attributes</ attributesPolicy> <description>Global universal event template description.</description> <label>Global Universal Event - Label</label> <name>global_universal_event_template</name> <sysId>66c6e90f5a334378809884a11cb12ac0</sysId> <ttl>11</ttl> </eventTemplate> <eventTemplate> <attributes> <attribute> <label>attribute_label1</label> <name>attribute_name1</name> <type>Integer</type> </attribute> <attribute> <label>attribute_label4</label> <name>attribute_name4</name> <type>Float</type> </attribute> </attributes> <attributesPolicy>Prohibit Universal Event</ attributesPolicy> <description>description.</description> <label>Universal Event - Label2</label> <name>universal_event_template2</name> <sysId>982a434746fc4618aa55d7928ba1f3e4</sysId> <ttl /> </eventTemplate> </eventTemplate> <attributes> <attribute> <label>attribute_label1</label> <name>attribute_name1</name> <type>Integer</type> </pre>	<pre> JSON </pre>

XML	JSON
<pre> </attribute> <attribute> <label>attribute_label4</label> <name>attribute_name4</name> <type>Float</type> </attribute> </attributes> <attributesPolicy>Prohibit Universal Event</ attributesPolicy> <description>description.</description> <label>Universal Event - Label2 - Copy</label> <name>universal_event_template2_copy</name> <sysId>814b1b35ea844407b6cd378f149d61a3</sysId> <ttl /> </eventTemplate> </universalEventTemplates> </pre>	<pre> [{ "attributes": [{ "label": "attribute_label1", "name": "attribute_name1", "type": "Text" }, { "label": "attribute_label2", "name": "attribute_name2", "type": "Integer" }, { "label": "attribute_label3", "name": "attribute_name3", "type": "Boolean" }, { "label": "attribute_label4", "name": "attribute_name4", "type": "Float" }], "attributesPolicy": "Include Attributes", "description": "Global universal event template description.", "label": "Global Universal Event - Label", "name": "global_universal_event_template", "sysId": "66c6e90f5a334378809884a11cb12ac0", "ttl": 11 }, { "attributes": [{ "label": "attribute_label1", "name": "attribute_name1", "type": "Integer" }, { "label": "attribute_label4", "name": "attribute_name4", "type": "Float" }], "attributesPolicy": "Prohibit Universal Event", "description": "description.", "label": "Universal Event - Label2", "name": "universal_event_template2", "sysId": "982a434746fc4618aa55d7928ba1f3e4", "ttl": null }, { "attributes": [{ "label": "attribute_label1", "name": "attribute_name1", "type": "Integer" }, { "label": "attribute_label4", "name": "attribute_name4", "type": "Float" }], "attributesPolicy": "Prohibit Universal Event", "description": "description.", "label": "Universal Event - Label2 - Copy", "name": "universal_event_template2_copy", "sysId": "814b1b35ea844407b6cd378f149d61a3", "ttl": null }] </pre>

XML	JSON

4.36.6 Modify a Universal Event Template

	Description
URI	http://host_name/uc/resources/universaleventtemplate
HTTP Method	PUT
Description	Modifies the Universal Event Template specified by the <i>sysId</i> in the request.
Example URI	http://localhost:8080/uc/resources/universaleventtemplate
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Example	See Create, Modify, and Read a Universal Event Template: XML and JSON Examples .
Universal Event Template Properties	See Universal Event Template Properties .

4.36.7 Read a Universal Event Template

	Description
URI	http://host_name/uc/resources/universaleventtemplate
HTTP Method	GET
Description	Read a Universal Event Template.
Example URI	http://localhost:8080/uc/resources/universaleventtemplate?templatename=global_universal_event_template http://localhost:8080/uc/resources/universaleventtemplate?templateid=66c6e90f5a334378809884a11cb12ac0
Authentication	HTTP Basic
Produces Content-Type	application/xml, application/json
Example	See Create, Modify, and Read a Universal Event Template: XML and JSON Examples .
Universal Event Template Properties	See Universal Event Template Properties .

	Description
Example Response	- Status 200 /OK Successfully created the universal event template with id <id>. - Status 400 /Bad Request Mutual exclusion violation. Cannot specify <code>templatename</code> and <code>templateid</code> at the same time. Required either <code>templatename</code> or <code>templateid</code>. - Status 404 /Not Found A universal event template with "<{name/id}>" does not exist.

4.36.8 Properties

4.36.8.1 Universal Event Template Properties

The *excludeRelated* and *retainSysIds* properties are specified as attributes in the `< eventTemplate >` element of XML web services.

Property	UI Field Name	Description	Specifications	Required
<code>attributesPolicy</code>	Unmapped Attributes Policy	Defines how unmapped/unknown attributes that are in the published event are handled.	Valid values: - As String = Prohibit Universal Event, As Value = 1 - As String = Include Attributes, As Value = 2 - As String = Exclude Attributes, As Value = 3 Default is Prohibit Universal Event (1).	N

Property	UI Field Name	Description	Specifications	Required
attributes	Attributes	Zero or more attributes, specifying their Name, Label, and Type.	XML <pre> <attributes> <attribute> <label>attr ibute_label1</label> <name>attri bute_name1</name> <type>Text< /type> </attribute> <attribute> <label>attr ibute_label2</label> <name>attri bute_name2</name> <type>Integ er</type> </attribute> </attributes> </pre> JSON <pre> "attributes": [{ "label": "a ttribute_label1", "name": "at tribute_name1", "type": "Te xt" }, { "label": "a ttribute_label2", "name": "at tribute_name2", "type": "In teger" }] </pre>	N
description	Description	Description of the Universal Event.		N
label	Label	User-friendly display name for the event, to be displayed within the client.	The Label must be unique.	Y
name	Name	Unique event name, adhering to the same naming convention as a Universal Template field name.		Y

Property	UI Field Name	Description	Specifications	Required
<code>ttl</code>	Time To Live	Default value for Time to live; how long, in minutes, the Universal Event data is valid.	non-negative Integer	N
<code>sysId</code>	n/a	<code>sys_id</code> used within the Controller to identify this record.	Persisted only if <code>retainSysIds</code> is set to true.	N

4.36.8.2 Universal Event Template - Attribute Properties

Property	UI Field Name	Description	Specifications	Required
<code>label</code>	Label	User-friendly display name for the attribute, to be displayed within the client.	Attribute Label must be unique.	Y
<code>name</code>	Name	Unique attribute name, adhering to the same naming convention as a Universal Template field name.		Y
<code>type</code>	Type	Attribute type.	Valid values: • As String = Text, As Value = 1 • As String = Integer, As Value = 2 • As String = Boolean, As Value = 3 • As String = Float, As Value = 4 • As String = Text Array, As Value = 5 • As String = Integer Array, As Value = 6 • As String = Boolean Array, As Value = 7 • As String = Float Array, As Value = 8	Y

4.37 Universal Template Web Services

- [Overview](#)
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- [Create, Modify, and Read a Universal Template: XML and JSON Examples](#)
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- [Set Universal Template Icon](#)
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- [Universal Template - Delete Extension Archive](#)
 - [Delete Extension Archive: URI Parameters](#)
 - [Example](#)
- [Universal Template - Download Extension Archive](#)
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- [Universal Template - Upload Extension Archive](#)
 - [Upload Extension Archive: URI Parameters](#)
 - [Example](#)
- [Universal Template - Export](#)
 - [Universal Template Export: URI Parameters](#)
 - [Example](#)
 - [Export File Entries](#)
- [Universal Template - Import](#)
 - [Binary Data](#)
 - [Example](#)

4.37.1 Overview

Universal Controller supports the following RESTful-based web services for Universal Templates, which are listed alphabetically on this page.

- [Create a Universal Template](#)
- [Delete a Universal Template](#)
- [List Universal Templates](#)
- [Modify a Universal Template](#)
- [Read a Universal Template](#)
- [Restore Default Universal Template Icon](#)
- [Set Universal Template Icon](#)
- [Universal Template - Delete Extension Archive](#)

- [Universal Template - Download Extension Archive](#)
- [Universal Template - Upload Extension Archive](#)
- [Universal Template Export](#)
- [Universal Template Import](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Note

You cannot create, read, modify, or list [Built-In Universal Templates](#).

You can delete [Built-In Universal Templates](#).

4.37.1.1 Auditing Universal Events

The [Universal Event Web Service Publish Audit](#) lets you specify whether or not an audit record is generated for each Universal Event published through the Universal Event Web Services.

(The [Universal Event Extension Publish Audit](#) lets you specify whether or not an audit record is generated for each Universal Event published through an [Extension-based](#) Universal Task Instance.)

Note

Enabling these audit properties can generate a large quantity of audit.

4.37.2 Create a Universal Template

	Description
URI	http://host_name/uc/resources/universaltemplate
HTTP Method	POST
Description	Creates a new Universal Template .
Example URI	http://localhost:8080/uc/resources/universaltemplate
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See Create, Modify, and Read a Universal Template: XML and JSON Examples , below.
Universal Template Properties	See Universal Template Universal Template Properties .
Field Properties	See Field Properties .
Choice Properties	See Choice Properties .

	Description
Example Response	- Status 200 /OK Successfully created the universal template with sysId {sysId}. - Status 400 /Bad Request Create universal template failed. (message)

4.37.3 Create, Modify, and Read a Universal Template: XML and JSON Examples

The `excludeRelated` and `retainSysIds` properties are specified as attributes in XML.

The `exportReleaseLevel` property is specified as an attribute in XML.

XML	JSON
XML <pre><universalTemplate exportReleaseLevel="7.2.0.0" retainSysIds="true"> <agent /> <agentCluster /> <agentClusterVar /> <agentFieldsRestriction>No Restriction</ agentFieldsRestriction> <agentType>Windows</ agentType> <agentVar /> <alwaysCancelOnFinish /> <automaticOutputRetrievalFieldsRestriction>Hidden </ automaticOutputRetrievalFieldsRestriction> <broadcastCluster /> <broadcastClusterVar /> <commands> <command> <asynchronous>true</asynchronous> <executionOption>In Process</ executionOption> <fields /> <label>1</label> <name>command</name> <statuses></pre>	JSON <pre>{ "agent": null, "agentCluster": null, "agentClusterVar": null, "agentFieldsRestriction": "No Restriction", "agentType": "Windows", "agentVar": null, "alwaysCancelOnFinish": false, "automaticOutputRetrievalFieldsRestriction" : "Hidden", "broadcastCluster": null, "broadcastClusterVar": null, "commands": [{ "asynchronous": true, "executionOption": "In Process", "fields": [], "label": "1", "name": "command", "statuses": ["Queued"], "sysId": "db947be2c7f046dea54e3e49 d3c1d349", "timeout": null },], }</pre>

XML	JSON
<pre> <status>Queued</status> </statuses> <sysId>db947be2c7f046dea54e3e49d3c1d349</sysId> <timeout /> </command> <command> <asynchronous>>false</asynchronous> <executionOption>Out Of Process</executionOption> <fields/> <label>2</label> <name>command2</name> <statuses> <status>Queued</status> </statuses> <sysId>e9ddbdbba21d451c8baf3cf11db48c3b</sysId> <timeout /> </command> </commands> <createConsole>>false</createConsole> <credentialFieldsRestriction>Hidden</credentialFieldsRestriction> <credentials /> <credentialsVar /> <description /> <desktopInteract>>false</desktopInteract> <elevateUser>>false</elevateUser> <environment /> <environmentVariablesFieldsRestriction>Read Only</environmentVariablesFieldsRestriction> <events> <event> <attributes> <attribute> <label>attribute_label1</label> </pre>	<pre> { "asynchronous": false, "executionOption": "Out Of Process", "fields": [], "label": "2", "name": "command2", "statuses": ["Queued"], "sysId": "e9ddbdbba21d451c8baf3cf11db48c3b", "timeout": null }, { "createConsole": false, "credentialFieldsRestriction": "Hidden", "credentials": null, "credentialsVar": null, "description": null, "desktopInteract": false, "elevateUser": false, "environment": [], "environmentVariablesFieldsRestriction": "Read Only", "exitCodeOutput": null, "exitCodeProcessing": "Success Exitcode Range", "exitCodeProcessingFieldsRestriction": "Hidden", "exitCodeText": null, "exitCodes": "0", "exportReleaseLevel": "7.2.0.0", "fields": [{ "arrayNameTitle": null, "arrayValueTitle": null, "booleanNoValue": null, "booleanValueType": "true/false", "booleanYesValue": null, "choiceAllowEmpty": false, "choiceAllowMultiple": false, "choiceSortOption": "Sequence", "choices": [], "defaultListView": false, </pre>

XML	JSON
<pre> <name>attribute_name1</name> <type>Text</type> </attribute> </attribute> <label>attribute_label2</ label> <name>attribute_name2</name> <type>Integer</type> </attribute> <attribute> <label>attribute_label3</ label> <name>attribute_name3</name> <type>Boolean</type> </attribute> <attribute> <label>attribute_label4</ label> <name>attribute_name4</name> <type>Float</type> </attribute> </attributes> <attributesPolicy>Include Attributes </attributesPolicy> <description>Global universal event template description.</description> <label>Global Universal Event - Label</label> <name>global_universal_event_templat e</name> <sysId>66c6e90f5a334378809884a11cb12 ac0</sysId> <ttl>11</ttl> </event> <events> <exitCodeOutput /> <exitCodeProcessing>Success Exitcode Range</ exitCodeProcessing> <exitCodeProcessingFieldsRestriction>Hidden</ exitCodeProcessingFieldsRestriction> <exitCodeText /> <exitCodes>0</ exitCodes> </pre>	<pre> "extensionStatus" : false, "fieldLength": null, "fieldMapping": "Text Field 1", "fieldType": "Text", "fieldValue": null, "formColumnSpan": 1, "formEndRow": false, "formStartRow": false, "hint": null, "intFieldMax": null, "intFieldMin": null, "label": "Service", "name": "service", "noSpaceIfHidden": true, "preserveValueIfHidden": false, "required": false, "requireIfField": null, "requireIfFieldValue": null, "requireIfVisible": true, "sequence": 0, "showIfField": "Boolean Field 1", "showIfFieldValue": true, "sysId": "f30ae218f2c64e0a96c5c64a7523e215" }, { "arrayNameTitle": null, "arrayValueTitle": null, "booleanNoValue": null, "booleanValueType": "true/false", "booleanYesValue": null, "choiceAllowEmpty": false, "choiceAllowMultiple": false, "choiceSortOption": "Sequence", "choices": [{ "fieldValue": "1", "fieldValueLabel": "Start", "sequence": 0, "sysId": "95b7d388a2ec407cb5f36768482449b0", "useFieldValueForLabel": false }, { "fieldValue": "2", "fieldValueLabel": "Stop", "sequence": 1, "sysId": "07802a9cae3945769cfecbaeb2d1de70", "useFieldValueForLabel": false }], "defaultListView": false, </pre>

XML	JSON
<pre> <fields> <field> <arrayNameTitle /> <arrayValueTitle /> <booleanNoValue /> <booleanValueType>true/false</ booleanValueType> <booleanYesValue /> <choiceAllowEmpty>>false</ choiceAllowEmpty> <choiceAllowMultiple>>false</ choiceAllowEmpty> <choiceSortOption>Sequence</ choiceSortOption> <choices /> <defaultListView>>false</ defaultListView> <extensionStatus>false</ extensionStatus> <fieldLength /> <fieldMapping>Text Field 1</ fieldMapping> <fieldType>Text</ fieldType> <fieldValue /> <formColumnSpan>1</ formColumnSpan> <formEndRow>>false</ formEndRow> </pre>	<pre> "extensionStatus" : false, "fieldLength": null, "fieldMapping": "Choice Field 1", "fieldType": "Choice", "fieldValue": null, "formColumnSpan": 1, "formEndRow": false, "formStartRow": false, "hint": null, "intFieldMax": null, "intFieldMin": null, "label": "Command", "name": "command", "noSpaceIfHidden": false, "preserveValueIfHidden": false, "required": false, "requireIfField": null, "requireIfFieldValue": null, "requireIfVisible": false, "sequence": 1, "showIfField": "Boolean Field 2", "showIfFieldValue": false, "sysId": "88ba718e6b8b4ee984266faf362c3fde" }, { "arrayFieldValue": [{ "name": "x", "value": "1" }, { "name": "y", "value": "2" }, { "name": "z", "value": "3" }], "arrayNameTitle": null, "arrayValueTitle": null, "booleanNoValue": null, "booleanValueType": "true/false", "booleanYesValue": null, "choiceAllowEmpty": false, </pre>

XML	JSON
<pre> <formStartRow>>false</ formStartRow> <hint /> <intFieldMax /> <intFieldMin /> <label>Service</ label> <name>service</ name> <noSpaceIfHidden>>true</ noSpaceIfHidden> <preserveValueIfHidden>>false</ preserveValueIfHidden> <required>>false</ required> <requireIfField /> <requireIfFieldValue /> <requireIfVisible>true</ requireIfVisible> <sequence>0</ sequence> <showIfField>Boolean Field 1</ showIfField> <showIfFieldValue>true</ showIfFieldValue> <sysId>f30ae218f2c64e0a96c5c64a7523e2 15</ sysId> </field> <field> <arrayNameTitle /> </pre>	<pre> "choiceAllowMultiple": false, "choiceDynamic": false, "choiceFields": [], "choiceSortOption": "Sequence", "choices": [], "defaultListView": false, "extensionStatus" : false, "fieldLength": null, "fieldMapping": "Array Field 3", "fieldRestriction": "No Restriction", "fieldType": "Array", "fieldValue": "@ops_delim@x=1@ops_delim@y=2@ops_delim@z=3", "formColumnSpan": 1, "formEndRow": false, "formStartRow": false, "hint": null, "intFieldMax": null, "intFieldMin": null, "label": "Array3", "name": "ar3", "noSpaceIfHidden": false, "preserveOutputOnRerun": false, "preserveValueIfHidden": false, "requireIfField": null, "requireIfFieldValue": null, "requireIfVisible": false, "required": false, "sequence": 3, "showIfField": null, "requireIfFieldValue": null, "sysId": "a879e5f30c0f4f4698cd6c7c45776c99", "textType": "Plain" } </pre>

XML	JSON
<pre> <arrayValueType /> <booleanNoValue /> <booleanValueType>true/false</ booleanValueType> <booleanYesValue /> <choiceAllowEmpty>>false</ choiceAllowEmpty> <choiceAllowMultiple>>false</ choiceAllowEmpty> <choiceSortOption>Sequence</ choiceSortOption> <choices> <choice> <fieldValue>1</ fieldValue> <fieldValueLabel>Start</ fieldValueLabel> <sequence>0</ sequence> <sysId>95b7d388a2ec407cb5f3676848 2449b0</ sysId> <useFieldValueForLabel>>false</ useFieldValueForLabel> </choice> <choice> <fieldValue>2</ fieldValue> <fieldValueLabel>Stop</ fieldValueLabel> </pre>	<pre>], "name": "UT1", "outputFailureOnly": true, "outputReturnFile": null, "outputReturnNLine": "100", "outputReturnSLine": "1", "outputReturnText": null, "outputReturnType": "NONE", "outputType": "STDOUT", "retainSysIds": true, "runtimeDir": null, "script": null, "scriptTypeWindows": null, "scriptUnix": null, "scriptWindows": "exit 0", "sendVariables": "None", "sysId": "32e34b8d138f40a2afbdda79cb1b1d56", "templateType": "Extension", "useCommonScript": false, "variablePrefix": "ut1", "waitForOutput": false } </pre>

XML	JSON
<pre><sequence>1</sequence> <sysId>07802a9cae3945769cfebaeb2d1de70</sysId> <useFieldValueForLabel>>false</useFieldValueForLabel> </choice> </choices> <defaultListView>>false</defaultListView> <extensionStatus>>false</extensionStatus> <fieldLength /> <fieldMapping>Choice Field 1</fieldMapping> <fieldType>Choice</fieldType> <fieldValue /> <formColumnSpan>1</formColumnSpan> <formEndRow>>false</formEndRow> <formStartRow>>false</formStartRow> <hint /> <intFieldMax /> <intFieldMin /></pre>	

XML	JSON
<pre><label>Command</label> label> <name>command</name> <noSpaceIfHidden>>false</noSpaceIfHidden> noSpaceIfHidden> <preserveValueIfHidden>>false</preserveValueIfHidden> preserveValueIfHidden> <required>>false</required> required> <requireIfField /> <requireIfFieldValue /> <requireIfVisible>>false</requireIfVisible> requireIfVisible> <sequence>1</sequence> sequence> <showIfField>Boolean Field 2</showIfField> showIfField> <showIfFieldValue>>false</showIfFieldValue> showIfFieldValue> <sysId>88ba718e6b8b4ee984266faf362c3fde</sysId> sysId> </field> <field> <arrayFieldValue> <variable> <name>a1</name> <value>123</value> </variable> <variable> <name>a2</name> <value>abc</value> </variable> </arrayFieldValue> </field></pre>	

XML	JSON
<pre> </arrayFieldValue> <arrayNameTitle /> <arrayValueTitle /> <booleanNoValue /> <booleanValueType>true/false</ booleanValueType> <booleanYesValue /> <choiceAllowEmpty>false</ choiceAllowEmpty> <choiceAllowMultiple>false</ choiceAllowMultiple> <choiceDynamic>false</ choiceDynamic> <choiceFields/> <choiceSortOption>Sequence< /choiceSortOption> <choices/> <defaultListView>false</ defaultListView> < extensionStatus >false</ extensionStatus > <fieldLength/> <fieldMapping>Array Field 1</fieldMapping> <fieldRestriction>No Restriction</fieldRestriction> <fieldType>Array</fieldType> <fieldValue>@ops_delim@a1=1 23@ops_delim@a2=abc</fieldValue> <formColumnSpan>1</ formColumnSpan> <formEndRow>false</ formEndRow> <formStartRow>false</ formStartRow> <hint>11</hint> </pre>	

XML	JSON
<pre><intFieldMax/> <intFieldMin/> <label>Array1</label> <name>arr1</name> <noSpaceIfHidden>>false</noSpaceIfHidden> <preserveOutputOnRerun>>false</preserveOutputOnRerun> <preserveValueIfHidden>>false</preserveValueIfHidden> <showIfField/> <requireIfFieldValue/> <requireIfVisible>>false</requireIfVisible> <required>>false</required> <sequence>0</sequence> <showIfField/> <showIfFieldValue/> <sysId>945eb16b73134f7382d6d0695f93d499</sysId> <textType>Plain</textType> </field> </ fields> <name>UT1</name> <outputFailureOnly>>true</outputFailureOnly> <outputReturnFile /> <outputReturnNline>100</outputReturnNline> <outputReturnSline>1</outputReturnSline> <outputReturnText /> <outputReturnType>NONE</outputReturnType></pre>	

XML	JSON
<pre><outputType>STDOUT</outputType> outputType> <runtimeDir /> <script /> <scriptTypeWindows /> <scriptUnix /> <scriptWindows>exit 0</scriptWindows> scriptWindows> <sendVariables>None</sendVariables> sendVariables> <sysId>32e34b8d138f40a2afbdda79cb1b1d56</sysId> sysId> <templateType>Extension</templateType> templateType> <useCommonScript>false</useCommonScript> useCommonScript> <variablePrefix>ut1</variablePrefix> variablePrefix> <waitForOutput>false</waitForOutput> waitForOutput> </universalTemplate></pre>	

4.37.4 Delete a Universal Template

	Description
URI	http://host_name/uc/resources/universaltemplate
HTTP Method	DELETE
Description	Deletes a Universal Template .
URI Parameters	See Delete a Universal Template URI Parameters , below.

	Description
Example URI	http://localhost:8080/uc/resources/universaltemplate?templatename=UT1
Example Response	• Status 200 /OK Universal template deleted successfully. • Status 400 /Bad Request Mutual exclusion violation. Cannot specify templatename and templateid at the same time. • Status 404 /Not Found A universal template with {name/id} does not exist.

4.37.4.1 Delete a Universal Template: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
templateid	ID used within the Controller to identify this Universal Template.	String; URI parameter.	Y (unless templatename is specified)	templatename
templatename	Name used within the Controller to identify this Universal Template.	String; URI parameter.	Y (unless templateid is specified)	templateid

4.37.5 List Universal Templates

	Description
URI	http://host_name/uc/resources/universaltemplate/list
HTTP Method	GET
Description	Retrieves information on Universal Templates using specific query parameters.
Example URI	• http://localhost:8080/uc/resources/universaltemplate/list • http://localhost:8080/uc/resources/universaltemplate/list?templatename=*UT*
Authentication	HTTP Basic
Produces Content-Type	application/xml, application/json
Example	See List Universal Templates: XML and JSON Examples .
Universal Template Properties	See Universal Template Properties .

4.37.5.1 List Universal Templates: URI Parameters

Parameter	Description	Specifications	Required
templatename	Name used within the Controller to identify this Universal Template.	String; URI parameter. Wildcards are supported.	N

4.37.5.2 List Universal Templates: XML and JSON Examples

XML	JSON
<pre> XML <universalTemplates> <universalTemplate> exportReleaseLevel="7 .2.0.0" <agent /> <agentCluster /> <agentClusterVar /> <agentFieldsRestriction>No Restriction< /agentFieldsRestriction> <agentType>Windows</agentType> <agentVar /> <alwaysCancelOnFinish /> <automaticOutputRetrievalFieldsRestriction> Hidden</ automaticOutputRetrievalFieldsRestriction> <broadcastCluster /> <broadcastClusterVar ar /> <commands> <command> <asynchronous>true</ asynchronous> <executionOption>In Process</ executionOption> <fields /> <label>1</label> <name>command</name> <statuses> <status>Queued</status> </statuses> <sysId>db947be2c7f046dea54e3e49 d3c1d349</sysId> <timeout /> </command> <command> <asynchronous>false</ asynchronous> <executionOption>Out Of Process </executionOption> <fields/> </pre>	<pre> JSON [{ "agent": null, "agentCluster": null, "agentClusterVar": null, "agentFieldsRestriction": "No Restriction", "agentType": "Windows", "agentVar": null, "alwaysCancelOnFinish": false, "automaticOutputRetrievalFieldsRestriction" : "Hidden", "broadcastCluster": null, "broadcastClusterVar": null, "commands": [{ "asynchronous": true, "executionOption": "In Process" }, { "fields": [], "label": "1", "name": "command", "statuses": ["Queued"], "sysId": "db947be2c7f046dea54e3 e49d3c1d349", "timeout": null }, { "asynchronous": false, "executionOption": "Out Of Proc ess", "fields": [], "label": "2", "name": "command2", "statuses": [</pre>

XML	JSON
<pre> <label>2</label> <name>command2</name> <statuses> <status>Queued</status> </statuses> <sysId>e9ddbdbba21d451c8baf3cf1 1db48c3b</sysId> <timeout /> </command> </commands> <createConsole>>false</createConsole> <credentialFieldsRestriction>Hidden</ credentialFieldsRestriction> <credentials /> <credentialsVar /> <description /> <desktopInteract>>false</desktopInteract> <elevateUser>>false</elevateUser> <environment /> <environmentVariablesFieldsRestriction>Read Only</environmentVariablesFieldsRestriction> <exitCodeOutput /> <exitCodeProcessing>Success Exitcode Range< /exitCodeProcessing> <exitCodeProcessingFieldsRestriction>Hidden </exitCodeProcessingFieldsRestriction> <exitCodeText /> <exitCodes>0</exitCodes> <fields /> <name>UT1</name> <noSpaceIfHidden>>true</noSpaceIfHidden> <preserveValueIfHidden>>false</ preserveValueIfHidden> <outputFailureOnly>>true</outputFailureOnly> <outputReturnFile /> <outputReturnNline>100</outputReturnNline> <outputReturnSline>1</outputReturnSline> <outputReturnText /> <outputReturnType>NONE</outputReturnType> <outputType>STDOUT</outputType> <runtimeDir /> <script /> <scriptTypeWindows /> <scriptUnix /> <scriptWindows>exit 0</scriptWindows> <sendVariables>None</sendVariables> <sysId>32e34b8d138f40a2afbdda79cb1b1d56</ sysId> </pre>	<pre> "Queued"], "sysId": "e9ddbdbba21d451c8baf3 cf11db48c3b", "timeout": null }], "createConsole": false, "credentialFieldsRestriction": "Hidden", "credentials": null, "credentialsVar": null, "description": null, "desktopInteract": false, "elevateUser": false, "environment": [], "environmentVariablesFieldsRestriction ": "Read Only", "exitCodeOutput": null, "exitCodeProcessing": "Success Exitcode Range", "exitCodeProcessingFieldsRestriction": "Hidden", "exitCodeText": null, "exitCodes": "0", "exportReleaseLevel": "0", "fields": [], "name": "UT1", "outputFailureOnly": true, "outputReturnFile": null, "outputReturnNline": "100", "outputReturnSline": "1", "outputReturnText": null, "outputReturnType": "NONE", "outputType": "STDOUT", "retainSysIds": true, "runtimeDir": null, "script": null, "scriptTypeWindows": null, </pre>

XML	JSON
<pre> <templateType>Extension</templateType> <useCommonScript>false</useCommonScript> <variablePrefix>ut1</variablePrefix> <waitForOutput>false</waitForOutput> </universalTemplate> <universalTemplate> exportReleaseLevel="7.2 .0.0" <agent /> <agentCluster /> <agentClusterVar /> <agentFieldsRestriction>No Restriction</ agentFieldsRestriction> <agentType>Windows</agentType> <agentVar /> <alwaysCancelOnFinish /> <automaticOutputRetrievalFieldsRestriction> Hidden</ automaticOutputRetrievalFieldsRestriction> <broadcastCluster /> <broadcastClusterVar /> <commands> <command> <asynchronous>true</ asynchronous> <executionOption>In Process</ executionOption> <fields /> <label>1</label> <name>command</name> <statuses> <status>Queued</status> </statuses> <sysId>db947be2c7f046dea54e3e49 d3c1d349</sysId> <timeout /> </command> <command> <asynchronous>false</ asynchronous> <executionOption>Out Of Process </executionOption> <fields/> <label>2</label> <name>command2</name> </pre>	<pre> "scriptUnix": null, "scriptWindows": "exit 0", "sendVariables": "None", "sysId": "32e34b8d138f40a2afbdda79cb1b1d56", "templateType": "Extension", "useCommonScript": false, "variablePrefix": "ut1", "waitForOutput": false }, { "agent": null, "agentCluster": null, "agentClusterVar": null, "agentFieldsRestriction": "No Restriction", "agentType": "Windows", "agentVar": null, "alwaysCancelOnFinish": false, "automaticOutputRetrievalFieldsRestric tion": "Hidden", "broadcastCluster": null, "broadcastClusterVar": null, "commands": [{ "asynchronous": true, "executionOption": "In Process" }, { "fields": [], "label": "1", "name": "command", "statuses": ["Queued"], "sysId": "db947be2c7f046dea54e3 e49d3c1d349", "timeout": null }], "asynchronous": false, </pre>

XML	JSON
<pre> <statuses> <status>Queued</status> </statuses> <sysId>e9ddbdbba21d451c8baf3cf11db48c3b</sysId> <timeout /> </command> </commands> <createConsole>false</createConsole> <credentialFieldsRestriction>Hidden</credentialFieldsRestriction> <credentials /> <credentialsVar /> <description /> <desktopInteract>false</desktopInteract> <elevateUser>false</elevateUser> <environment /> <environmentVariablesFieldsRestriction>Read Only</environmentVariablesFieldsRestriction> <exitCodeOutput /> <exitCodeProcessing>Success Exitcode Range</exitCodeProcessing> <exitCodeProcessingFieldsRestriction>Hidden</exitCodeProcessingFieldsRestriction> <exitCodeText /> <exitCodes>0</exitCodes> <fields /> <name>UT1</name> <outputFailureOnly>true</outputFailureOnly> <outputReturnFile /> <outputReturnNline>100</outputReturnNline> <outputReturnSline>1</outputReturnSline> <outputReturnText /> <outputReturnType>NONE</outputReturnType> <outputType>STDOUT</outputType> <runtimeDir /> <script /> <scriptTypeWindows /> <scriptUnix /> <scriptWindows>exit 0</scriptWindows> <sendVariables>None</sendVariables> <sysId>32e34b8d138f40a2afbdda79cb1b1d56</sysId> <templateType>Extension</templateType> <useCommonScript>false</useCommonScript> <variablePrefix>ut1</variablePrefix> <waitForOutput>false</waitForOutput> </universalTemplate> </universalTemplates> </pre>	<pre> "executionOption": "Out Of Process", "fields": [], "label": "2", "name": "command2", "statuses": ["Queued"], "sysId": "e9ddbdbba21d451c8baf3cf11db48c3b", "timeout": null }, { "createConsole": false, "credentialFieldsRestriction": "Hidden", "credentials": null, "credentialsVar": null, "description": null, "desktopInteract": false, "elevateUser": false, "environment": [], "environmentVariablesFieldsRestriction": "Read Only", "exitCodeOutput": null, "exitCodeProcessing": "Success Exitcode Range", "exitCodeProcessingFieldsRestriction": "Hidden", "exitCodeText": null, "exitCodes": "0", "exportReleaseLevel": "0", "fields": [], "name": "UT1", "outputFailureOnly": true, "outputReturnFile": null, "outputReturnNline": "100", "outputReturnSline": "1", </pre>

XML	JSON
	<pre> "outputReturnText": null, "outputReturntype": "NONE", "outputType": "STDOUT", "retainSysIds": true, "runtimeDir": null, "script": null, "scriptTypeWindows": null, "scriptUnix": null, "scriptWindows": "exit 0", "sendVariables": "None", "sysId": "32e34b8d138f40a2afbdda79cb1b1d56", "templateType": "Extension", "useCommonScript": false, "variablePrefix": "ut1", "waitForOutput": false }] </pre>

4.37.6 Modify a Universal Template

	Description
URI	http://host_name/uc/resources/universaltemplate
HTTP Method	PUT
Description	Modifies the Universal Template specified by the sysId in the request. To modify Universal Template properties without modifying related records, see the excludeRelated property.
Example URI	http://localhost:8080/uc/resources/universaltemplate
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See Create, Modify, and Read a Universal Template: XML and JSON Examples .
Universal Template Properties	See Universal Template Properties .
Field Properties	See Field Properties .

	Description
Choice Properties	See Choice Properties .
Example Response	- Status 200 /OK Successfully updated the universaltemplate with sysId <sysId>. - Status 400 /Bad Request Update universal template failed. (message)

4.37.7 Read a Universal Template

	Description
URI	http://host_name/uc/resources/universaltemplate
HTTP Method	GET
Description	Retrieves information on a specific Universal Template .
URI Parameters	See Read a Universal Template: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/universaltemplate?templatename=UT1
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Universal Template Properties	See Universal Template Properties .
Field Properties	See Field Properties .
Choice Properties	See Choice Properties .
Example Response	- Status 200 /OK (See Create, Modify, and Read a Universal Template: XML and JSON Examples.) - Status 400 /Bad Request Mutual exclusion violation. Cannot specify templatename and templateid at the same time. - Status 404 /Not Found A Universal Template with {name/id} does not exist.

4.37.7.1 Read a Universal Template: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
templateid	Unique ID for this Universal Template.		Y (unless templatename is specified)	templatename
templatename	Name used within the Controller to identify this Universal Template.	Maximum 40 alphanumeric.	Y (unless templateid is specified)	templateid

4.37.8 Properties

4.37.8.1 Universal Template Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agent	Agent	Name of the Agent to use.		N	agentVar , broadcastCluster , and broadcastClusterVar
agentCluster	Agent Cluster	Group of Agents, one of which the Controller will choose to run this task (compare with broadcastCluster).		N	agentClusterVar , broadcastCluster , and broadcastClusterVar
agentClusterVar	Agent Cluster Variable	Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.	Format: \${variable name}.	N	agentCluster , broadcastCluster , and broadcastClusterVar
agentFieldsRestriction	Agent Fields	Restriction to apply to the group of Agent Fields.	Valid values: - As String = No Restriction, As Value = 0 - As String = Read Only, As Value = 1 - As String = Hidden, As Value = 2	N	
agentType	Agent Type	Type of Agent on which Universal Tasks based on this template can be run.	Valid values: - As String = Any, As Value = 1 - As String = Linux/Unix, As Value = 2 - As String = Windows, As Value = 3	Y	
agentVar	Agent Variable	Name of a variable that will be resolved at run time to the name of the Agent to use.	Format: \${variable name}.	N	agent , broadcastCluster , and broadcastClusterVar
alwaysCancelOnFinish	Always Cancel On Finish	Specification for whether or not to always perform a Cancel when Force Finishing a Universal Task for this template.	Boolean; Valid values: true/false. Default is false.	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>automaticOutputRetrievalFieldsRestriction</code>	Automatic Output Retrieval Fields	Restriction to apply to the group of Automatic Output Retrieval Fields.	Valid values: - As String = No Restriction, As Value = 0 - As String = Read Only, As Value = 1 - As String = Hidden, As Value = 2	N	
<code>broadcastCluster</code>	Cluster Broadcast	Group of Agents, all of which will run this task (compare with <code>agentCluster</code>). Each instance of the task running on its own Agent becomes a separate task instance record in the database and displays separately on the Activity Monitor.		N	<code>broadcastClusterVar</code> , <code>agent</code> , <code>agentVar</code> , <code>agentCluster</code> , and <code>agentClusterVar</code>
<code>broadcastClusterVar</code>	Cluster Broadcast Variable	Name of a variable that will be resolved at run time to the name of the Cluster Broadcast to use.	Format: \${variable name}	N	<code>broadcastCluster</code> , <code>agent</code> , <code>agentVar</code> , <code>agentCluster</code> , and <code>agentClusterVar</code>
<code>createConsole</code>	Create Console	If <code>desktopInteract</code> is true; Specification for whether or not to allocate a new console for the process, rather than having it inherit one.	Boolean; Valid values: true/false. Default is false.	N	
<code>credentialFieldsRestriction</code>	Credential Fields	Restriction to apply to the group of Credential Fields.	Valid values: - As String = No Restriction, As Value = 0 - As String = Read Only, As Value = 1 - As String = Hidden, As Value = 2	N	
<code>credentials</code>	Credentials	Credentials under which an Agent runs this task. These credentials override any credentials provided in the Agent Details for any Agent running this task.		N	<code>credentialsVar</code>
<code>credentialsVar</code>	Credentials Variable	Name of a variable that will be resolved at run time to the name of the {Credentials} to use.		N	<code>credentials</code>
<code>description</code>	Description	Description of this Universal Template.		N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
desktopInteract	Interact with Desktop	Specification for whether or not a task that runs an application with a GUI requires some manual actions from a user (for example, clicking buttons or entering values).	Boolean; Valid values: true/false. Default is false. This property is effective only for tasks executed on Windows XP or Server 2003. Windows Vista introduced the desktop isolation feature, which prevents tasks from accessing the interactive desktop session on Vista, Windows 7, Server 2008, Windows 8, and Server 2012. The Windows agent will execute the task, but the Interact with Desktop option has no effect. Therefore, an interactive application's GUI will not be visible on those platforms.	N	
elevateUser	Run with Highest Privileges	Specification for whether or not to execute the task using an elevated privileges token, rather than one subject to User Account Control (UAC) restrictions. An elevated token allows a process to execute with all the privileges available to its specified credentials. For example, a task executed with an administrative account will behave as though it received permission via a UAC dialog to perform a privileged operation.	Boolean; Valid values: true/false. Default is false. This property will not give a user account privileges that have are not already granted to it. For example, taking ownership of a file is a privileged operation by default. A task will still fail even with this option selected if it is run with a regular user account that has not been granted the ability to change file ownership.	N	
environment	Environment Variables	Environment variables needed by the program to run.	List of environment variables: <pre> <environment> <variable> <name>env1</name> <value>test1</value> </variable> <variable> <name>env2</name> <value>test2</value> </variable> </environment> </pre>	N	
environmentVariableFieldsRestriction	Environment Variable Fields	Restriction to apply to the group of Environment Variables Fields.	Valid values: - As String = No Restriction, As Value = 0 - As String = Read Only, As Value = 1 - As String = Hidden, As Value = 2	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>excludeRelated</code>	n/a	Specification for whether or not to exclude related records.	Boolean; Valid values: true/false. Default is false. For XML, <code>excludeRelated</code> is specified as an attribute on the <code>universalTemplate</code> element.	N	
<code>exitCodeOutput</code>	Output File	Path and file name of the output file that should be scanned for the text in <code>exitCodeText</code> .		N	
<code>exitCodeProcessing</code>	Exit Code Processing	Specification for how the Controller should determine whether the executed command failed or completed successfully.	Valid values: - As String = Success Exitcode Range, As Value = 1 - As String = Failure Exitcode Range, As Value = 2 - As String = Success Output Contains, As Value = 3 - As String = Failure Output Contains, As Value = 4 Default is Success Exitcode (1).	N	
<code>exitCodeProcessingFieldsRestriction</code>	Exit Code Processing Fields	Restriction to apply to the group of Exit Code Processing Fields.	Valid values: - As String = No Restriction, As Value = 0 - As String = Read Only, As Value = 1 - As String = Hidden, As Value = 2	N	
<code>exitCodes</code>	Exit Codes	If <code>exitCodeProcessing</code> is Success Exitcode Range or Failure Exitcode Range; Range of exit codes.	Format: Numeric. Use commas to list a series of exit codes; use hyphens to specify a range. Example: 1,5, 22-30.	Y	
<code>exitCodeText</code>	Scan Output For	If <code>exitCodeProcessing</code> is Success Output Contains (3) or Failure Output Contains (4); text for which the Controller should scan the output file.	The Controller will process this field as a regular expression .	Y	
<code>exportReleaseLevel</code>	n/a	Universal Controller release that the record was exported from.	read only	N	
<code>name</code>	Name	Name of this Universal Template.		Y	
<code>outputFailureOnly</code>	Failure Only	If <code>outputReturnType</code> = STDOUT (2), STDERR (3), FILE (4), or OUTERR (6), and <code>waitForOutput</code> is false; Indication for whether output should be retrieved on task failure only.	Boolean; Valid values: true/false. Default is false.	N	
<code>outputReturnFile</code>	Output File	If <code>outputReturnType</code> is FILE; Path and file name containing the output that you want automatically retrieved and attached to the task instance.		N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>outputReturnLine</code>	Number of Lines	If <code>outputReturnTypes</code> is STDOUT, STDERR, FILE, or OUTERR; Limit the retrieved data to this number of lines.	Default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	N	
<code>outputReturnLine</code>	Start Line	If <code>outputReturnTypes</code> is STDOUT, STDERR, FILE, or OUTERR; Instructs the Controller to retrieve data beginning at the line indicated.	Default is 1.	N	
<code>outputReturnText</code>	Scan Text	If <code>outputReturnTypes</code> is STDOUT, STDERR, FILE, or OUTERR; Instructs the Controller to scan the data for the text specified and retrieve only that.	The Controller will process this field as a regular expression .	N	
<code>outputReturnTypes</code>	Automatic Output Retrieval	Specification for whether you want the Controller to automatically retrieve any output from the job and attach it to the task instance record.	Valid values: - As String = NONE, As Value = 1 - As String = STDOUT, As Value = 2 - As String = STDERR, As Value = 3 - As String = FILE, As Value = 4 - As String = OUTERR, As Value = 6 Default is OUTERR (6). Note If <code>outputReturnTypes</code> is not NONE (1), the web service will fail with Start Failure if <code>outputProhibited</code> is true for the specified agent.	N	
<code>outputType</code>	Output Type	If <code>exitCodeProcessing</code> is Success Output or Failure Output; Type of output.	Valid values: - As String = STDOUT, As Value = 1 - As String = STDERR, As Value = 2 - As String = FILE, As Value = 3 Default is STDOUT (1).	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>retainSysIds</code>	n/a	Specification for whether or not the Create a Universal Template web service will persist the <code>sysId</code> property.	Boolean; Valid values: true/false. Default is false. For XML, <code>retainSysIds</code> is specified as an attribute on the <code>universalTemplate</code> element. Used for both the Create and Update web services; for Update, it is used only for the related lists (Fields and Choices). It is recommended that <code>retainSysIds</code> be enabled when updating Choice values so that the command can determine which Choice values have been updated and propagate the new value to Universal Tasks using the previous Choice value. If <code>retainSysIds</code> is not enabled when updating Choice values, the command can determine only which Choice values have been added or removed; Universal Tasks using the previous Choice values will not be updated.	N	
<code>runtimeDir</code>	Runtime Directory	Directory from which the application should be executed.	Variables are supported.	N	
<code>script</code>	Script	If <code>useCommonScript</code> is true; Script to be executed by the specified Agent.		N	
<code>scriptUnix</code>	Linux/Unix Script	If <code>agentType</code> is Any or Linux/Unix; Script to be executed by the Linux/Unix Agent.		N	
<code>scriptWindows</code>	Windows Script	If <code>agentType</code> is Any or Windows; Script to be executed by the Windows Agent.		N	
<code>scriptTypeWindows</code>	Windows Script File Type	If <code>agentType</code> is Windows; Type of Windows Script to be executed by the Windows Agent.	Valid values: - As String = bat - As String = cmd - As String = js - As String = ps1 - As String = py - As String = uapy - As String = vbs - As String = wsf - As String = Other	N	
<code>sendEnvironment</code>	Send Environment Variables	Comma-separated list.	Valid values: As String = Launch, As Value = 1 As String = Dynamic Choice, As Value = 2 As String = Dynamic Command, As Value = 4 Default is Launch (1).	N	

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>sendVariables</code>	Send Extension Variables	If <code>templateType</code> is Extension; Specification for whether the Extension should be provided with task instance variable data when launched. Options: - None Do not provide the Extension with task instance variable data. - Local Provide the Extension with task instance variable data.	Valid values: - As String = None, As Value = 0 - As String = Local, As Value = 1 Default is None (0).	N	
<code>sysId</code>	UUID	System ID field in the database for this record.	Persisted only if <code>retainSysIds</code> is set to true.	N	
<code>templateType</code>	Template Type	Specification for whether the Universal Template will be executed as a Script or will be executed through the Universal Extension framework.	Valid values: - As String = Script, As Value = 1 - As String = Extension, As Value = 2 Default is Script (1).	N	
<code>useCommonScript</code>	Use Common Script	Indication that the specified <code>script</code> can be executed by both Linux/Unix and Windows Agents.	Boolean; Valid values: true/false. Default is false.	N	
<code>variablePrefix</code>	Variable Prefix	Variable prefix to append to the default prefix (ops_) for the system-assigned variables that are provided for the user-defined Fields in this Universal Template.		Y	
<code>waitForOutput</code>	Wait For Output	If <code>outputReturntype</code> = STDOUT (2), STDERR (3), FILE (4), or OUTERR (6), and <code>outputFailureOnly</code> is false; Specification for whether or not the task should wait for the requested output before completing.	Boolean; Valid values: true/false. Default is false.	N	

4.37.8.2 Field Properties

Property	UI Field Name	Description	Specifications	Required
<code>allowVariable</code>	Allow Variable	If <code>fieldType</code> is Credential; Specifies that the field value can be defined dynamically by a variable and/or function.	Boolean; Valid values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
arrayFieldValue	Default Value	Default Value for Array Field	List of arrayField variables: 1 <arrayFieldV alue> 2 <field> 3 <name>x</ name> 4 <value>1</ value> 5 </field> 6 <field> 7 <name>y</ name> 8 <value>2</ value> 9 </field> 10 <field> 11 <name>z</ name> 12 <value>3</ value> 13 </field> 14 </ arrayFieldVa lue> 1 "arrayFieldV alue": [2 { 3 "nam e": "a1", 4 "val ue": "123"	N

Property	UI Field Name	Description	Specifications	Required
			5 6 7 8 9 <pre> }, { "name": "a2", "value": "abc" } </pre>	
arrayNameTitle	Name Title	If <code>fieldType</code> is Array; Title to be displayed for the Name column.		N
arrayValueTitle	Value Title	If <code>fieldType</code> is Array; Title to be displayed for the Value column.		N
booleanNoValue	No Value	If <code>booleanValueType</code> is Custom; Boolean No value for this Field.		Y (if <code>booleanValueType</code> is Custom)
booleanValueType	Boolean Value Type	Type of Boolean value for this Field.	Valid values: - As String = true/false, As Value = 1 - As String = 1/0, As Value = 2 - As String = Custom, As Value = 3 Default is true/false (1).	N
booleanYesValue	Yes Value	If <code>booleanValueType</code> is Custom; Boolean Yes value for this Field.		Y (if <code>booleanValueType</code> is Custom)
choiceAllowEmpty	Allow Empty Choice	If <code>fieldType</code> is Choice; Specification for whether or not an empty (blank) option is available for this Choice field in any Universal Task based on this template, allowing the user to clear the value of this field.		N
choiceAllowMultiple	Allow Multiple Choices	If <code>fieldType</code> is Choice; Specification for whether or not more than one choice can be selected at a time. When multiple choices are selected, the built-in field variable will resolve to a comma-delimited String of choice values.		N

Property	UI Field Name	Description	Specifications	Required
choiceSortOption	Choice Sort Option	If <code>fieldType</code> is Choice; Specification for how Choices will be listed in the Choice field in Universal Task.	Valid values: - As String = Sequence, As Value = 1 - As String = Label, As Value = 2 Default is Sequence (1).	N
defaultListView	Add To Default List View	Specification that the <code>label</code> of this Field will display, by default, in the list of Universal Tasks based on this template.	Boolean; Valid values: true/false. Default is false.	N
extensionStatus	Extension Status	Specifies if an Output Only field is designated as Extension Status for a task instance.	Boolean; Valid values: true/false. Default is false.	N
fieldLength	Length	If <code>fieldType</code> is Text or Integer; Length of this Field.	Integer	N
fieldMapping	Mapping	Field, from a pool of available fields provided for use in a Universal Template, that this Field is mapped to.	Valid values: - As String = - Integer Field [1-10] - Boolean Field [1-15] - Text Field [1-20] - Large Text Field [1-2] - Choice Field [1-15] - Credential Field [1-6] - Script Field [1-4] - Array Field [1-4] - Float Field [1-4] - Sap Connection Field [1] - Database Connection Field [1]	Y
fieldRegex	Regex	If <code>fieldType</code> is Text; Regex that the text in the field must match.	Regular Expression	N
fieldType	Type	Field type for this Field.	Valid values: - As String = Text, As Value = 1 - As String = Integer, As Value = 2 - As String = Boolean, As Value = 3 - As String = Choice, As Value = 4 - As String = Credential, As Value = 5 - As String = Script, As Value = 6 - As String = Array, As Value = 7 - As String = Float, As Value = 8 - As String = Sap Connection, As Value = 9 - As String = Database Connection, As Value = 10 Default is Text (1).	N

Property	UI Field Name	Description	Specifications	Required
<code>fieldValue</code>	Default Value	Default value for this Field.	Value values by <code>fieldType</code> : <code>fieldType</code> = Text, <code>fieldValue</code> = <i>string</i> <code>fieldType</code> = Integer, <code>fieldValue</code> = <i>integer</i> <code>fieldType</code> = Boolean, <code>fieldValue</code> = true/false <code>fieldType</code> = Choice, <code>fieldValue</code> = <i>Choice Value</i> <code>fieldType</code> = Credential, <code>fieldValue</code> = <i>Credential Name</i> <code>fieldType</code> = Script, <code>fieldValue</code> = <i>Script Name</i> <code>fieldType</code> = Array, <code>fieldValue</code> = Name Value pair <code>fieldType</code> = Float, <code>fieldValue</code> = <i>float</i> <code>fieldType</code> = Sap Connection, <code>fieldValue</code> = <i>Sap Connection Name</i> <code>fieldType</code> = Database Connection, <code>fieldValue</code> = <i>Database Connection Name</i>	N
<code>formColumnSpan</code>	Column Span	Number of columns (width) in the Universal Task (based on this Universal Template) Details for this Field.	Valid values: - As Value = 1 - As Value = 2 - As Value = 3 Default is 1.	N
<code>formEndRow</code>	End Row	Specification that this Field will end the current row.	Boolean; Valid values: true/false. Default is false.	N
<code>formStartRow</code>	Start Row	Specification that this Field will start a new row.	Boolean; Valid values: true/false. Default is false.	N
<code>hint</code>	Hint	Field hint for this Field in the Controller user interface.		N
<code>intFieldMax</code>	Maximum	If <code>fieldType</code> is Integer; Maximum value for this Field.	Integer	N
<code>intFieldMin</code>	Minimum	If <code>fieldType</code> is Integer; Minimum value for this Field.	Integer	N
<code>label</code>	Label	Name of this Field to be displayed in the Controller user interface.		Y
<code>name</code>	Name	Name of this Field in the Controller database.		Y
<code>noSpaceIfHidden</code>	No Space If Hidden	Specification that a space should not be reserved in place of the hidden field.	Boolean; Valid values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
<code>preserveValueIfHidden</code>	Preserve Value If Hidden	Specification that the value of this field should be preserved if the field is hidden. Note A Field with <code>preserveValueIfHidden = true</code> will be validated even if the Field is hidden. Also, if a Field's <code>showIfField</code> or <code>requireIfField</code> specifies a field (for example, Boolean Field 1) that has <code>preserveValueIfHidden = true</code>, when validating whether the Field is visible or required, Boolean Field 1's value is considered visible.	Boolean; Valid values: true/false. Default is false.	N
<code>required</code>	Required	Specification for whether this Field is required or optional. Note If you modify a Universal Template Field to add a Required condition, review and assign an appropriate field value to any Universal Tasks that are no longer in compliance to avoid a Start Failure.	Boolean; Valid values: true/false. Default is false.	N
<code>requireIfField</code>	Require If Field	If <code>required</code> is false and <code>showIfField</code> is not specified; Specification that this Field in the template will be required in any Universal Tasks based on this template the Choice Field (Choice Field 1-15) or Boolean Field (Boolean Filed 1-15) selected as the Require If Field has a value corresponding to the value(s) defined in the Require If Filed Value(s) field. Note If you modify a Universal Template Field to add or augment a Require If Field condition, review and assign an appropriate field value to any Universal Tasks that are no longer in compliance to avoid a Start Failure.	Valid values: • As String = Choice Field [1-15] • As String = Boolean Field [1-15]	N

Property	UI Field Name	Description	Specifications	Required
<code>requireIfFieldValue</code>	Require If Field Value(s)	If <code>requireIfField</code> is not null/empty; Value(s) for the specified <code>requireIfField</code> .		Y (if <code>requireIfField</code> is specified)
<code>requireIfVisible</code>	Require If Visible	Specification that the Field is required if it is visible. Note If you modify a Universal Template Field to add a Require If Visible condition, review and assign an appropriate field value to any Universal Tasks that are no longer in compliance to avoid a Start Failure.	Boolean; Valid values: true/false. Default is false.	N
<code>sequence</code>	Sequence	For existing Fields only; System-defined; Sequence of this Field among all user-defined Universal Template Fields to be included in the Universal Task Details. Starting sequence is 0 for the first defined Field.	Integer; Read-only. Note <code>sequence</code> is included in the XML/JSON by the Read and List web services; however, it is not used by the Create and Update web services. For Create and Update, the sequence is set based on the Field order specified in the XML/JSON.	N
<code>showIfField</code>	Show If Field	If <code>required</code> is false and <code>requireIfField</code> is not specified; Specification that this Field in the template will be visible in any Universal Tasks based on this template if the Choice Field (Choice Field 1-15) or the Boolean Field (Boolean Field 1-15) selected as the Show If Field has a value corresponding to the value(s) defined in the Show If Field Value(s) field.	Valid values: - As String = Choice Field [1-15] - As String = Boolean Field [1-15]	N
<code>showIfFieldValue</code>	Show If Field Value	If <code>showIfField</code> is not null/empty; Value(s) for the specified <code>showIfField</code> .		Y If <code>showIfField</code> is specified.
<code>sysId</code>	n/a	<code>sys_id</code> used within the Controller to identify this Universal Template Field.	Persisted only if <code>retainSysIds</code> is set to true.	N

4.37.8.3 Choice Properties

Property	UI Field Name	Description	Specifications	Required
fieldValue	Value	Value of this Choice.	Maximum length = 255 characters.	Y
fieldValueLabel	Label	If useFieldValueForLabel is false; Name that will appear for this Choice in the Choice list for a Universal Task. (Maximum = 50 characters.)		Y (unless useFieldValueForLabel is true)
sequence	Sequence	For existing Choices only; System-defined sequence of this Choice among all Choices defined for this Field. Starting sequence is 0 for the first defined Choice.	Read-only Note sequence is included in the XML/JSON by the Read and List web services; however, it is not used by the Create and Update web services. For Create and Update, the sequence is set based on the Choice order specified in the XML/JSON.	N
sysId	n/a	sys_id used within the Controller to identify this Universal Template Field.	Persisted only if retainSysIds is set to true.	N
useFieldValueForLabel	Use Value For Label	If the fieldValue value is 50 characters or less; Use the fieldValue value as the fieldValueLabel value (which is a maximum 50 characters).	Boolean; Valid values: true/false. Default is false.	N

4.37.8.4 Command Properties

Property	UI Field Name	Description	Specifications	Required
asynchronous	Asynchronous	If executionOption is In Process; Specification for whether the command runs synchronously or asynchronously. If executionOption is Out Of Process, asynchronous will be ignored.	Boolean; Valid values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
executionOption	Execution Option	Specification for whether the command runs out-of-process execution or in-process execution.	Valid values: • As String = Out Of Process, As Value = 0 • As String = In Process, As Value = 1 Default is Out Of Process.	N

Property	UI Field Name	Description	Specifications	Required																																						
fields	Dependent Fields	Universal Template fields (if any) that are required by the command. The values of those fields are included in the command request.	<table><tr><td>1</td><td><fields></td></tr><tr><td>2</td><td></td></tr><tr><td>3</td><td><field>Integer Field 1</field></td></tr><tr><td>4</td><td><field>Boolean Field 1</field></td></tr><tr><td>5</td><td><field>Text Field 1</field></td></tr><tr><td>6</td><td><field>Large Text Field 1</field></td></tr><tr><td>7</td><td><field>Choice Field 1</field></td></tr><tr><td>8</td><td><field>Credential Field 6</field></td></tr><tr><td>9</td><td><field>Script Field 1</field></td></tr><tr><td>10</td><td><field>Array Field 1</field></td></tr><tr><td>11</td><td><field>Float Field 2</field></td></tr><tr><td></td><td></fields></td></tr></table> <table><tr><td>1</td><td>"fields": [</td></tr><tr><td>2</td><td>"Integer Field 1",</td></tr><tr><td>3</td><td>"Boolean Field 1",</td></tr><tr><td>4</td><td>"Text Field 1",</td></tr><tr><td>5</td><td>"Large Text Field 1",</td></tr><tr><td>6</td><td>"Choice Field 1",</td></tr><tr><td>7</td><td>"Credential Field 6",</td></tr></table>	1	<fields>	2		3	<field>Integer Field 1</field>	4	<field>Boolean Field 1</field>	5	<field>Text Field 1</field>	6	<field>Large Text Field 1</field>	7	<field>Choice Field 1</field>	8	<field>Credential Field 6</field>	9	<field>Script Field 1</field>	10	<field>Array Field 1</field>	11	<field>Float Field 2</field>		</fields>	1	"fields": [	2	"Integer Field 1",	3	"Boolean Field 1",	4	"Text Field 1",	5	"Large Text Field 1",	6	"Choice Field 1",	7	"Credential Field 6",	N
1	<fields>																																									
2																																										
3	<field>Integer Field 1</field>																																									
4	<field>Boolean Field 1</field>																																									
5	<field>Text Field 1</field>																																									
6	<field>Large Text Field 1</field>																																									
7	<field>Choice Field 1</field>																																									
8	<field>Credential Field 6</field>																																									
9	<field>Script Field 1</field>																																									
10	<field>Array Field 1</field>																																									
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1	"fields": [																																									
2	"Integer Field 1",																																									
3	"Boolean Field 1",																																									
4	"Text Field 1",																																									
5	"Large Text Field 1",																																									
6	"Choice Field 1",																																									
7	"Credential Field 6",																																									

Property	UI Field Name	Description	Specifications	Required
			8 "Script Field 1" 9 , 10 "Array Field 1", 11 "Float Field 2"]	
			Valid values for field: • As String = • Integer Field [1-10] • Boolean Field [1-15] • Text Field [1-20] • Large Text Field [1-2] • Choice Field [1-15] • Credential Field [1-6] • Script Field [1-4] • Array Field [1-4] • Float Field [1-4]	
label	Label	User-friendly display name for the command, to be displayed within the client.		Y
name	Name	Unique name of this command, adhering to the same naming convention as a Universal Template field name.		Y

Property	UI Field Name	Description	Specifications	Required
statuses	Supported Status(es)	Task instance status(es) that the dynamic command should be enabled for.	1 <statuses> 2 <status>Defined</status> 3 <status>Waiting</status> 4 </statuses> 1 "statuses": [2 "Defined", 3 "Waiting" 4] Valid values for status: • As String = Defined, As Value = 0 • As String = Waiting, As Value = 10 • As String = Time Wait, As Value = 15 • As String = Held, As Value = 20 • As String = Exclusive Requested, As Value = 22 • As String = Exclusive Wait, As Value = 23 • As String = Resource Requested, As Value = 25 • As String = Resource Wait, As Value = 30 • As String = Execution Wait, As Value = 33 • As String = Undeliverable, As Value = 35 • As String = Queued, As Value = 40 • As String = Submitted, As Value = 43 • As String = Action Required, As Value = 60 • As String = Started, As Value = 70 • As String = Running, As Value = 80 • As String = Running/Problems, As Value = 81 • As String = Cancel Pending, As Value = 99 • As String = In Doubt, As Value = 110 • As String = Start Failure, As Value = 120 • As String = Confirmation Required, As Value = 125 • As String = Cancelled, As Value = 130 • As String = Failed, As Value = 140 • As String = Skipped, As Value = 180 • As String = Finished, As Value = 190 • As String = Success, As Value = 200	Y

Property	UI Field Name	Description	Specifications	Required
<code>sysId</code>	n/a	<code>sys_id</code> used within the Controller to identify this Universal Template Field.	Persisted only if <code>retainSysIds</code> is set to true.	N
<code>timeout</code>	Timeout (Seconds)	Optional command timeout, in seconds, if the command requires longer than the System-level default of 60 seconds.		N

4.37.8.5 Universal Event Template Properties

The *excludeRelated* and *retainSysIds* properties are specified as attributes in the `< eventTemplate >` element of XML web services.

Property	UI Field Name	Description	Specifications	Required
<code>attributesPolicy</code>	Unmapped Attributes Policy	Defines how unmapped/unknown attributes that are in the published event are handled.	Valid values: - As String = Prohibit Universal Event, As Value = 1 - As String = Include Attributes, As Value = 2 - As String = Exclude Attributes, As Value = 3 Default is Prohibit Universal Event (1).	N

Property	UI Field Name	Description	Specifications	Required
attributes	Attributes	Zero or more attributes, specifying their Name, Label, and Type.	XML <pre> <attributes> <attribute> <label>attribute_label1</label> <name>attribute_name1</name> <type>Text</type> </attribute> <attribute> <label>attribute_label2</label> <name>attribute_name2</name> <type>Integer</type> </attribute> </attributes> </pre> JSON <pre> "attributes": [{ "label": "attribute_label1", "name": "attribute_name1", "type": "Text" }, { "label": "attribute_label2", "name": "attribute_name2", "type": "Integer" }] </pre>	N
description	Description	Description of the Universal Event.		N
label	Label	User-friendly display name for the event, to be displayed within the client.	The Label must be unique.	Y
name	Name	Unique event name, adhering to the same naming convention as a Universal Template field name.		Y

Property	UI Field Name	Description	Specifications	Required
ttl	Time To Live	Default value for Time to live; how long, in minutes, the Universal Event data is valid.	non-negative Integer	N
sysId	n/a	sys_id used within the Controller to identify this record.	Persisted only if retainSysIds is set to true.	N

4.37.8.6 Universal Event Template - Attribute Properties

Property	UI Field Name	Description	Specifications	Required
label	Label	User-friendly display name for the attribute, to be displayed within the client.	Attribute Label must be unique.	Y
name	Name	Unique attribute name, adhering to the same naming convention as a Universal Template field name.		Y
type	Type	Attribute type.	Valid values: • As String = Text, As Value = 1 • As String = Integer, As Value = 2 • As String = Boolean, As Value = 3 • As String = Float, As Value = 4 • As String = Text Array, As Value = 5 • As String = Integer Array, As Value = 6 • As String = Boolean Array, As Value = 7 • As String = Float Array, As Value = 8	Y

4.37.9 Restore Default Universal Template Icon

A Universal Template cannot have its icon restore or set to the default without appropriate update permissions. Additionally, built-in templates cannot be the targets of these requests.

	Description
URI	http://host_name/uc/resources/universaltemplate/restoredefaulticon
HTTP Method	POST
Description	Restores the icon of a specific Universal Template to its default.
URI Parameters	See Restore Default Universal Template: URI Parameters , below.

	Description
Example URI	http://localhost:8080/uc/resources/universaltemplate/restoredefaulticon?templatename=Template1 http://localhost:8080/uc/resources/universaltemplate/restoredefaulticon?templateid=a7de2b3601af48ab886e6a8b7ecec0da
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	plain/text
Example Response	- Status 200 - Successfully restored the default icon for Universal Template "{templatename}". - Universal Template "{templatename}" already using the default icon. - Status 403 - Operation prohibited due to security constraints. - Status 404 - A Universal Template with name "{templatename}" does not exist. - A Universal Template with id "{templateid}" does not exist. - Status 500 - Unexpected request failure. See log(s) for more details.

Note

The Post request must include an attached binary file; specifically, it must be a 48 x 48 pixel PNG file.

The process will fail if either:

- The file is omitted.
- The file is of the wrong MIME type.
- The file has incorrect dimensions.

4.37.9.1 Restore Default Universal Template Icon: URI Parameters

Name	U I F i e l d N a m e	Description	Specifications	Required	Mutually Exclusive With
templateid	n/a	ID used within the Controller to identify the Universal Template.	String; URI parameter	Y (unless templatename is specified)	templatename

Name	U I F i e l d N a m e	Description	Specifications	Required	Mutually Exclusive With
templatename	n/a	Name used within the Controller to identify the Universal Template.	String; URI parameter	Y (unless templateid is specified)	templateid

4.37.10 Set Universal Template Icon

A Universal Template cannot have its icon restore or set to the default without appropriate update permissions. Additionally, built-in templates cannot be the targets of these requests.

	Description
URI	http://host_name/uc/resources/universaltemplate/seticon
HTTP Method	POST Note The Post request must include an attached binary file; specifically, it must be a 48 x 48 pixel PNG file. If the file is omitted, of the wrong MIME type, or has incorrect dimensions, the process will fail.
Description	Upload a 48 x 48 pixel to be set as the custom icon for a specific Universal Template .
Example URI	http://localhost:8080/uc/resources/universaltemplate/seticon?templatename=Template1 http://localhost:8080/uc/resources/universaltemplate/seticon?templateid=a7de2b3601af48ab886e6a8b7ecec0da
Authentication	HTTP Basic
Consumes Content-Type	application/octet-stream, image/png
Produces Content-Type	plain/text

	Description
Example Response	• Status 200 • Successfully set icon for Universal Template "{templatename}". • Status 400 • PNG image is not 48 x 48 pixels. • Status 403 • Operation prohibited due to security constraints. • Status 404 • A Universal Template with name "{templatename}" does not exist. • A Universal Template with id "{templateid}" does not exist. • Status 500 • Unexpected request failure. See log(s) for more details.

Note

The Post request must include an attached binary file; specifically, it must be a 48 x 48 pixel PNG file.

The process will fail if either:

- The file is omitted.
- The file is of the wrong MIME type.
- The file has incorrect dimensions.

4.37.10.1 Set Universal Template Icon: URI Parameters

Name	U I F i e l d N a m e	Description	Specifications	Required	Mutually Exclusive With
templateid	n/a	ID used within the Controller to identify the Universal Template.	String; URI parameter	Y (unless templatename is specified)	templatename
templatename	n/a	Name used within the Controller to identify the Universal Template.	String; URI parameter	Y (unless templateid is specified)	templateid

4.37.11 Universal Template - Delete Extension Archive

	Description
URI	http://host_name/uc/resources/universaltemplate/extension
HTTP Method	DELETE
Description	Delete an Extension Archive for a Universal Template .
URI Parameters	See Delete Extension Archive: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/universaltemplate/extension?templatename=Template1
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	n/a
Example Response	- Status 200 - Successfully removed Extension Archive from universal template "{templatename}". - Status 400 - Universal template "{templatename}" is not an Extension template type. - Status 403 - Operation prohibited due to security constraints. - Status 404 - A universal template with name "{templatename}" does not exist. - A universal template with id "{templateid}" does not exist. - Status 500 - Unexpected request failure. See log(s) for more details.

4.37.11.1 Delete Extension Archive: URI Parameters

The following URI parameters will be needed for deleting the Extension Archive.

Name	U I F i e l d N a m e	Description	Specifications	Required	Mutually Exclusive With
templateid	n/a	ID used within the Controller to identify the Universal Template.	String; URI parameter	Y (unless templatename is specified)	templatename

Name	U I F i e l d N a m e	Description	Specifications	Required	Mutually Exclusive With
templatename	n/a	Name used within the Controller to identify the Universal Template.	String; URI parameter	Y (unless templateid is specified)	templateid

4.37.11.2 Example

```
curl --request DELETE "http://localhost:8080/uc/resources/universaltemplate/extension?
templatename=Template1" --header "Authorization: Basic *****"
```

4.37.12 Universal Template - Download Extension Archive

	Description
URI	http://host_name/uc/resources/universaltemplate/extension
HTTP Method	GET
Description	Download an Extension Archive for a Universal Template .
URI Parameters	See Download Extension Archive: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/universaltemplate/extension?templatename=Template1
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/octet-stream
Example Response	• Status 200 • [Binary data sent in response] • Status 400 • Universal template "{templatename}" is not an Extension template type. • Status 403 • Operation prohibited due to security constraints. • Status 404 • A universal template with name "{templatename}" does not exist. • A universal template with id "{templateid}" does not exist. • Status 500 • Unexpected request failure. See log(s) for more details.

4.37.12.1 Download Extension Archive: URI Parameters

The following URI parameters will be needed for downloading the Extension Archive.

Name	U I F i e l d N a m e	Description	Specifications	Required	Mutually Exclusive With
templateid	n/a	ID used within the Controller to identify the Universal Template.	String; URI parameter	Y (unless templatename is specified)	templatename
templatename	n/a	Name used within the Controller to identify the Universal Template.	String; URI parameter	Y (unless templateid is specified)	templateid

4.37.12.2 Example

```
curl --location --request GET "http://localhost:8080/uc/resources/universaltemplate/extension?templatename=Template1" --header "Content-Type: application/octet-stream" --header "Authorization: Basic *****" -O -J
```

4.37.13 Universal Template - Upload Extension Archive

	Description
URI	http://host_name/uc/resources/universaltemplate/extension
HTTP Method	POST Note The Post request must include an attached binary file; specifically, it must be a zip file.
Description	Upload an Extension Archive for a Universal Template .
URI Parameters	See Upload Extension Archive: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/universaltemplate/extension?templatename=Template1

	Description
Authentication	HTTP Basic
Consumes Content-Type	application/octet-stream, application/zip, application/x-zip-compressed
Produces Content-Type	plain/text
Example Response	• Status 200 • Successfully updated Extension Archive for universal template "{templatename}". • Status 400 • Universal template "{templatename}" is not an Extension template type. • Status 403 • Operation prohibited due to security constraints. • Status 404 • A universal template with name "{templatename}" does not exist. • A universal template with id "{templateid}" does not exist. • Status 500 • Unexpected request failure. See log(s) for more details.

4.37.13.1 Upload Extension Archive: URI Parameters

The following URI parameters will be needed for uploading the Extension Archive.

Name	U I F i e l d N a m e	Description	Specifications	Required	Mutually Exclusive With
templateid	n/a	ID used within the Controller to identify the Universal Template.	String; URI parameter	Y (unless templatename is specified)	templatename
templatename	n/a	Name used within the Controller to identify the Universal Template.	String; URI parameter	Y (unless templateid is specified)	templateid

4.37.13.2 Example

```
curl --data-binary @extension.zip "http://localhost:8080/uc/resources/universaltemplate/extension?templatename=Template1" --header "Content-Type: application/octet-stream" --header "Authorization: Basic *****"
```

4.37.14 Universal Template - Export

	Description
URI	http://host_name/uc/resources/universaltemplate/exporttemplate
HTTP Method	GET
Description	Download the zip file of a Universal Template specified by a URI parameter. The file will contain the following entries: • template.json • template_icon.png (if it exists) • extension_archive.zip (if it exists and the excludeExtension parameter is not set to true)
URI Parameters	See Universal Template Export: URI Parameters , below.
Example URI	• http://localhost:8080/uc/resources/universaltemplate/exporttemplate?templatename=Template1 • http://localhost:8080/uc/resources/universaltemplate/exporttemplate?templateid=a7de2b3601af48ab886e6a8b7ecec0da&excludeExtension=true
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/octet-stream
Example Response	• Status 200 • [Binary data sent in response] • Status 403 • Operation prohibited for built-in universal templates. • Operation prohibited due to security constraints. • Status 404 • A universal template with name "{templatename}" does not exist. • A universal template with id "{templateid}" does not exist. • Status 500 • Read universal template failed. {errors} • Unexpected request failure. See log(s) for more details.

4.37.14.1 Universal Template Export: URI Parameters

The following URI parameters will be needed for exporting the Universal Template.

Name	U I F i e l d N a m e	Description	Specifications	Required	Mutually Exclusive With
templateid	n/a	ID used within the Controller to identify the Universal Template.	String; URI parameter	Y (unless templatenam is specified)	templatenam
templatenam e	n/a	Name used within the Controller to identify the Universal Template.	String; URI parameter	Y (unless templateid is specified)	templateid
excludeExtens ion	n/a	Indication of whether the extension archive zip file should be excluded in the export operation.	Boolean (True/False, true/false); URI parameter	N (false by default)	

4.37.14.2 Example

1	curl --location --request GET "http://localhost:8008/uc/resources/universaltemplate/exporttemplate?templatenam=Template1"
2	--header "Content-Type: application/octet-stream" --header "Authorization: Basic xxxxxxxxxxxxxxxxxxxxxx" -O -J

4.37.14.3 Export File Entries

The downloaded Universal Template zip file will include the following required/optional entries:

File Name	Description	Present If...
template.json	The Universal Template definition in JSON format.	Always
template_icon.png	The Universal Template Icon in PNG format. Icon metadata will be set as attributes in the Universal Template JSON.	The template has an icon.
extension_archive.zip	The Universal Template Extension Archive in ZIP format.	The template has an extension and the optional query parameter <i>excludeExtension</i> is not set to true.

4.37.15 Universal Template - Import

	Description
URI	http://host_name/uc/resources/universaltemplate/importtemplate

	Description
HTTP Method	POST
Description	Upload the zip file of a Universal Template to be created/updated.
URI Parameters	See Universal Template Import: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/universaltemplate/importtemplate
Authentication	HTTP Basic
Consumes Content-Type	application/octet-stream, application/zip, application/x-zip-compressed
Produces Content-Type	plain/text
Example Response	• Status 200 • Successfully imported universal template. Created new template with id {sysId} • Successfully imported universal template. Updated existing template with id {sysId} • Status 400 • The attached Template is invalid. Please re-import your Template. • Template cannot be greater than {maximum_template_size} bytes. • Template must contain template.json/template_icon.png/extension_archive.zip. • Cluster Node release level is {current_release_level}, which does not meet the minimum release level of {min_release_level} for the Template. • Status 500 • Unexpected request failure. See log(s) for more details. • Operation prohibited due to security constraints.

4.37.15.1 Binary Data

The uploaded Universal Template zip file will include the following required/optional entries:

File Name	Description	Optional
template.json	The Universal Template definition in JSON format.	No
template_icon.png	The Universal Template Icon in PNG format. Icon metadata will be set as attributes in the Universal Template JSON.	Yes
extension_archive.zip	The Universal Template Extension Archive in ZIP format.	Yes

4.37.15.2 Example

1	curl --data-binary @unv-tmplt-Template1.zip "http://localhost:8080/uc/resources/universaltemplate/importtemplate"
2	--header "Content-Type: application/octet-stream" --header "Authorization: Basic *****"

4.38 User Web Services

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4.38.1 Overview

Universal Controller supports the following RESTful-based web services for User operations, which are listed alphabetically on this page.

- [Create a User](#)
- [Delete a User](#)
- [List Users](#)
- [Modify a User](#)
- [Read a User](#)
- [List User Preferences](#)
- [Read a User Preference](#)
- [Update a User Preference](#)
- [Create Personal Access Token](#)
- [List Personal Access Tokens](#)
- [Revoke Personal Access Token](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

Note

If you want to change only the User's password, rather than modifying the whole User record, you can use the [Password API](#).

4.38.2 Permissions

The following table identifies the web service operations that a user can perform

Operation	User without any role	User with ops_service_role	User with ops_user_admin or ops_admin role
Read	Read its own record (details). Read its own Role, Permissions, and Member of Groups (group membership), but cannot read any Group record.	Read any user record.	Create/update/read/delete any fields or any related data.
Update	Update a subset of fields of its own record. Cannot update any related data.	Update a subset of fields of its own record. Cannot update any related data.	
Create	No permission to create a user.	No permission to create a user.	
Delete	No permission to delete a user.	No permission to delete a user.	

4.38.3 Create a User

	Description
URI	http://host_name/uc/resources/user

	Description
HTTP Method	
Description	Creates a new User .
Example URI	http://localhost:8080/uc/resources/user
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See Create, Modify, and Read a User: XML and JSON Examples: XML and JSON Examples , below.
User Properties	See User Properties , below.
User Permission Properties	See User Permission Properties , below.
User Role Properties	See User Role Properties , below.
Example Response	Status 200 /OK Successfully created the user with sysId {sysId}.

4.38.4 Create, Modify, and Read a User: XML and JSON Examples

The [excludeRelated](#) and [retainSysIds](#) properties are specified as attributes in the <user> element of XML web services.

XML	JSON
XML <pre> <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <user retainSysIds="true"> <active>true</active> <browserAccess>-- System Default --</ browserAccess> <businessPhone /> <commandLineAccess>-- System Default --</ commandLineAccess> <department /> <email /> <firstName>stone b</firstName> <impersonate/> <lastName>branch</lastName> <lockedOut>>false</lockedOut> <loginMethod>Standard</loginMethod> <manager /> <middleName /> <mobilePhone /> <passwordNeedsReset>>false</ passwordNeedsReset> <permissions> <permission> <allGroups>true</allGroups> <commands /> <defaultGroup>true</defaultGroup> <nameWildcard>*</nameWildcard> <notGroups>>false</notGroups> <opCreate>>false</opCreate> <opDelete>true</opDelete> <opExecute>true</opExecute> <opRead>true</opRead> <opUpdate>true</opUpdate> <opswiseGroups/> <permissionType>Agent</ permissionType> <sysId>83c2d3b15d0c417f8a8890be17f1f4cd</ sysId> </permission> </permissions> <sysId>4e820e27b548497bb8005bb884f2816a</ sysId> <timeZone>System</timeZone> <title>IT Technician</title> <tokens/> <userName>stonebranch-user-02</userName> <userRoles> <userRole> </pre>	JSON <pre> { "active": true, "browserAccess": "-- System Default --", "businessPhone": null, "commandLineAccess": "-- System Default --", "department": null, "email": null, "firstName": "stone b", "impersonate": [], "lastName": "branch", "lockedOut": false, "loginMethod": "Standard", "manager": null, "middleName": null, "mobilePhone": null, "passwordNeedsReset": false, "permissions": [{ "allGroups": true, "commands": null, "defaultGroup": true, "nameWildcard": "*", "notGroups": false, "opCreate": false, "opDelete": true, "opExecute": true, "opRead": true, "opUpdate": true, "opswiseGroups": [], "permissionType": "Agent", "sysId": "83c2d3b15d0c417f8a8890be17f1f4cd" }], "retainSysIds": true, "sysId": "4e820e27b548497bb8005bb884f2816a", "timeZone": "System", "title": "IT Technician", "tokens": [], "userName": "stonebranch-user-02", "userRoles": [{ "role": { "description": "Can create reports that belong to a group to which I am a member.", "value": "ops_report_group" </pre>

XML	JSON
<pre> <role description="Can create reports that belong to a group to which I am a member.">ops_report_group</role> <sysId>018b60fc6bb54ca68571f789e5ee1ad5</ sysId> </userRole> </userRole> <role description="Can create global reports.">ops_report_global</role> <sysId>b21ecafbcd3f4424bfeca3d9846f2c34</ sysId> </userRole> </userRole> <role description="The report publishing role.">ops_report_publish</role> <sysId>cb84572b5bf44ddfb1e9e0e9b9d1b65a</ sysId> </userRole> </userRoles> <webServiceAccess>-- System Default --</ webServiceAccess> </user> </pre>	<pre> }, "sysId": "018b60fc6bb54ca68571f789e5ee1ad5" }, { "role": { "description": "Can create global reports.", "value": "ops_report_global" }, "sysId": "b21ecafbcd3f4424bfeca3d9846f2c34" }, { "role": { "description": "The report publishing role.", "value": "ops_report_publish" }, "sysId": "cb84572b5bf44ddfb1e9e0e9b9d1b65a" }], "webServiceAccess": "-- System Default --" } </pre>

4.38.5 Delete a User

	Description
URI	http://host_name/uc/resources/user
HTTP Method	DELETE
Description	Deletes a User .
URI Parameters	See Delete a User URI Parameters , below.
Example URI	http://localhost:8080/uc/resourcess/user?username=Test_User_Name http://localhost:9080/uc/resources/user?userid=18fcf558002743e38edc49114734b6d9
Example Response	- Status 200 /OK User {username} deleted successfully. - Status 400 /Bad Request Mutual exclusion violation. Cannot specify userid and username at the same time. - Status 404 /Not Found User with {username/userid} does not exist.

4.38.5.1 Delete a User: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
<code>userid</code>	ID used within the Controller to identify this user.	String; URI parameter.	Y (unless <code>username</code> is specified)	<code>username</code>
<code>username</code>	Name used within the Controller to identify this user.	String; URI parameter.	Y (unless <code>userid</code> is specified)	<code>userid</code>

4.38.6 List Users

	Description
URI	http://host_name/uc/resources/user/list
HTTP Method	GET
Description	Retrieves information on all Users .
Example URI	http://localhost:8080/uc/resources/user/list http://localhost:9090/uc/resources/user/list?showTokens=true
Authentication	HTTP Basic
Produces Content-Type	application/xml, application/json
Example	See List Users: XML and JSON Examples .
User Properties	See User Properties .
User Permission Properties	See User Permission Properties .
User Role Properties	See User Role Properties .

4.38.6.1 List Users: URI Parameters

Name	Description	Specifications	Required
<code>showTokens</code>	Show personal access tokens.	Boolean • True - Includes the Token details • False (Default) - Empty Token List	N

4.38.6.2 List Users: XML and JSON Examples

XML	JSON
XML <pre> <users> <user> <active>true</active> <browserAccess>-- System Default -- </browserAccess> <businessPhone /> <commandLineAccess>-- System Default --</commandLineAccess> <department /> <email /> <firstName>stone b</firstName> <impersonate/> <lastName>branch</lastName> <lockedOut>>false</lockedOut> <loginMethod>Standard</loginMethod> <manager /> <middleName /> <mobilePhone /> <passwordNeedsReset>>false</ passwordNeedsReset> <permissions/> <sysId>4e820e27b548497bb8005bb884f2816a</ sysId> <timeZone>System</timeZone> <title>IT Technician</title> <tokens/> <userName>stonebranch-user-02</ userName> <userRoles> <userRole> <role description="Can create reports that belong to a group to which I am a member.">ops_report_group</ role> <sysId>018b60fc6bb54ca68571f789e5ee1ad5</ sysId> </userRole> <userRole> <role description="Can create global reports.">ops_report_global</ role> <sysId>b21ecafbcd3f4424bfeca3d9846f2c34</ sysId> </userRole> </userRoles> </user> </users> </pre>	JSON <pre> [{ "active": true, "browserAccess": "-- System Default --", "businessPhone": null, "commandLineAccess": "-- System Default --", "department": null, "email": null, "firstName": "stone b", "impersonate": [], "lastName": "branch", "lockedOut": false, "loginMethod": "Standard", "manager": null, "middleName": null, "mobilePhone": null, "passwordNeedsReset": false, "permissions": [], "sysId": "4e820e27b548497bb8005bb884f2816a", "timeZone": "System", "title": "IT Technician", "tokens": [], "userName": "stonebranch-user-02", "userRoles": [{ "role": { "description": "Can create reports that belong to a group to which I am a member.", "value": "ops_report_group" }, "sysId": "018b60fc6bb54ca68571f789e5ee1ad5" }, { "role": { "description": "Can create global reports.", "value": "ops_report_global" }, "sysId": "b21ecafbcd3f4424bfeca3d9846f2c34" }] }] </pre>

XML	JSON
<pre> </userRole> <userRole> <role description="The report publishing role.">ops_report_publish</role> <sysId>cb84572b5bf44ddfb1e9e0e9b9d1b65a</ sysId> </userRole> </userRoles> <webServiceAccess>-- System Default --</webServiceAccess> </user> <user> <active>true</active> <browserAccess>-- System Default -- </browserAccess> <businessPhone /> <commandLineAccess>-- System Default --</commandLineAccess> <department /> <email /> <firstName>stone c</firstName> <impersonate/> <lastName>branch</lastName> <lockedOut>false</lockedOut> <loginMethod>Standard</loginMethod> <manager /> <middleName /> <mobilePhone /> <passwordNeedsReset>false</ passwordNeedsReset> <permissions/> <sysId>c212afe3dd6b4cb98cc3cb432cf7be46</ sysId> <timeZone>System</timeZone> <title>IT Technician</title> <tokens/> <userName>stonebranch-user-03</ userName> <userRoles/> <webServiceAccess>-- System Default --</webServiceAccess> </user> </users> </pre>	<pre> "sysId": "b21ecafbcd3f4424bfeca3d9846f2c34" }, { "role": { "description": "The report publishing role.", "value": "ops_report_publish" }, "sysId": "cb84572b5bf44ddfb1e9e0e9b9d1b65a" }], "webServiceAccess": "-- System Default --" }, { "active": true, "browserAccess": "-- System Default --", "businessPhone": null, "commandLineAccess": "-- System Default --", "department": null, "email": null, "firstName": "stone c", "impersonate": [], "lastName": "branch", "lockedOut": false, "loginMethod": "Standard", "manager": null, "middleName": null, "mobilePhone": null, "passwordNeedsReset": false, "permissions": [], "sysId": "c212afe3dd6b4cb98cc3cb432cf7be46", "timeZone": "System", "title": "IT Technician", "tokens": [], "userName": "stonebranch-user-03", "userRoles": [], "webServiceAccess": "-- System Default --" },] </pre>

4.38.7 Modify a User

	Description
URI	http://host_name/uc/resources/user
HTTP Method	PUT
Description	Modifies the User specified by the sysId in the request. To modify User properties without modifying related records, see the excludeRelated property.
Example URI	http://localhost:8080/uc/resources/user
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See Create, Modify, and Read a User: XML and JSON Examples .
User Properties	See User Properties .
User Permission Properties	See User Permission Properties .
User Role Properties	See User Role Properties .
Example Response	- Status 200 /OK - Successfully updated the user with sysId <sysId>.

4.38.8 Read a User

	Description
URI	http://host_name/uc/resources/user
HTTP Method	GET
Description	Retrieves information on a specific User .
URI Parameters	See Read a User: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/user?username=test.user http://localhost:8080/uc/resources/user?userid=c489750500d444eca9325559d0ef9673 http://localhost:9090/uc/resources/user?username=test&showTokens=true
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
User Properties	See User Properties .
User Permission Properties	See User Permission Properties .

	Description
User Role Properties	See User Role Properties .
Example Response	- Status 200 /OK (See Create, Modify, and Read a User: XML and JSON Examples.) - Status 404 /Not Found A user with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

4.38.8.1 Read a User: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
<code>userid</code>	Unique ID for this User.		Y (unless <code>username</code> is specified)	<code>username</code>
<code>username</code>	Name used within the Controller to identify this User.	Maximum 40 alphanumeric.	Y (unless <code>userid</code> is specified)	<code>userid</code>
<code>showTokens</code>	Show personal access tokens.	Boolean - True - Includes the Token details - False (Default) - Empty Token List	N	

4.38.9 List User Preferences

URI	<code>http://host_name:port/uc/resources/user/preference/list</code>
HTTP Method	GET
Description	Retrieves information on all user preferences for a particular user.
Example URI	<code>http://localhost:8080/uc/resources/user/preference/list?username=ops.admin</code>
Authentication	HTTP Basic
Produces Content-Type	Application/XML, Application/JSON
Consumes Content-Type	N/A

Example Responses	• Status 200 • (See List User Preferences: XML and JSON Examples) • Status 403 • Operation prohibited due to security constraints. • Status 500 • Unexpected request failure. See log(s) for more details.

4.38.9.1 List User Preferences: URI Parameters

Property	Description	Required	Mutual Exclusive With
<code>userid</code>	Unique ID for this User.	N	<code>username</code>
<code>username</code>	Name used within the Controller to identify this User.	N	<code>userid</code>

4.38.9.2 List User Preferences: XML and JSON Examples

XML	JSON
XML <pre><?xml version="1.0" encoding="UTF-8" standalone="yes"?> <preferences> <preference> <name label="Activity Monitor Automatically">uc.activity.monitor_automatic ally</name> <value>No</value> </preference> <preference> <name label="Activity Refresh Rate">uc.activity.refresh_rate</name> <value>10 seconds</value> </preference> <preference> <name label="Activity Results Per Page">uc.activity.results_per_page</name> <value>25 per page</value> </preference> <preference> <name label="Activity Time Constraint">uc.activity.time_window</name> <value>Last week</value> </preference> <preference> <name label="Agent Task Instances Tab Time Constraint">uc.agent.task_instances.tab.time _window</name> <value>Last 48 hours</value> </preference> <preference> <name label="Audit Time Constraint">uc.audit.time_window</name> <value>Last 48 hours</value> </preference> <preference> <name label="Boolean Column Display Format">uc.grid.column.boolean.format</name> <value>Yes/No</value> </preference> <preference> <name label="Console Error Fade Out Delay">uc.console.error.fadeout_delay</name> <value>10</value> </preference></pre>	JSON <pre>[{ "name": { "label": "Activity Monitor Automatically", "value": "uc.activity.monitor_automatic" }, "value": "No" }, { "name": { "label": "Activity Refresh Rate", "value": "uc.activity.refresh_rate" }, "value": "10 seconds" }, { "name": { "label": "Activity Results Per Page", "value": "uc.activity.results_per_page" }, "value": "25 per page" }, { "name": { "label": "Activity Time Constraint", "value": "uc.activity.time_window" }, "value": "Last week" }, { "name": { "label": "Agent Task Instances Tab Time Constraint", "value": "uc.agent.task_instances.tab.time_window" }, "value": "Last 48 hours" }, { "name": { "label": "Audit Time Constraint", "value": "uc.audit.time_window" }, "value": "Last 48 hours" }, { "name": { "label": "Boolean Column Display Format", "value": "uc.grid.column.boolean.format" }, "value": "Yes/No" }, { "name": { "label": "Console Error Fade Out Delay", "value": "uc.console.error.fadeout_delay" }, "value": "10" }]</pre>

XML	JSON
<pre> <preference> <name label="Console Info Fade Out Delay">uc.console.info.fadeout_delay</name> <value></value> </preference> <preference> <name label="Console Location">uc.console.location</name> <value>Bottom</value> </preference> <preference> <name label="Console Open For Info">uc.console.info.open</name> <value>Yes</value> </preference> <preference> <name label="Dashboard Force Refresh On Focus">uc.dashboard.refresh_on_focus</ name> <value>Yes</value> </preference> <preference> <name label="Dashboard Force Refresh On Focus Threshold">uc.dashboard.refresh_on_focus.thr eshold</name> <value>25 seconds</value> </preference> <preference> <name label="Expand Lists Automatically">uc.lists.expand_automatically </name> <value>-- System Default --</value> </preference> <preference> <name label="Go To Operator">uc.grid.go_to.operator</name> <value>contains</value> </preference> <preference> <name label="History Time Constraint">uc.history.time_window</name> <value>Last 48 hours</value> </preference> <preference> <name label="Navigation Auto Collapse">uc.navigation.auto_collapse</name> <value>-- System Default --</value> </preference> <preference> <name label="Node Time Display">uc.node_time.display</name> <value>-- System Default --</value> </preference> </pre>	<pre> { "name": { "label": "Audit Time Constraint", "value": "uc.audit.time_window" }, "value": "Last 48 hours" }, { "name": { "label": "Boolean Column Display Format", "value": "uc.grid.column.boolean.format" }, "value": "Yes/No" }, { "name": { "label": "Console Error Fade Out Delay", "value": "uc.console.error.fadeout_delay" }, "value": "10" }, { "name": { "label": "Console Info Fade Out Delay", "value": "uc.console.info.fadeout_delay" }, "value": "" }, { "name": { "label": "Console Location", "value": "uc.console.location" }, "value": "Bottom" }, { "name": { "label": "Console Open For Info", "value": "uc.console.info.open" }, "value": "Yes" }, { "name": { "label": "Dashboard Force Refresh On Focus", </pre>

XML	JSON
<pre> <preference> <name label="Node Time Display Background Color">uc.node_time.display.background_color </name> <value>-- System Default --</value> </preference> <preference> <name label="Node Time Display Color">uc.node_time.display.color</name> <value>-- System Default --</value> </preference> <preference> <name label="Node Time Display Time Zone">uc.node_time.display.tz</name> <value>-- System Default --</value> </preference> <preference> <name label="Pin Tabs Automatically">uc.tabs.pin_automatically</ name> <value>No</value> </preference> <preference> <name label="Record New In Tab">uc.record.new_in_tab</name> <value>-- System Default --</value> </preference> <preference> <name label="Record Open In Tab">uc.record.open_in_tab</name> <value>-- System Default --</value> </preference> <preference> <name label="Reference New In Tab">uc.reference.new_in_tab</name> <value>-- System Default --</value> </preference> <preference> <name label="Reference Open In Tab">uc.reference.open_in_tab</name> <value>-- System Default --</value> </preference> <preference> <name label="Reference Picker Display Columns">uc.reference.picker.display_columns </name> <value>2</value> </preference> </pre> </pre>	<pre> "value": "uc.dashboard.refresh_on_focus" }, "value": "Yes" }, { "name": { "label": "Dashboard Force Refresh On Focus Threshold", "value": "uc.dashboard.refresh_on_focus.threshold" }, "value": "25 seconds" }, { "name": { "label": "Expand Lists Automatically", "value": "uc.lists.expand_automatically" }, "value": "-- System Default --" }, { "name": { "label": "Go To Operator", "value": "uc.grid.go_to.operator" }, "value": "contains" }, { "name": { "label": "History Time Constraint", "value": "uc.history.time_window" }, "value": "Last 48 hours" }, { "name": { "label": "Navigation Auto Collapse", "value": "uc.navigation.auto_collapse" }, "value": "-- System Default --" }, { "name": { "label": "Node Time Display", "value": "uc.node_time.display" }, </pre>

XML	JSON
<pre> <name label="Services Recently Visited Limit">uc.services.recently_visited.limit</ name> <value>10</value> </preference> </preference> <name label="Services Show Animations">uc.services.show_animations</ name> <value>Yes</value> </preference> </preference> <name label="Show Metadata">uc.form.show_metadata</name> <value>-- System Default --</value> </preference> </preference> <name label="Show Variables Fetch Global Automatically">uc.show_variables.fetch_globa l</name> <value>-- System Default --</value> </preference> </preference> <name label="Target Task Instances Tab Time Constraint">uc.target_task_instances.tab.tim e_window</name> <value>Last 48 hours</value> </preference> </preference> <name label="Task Instances Tab Time Constraint">uc.task_instances.tab.time_windo w</name> <value>Last 48 hours</value> </preference> </preference> <name label="Task Instances Time Constraint">uc.task_instances.time_window</ name> <value>Last 48 hours</value> </preference> </preference> <name label="Trigger Task Instances Tab Time Constraint">uc.trigger_task_instances.tab.ti me_window</name> <value>Last 48 hours</value> </preference> </preference> </pre>	<pre> "value": "-- System Default --" }, { "name": { "label": "Node Time Display Background Color", "value": "uc.node_time.display.background_color" }, "value": "-- System Default --" }, { "name": { "label": "Node Time Display Color", "value": "uc.node_time.display.color" }, "value": "-- System Default --" }, { "name": { "label": "Node Time Display Time Zone", "value": "uc.node_time.display.tz" }, "value": "-- System Default --" }, { "name": { "label": "Pin Tabs Automatically", "value": "uc.tabs.pin_automatically" }, "value": "No" }, { "name": { "label": "Record New In Tab", "value": "uc.record.new_in_tab" }, "value": "-- System Default --" }, { "name": { "label": "Record Open In Tab", "value": "uc.record.open_in_tab" }, "value": "-- System Default --" }, { </pre>

XML	JSON
<pre> <name label="Use Dashboard Visibility Icons">uc.dashboard.use_visibility_icons</ name> <value>-- System Default --</value> </preference> <preference> <name label="Use Default Dashboard For Home">uc.home.use_default_dashboard</ name> <value>No</value> </preference> <preference> <name label="User Interface Density">uc.user_interface.density</name> <value>-- System Default --</value> </preference> <preference> <name label="User Interface Theme">uc.user_interface.theme</name> <value>-- System Default --</value> </preference> <preference> <name label="View/Edit JCL Credentials">uc.task.zos.view_edit_jcl.crede ntials</name> <value></value> </preference> </preferences> </pre>	<pre> "name": { "label": "Reference New In Tab", "value": "uc.reference.new_in_tab" }, "value": "-- System Default --" }, { "name": { "label": "Reference Open In Tab", "value": "uc.reference.open_in_tab" }, "value": "-- System Default --" }, { "name": { "label": "Reference Picker Display Columns", "value": "uc.reference.picker.display_columns" }, "value": "2" }, { "name": { "label": "Services Recently Visited Limit", "value": "uc.services.recently_visited.limit" }, "value": "10" }, { "name": { "label": "Services Show Animations", "value": "uc.services.show_animations" }, "value": "Yes" }, { "name": { "label": "Show Metadata", "value": "uc.form.show_metadata" }, "value": "-- System Default --" }, { "name": { </pre>

XML	JSON
	<pre> "label": "Show Variables Fetch Global Automatically", "value": "uc.show_variables.fetch_global" }, "value": "-- System Default --" }, { "name": { "label": "Target Task Instances Tab Time Constraint", "value": "uc.target_task_instances.tab.time_window" }, "value": "Last 48 hours" }, { "name": { "label": "Task Instances Tab Time Constraint", "value": "uc.task_instances.tab.time_window" }, "value": "Last 48 hours" }, { "name": { "label": "Task Instances Time Constraint", "value": "uc.task_instances.time_window" }, "value": "Last 48 hours" }, { "name": { "label": "Trigger Task Instances Tab Time Constraint", "value": "uc.trigger_task_instances.tab.time_window" }, "value": "Last 48 hours" }, { "name": { "label": "Use Dashboard Visibility Icons", "value": "uc.dashboard.use_visibility_icons" }, "value": "-- System Default --" }, { "name": { </pre>

XML	JSON
	<pre> "label": "Use Default Dashboard For Home", "value": "uc.home.use_default_dashboard" }, "value": "No" }, { "name": { "label": "User Interface Density", "value": "uc.user_interface.density" }, "value": "-- System Default --" }, { "name": { "label": "User Interface Theme", "value": "uc.user_interface.theme" }, "value": "-- System Default --" }, { "name": { "label": "View/Edit JCL Credentials", "value": "uc.task.zos.view_edit_jcl.credentials" }, "value": "" }]</pre>

4.38.10 Read a User Preference

URI	http://host_name:port/uc/resources/user/preference
HTTP Method	GET
Description	Retrieves information on a specific user preference for a particular user.
Example URI	http://localhost:8080/uc/resources/user/preference? preferencename=uc.activity.monitor_automatically&username=ops.admin
Authentication	HTTP Basic

Produces Content-Type	Application/XML, Application/JSON
Consumes Content-Type	N/A
Example Responses	• Status 200 • (See Read a User Preference: XML and JSON Examples) • Status 403 • Operation prohibited due to security constraints. • Status 404 • A user preference with name "{preferencename}" does not exist. • Status 500 • Unexpected request failure. See log(s) for more details.

4.38.10.1 Read a User Preference: URI Parameters

Property	Description	Specifications	Required	Mutual Exclusive With
preferencename	User preference name.	See User Preference Properties .	Y	
userid	Unique ID for this User.		N	username
username	Name used within the Controller to identify this User.		N	userid

4.38.10.2 Read a User Preference: XML and JSON Examples

XML	JSON
XML <pre><?xml version="1.0" encoding="UTF-8" standalone="yes"?> <preference> <name label="Activity Monitor Automatically">uc.activity.monitor_automatically</name> <value>No</value> </preference></pre>	JSON <pre>{ "name": { "label": "Activity Monitor Automatically", "value": "uc.activity.monitor_automatically" }, "value": "No" }</pre>

4.38.11 Update a User Preference

URI	<code>http://host_name:port/uc/resources/user/preference</code>
HTTP Method	PUT
Description	Modify a user preference for a particular user.
Example URI	<code>http://localhost:8080/uc/resources/user/preference?preferencename=uc.activity.monitor_automatically&value=No&username=ops.admin</code>
Authentication	HTTP Basic
Example Responses	• Status 200 • User Preference updated successfully. • Status 400 • Error message. • Status 403 • Operation prohibited due to security constraints. • Status 404 • A user preference with name "{preferencename}" does not exist. • Status 500 • Unexpected request failure. See log(s) for more details.

4.38.11.1 Update a User Preference: URI Parameters

Property	Description	Specifications	Required	Mutual Exclusive With
<code>preferencename</code>	User preference name.	See User Preference Properties .	Y	
<code>value</code>	User preference value.	See User Preference Properties .	Y	
<code>userid</code>	Unique ID for this User.		N	<code>username</code>
<code>username</code>	Name used within the Controller to identify this User.		N	<code>userid</code>

4.38.12 Properties

4.38.12.1 User Properties

Property	UI Field Name	Description	Specifications	Required
active	Active	Specification for whether or not the user is active. An active user can log in to the Controller. An inactive user cannot log in to the Controller, and the user will not appear in user lists.	Boolean. Valid Values: true/false. Default is false.	N
browserAccess	Web Browser Access	Specification for whether or not the user can log in to the user interface.	Valid Values: - As String = -- System Default --, As Value = 0 - As String = Yes, As Value = 1 - As String = No, As Value = 2 Default is -- System Default -- (0).	N
businessPhone	Business Phone	Business phone number of this user.		N
commandLineAccess	Command Line Access	Specification for whether or not the user can log in to the Universal Controller Command Line Interface (CLI) .	Valid values: - As String = -- System Default --, As Value = 0 - As String = Yes, As Value = 1 - As String = No, As Value = 2 Default is -- System Default -- (0).	N
department	Department	Business department of this user.		N
email	Email	Email address of this user.		N
excludeRelated	n/a	For the Modify User web service; specification for whether or not to exclude related records (User Permissions, User Roles) from the update, even if they are provided in the request. Note In XML, <code>excludeRelated</code> is specified as an attribute in the <code><user></code> element.	Valid values: true/false (default is false).	N
firstName	First Name	First Name of this user.		N

Property	UI Field Name	Description	Specifications	Required
impersonate	Allowed Impersonation Users	Specifies the users that can be impersonated by this user using the X-Impersonate-User HTTP header on Web Service requests. User impersonation requires the ops_user_impersonate role. Users with the ops_admin role can impersonate any user and do not need to specify Allowed Impersonation Users. Format: XML <pre><impersonate> <allowed>jane.doe</allowed> <allowed>john.doe</allowed> </impersonate></pre> JSON <pre>"impersonate": ["jane.doe", "john.doe"]</pre>		N
lastName	Last Name	Last Name of this user.		N
lockedOut	Locked out	Specification for whether or not the user is locked out of the Controller.	Boolean. Valid Values: true/false. Default is false.	N
loginMethod	Login Methods	Login method(s) that the user can authenticate with.	Valid Values: • Standard • Single Sign-On • Standard, Single Sign-On • Standard / Authenticator App (TOTP) • Standard / Authenticator App (TOTP), Single Sign-On	N
manager	Manager	Business manager of this user.	Manager user ID	N
middleName	Middle Name	Middle Name of this user.		N
mobilePhone	Mobile Phone	Mobile phone number of this user.		N
passwordNeedsReset	Password Requires Reset	Specification for whether or not the user will be prompted to reset the password at next login.	Boolean. Valid Values: true/false. Default is false.	N

Property	UI Field Name	Description	Specifications	Required
retainSysIds	n/a	Specification for whether or not the Create a User web service will persist the <code>sysId</code> property. - If <code>retainSysIds="true"</code> and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database. - If <code>retainSysIds="false"</code> and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller. Note In XML, <code>retainSysIds</code> is specified as an attribute in the <code><user></code> element.	Valid values: true/false (default is true).	N
sysId	n/a	System ID field in the database for this record.	Persisted only if <code>retainSysIds</code> is set to true.	N
timeZone	Time Zone	Time zone of this user.	When this user logs in, all scheduling times will be shown in the user's time zone, unless the trigger specifies a different time zone.	N
title	Title	Business title of this user.		N

Property	UI Field Name	Description	Specifications	Required
tokens	Personal Access Tokens	List of personal access tokens. If <code>showTokens</code> = true, these tokens will be displayed in the response. Format: XML <pre><tokens> <token> <createTime>2022-10-26 16:14:54 -0400</createTime> <expiration>20221230</expiration> <lastUsed>20221026</lastUsed> <name>test1</name> <userName>ops.admin</userName> </token> </tokens></pre> JSON <pre>"tokens": [{ "createTime": "2022-10-26 16:14:54 -0400", "expiration": "20221230", "lastUsed": "20221026", "name": "test1", "userName": "ops.admin" }, { "createTime": "2022-10-26 16:29:22 -0400", "expiration": "Never", "lastUsed": "Never", "name": "test2", "userName": "ops.admin" }],</pre>		N
showTokens	n/a	Specifies whether the tokens will be displayed in the response.	Boolean. Valid Values: true/false. Default is false.	N
userName	User ID	Log in ID for this user.		Y
userPassword	Password	Password of this user. If <code>userPassword</code> is included in the request, <code>userPassword</code> will be updated. Alternatively, the User's password can be changed with the Password API.	Used only by the Create a User and Modify a User web services.	Y (for Create a User)

Property	UI Field Name	Description	Specifications	Required
webServiceAccess	Web Service Access	Specification for whether or not the user can log in to the Universal Controller RESTful Web Services API .	Valid values: - As String = – System Default –, As Value = 0 - As String = Yes, As Value = 1 - As String = No, As Value = 2 Default is – System Default – (0).	N

4.38.12.2 User Permission Properties

Property	UI Field Name	Description	Specifications	Required
allGroups	Member of Any Business Service or Unassigned Business Service Criteria Member of Any Business Service or Unassigned	Specification for whether or not this permission applies both to records that belong to any Business Service and to records that do not belong to any Business Service. If <code>allGroups</code> is specified as true, <code>defaultGroup</code> is set to true, <code>notGroups</code> is set to false, and <code>opswiseGroups</code> is cleared, regardless of what you specify in the payload.	Boolean. Valid Values: true/false. Default is false.	N
commands	Commands	Commands that are associated with each permission.	Valid values: see Command Permissions , below.	N
defaultGroup	Unassigned to Business Service Business Service Criteria - Member of Specific Business Services or Unassigned - Unassigned - Not Member of Specific Business Services or Unassigned	Specification for whether or not this permission applies to records that do not belong to any Business Service.	Boolean. Valid Values: true/false. Default is false.	N
nameWildcard	Name	Specification to apply this permission to records whose name matches the string specified here.	Wildcards (*'s) can be used.	Y

Property	UI Field Name	Description	Specifications	Required
notGroups	Not Member of Business Services Business Service Criteria - Not Member of Specific Business Services or Unassigned - Not Member of Specific Business Services	Specification for whether or not this permission applies to records that are a member of opwiseGroups or not a member of opwiseGroups.	Boolean. Valid Values: true/false. Default is false.	N
opCreate	Create	Allows the user to create records of the specified <code>permissionType</code> .	Boolean. Valid Values: true/false. Default is false. Cannot be set to true if <code>permissionType</code> is Agent.	N
opDelete	Delete	Allows the user to delete records of the specified <code>permissionType</code> .	Boolean. Valid Values: true/false. Default is false.	N
opExecute	Execute	Allows the user to execute records of the specified <code>permissionType</code> .	Boolean. Valid Values: true/false. Default is false. If the Strict Connection Execute Constraints Universal Controller system property is false: <code>opExecute</code> can be set to true only if <code>permissionType</code> is Agent, Credential, Script, or Virtual Resource. If the Strict Connection Execute Constraints Universal Controller system property is true: <code>opExecute</code> can be set to true only if <code>permissionType</code> is Agent, Credential, Database Connection, Email Connection, SAP Connection, Script, SNMP Manager, or Virtual Resource.	N
opRead	Read	Allows the user to read records of the specified <code>permissionType</code> .	Boolean. Valid Values: true/false. Default is false. If the Strict Business Service Membership Read Constraints Universal Controller system property is false: <code>opRead</code> must be set to true if <code>permissionType</code> is Agent, Agent Cluster, Calendar, Credential, Database Connection, Email Connection, SAP Connection, Email Template, SNMP Manager, or Virtual Resource.	N
opUpdate	Update	Allows the user to update records of the specified <code>permissionType</code> .	Boolean. Valid Values: true/false. Default is false. Must be set to true if <code>opCreate</code> is set to true.	N

Property	UI Field Name	Description	Specifications	Required
opswiseGroups	Member of Business Services	Applies this permission to records that are members of the selected Business Service(s). XML <pre><opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups></pre> JSON <pre>"opswiseGroups": ["test"]</pre>		N
permissionType	Type	Type of permission for this user.	Valid values: • As String = Agent, As Value = 1 • As String = Calendar, As Value = 2 • As String = Credential, As Value = 3 • As String = Task, As Value = 4 • As String = Task Instance, As Value = 5 • As String = Trigger, As Value = 6 • As String = Application, As Value = 7 • As String = Script, As Value = 8 • As String = Variable, As Value = 9 • As String = Virtual Resource, As Value = 10 • As String = Agent Cluster, As Value = 11 • As String = Email Template, As Value = 12 • As String = Email Connection, As Value = 13 • As String = Database Connection, As Value = 14 • As String = SAP Connection, As Value = 15 • As String = SNMP Manager, As Value = 16 • As String = PeopleSoft Connection, As Value = 17 • As String = Bundle, As Value = 18 • As String = Promotion Target, As Value = 19 • As String = OMS Server, As Value = 20	Y
sysId	n/a	System ID field in the database for a record.	Persisted only if retainSysIds is set to true.	N

4.38.12.2.1 Command Permissions

Permission Type	Commands
Agent	• ALL • resume_agent • suspend_agent
Agent Cluster	• ALL • resolve_agent_cluster • resume_agent_cluster • suspend_agent_cluster • resume_agent_cluster_membership • suspend_agent_cluster_membership
Application	• ALL • appl_start • appl_stop • appl_query
Bundle	• ALL • promote_bundle
Calendar	• ALL • copy_calendar
Credential	
Database Connection	• ALL • copy_database_connection • database_connection_test
Email Connection	• ALL • copy_email_connection • email_connection_test
Email Template	• ALL • copy_email_template
OMS Server	• ALL • resume_oms_server • suspend_oms_server
PeopleSoft Connection	• ALL • copy_peoplesoft_connection
Promotion Target	• ALL • refresh_target_agents
SAP Connection	• ALL • copy_sap_connection
Script	• ALL • copy_script
SNMP Manager	• ALL • copy_snmp_manager

Permission Type	Commands
Task	• ALL • copy_task • launch • recalculate_forecast • reset_statistics • reset_zos_override_statistics • set_execution_restriction
Task Instance	• ALL • cancel • clear_all_dependencies • clear_exclusive • clear_resources • clear_timewait • force_finish • force_finish_cancel • hold • insert_task • rerun • release • release_recursive • retrieve_output • set_edge_satisfied (Mark as Satisfied in UI) • set_edges_satisfied (Clear Predecessors in UI) • set_priority_low • set_priority_medium • set_priority_high • set_manual_completed • set_manual_started • skip • unskip
Trigger	• ALL • assign_trigger_execution_user • copy_trigger • disable_trigger • enable_trigger • recalculate_forecast • set_skip_count • trigger_now
Variable	
Virtual Resource	• ALL • copy_virtual_resource

4.38.12.3 User Preference Properties

See [User Preferences](#) for more information on each user preference.

Property Name	UI Name	Valid Values	Allow Empty Value
uc.activity.monitor_automatically	Activity Monitor Automatically	Yes No	N
uc.activity.refresh_rate	Activity Refresh Rate	As String = 5 seconds, As Value = 5000 As String = 10 seconds, As Value = 10000 As String = 15 seconds, As Value = 15000 As String = 20 seconds, As Value = 20000 As String = 25 seconds, As Value = 25000 As String = 30 seconds, As Value = 30000 As String = 45 seconds, As Value = 45000 As String = 1 minute, As Value = 60000	N
uc.activity.results_per_page	Activity Results Per Page	As String = 15 per page, As Value = 15 As String = 20 per page, As Value = 20 As String = 25 per page, As Value = 25 As String = 30 per page, As Value = 30 As String = 35 per page, As Value = 35 As String = 40 per page, As Value = 40 As String = 45 per page, As Value = 45 As String = 50 per page, As Value = 50	N
uc.activity.time_window	Activity Time Constraint	As String = Last 5 minutes, As Value = 5 As String = Last 15 minutes, As Value = 15 As String = Last 30 minutes, As Value = 30 As String = Last hour, As Value = 60 As String = Last 12 hours, As Value = 720 As String = Last 24 hours, As Value = 1440 As String = Last 48 hours, As Value = 2880 As String = Last week, As Value = 10080 As String = Last 2 weeks, As Value = 20160 As String = Last 3 weeks, As Value = 30240 As String = Last 4 weeks, As Value = 40320 As String = Last 30 days, As Value = 43200 As String = Last 60 days, As Value = 86400 As String = Last 90 days, As Value = 129600	N

Property Name	UI Name	Valid Values	Allow Empty Value
uc.agent.task_instances.tab.time_window	Agent Task Instances Tab Time Constraint	As String = Last 5 minutes, As Value = 5 As String = Last 15 minutes, As Value = 15 As String = Last 30 minutes, As Value = 30 As String = Last hour, As Value = 60 As String = Last 12 hours, As Value = 720 As String = Last 24 hours, As Value = 1440 As String = Last 48 hours, As Value = 2880 As String = Last week, As Value = 10080 As String = Last 2 weeks, As Value = 20160 As String = Last 3 weeks, As Value = 30240 As String = Last 4 weeks, As Value = 40320 As String = Last 30 days, As Value = 43200 As String = Last 60 days, As Value = 86400 As String = Last 90 days, As Value = 129600	N
uc.audit.time_window	Audit Time Constraint	As String = Last 5 minutes, As Value = 5 As String = Last 15 minutes, As Value = 15 As String = Last 30 minutes, As Value = 30 As String = Last hour, As Value = 60 As String = Last 12 hours, As Value = 720 As String = Last 24 hours, As Value = 1440 As String = Last 48 hours, As Value = 2880 As String = Last week, As Value = 10080 As String = Last 2 weeks, As Value = 20160 As String = Last 3 weeks, As Value = 30240 As String = Last 4 weeks, As Value = 40320 As String = Last 30 days, As Value = 43200 As String = Last 60 days, As Value = 86400 As String = Last 90 days, As Value = 129600	N
uc.grid.column.boolean.format	Boolean Column Display Format	As String = Yes/No, As Value = 1 As String = Checkbox, As Value = 2	N
uc.console.location	Console Location	As String = Browser Top, As Value = 1 As String = Browser Bottom, As Value = 2 As String = Top, As Value = 3 As String = Bottom, As Value = 4	N
uc.console.error.fadeout_delay	Console Error Fade Out Delay	Integer: 1-15	Y
uc.console.info.fadeout_delay	Console Info Fade Out Delay	Integer: 1-15	Y
uc.console.info.open	Console Open For Info	Yes No	N

Property Name	UI Name	Valid Values	Allow Empty Value
uc.dashboard.refresh_on_focus	Dashboard Force Refresh On Focus	Yes No	N
uc.dashboard.refresh_on_focus.threshold	Dashboard Force Refresh On Focus Threshold	As String = 5 seconds, As Value = 5 As String = 10 seconds, As Value = 10 As String = 15 seconds, As Value = 15 As String = 20 seconds, As Value = 20 As String = 25 seconds, As Value = 25 As String = 30 seconds, As Value = 30 As String = 35 seconds, As Value = 35 As String = 40 seconds, As Value = 40 As String = 45 seconds, As Value = 45 As String = 50 seconds, As Value = 50 As String = 55 seconds, As Value = 55 As String = 1 minute, As Value = 60	N
uc.grid.go_to.operator	Go To Operator	As String = contains, As Value = 1 As String = starts with, As Value = 2 As String = equals, As Value = 4	N
uc.history.time_window	History Time Constraint	As String = Last 5 minutes, As Value = 5 As String = Last 15 minutes, As Value = 15 As String = Last 30 minutes, As Value = 30 As String = Last hour, As Value = 60 As String = Last 12 hours, As Value = 720 As String = Last 24 hours, As Value = 1440 As String = Last 48 hours, As Value = 2880 As String = Last week, As Value = 10080 As String = Last 2 weeks, As Value = 20160 As String = Last 3 weeks, As Value = 30240 As String = Last 4 weeks, As Value = 40320 As String = Last 30 days, As Value = 43200 As String = Last 60 days, As Value = 86400 As String = Last 90 days, As Value = 129600	N
uc.node_time.display	Node Time Display	As String = -- System Default --, As Value = 0 As String = Yes, As Value = 1 As String = No, As Value = 2	N
uc.node_time.display.tz	Node Time Display Time Zone	As String = -- System Default --, As Value = 0 As String = Server, As Value = 1 As String = User, As Value = 2	N

Property Name	UI Name	Valid Values	Allow Empty Value
uc.node_time.display.background_color	Node Time Display Background Color	As String = -- System Default --, As Value = 0 As String = Black, As Value = 10 As String = Blue, As Value = 20 As String = Gray, As Value = 30 As String = Green, As Value = 40 As String = LimeGreen, As Value = 50 As String = Maroon, As Value = 60 As String = Orange, As Value = 70 As String = Purple, As Value = 80 As String = Red, As Value = 90 As String = Transparent, As Value = 100 As String = White, As Value = 110 As String = Yellow, As Value = 120	N
uc.node_time.display.color	Node Time Display Color	As String = -- System Default --, As Value = 0 As String = Black, As Value = 10 As String = Blue, As Value = 20 As String = Gray, As Value = 30 As String = Green, As Value = 40 As String = LimeGreen, As Value = 50 As String = Maroon, As Value = 60 As String = Orange, As Value = 70 As String = Purple, As Value = 80 As String = Red, As Value = 90 As String = White, As Value = 110 As String = Yellow, As Value = 120	N
uc.tabs.pin_automatically	Pin Tabs Automatically	Yes No	N
uc.reference.picker.display_columns	Reference Picker Display Columns	As String = 1, As Value = 1 As String = 2, As Value = 2 As String = 3, As Value = 3 As String = ALL, As Value = 10	N
uc.form.show_metadata	Show Metadata	As String = -- System Default --, As Value = 0 As String = Yes, As Value = 1 As String = No, As Value = 2	N
uc.show_variables.fetch_global	Show Variables Fetch Global Automatically	As String = -- System Default --, As Value = 0 As String = Yes, As Value = 1 As String = No, As Value = 2	N

Property Name	UI Name	Valid Values	Allow Empty Value
uc.task_instances.time_window	Task Instances Time Constraint	As String = Last 5 minutes, As Value = 5 As String = Last 15 minutes, As Value = 15 As String = Last 30 minutes, As Value = 30 As String = Last hour, As Value = 60 As String = Last 12 hours, As Value = 720 As String = Last 24 hours, As Value = 1440 As String = Last 48 hours, As Value = 2880 As String = Last week, As Value = 10080 As String = Last 2 weeks, As Value = 20160 As String = Last 3 weeks, As Value = 30240 As String = Last 4 weeks, As Value = 40320 As String = Last 30 days, As Value = 43200 As String = Last 60 days, As Value = 86400 As String = Last 90 days, As Value = 129600	N
uc.task_instances.tab.time_window	Task Instances Tab Time Constraint	As String = Last 5 minutes, As Value = 5 As String = Last 15 minutes, As Value = 15 As String = Last 30 minutes, As Value = 30 As String = Last hour, As Value = 60 As String = Last 12 hours, As Value = 720 As String = Last 24 hours, As Value = 1440 As String = Last 48 hours, As Value = 2880 As String = Last week, As Value = 10080 As String = Last 2 weeks, As Value = 20160 As String = Last 3 weeks, As Value = 30240 As String = Last 4 weeks, As Value = 40320 As String = Last 30 days, As Value = 43200 As String = Last 60 days, As Value = 86400 As String = Last 90 days, As Value = 129600	N
uc.dashboard.use_visibility_icons	Use Dashboard Visibility Icons	As String = -- System Default --, As Value = 0 As String = Yes, As Value = 1 As String = No, As Value = 2	N
uc.home.use_default_dashboard	Use Default Dashboard For Home	Yes No	N

Property Name	UI Name	Valid Values	Allow Empty Value
uc.target_task_instances.tab.time_window	Target Task Instances Tab Time Constraint	As String = Last 5 minutes, As Value = 5 As String = Last 15 minutes, As Value = 15 As String = Last 30 minutes, As Value = 30 As String = Last hour, As Value = 60 As String = Last 12 hours, As Value = 720 As String = Last 24 hours, As Value = 1440 As String = Last 48 hours, As Value = 2880 As String = Last week, As Value = 10080 As String = Last 2 weeks, As Value = 20160 As String = Last 3 weeks, As Value = 30240 As String = Last 4 weeks, As Value = 40320 As String = Last 30 days, As Value = 43200 As String = Last 60 days, As Value = 86400 As String = Last 90 days, As Value = 129600	N
uc.trigger_task_instances.tab.time_window	Trigger Task Instances Tab Time Constraint	As String = Last 5 minutes, As Value = 5 As String = Last 15 minutes, As Value = 15 As String = Last 30 minutes, As Value = 30 As String = Last hour, As Value = 60 As String = Last 12 hours, As Value = 720 As String = Last 24 hours, As Value = 1440 As String = Last 48 hours, As Value = 2880 As String = Last week, As Value = 10080 As String = Last 2 weeks, As Value = 20160 As String = Last 3 weeks, As Value = 30240 As String = Last 4 weeks, As Value = 40320 As String = Last 30 days, As Value = 43200 As String = Last 60 days, As Value = 86400 As String = Last 90 days, As Value = 129600	N
uc.user_interface.theme	User Interface Theme	As String = -- System Default --, As Value = 0 As String = Light, As Value = 6 As String = Dark, As Value = 7	N
uc.user_interface.density	User Interface Density	As String = -- System Default --, As Value = 0 As String = Dense, As Value = 2 As String = Compact, As Value = 4 As String = Standard, As Value = 6 As String = Expanded, As Value = 8 As String = Spacious, As Value = 10	N
uc.services.recently_visited.limit	Services Recently Visited Limit	Integer: 1-30	Y

Property Name	UI Name	Valid Values	Allow Empty Value
uc.services.show_animations	Services Show Animations	Yes No	N
uc.lists.expand_automatically	Expand Lists Automatically	As String = -- System Default --, As Value = 0 As String = Yes, As Value = 1 As String = No, As Value = 2	N
uc.navigation.auto_collapse	Navigation Auto Collapse	As String = -- System Default --, As Value = 0 As String = Yes, As Value = 1 As String = No, As Value = 2	N
uc.navigation.bar.auto_collapse	Navigation Bar Auto Collapse	As String = -- System Default --, As Value = 0 As String = Yes, As Value = 1 As String = No, As Value = 2	N
uc.reference.open_in_tab	Reference Open In Tab	As String = -- System Default --, As Value = 0 As String = Yes, As Value = 1 As String = No, As Value = 2	N
uc.record.open_in_tab	Record Open In Tab	As String = -- System Default --, As Value = 0 As String = Yes, As Value = 1 As String = No, As Value = 2	N
uc.reference.new_in_tab	Reference New In Tab	As String = -- System Default --, As Value = 0 As String = Yes, As Value = 1 As String = No, As Value = 2	N
uc.record.new_in_tab	Record New In Tab	As String = -- System Default --, As Value = 0 As String = Yes, As Value = 1 As String = No, As Value = 2	N
uc.task.zos.view_edit_jcl.credentials	View/Edit JCL Credentials		Y

4.38.12.4 User Role Properties

Property	UI Field Name	Description	Specifications	Required
role	n/a	Role assigned to this user.		N
sysId	n/a	System ID field in the database for a record.		N

4.38.13 Create Personal Access Token

	Description
URI	<code>http://host_name/uc/resources/user/token</code>
HTTP Method	POST
Description	Create the personal access token
Example URI	http://localhost:8080/uc/resources/user/token
Authentication	HTTP Basic
Produces Content-Type	text/plain
Consumes Content-Type	Application/XML, Application/JSON
Example Responses	- Status 200 <code>ucp_taUFdDhrlpn8Gc5Vu9IO2LRQ29pbvBRJUSPvifX</code> - Status 400 - Error message. - Status 403 - Operation prohibited due to security constraints. - Status 404 - A user with name "{name}" does not exist. - A user with id "{uuid}" does not exist. - Status 500 - Unexpected request failure. See log(s) for more details.

4.38.13.1 Create Personal Access Token: Payload Properties (XML, JSON)

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>userId</code>	N/A	UUID of the user	UUID of the user	N	<code>userName</code>
<code>userName</code>	N/A	User Name	String value of User name	N	<code>userId</code>
<code>name</code>	Name	Token Name	Specifies the name of the application that will access the Universal Controller Web Service APIs using the personal access token.	Y	
<code>expiration</code>	Expiration	Description of property.	Specifies when the personal access token expires. If left unspecified, the token never expires. Valid Value: yyyy-mm-dd	N (Y if Web Service Personal Access Token Maximum Expiration In Days system property is specified.)	

4.38.13.2 Create Personal Access Token: XML and JSON Examples

	XML	JSON
Example Request	XML <pre><token> <expiration>2022-07-30< /expiration> <name>test1</name> <userId></userId> <userName>sha</userName> </token></pre>	JSON <pre>{ "expiration": "2022-07-30", "name": "test1", "userName": "ops.admin", "userId": "" }</pre>
Example Response	XML <pre>ucp_taUFeDdhr\pn8Gc5Vu9IO2LRQ2 9pbvBRJUSPvifP</pre>	JSON <pre>ucp_taUFeDdhr\pn8Gc5Vu9IO2LRQ2 9pbvBRJUSPvifP</pre>

4.38.14 List Personal Access Tokens

	Description
URI	http://host_name/uc/resources/user/token/list
HTTP Method	GET
Description	List the user tokens
Example URI	http://localhost:9090/uc/resources/user/token/list http://localhost:9090/uc/resources/user/token/list?username=test http://localhost:9090/uc/resources/user/token/list?userid=1234567
Authentication	HTTP Basic
Produces Content-Type	Application/XML, Application/JSON
Consumes Content-Type	

	Description
Example Responses	- Status 200 - Successful token list - Status 400 - Error message. - Status 403 - Operation prohibited due to security constraints. - Status 404 - A user with name "{name}" does not exist. - A user with id "{uuid}" does not exist. - Status 500 - Unexpected request failure. See log(s) for more details.

4.38.14.1 List Personal Access Tokens: Query Parameters

The following request parameters can be used to filter the results of this service.

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
userid	N/A	UUID of the user	UUID of the user	N	username
username	N/A	User Name	String value of User name	N	userid

4.38.14.2 List Personal Access Tokens: XML and JSON Examples

	XML	JSON
Example Response	<pre> XML <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <tokens> <token> <createTime>2022-07-28 17:11:35 -0400</createTime> <expiration>20220730</ expiration> <lastUsed>Never</lastUsed> <name>test2</name> <userName>ops.admin</ userName> </token> </pre>	<pre> JSON [{ "createTime": "2022-07-28 17:11:35 -0400", "expiration": "20220730", "lastUsed": "Never", "name": "test2", "userName": "ops.admin" }, { "createTime": </pre>

	XML	JSON
	<pre> <token> <createTime>2022-07-29 12:39:20 -0400</createTime> <expiration>20220730</ expiration> <lastUsed>Never</lastUsed> <name>test3</name> <userName>ops.admin</ userName> </token> <token> <createTime>2022-07-28 17:08:07 -0400</createTime> <expiration>20220730</ expiration> <lastUsed>Never</lastUsed> <name>test4</name> <userName>ops.admin</ userName> </token> <token> <createTime>2022-07-29 12:56:33 -0400</createTime> <expiration>20220730</ expiration> <lastUsed>Never</lastUsed> <name>test5</name> <userName>ops.admin</ userName> </token> </tokens> </pre>	<pre> "2022-07-29 12:39:20 -0400", "expiration": "20220730", "lastUsed": "Never", "name": "test3", "userName": "ops.admin" }, { "createTime": "2022-07-28 17:08:07 -0400", "expiration": "20220730", "lastUsed": "Never", "name": "test4", "userName": "ops.admin" }, { "createTime": "2022-07-29 12:56:33 -0400", "expiration": "20220730", "lastUsed": "Never", "name": "test5", "userName": "ops.admin" }] </pre>

4.38.15 Revoke Personal Access Token

	Description
URI	<code>http://host_name/uc/resources/user/token</code>
HTTP Method	DELETE
Description	Delete the personal access token(s)
Example URI	http://localhost:9090/uc/resources/user/token?tokenname=test1&username=abc http://localhost:9090/uc/resources/user/token?tokenname=test1&userid=1234567
Authentication	HTTP Basic
Produces Content-Type	
Consumes Content-Type	
Example Responses	- Status 200 - Personal access token revoked successfully. - Status 400 - Error message. - Status 403 - Operation prohibited due to security constraints. - Status 404 - A user with name "{name}" does not exist. - A user with id "{uuid}" does not exist. - Status 500 - Unexpected request failure. See log(s) for more details.

4.38.15.1 Revoke Personal Access Token: Query Parameters

The following request parameters will be needed for the service.

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
userid	N/A	UUID of the user	UUID of the user	Y	username
username	N/A	User Name	String value of User name	N	userid
tokenname	token name	Token Name	Specifies the name of the application that will access the Universal Controller Web Service APIs using the personal access token.	Y	

4.39 Variable Web Services

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4.39.1 Overview

Universal Controller supports the following RESTful-based web services for Variable operations, which are listed alphabetically on this page.

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Formatting specifications for each web service, including details about parameter requirements, are provided.

4.39.2 Create a Global Variable

	Description
URI	http://host_name/uc/resources/variable
HTTP Method	POST
Description	Creates a Global Variable .
Example URI	http://localhost:8080/uc/resources/variable
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Create a Global Variable: Example Request , below.
Request Properties	See Global Variable Properties , below.
Example Response	• Status 200 /OK Successfully created the variable with sysId {sysId} to version {version}.

4.39.2.1 Create a Global Variable: Example Request

XML Request	JSON Request
XML Request <pre><variable retainSysIds="true"> <description>description</description> <name>demo_ops_global</name> <opswiseGroups> <opswiseGroup>group 1</opswiseGroup> <opswiseGroup>group 2</opswiseGroup> </opswiseGroups> <sysId>237f9f6c43d2617201b2bd04063f917a</sysId> <value>Global</value> </variable></pre>	JSON Request <pre>{ "description": "description", "name": "demo_ops_global", "opswiseGroups": ["group 1", "group 2"], "retainSysIds": true, "sysId": "237f9f6c43d2617201b2bd04063f917a", "value": "Global" }</pre>

4.39.2.2 Global Variable Properties

Property	UI Field Name	Description	Specifications	Required
description	Description	User-defined; description of this record.		N
name	Name	Name used within the Controller to identify this Global Variable.	Contains a maximum of 40 alphanumerics.	Y
opswiseGroups	Member of Business Services	Business Services that this record belongs to. XML <opswiseGroups>
 <opswiseGroup>test</opswiseGroup>
 </opswiseGroups> JSON "opswiseGroups": ["test"]		N

Property	UI Field Name	Description	Specifications	Required
retainSysIds	n/a	Specification for whether or not the Create a Create a Global Variable web service will persist the <code>sysId</code> property. - If <code>retainSysIds</code>="true" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database. - If <code>retainSysIds</code>="false" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller. Note In XML, <code>retainSysIds</code> is specified as an attribute in the <code><variable></code> element.	Valid values: true/false (default is true).	N
<code>sysId</code>	n/a	System ID field in the database for a record.	Persisted only if <code>retainSysIds</code> is set to true.	N
<code>value</code>	Value	Value of this variable.	Maximum = 25000 characters.	N

4.39.3 Delete a Global Variable

	Description
URI	http://host_name/uc/resources/variable
HTTP Method	DELETE
Description	Deletes a Global Variable .
URI Parameters	See Delete a Global Variable: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/variable?variableid=dadf6b84c0a8016500a01a10da5e2c15
Example Response	- Status 200 /OK Variable deleted successfully. - Status 400 /Bad Request Mutual exclusion violation. Cannot specify <code>variablename</code> and <code>variableid</code> at the same time. - Status 404 /Not Found A variable with {name/id} "test" does not exist.

4.39.3.1 Delete a Global Variable: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
<code>variableid</code>	ID used within the Controller to identify this Global Variable.	String; URI parameter.	Y (unless <code>variablename</code> is specified)	<code>variablename</code>
<code>variablename</code>	Name used within the Controller to identify this Global Variable.	String; URI parameter.	Y (unless <code>variableid</code> is specified)	<code>variableid</code>

4.39.4 List Variables

	Description
URI	http://host_name/uc/resources/variable/list
HTTP Method	POST
Description	Retrieves information on variables matching specific search criteria.
Example URI	http://localhost:8080/uc/resources/variable/list
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See List Global Variables: XML and JSON Examples .
Request Properties	See List Variables: Request Properties .
Example Response	See List Global Variables: XML and JSON Examples .
Response Properties	See List Variables: Response Properties .

4.39.4.1 List Variables: XML and JSON Examples

Examples	XML	JSON
Example Request	XML	JSON Global Variable<pre>{ "scope": "global" }</pre> <pre>{ "scope": "global", "variableName": "demo*" }</pre> Local Variable<pre>{ "scope": "local" }</pre> <pre>{ "scope": "local", "variableName": "*2" }</pre> Task Variable<pre>{ "scope": "task", "taskName": "UT-WS-Task" }</pre> <pre>{ "scope": "task", "taskName": "UT-WS-Task", "variableName": "UT*2" }</pre> Trigger Variable<pre>{ "scope": "trigger", "triggerName": "UT-WS-Trigger" }</pre> <pre>{ "scope": "trigger", "triggerName": "UT-WS-Trigger", "variableName": "*2" }</pre>

Examples	XML	JSON
	Global Variable <pre> <variable-query-filter> <scope>global</scope> </variable-query-filter> <variable-query-filter> <scope>global</scope> <variableName>demo*</ variableName> </variable-query-filter> </pre> Local Variable <pre> <variable-query-filter> <scope>local</scope> </variable-query-filter> <variable-query-filter> <scope>local</scope> <variableName>*2</ variableName> </variable-query-filter> </pre> Task Variable <pre> <variable-query-filter> <scope>task</scope> <taskName>UT-WS-Task</ taskName> </variable-query-filter> <variable-query-filter> <scope>task</scope> <taskName>UT-WS-Task</ taskName> <variableName>UT*2</ variableName> </variable-query-filter> </pre> Trigger Variable <pre> <variable-query-filter> <scope>trigger</scope> <triggerName>UT-WS-Trigger</ triggerName> </variable-query-filter> <variable-query-filter> <scope>trigger</scope> <triggerName>UT-WS-Trigger</ triggerName> <variableName>*2</ variableName> </variable-query-filter> </pre>	

Examples	XML	JSON
Example Response	Example 1 <pre> <variables> <variable> <description /> <name>demo_ops_download_dir</name> <sysId>db5c436ac0a8016501f1ab660b585961</sysId> <type>Global</type> <version>1</version> <value>/home/uc/download</value> </variable> <variable> <description /> <name>demo_ops_linux_rc</name> <sysId>db5c7b72c0a80165004cda781dbf3115</sysId> <type>Global</type> <version>1</version> <value>0</value> </variable> </variables> Example 2 <variables> <variable> <allowEmptyOption>>false</allowEmptyOption> <allowUnlistedOption>>false</allowUnlistedOption> <description>varDescription2</description> <name>UT_WS_var_2</name> <options> <option>option1</option> <option>option2</option> </options> <sysId>164a03300a0a0a6475b497e5d985c1aa</sysId> <taskId>164a02a80a0a0a644fc9a3d6dd33f72b</taskId> <taskName>UT-WS-Task</taskName> <type>Task</type> <value>varVal2</value> </variable> <variable> <allowEmptyOption>>true</allowEmptyOption> </pre>	Example 1 <pre> [{ "description": null, "name": "demo_ops_download_dir", "sysId": "db5c436ac0a8016501f1ab660b585961", "type": "Global", "version": 1, "value": "/home/uc/download" }, { "description": null, "name": "demo_ops_linux_rc", "sysId": "db5c7b72c0a80165004cda781dbf3115", "type": "Global", "version": 1, "value": 0 }] Example 2 [{ "allowEmptyOption": false, "allowUnlistedOption": false, "description": "varDescription2", "name": "UT_WS_var_2", "options": ["option1", "option2"], "sysId": "164a03300a0a0a6475b497e5d985c1aa", "taskId": "164a02a80a0a0a644fc9a3d6dd33f72b", "taskName": "UT-WS-Task", "type": "Task", "value": "varVal2" }, { "allowEmptyOption": true, "allowUnlistedOption": </pre>

Examples	XML	JSON
	<pre> allowEmptyOption> <allowUnlistedOption>true</allowUnlistedOption> </allowEmptyOption> <description /> <name>UT_WS_var_2</name> <options> <option>111</option> <option>222</option> </options> <sysId>164ea9ff0a0a0a6449f209da49f594c0</sysId> <triggerId>164ea9a40a0a0a647df8372b88eb2394</triggerId> <triggerName>UT-WS-Trigger</triggerName> <type>Trigger</type> <value>val</value> </variable> </variables> </pre>	<pre> true, "description" null, "name": "UT_WS_var_2", "options": ["111", "222"] "sysId": "164ea9ff0a0a0a6449f209da49f594c0", "triggerId": "164ea9a40a0a0a647df8372b88eb2394", "triggerName": "UT-WS-Trigger", "type": "Trigger", "value": "val" }] </pre>

4.39.4.2 List Variables: Request Properties

Property	UI Field Name	Description	Specifications	Required
scope	n/a	Type of variable to be returned in the Response.	Valid values (case insensitive): • global • local • task • trigger Default is global.	N
taskName	n/a	If scope is task; Name of task.		Y
triggerName	n/a	If scope is trigger; Name of the trigger.		Y
variableName	n/a	If scope is global (or local), and variableName is not specified, all Global (or Local) variables are returned in the Response. If scope is Global (or Local), and variableName is specified, all Global (or Local) variables matching that name are returned in the Response.	Wildcards are supported.	N

4.39.4.3 List Variables: Response Properties

Property	UI Field Name	Description
description	Description	Description of the variable.
name	Name	Name of the variable.
sysId	n/a	sys_id used within the Controller to identify this variable.
taskId	n/a	ID of the task if the search was for a task-specific variable (scope is task in the Request).
taskName	n/a	Name of the task if the search was for a task-specific variable (scope is task in the Request).
triggerId	n/a	ID of the trigger if the search was for a trigger-specific variable (scope is trigger in the Request).
triggerName	n/a	Name of the trigger if the search was for a trigger-specific variable (scope is trigger in the Request).
type	n/a	Type of variable.
value	Value	Value of the variable.
version	Version	Version of the variable.
options	Value Options	Not for Global Variables. 1 2 3 4 <pre><options> <option>option1</option> <option>option2</option> </options></pre> Note An option value will be set only if non-empty; for example, <option></option> will not set an option. Duplicate option values will not be set; for example, <option>option1</option>, <option>option1</option> is not permitted. Only one option1 entry is added.
allowEmptyOption	Allow Empty Option	Not for Global Variables. <pre><allowEmptyOption>true/false</allowEmptyOption></pre>
allowUnlistedOption	Allow Unlisted Option	Not for Global Variables. <pre><allowUnlistedOption>true/false</allowUnlistedOption></pre>

4.39.5 List Variables - Advanced

List Variables - Advanced support filtering results using business services that the variables belongs to. It is only applicable for **global** and **local** scope variables.

When passing the business services as a request filter for local scope variable, the results will be filtered on the task or triggers, which belongs to the specified business services.

For task and/or trigger scope , business services filter can be ignored.

	Description
URI	http://host_name/uc/resources/variable/listadv
HTTP Method	GET
Description	Retrieves variables details using specific query parameters.
Example URI	• http://localhost:8080/uc/resources/variable/listadv • http://localhost:8080/uc/resources/variable/listadv?variablename=test • http://localhost:8080/uc/resources/variable/listadv?variablename=test&businessServices=A • http://localhost:8080/uc/resources/variable/listadv?variablename=test&scope=task&taskname=task-1 • http://localhost:8080/uc/resources/variable/listadv?variablename=test&scope=trigger&triggername=trigger-1
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
URI Properties	See List Variables - Advanced: URI Parameters .
Example Response	See List Variables - Advanced: XML and JSON Examples .

4.39.5.1 List Variables - Advanced: URI Parameters

Parameter	Description		Specifications	Required
<code>businessServices</code>	n/a	Business Services that this Variable belongs to.	String value of comma separated business service	N
<code>scope</code>	n/a	Type of variable to be returned in the Response.	Valid values (case insensitive): • global • local • task • trigger Default is global.	N
<code>taskname</code>	n/a	If scope is task; Name of task.		Y (if <code>scope</code> = task)

Parameter	Description		Specifications	Required
triggername	n/a	If scope is trigger; Name of the trigger.		Y (if scope = trigger)
variablename	n/a	- If scope is global (or local), and variableName is not specified, all Global (or Local) variables are returned in the Response. - If scope is global (or local), and variableName is specified, all Global (or Local) variables matching that name are returned in the Response.	Wildcards are supported.	N

4.39.5.2 List Variables - Advanced: Example Response

XML Response	JSON Response
XML Response <pre> <variables> <variable exportReleaseLevel="7.2.0.0" exportTable="ops_variable" retainSysIds="true" version="2"> <description>test 1</description> <name>var_1</name> <opswiseGroups> <opswiseGroup>A</opswiseGroup> <opswiseGroup>B</opswiseGroup> </opswiseGroups> <sysId>c4f499ac6a104d3891a5a06398c02fbe</ sysId> <value>test1</value> </variable> </variables> OR <variables> <variable exportReleaseLevel="7.2.0.0" exportTable="ops_variable" > <description>varDescription2</ description> <name>UT_WS_var_2</name> <sysId>164a03300a0a0a6475b497e5d985c1aa</ sysId> </pre>	JSON Response <pre> [{ "description": "test 1", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_variable", "name": "var_1", "opswiseGroups": ["A", "B"], "retainSysIds": true, "sysId": "c4f499ac6a104d3891a5a06398c02fbe", "value": "test1", "version": 2 }] OR [{ "description": "varDescription2", "exportReleaseLevel": "7.2.0.0", </pre>

XML Response	JSON Response
<pre> <taskId>164a02a80a0a0a644fc9a3d6dd33f72b</taskId> <taskName>UT-WS-Task</taskName> <type>Task</type> <value>varVal2</value> </variable> <variable exportReleaseLevel="7.2.0.0" exportTable="ops_variable" > <description /> <name>UT_WS_var_2</name> <sysId>164ea9ff0a0a0a6449f209da49f594c0</ sysId> <triggerId>164ea9a40a0a0a647df8372b88eb2394</ triggerId> <triggerName>UT-WS-Trigger</triggerName> <type>Trigger</type> <value>val</value> </variable> </variables> </pre>	<pre> "exportTable": "ops_variable", "name": "UT_WS_var_2", "sysId": "164a03300a0a0a6475b497e5d985c1aa", "taskId": "164a02a80a0a0a644fc9a3d6dd33f72b", "taskName": "UT-WS-Task", "type": "Task", "value": "varVal2" }, { "description" null, "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_variable", "name": "UT_WS_var_2", "sysId": "164ea9ff0a0a0a6449f209da49f594c0", "triggerId": "164ea9a40a0a0a647df8372b88eb2394", "triggerName": "UT-WS-Trigger", "type": "Trigger", "value": "val" }] </pre>

4.39.6 Modify a Global Variable

	Description
URI	http://host_name/uc/resources/variable
HTTP Method	PUT
Description	Modifies the Global Variable specified by the <code>sysId</code> .
Example URI	http://localhost:8080/uc/resources/variable
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a

	Description
Example Request	See Modify a Global Variable: Example Request , below.
Request Properties	See Global Variable Properties .
Example Response	Status 200 /OK Successfully updated the variable with sysId <sysId> to version <version>.

4.39.6.1 Modify a Global Variable: Example Request

XML Request	JSON Request
XML Request <pre> <variable> <description>description</description> <name>demo_ops_global</name> <opswiseGroups> <opswiseGroup>group 1</opswiseGroup> <opswiseGroup>group 2</opswiseGroup> </opswiseGroups> <sysId>237f9f6c43d2617201b2bd04063f917a</sysId> <value>Global</value> </variable> </pre>	JSON Request <pre> { "description": "description", "name": "demo_ops_global", "opswiseGroups": ["group 1", "group 2"], "sysId": "237f9f6c43d2617201b2bd04063f917a", "value": "Global" } </pre>

4.39.7 Read a Global Variable

	Description
URI	http://host_name/uc/resources/variable
HTTP Method	GET
Description	Retrieves information on a specific Global Variable .
URI Parameters	See Read a Global Variable: URI Parameters , below.
Example URI	http://localhost:8080/uc/resources/variable?variablename=demo_ops_global
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See Read a Global Variable: Example Response , below.
Response Properties	See Global Variable Properties .

4.39.7.1 Read a Global Variable: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
variableid	Unique ID for this Global Variable.		Y (unless variablename is specified)	variablename
variablename	Name used within the Controller to identify this Global Variable.	Maximum 40 alphanumerics.	Y (unless variableid is specified)	variableid

4.39.7.2 Read a Global Variable: Example Response

XML Response	JSON Response
XML Response <pre><variable exportReleaseLevel="7.2.0.0" exportTable="ops_variable" retainSysIds="true" version="1"> <description>description</description> <name>demo_ops_global</name> <opswiseGroups> <opswiseGroup>group 1</opswiseGroup> <opswiseGroup>group 2</opswiseGroup> </opswiseGroups> <sysId>237f9f6c43d2617201b2bd04063f917a< / sysId> <value>Global</value> </variable></pre>	JSON Response <pre>{ "description": "description", "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_variable", "name": "demo_ops_global", "opswiseGroups": ["group 1","group 2"], "sysId": "237f9f6c43d2617201b2bd04063f917a", "retainSysIds": true, "value": "Global", "version": 1 }</pre>

4.39.8 Set Variable

	Description
URI	http://host_name/uc/resources/variable/ops-variable-set
HTTP Method	POST
Description	Sets the specified variable .
Example URI	http://localhost:8080/uc/resources/variable/ops-variable-set
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json

	Description
Produces Content-Type	application/xml, application/json
Example Request	See Set Variables: Request Examples .
Example Response	See Set Variables: Response Examples .
Properties	See Set Variables Properties .

4.39.8.1 Set Variable: Request Examples

XML Request	JSON Request
XML Global Variable <set-variable> <create>true</create> <variable> <name>testGlobalVar</name> <description>testGlobalVar description</description> <value>testGlobalVar val</value> </variable> </set-variable> Task Variable <set-variable> <create>true</create> <scope>task</scope> <task>Timer 60</task> <variable> <description>testTaskVar description</description> <name>testTaskVar</name> <value>testTaskVar val</value> </variable> </set-variable> Trigger Variable <set-variable> <create>true</create> <scope>trigger</scope> <trigger>uc - Mon-Fri 9-5</trigger> <variable> <description>testTriggerVar description</description> <name>testTriggerVar</name> <value>testTriggerVar val</value> </variable> </set-variable>	JSON Global Variable { "create": true, "variable": { "name": "testGlobalVar", "description": "testGlobalVar description", "value": "testGlobalVar val" } } Task Variable { "create": true, "scope": "task", "task": "Timer 60", "variable": { "name": "testTaskVar", "description": "testTaskVar description", "value": "testTaskVar val" } } Trigger Variable { "create": true, "scope": "trigger", "trigger": "uc - Mon-Fri 9-5", "variable": { "name": "testTriggerVar", "description": "testTriggerVar description", "value": "testTriggerVar val" } }

4.39.8.2 Set Variable: Response Examples

XML Response	JSON Response
XML <pre> <command-response> <type>set_variable</type> <success>true</success> <info>Variable testGlobalVar not found., Successfully created variable=testGlobalVar with value=testGlobalVar val.</info> <errors /> </command-response> </pre>	JSON <pre> { "type": "set_variable", "success": true, "info": "Variable testGlobalVar not found., Successfully created variable=testGlobalVar with value=testGlobalVar val.", "errors": "" } </pre>

4.39.8.3 Set Variable Properties

Property	UI Field Name	Description	Specifications	Required
create	n/a	Specification for whether or not to create a variable.	Boolean; Valid values: true/false.	N
description	Description	Description of the variable.		N
exportReleaseLevel	n/a	Universal Controller release that the record was exported from.	read only	N
exportTable	n/a	Record table information.	read only	N
name	Name	Name of the variable.		Y
scope	n/a	Type of variable to be returned in the XML Response.	Valid values: global, task, trigger (case insensitive). Default is global.	N
task	n/a	If <code>scope</code> is task; Name of the task.		Y
trigger	n/a	If <code>scope</code> is trigger; Name of the trigger.		Y
value	Value	Value of the variable.	Maximum = 25000 characters.	Y

4.40 Virtual Resource Web Services

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4.40.1 Overview

Universal Controller supports the following RESTful-based web services for Virtual Resource operations, which are listed alphabetically on this page.

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Formatting specifications for each web service, including details about parameter requirements, are provided.

4.40.2 Create a Virtual Resource

	Description
URI	http://host_name/uc/resources/virtual
HTTP Method	POST
Description	Creates a Virtual Resource .
Example URI	http://localhost:8080/uc/resources/virtual
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See Virtual Resource: XML and JSON Examples .
Properties	See Virtual Resource: Properties .
Example Response	• Status 200 /OK Successfully created the Business Service with sysId {sysId}. • Status 400 /Bad Request Create virtual resource failed. Resource Name must be defined.

4.40.2.1 Virtual Resource: XML and JSON Examples

The [excludeRelated](#) and [retainsSysIds](#) properties are specified as attributes in the XML.

XML	JSON
XML <pre> <virtualResource exportReleaseLevel="7.2.0 .0" exportTable="ops_virtual_resource" retainSysIds="true"> <limit>1</limit> <name>test</name> <opswiseGroups> <opswiseGroup>1</opswiseGroup> </opswiseGroups> <summary>Resource with limit of only 1.< /summary> <sysId>416d78bac0a801c901de14704e00fa75< /sysId> <type>Renewable</type> </virtualResource> </pre>	JSON <pre> { "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_virtual_resource", "limit": 5, "name": "test", "opswiseGroups": ["1"], "retainSysIds": true, "summary": "Resource with limit of only 1.", "sysId": "416d78bac0a801c901de14704e00fa75", "type": "Renewable" } </pre>

4.40.2.2 Virtual Resource Properties

Property	UI Field Name	Description	Specifications	Required
exportReleaseLevel	n/a	Universal Controller release that the record was exported from.	read only	N
exportTable	n/a	Record table information.	read only	N
limit	Resource Limit	Number of resources available for the specific resource type.	Integer; Default is 10.	N
name	Name	Name used within the Controller to identify this Virtual Resource.	Contains a maximum of 40 alphanumeric.	Y

Property	UI Field Name	Description	Specifications	Required
opswiseGroups	Member of Business Services	Business Services that this record belongs to. XML <pre><opswiseGroups> <opswiseGroup>group1</opswiseGroup> <opswiseGroup>group2</opswiseGroup> </opswiseGroups></pre> JSON <pre>"opswiseGroups": ["group1", "group2"]</pre>		N
retainSysIds	n/a	For Create web services; specification for whether or not the web service should persist the sysId property. - If <code>retainSysIds</code> is true and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database. - If <code>retainSysIds</code> is false and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller. Note In XML, <code>retainSysIds</code> is specified as an attribute in the <code><virtualResource></code> element.	Valid values: true/false (default is true).	N
summary	Description	User-defined; description of this record.		N
sysId	N/A	System ID field in the database for a record.	Persisted only if retainSysIds is set to true.	N

Property	UI Field Name	Description	Specifications	Required
type	Resource Type	Type of Virtual Resource.	Valid values: • As String = Renewable, As Value = 1 • As String = Boundary, As Value = 2 • As String = Depletable, As Value = 3 Default is Renewable (1).	N
version	n/a	For Read and List web services; specification of the version being read or listed. Note In XML web services, <code>version</code> is specified as an attribute in the <code><virtualResource></code> element.		Yes

4.40.3 Delete a Virtual Resource

	Description
URI	http://host_name/uc/resources/virtual
HTTP Method	DELETE
Description	Deletes a Virtual Resource .
URI Parameters	See Delete a Virtual Resource: URI Parameters .
Example URI	http://localhost:8080/uc/resources/virtual?resourceid=77171434c0a801c9016d5b2b5d17ddee
Example Response	• Status 200 /OK Virtual Resource deleted successfully. • Status 400 /Bad Request Mutual exclusion violation. Cannot specify <code>resourcename</code> and <code>resourceid</code> at the same time. • Status 404 /Not Found A virtual resource with {name/id} "test" does not exist.

4.40.3.1 Delete a Virtual Resource: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
<code>resourceid</code>	ID used within the Controller to identify this Virtual Resource.	String; URI parameter.	Y (unless <code>resourcename</code> is specified)	<code>resourcename</code>
<code>resourcename</code>	Name used within the Controller to identify this Virtual Resource.	String; URI parameter.	Y (unless <code>resourceid</code> is specified)	<code>resourceid</code>

4.40.4 List Virtual Resources

	Description
URI	http://host_name/uc/resources/virtual/list
HTTP Method	GET
Description	Retrieves information on all Virtual Resources .
URI Parameters	See List Virtual Resources: URI Parameters .
Example URI	http://localhost:8080/uc/resources/virtual/list?name=test*&type=renewable
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Response Example	See List Virtual Resources: XML and JSON Response Examples .
Response Properties	See List Virtual Resources: Response Properties .

4.40.4.1 List Virtual Resources: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
<code>name</code>	Name of this Virtual Resource.	String; URI wild card parameter (that is, <code>test*</code>).	N	<code>resourcename</code>
<code>resourcename</code>	Name of the resource.	Wildcards are supported.	N	<code>name</code>

Parameter	Description	Specifications	Required	Mutually Exclusive With
type	Type of this Virtual Resource.	Valid Values: - As String = Renewable, As Value = 1 - As String = Boundary, As Value = 2 - As String = Depletable, As Value = 3 If type is not specified, it defaults to all types.	N	

4.40.4.2 List Virtual Resources: XML and JSON Response Examples

XML	JSON
XML <pre> <virtual-resources> <virtual-resource> <limit>8</limit> <name>test1</name> <sysId>416d78bac0a801c901de14704e00fa75 </sysId> <type>Renewable</type> <used>1</used> <used-by-tasks> <task> <amount>1</amount> <taskInstanceName>uc - Sleep 60</taskInstanceName> </task> </used-by-tasks> <version>1</version> </virtual-resource> <virtual-resource> <limit>10</limit> <name>test2</name> <sysId>416d78bac0a801c901de14704e00fa76 </sysId> <type>Renewable</type> <used>1</used> <used-by-tasks> <task> <amount>1</amount> <taskInstanceName>uc - Sleep 60</taskInstanceName> </task> </used-by-tasks> <version>1</version> </virtual-resource> </virtual-resources> </pre>	JSON <pre> [{ "limit": 8, "name": "test", "sysId": "416d78bac0a801c901de14704e00fa75", "type": "Renewable", "used": 1, "usedByTasks": [{ "amount": 1, "taskInstanceName": "uc - Sleep 60" }], "version": 1 }, { "limit": 10, "name": "test2", "sysId": "416d78bac0a801c901de14704e00fa76", "type": "Renewable", "used": 1, "usedByTasks": [{ "amount": 1, "taskInstanceName": "uc - Sleep 60" }], "version": 1 }] </pre>

4.40.4.3 List Virtual Resources: Response Properties

Property	UI Field Name	Description
<code>limit</code>	Resource Limit	Number of resources available for the specific resource type.
<code>name</code>	Name	Name used within the Controller to identify this Virtual Resource.
<code>sysId</code>	n/a	System ID field in the database for a record.
<code>type</code>	Resource Type	Type of Virtual Resource.
<code>used</code>	Resource Used	System-supplied if <code>type</code> is Renewable; Number of units currently in use at the time the web service is executed.
<code>used-by-tasks</code>	Currently in Use	List of task instances that have acquired this virtual resource, and the number of units acquired, at the time the web service was executed. Note <code>used-by-tasks</code> is defined as "usedByTasks" in JSON.
<code>version</code>	Version	System-supplied; version number of the virtual resource.

4.40.5 List Virtual Resources - Advanced

	Description
URI	http://host_name/uc/resources/virtual/listadv
HTTP Method	GET
Description	Retrieves information on all Virtual Resources .
URI Parameters	See List Virtual Resources Details: URI Parameters .
Example URI	http://localhost:8080/uc/resources/virtual/listadv?resourceName=test*&type=renewable&businessServices=A
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Response Example	See List Virtual Resources - Advanced: XML and JSON Response Examples .

4.40.5.1 List Virtual Resources - Advanced: URI Parameters

Parameter	Description	Specifications	Required
resourcename	Name of this Virtual Resource.	String; URI wild card parameter (that is, <code>test*</code>).	N
type	Type of this Virtual Resource.	Valid Values: - As String = Renewable, As Value = 1 - As String = Boundary, As Value = 2 - As String = Depletable, As Value = 3 If <code>type</code> is not specified, it defaults to all types.	N
businessServices	Business Services that this Virtual Resource belongs to.	String value of comma-separated Business Services.	N

4.40.5.2 List Virtual Resources - Advanced: XML and JSON Response Examples

XML	JSON
<pre> XML <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <virtualResources> <virtualResource exportReleaseLevel="7.2.0. 0" exportTable="ops_virtual_resource" retainSysIds="true" version="3"> <limit>1</limit> <name>VR-1</name> <opswiseGroups> <opswiseGroup>A</opswiseGroup> </opswiseGroups> <summary>VR test 1</summary> <sysId>10e1664d8fe44a4482c6b6d6a64ecc05</sysId> <type>Renewable</type> </virtualResource> <virtualResource retainSysIds="true" version="2"> <limit>1</limit> <name>VR-2</name> <opswiseGroups> </pre>	<pre> JSON [{ "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_virtual_resource", "limit": 1, "name": "VR-1", "opswiseGroups": ["A"], "retainSysIds": true, "summary": "VR test 1", "sysId": "10e1664d8fe44a4482c6b6d6a64ecc05", "type": "Renewable", "version": 3 }, { "exportReleaseLevel": "7.2.0.0", </pre>

XML	JSON
<pre> <opswiseGroup>B</opswiseGroup> </opswiseGroups> <summary>VR test 2</summary> <sysId>459020efeff3476682be1a6c8df8f799</sysId> <type>Boundary</type> </virtualResource> <virtualResource exportReleaseLevel="7.2.0.0" exportTable="ops_virtual_resource" retainSysIds="true" version="1"> <limit>1</limit> <name>VR-3</name> <opswiseGroups> <opswiseGroup>C</opswiseGroup> </opswiseGroups> <summary>test 3</summary> <sysId>f4bfd4882af24948b6f7abd7baad91b1</sysId> <type>Depletable</type> </virtualResource> </virtualResources> </pre>	<pre> "exportTable": "ops_virtual_resource", "limit": 1, "name": "VR-2", "opswiseGroups": ["B"], "retainSysIds": true, "summary": "VR test 2", "sysId": "459020efeff3476682be1a6c8df8f799", "type": "Boundary", "version": 2 }, { "exportReleaseLevel": "7.2.0.0", "exportTable": "ops_virtual_resource", "limit": 1, "name": "VR-3", "opswiseGroups": ["C"], "retainSysIds": true, "summary": "test 3", "sysId": "f4bfd4882af24948b6f7abd7baad91b1", "type": "Depletable", "version": 1 }] </pre>

4.40.6 Modify a Virtual Resource

	Description
URI	http://host_name/uc/resources/virtual
HTTP Method	PUT
Description	Modifies the Virtual Resource specified by the <code>sysId</code> .
Example URI	http://localhost:8080/uc/resources/virtual
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See Virtual Resource: XML and JSON Examples .
Properties	See Virtual Resource: Properties .
Example Response	Status 200 /OK Successfully updated the virtual resource with sysId <sysId> to version <version>.

4.40.7 Read a Virtual Resource

	Description
URI	http://host_name/uc/resources/virtual
HTTP Method	GET
Description	Retrieves information on a specified Virtual Resource .
Example URI	http://localhost:8080/uc/resources/virtual?resourcename=test
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example	See Virtual Resource: XML and JSON Examples .
Properties	See Virtual Resource: Properties .

4.40.7.1 Read a Virtual Resource: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
resourceid	ID used within the Controller to identify this Virtual Resource.	String; URI parameter.	Y (unless resourcename is specified)	resourcename
resourcename	Name used within the Controller to identify this Virtual Resource.	String; URI parameter.	Y (unless resourceid is specified)	resourceid

4.40.8 Set Limit on a Virtual Resource

	Description
URI	http://host_name/uc/resources/virtual/ops-update-resource-limit
HTTP Method	POST
Description	Updates resource limit for virtual resources .
Example URI	http://localhost:8080/uc/resources/virtual/ops-update-resource-limit
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Set Limit on a Virtual Resource: XML and JSON Examples .
Request Properties	See Set Limit on a Virtual Resource: Request Properties .
Example Response	See Set Limit on a Virtual Resource: XML and JSON Examples .

4.40.8.1 Set Limit on a Virtual Resource: XML and JSON Examples

Example	XML	JSON
Example Request	<pre>XML <virtual-resource> <name>uc - Solo</name> <limit>1</limit> </virtual-resource></pre>	<pre>JSON { "name": "uc - Solo", "limit": 1 }</pre>

Example	XML	JSON
Example Response	<pre>XML <command-response> <type>update_resource_limit</type> <success>true</success> <info>Successfully updated the virtual resource.</info> <errors /> </command-response></pre>	<pre>JSON { "type": "update_resource_limit", "success": true, "info": "Successfully updated virtual resource "uc - Solo" with limit 1. ", "errors": "" }</pre>

4.40.8.2 Set Limit on a Virtual Resource: Request Properties

Property	UI Field Name	Description	Specifications	Required
name	Resource Name	Name used within the Controller to identify this resource.	Maximum 40 alphanumerics.	Y
limit	Resource Limit	Maximum number of units available for this resource.		Y

4.41 Webhooks Web Services

• Overview • Assign an Execution User to a Webhook • Assign an Execution User to a Webhook: Payload Properties • Assign an Execution User to a Webhook: Example Request • Disable a Webhook • Disable a Webhook: Query Parameters • Enable a Webhook • Enable a Webhook: Query Parameters • Enable/Disable Webhooks • Enable/Disable Webhooks: Payload Properties • Enable/Disable a Webhook: XML and JSON Examples • List Webhooks • List Webhooks: Query Parameters • List Webhooks: Example Response • Modify Webhooks • Modify Webhooks: Example Request • Read a Webhook

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4.41.1 Overview

Universal Controller supports the following RESTful-based web services for Webhooks operations, which are listed alphabetically on this page.

- [Assign an Execution User to a Webhook](#)
- [Disable a Webhook](#)
- [Enable a Webhook](#)
- [Enable/Disable Webhooks](#)
- [List Webhooks](#)
- [Modify Webhooks](#)
- [Read a Webhook](#)
- [Register a Webhook](#)
- [Unassign an Execution User from a Webhook](#)
- [Unregister a Webhook](#)

Formatting specifications for each web service, including details about parameter requirements, are provided.

4.41.2 Assign an Execution User to a Webhook

	Description
URI	<code>http://host_name/uc/resources/webhook/assignexecutionuser</code>
HTTP Method	POST
Description	Assigns an Execution User to the specified webhook.
Example URI	http://localhost:8080/uc/resources/webhook/assignexecutionuser?webhookid= http://localhost:8080/uc/resources/webhook/assignExecutionUser?webhookname=
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See Assign an Execution User to a Webhook: Example Request.

	Description
Example Response	- Status 200 /OK Successfully assigned execution user "test" to webhook "testWebhook". - Status 404 /Not Found Assign Execution User failed. You must provide an execution user.

4.41.2.1 Assign an Execution User to a Webhook: Payload Properties

Property	UI Field Name	Description	Specifications	Required
password	n/a	If the user executing this web service does not have the ops_admin role; Password of the Execution User.		Y
username	n/a	Name of the Execution User.	Wildcards are supported.	Y

4.41.2.2 Assign an Execution User to a Webhook: Example Request

XML	JSON
XML <pre><executionUser> <username>test</username> <password>pass1</password> </executionUser></pre>	JSON <pre>{ "username": "test", "password": "pass1" }</pre>

4.41.3 Disable a Webhook

	Description
URI	http://host_name/uc/resources/webhook/enable
HTTP Method	POST
Description	Disables a webhook.
Example URI	http://localhost:8080/uc/resources/webhook/disable
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json

	Description
Example Request	http://localhost:9090/uc/resources/webhook/disable?webhookname= http://localhost:9090/uc/resources/webhook/disable?webhookid=
Example Response	See Enable/Disable a Webhook: XML and JSON Examples .

4.41.3.1 Disable a Webhook: Query Parameters

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
webhookid		ID used within the Controller to identify this webhook.	String; URI parameter.	Y (unless webhookname is specified)	webhookname
webhookname	Name	Name used within the Controller to identify this webhook.	String; URI parameter.	Y (unless webhookid is specified)	webhookid

4.41.4 Enable a Webhook

	Description
URI	http://host_name/uc/resources/webhook/enable
HTTP Method	POST
Description	Enables a webhook.
Example URI	http://localhost:8080/uc/resources/webhook/enable
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Request	http://localhost:9090/uc/resources/webhook/enable?webhookname= http://localhost:9090/uc/resources/webhook/enable?webhookid=
Example Response	See Enable/Disable a Webhook: XML and JSON Examples .

4.41.4.1 Enable a Webhook: Query Parameters

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>webhookid</code>		ID used within the Controller to identify this webhook.	String; URI parameter.	Y (unless <code>webhookname</code> is specified)	<code>webhookname</code>
<code>webhookname</code>	Name	Name used within the Controller to identify this webhook.	String; URI parameter.	Y (unless <code>webhookid</code> is specified)	<code>webhookid</code>

4.41.5 Enable/Disable Webhooks

	Description
URI	<code>http://host_name/uc/resources/webhook/ops-enable-disable-webhook</code>
HTTP Method	POST
Description	Enables/Disables a list of webhooks.
Example URI	http://localhost:8080/uc/resources/webhook/ops-enable-disable-webhook
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Enable/Disable a Webhook: XML and JSON Examples.
Example Response	See Enable/Disable a Webhook: XML and JSON Examples.

4.41.5.1 Enable/Disable Webhooks: Payload Properties

Property	UI Field Name	Description
<code>webhook</code>	n/a	There are two attributes for this property: <code>enable</code>: Indication of whether to enable or disable the webhook. Only enabled webhooks are processed by the Controller. Boolean; Valid values: <code>true/false</code>. <code>name</code>: Name used within the Controller to identify this webhook. Maximum of 100 alphanumeric. For example: <code><webhook enable="true" name="test-1"></webhook></code>

4.41.5.2 Enable/Disable a Webhook: XML and JSON Examples

	XML	JSON
Example Request	<pre><enable-disable-webhook> <webhook enable="true" name="test-1"></webhook> <webhook enable="false" name="test-3"></webhook> </enable-disable-webhook></pre>	<pre>[{ "enable": true, "name": "test-1" }, { "enable": false, "name": "test-3" }]</pre>
Example Response	<pre><command-response> <type>Enable/Disable Webhooks</ type> <success>true</success> <info>Successfully disabled Webhook "test-3"., Successfully enabled Webhook "test-1".</info> <errors></errors> </command-response></pre>	<pre>{ "type": "Enable/Disable Webhooks", "success": true, "info": "Successfully disabled Webhook \"test-3\"., Successfully enabled Webhook \"test-1\".", "errors": "" }</pre>

4.41.6 List Webhooks

	Description
URI	http://host_name/uc/resources/webhook/list
HTTP Method	GET
Description	List webhook registrations.
Example URI	http://localhost:8080/uc/resources/webhook/list?webhookname= http://localhost:8080/uc/resources/webhook/list?action= http://localhost:8080/uc/resources/webhook/list?description=
Authentication	HTTP Basic
Produces Content-Type	application/xml, application/json
Consumes Content-Type	n/a
Example Responses	List Webhook: XML and JSON Examples.

4.41.6.1 List Webhooks: Query Parameters

Property	UI Field Name	Description	Specifications	Required
webhookname	Name	Name used within the Controller to identify this webhook.	String; URI parameter.	N
description	Description	User-defined; description of this record.	String; URI parameter.	N
action	Action	Type of Action.	String; URI parameter.	N
businessServices	Member of Business Services	Business Services that this record belongs to.	String; URI parameter.	N
event	Event	Event name.	String; URI parameter.	N
taskname	Task	Task name.	String; URI parameter.	N

4.41.6.2 List Webhooks: Example Response

XML	JSON
XML <pre> <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <webhooks> <webhook exportReleaseLevel="7.7.0.0" exportTable="ops_webhook"> <action>Url</action> <eventBusinessServiceCriteria>Member of Specific Business Services or Unassigned</ eventBusinessServiceCriteria> <eventBusinessServices> <businessService>X</businessService> <businessService>Y</businessService> <businessService>Z</businessService> </eventBusinessServices> <credentials>web-serv-1</credentials> <description /> <disabledBy>ops.admin</disabledBy> <disabledTime>2023-03-15 15:34:24 -0400</ disabledTime> <enabledBy></enabledBy> <enabledTime></enabledTime> <event label="UAC - Agent Changed">uac_agent_changed</event> <executionUser /> <filter> <criterion> <name>name</name> <operator>CONTAINS</operator> <value>test1</value> </criterion> <logicalOperator>And</ logicalOperator> </filter> <httpAuth>Basic</httpAuth> <httpHeaders> <httpHeader> <name>B</name> <value>123</value> </httpHeader> </httpHeaders> <name>test-1</name> <opswiseGroups> <opswiseGroup>A</opswiseGroup> </opswiseGroups> <status>Disabled</status> <statusDescription></statusDescription> </pre>	JSON <pre> [{ "action": "Url", "credentials": "web-serv-1", "description": null, "disabledBy": "ops.admin", "disabledTime": "2023-03-15 15:34:24 -0400", "enabledBy": "", "enabledTime": "", "event": { "label": "UAC - Agent Changed", "value": "uac_agent_changed" }, "eventBusinessServiceCriteria": "Member of Specific Business Services or Unassigned", "eventBusinessServices": ["X", "Y", "Z"], "executionUser": null, "exportReleaseLevel": "7.7.0.0", "exportTable": "ops_webhook", "filter": { "criteria": [{ "type": "criterion", "name": "name", "operator": "CONTAINS", "value": "test1" }], "logicalOperator": "And" }, "httpAuth": "Basic", "httpHeaders": [{ "name": "B", </pre>

XML	JSON
<pre> <sysId>401b83365dcd48cf8a8518849dfb28c4</ sysId> <taskname /> <url>test</url> <urlParameters> <urlParameter> <name>A</name> <value>abc</value> </urlParameter> </urlParameters> </webhook> <webhook exportReleaseLevel="7.7.0.0" exportTable="ops_webhook"> <action>Url</action> <eventBusinessServiceCriteria>Member of Specific Business Services or Unassigned</ eventBusinessServiceCriteria> <eventBusinessServices> <businessService>X</businessService> <businessService>Y</businessService> <businessService>Z</businessService> </eventBusinessServices> <credentials>web-serv-1</credentials> <description /> <disabledBy>ops.admin</disabledBy> <disabledTime>2023-03-15 14:00:59 -0400</ disabledTime> <enabledBy></enabledBy> <enabledTime></enabledTime> <event label="UAC - Agent Changed">uac_agent_changed</event> <executionUser /> <filter> <criterion> <name>name</name> <operator>CONTAINS</operator> <value>test1</value> </criterion> <logicalOperator>And</ logicalOperator> </filter> <httpAuth>Basic</httpAuth> <httpHeaders> <httpHeader> <name>X</name> <value>123</value> </httpHeader> </httpHeaders> <name>test-2</name> <opswiseGroups/> <status>Disabled</status> <statusDescription></statusDescription> <sysId>bb0bf1ae08cb4ac3a8df69bc5548281c</ sysId> </pre>	<pre> "value": "123" }], "name": "test-1", "opswiseGroups": ["A"], "status": "Disabled", "statusDescription": "", "sysId": "401b83365dcd48cf8a8518849dfb28c4", "taskname": null, "url": "test", "urlParameters": [{ "name": "A", "value": "abc" }] }, { "action": "Url", "credentials": "web-serv-1", "description": null, "disabledBy": "ops.admin", "disabledTime": "2023-03-15 14:00:59 -0400", "enabledBy": "", "enabledTime": "", "event": { "label": "UAC - Agent Changed", "value": "uac_agent_changed" }, "eventBusinessServiceCriteria": "Member of Specific Business Services or Unassigned", "eventBusinessServices": ["X", "Y", "Z"], "executionUser": null, "exportReleaseLevel": "7.7.0.0", "exportTable": "ops_webhook", "filter": { "criteria": [{ "type": "criterion", "name": "name", </pre>

XML	JSON
<pre> <task /> <url>test</url> <urlParameters> <urlParameter> <name>A</name> <value>abc</value> </urlParameter> </urlParameters> </webhook> </webhooks> </pre>	<pre> "operator": "CONTAINS", "value": "test1" },], "logicalOperator": "And" }, "httpAuth": "Basic", "httpHeaders": [{ "name": "X", "value": "123" }], "name": "test-2", "opswiseGroups": [], "status": "Disabled", "statusDescription": "", "sysId": "bb0bf1ae08cb4ac3a8df69bc5548281c", "taskname": null, "url": "test", "urlParameters": [{ "name": "A", "value": "abc" }] }] </pre>

4.41.7 Modify Webhooks

	Description
URI	http://host_name/uc/resources/webhook
HTTP Method	PUT
Description	Modify a webhook.
Example URI	http://localhost:8080/uc/resources/webhook
Authentication	HTTP Basic
Payload Properties	See Register a Webhook: Payload Properties .
Produces Content-Type	application/xml, application/json
Consumes Content-Type	application/xml, application/json

	Description
Example Responses	• Status 200 • Successfully updated the resourcename with id {uuid}. • Status 400 • Error message. • Status 403 • Operation prohibited due to security constraints. • Status 404 • A resourcename with name "{name}" does not exist. • A resourcename with id "{uuid}" does not exist. • Status 500 • Unexpected request failure. See log(s) for more details.

4.41.7.1 Modify Webhooks: Example Request

XML	JSON
XML <pre> <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <webhook exportReleaseLevel="7.7.0.0" exportTable="ops_webhook" retainSysIds="true"> <action>Launch Task</action> <eventBusinessServiceCriteria>Member of Specific Business Services or Unassigned</ eventBusinessServiceCriteria> <eventBusinessServices> <businessService>X</businessService> <businessService>Y</businessService> <businessService>Z</businessService> </eventBusinessServices> <description>test 1</description> <disabledBy /> <disabledTime></disabledTime> <enabledBy /> <enabledTime></enabledTime> <event label="UAC - Property Changed">uac_property_changed</event> <executionUser /> <filter> <criterion> <name>name</name> <operator>CONTAINS</operator> <value>Suspended</value> </criterion> <logicalOperator>And</ logicalOperator> </filter> <name>test-1</name> <opswiseGroups> <opswiseGroup>A</opswiseGroup> <opswiseGroup>B</opswiseGroup> </opswiseGroups> <status /> <sysId>63eacfe0b0534768ab7b5bef49212276</ sysId> <taskname>Sleep 0</taskname> <url /> </webhook> </pre>	JSON <pre> { "action": "Launch Task", "description": "test 1", "disabledBy": null, "disabledTime": "", "enabledBy": null, "enabledTime": "", "event": { "label": "UAC - Property Changed", "value": "uac_property_changed" }, "eventBusinessServiceCriteria": "Member of Specific Business Services or Unassigned", "eventBusinessServices": ["X", "Y", "Z"], "executionUser": null, "exportReleaseLevel": "7.7.0.0", "exportTable": "ops_webhook", "filter": { "criteria": [{ "type": "criterion", "name": "name", "operator": "CONTAINS", "value": "Suspended" }], "logicalOperator": "And" }, "name": "test-1", "opswiseGroups": ["A", "B"], "retainSysIds": true, "status": null, "sysId": "63eacfe0b0534768ab7b5bef49212276", "taskname": "Sleep 0", "url": null } </pre>

4.41.8 Read a Webhook

	Description
URI	<code>http://host_name/uc/resources/webhook</code>
HTTP Method	GET
Description	Read webhook registration.
Example URI	http://localhost:8080/uc/resources/webhook?webhookid= http://localhost:8080/uc/resources/webhook?webhookname=
Authentication	HTTP Basic
Produces Content-Type	application/xml, application/json
Consumes Content-Type	n/a
Example Responses	See Read a Webhook: Example Response, below.

4.41.8.1 Read a Webhook: Query Parameters

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>webhookid</code>		ID used within the Controller to identify this webhook.	String; URI parameter.	Y (unless <code>webhookname</code> is specified)	<code>webhookname</code>
<code>webhookname</code>	Name	Name used within the Controller to identify this webhook.	String; URI parameter.	Y (unless <code>webhookid</code> is specified)	<code>webhookid</code>

4.41.8.2 Read a Webhook: Example Response

XML	JSON
XML <pre> <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <webhook exportReleaseLevel="7.7.0.0" exportTable="ops_webhook" retainSysIds="true"> <action>Url</action> <eventBusinessServiceCriteria>Member of Specific Business Services or Unassigned</ eventBusinessServiceCriteria> <eventBusinessServices> <businessService>X</businessService> <businessService>Y</businessService> <businessService>Z</businessService> </eventBusinessServices> <credentials>web-serv-1</credentials> <description /> <disabledBy>ops.admin</disabledBy> <disabledTime>2023-03-15 15:34:24 -0400</ disabledTime> <enabledBy></enabledBy> <enabledTime></enabledTime> <event label="UAC - Agent Changed">uac_agent_changed</event> <executionUser /> <filter> <criterion> <name>name</name> <operator>CONTAINS</operator> <value>test1</value> </criterion> <logicalOperator>And</ logicalOperator> </filter> <httpAuth>Basic</httpAuth> <httpHeaders> <httpHeader> <name>B</name> <value>123</value> </httpHeader> </httpHeaders> <name>test-1</name> <opswiseGroups> <opswiseGroup>A</opswiseGroup> </opswiseGroups> <status>Disabled</status> <statusDescription></statusDescription> </pre>	JSON <pre> { "action": "Url", "credentials": "web-serv-1", "description": null, "disabledBy": "ops.admin", "disabledTime": "2023-03-15 15:34:24 -0400", "enabledBy": "", "enabledTime": "", "event": { "label": "UAC - Agent Changed", "value": "uac_agent_changed" }, "eventBusinessServiceCriteria": "Member of Specific Business Services or Unassigned", "eventBusinessServices": ["X", "Y", "Z"], "executionUser": null, "exportReleaseLevel": "7.7.0.0", "exportTable": "ops_webhook", "filter": { "criteria": [{ "type": "criterion", "name": "name", "operator": "CONTAINS", "value": "test1" }], "logicalOperator": "And" }, "httpAuth": "Basic", "httpHeaders": [{ "name": "B", "value": "123" }], "name": "test-1", "opswiseGroups": ["A"], </pre>

XML	JSON
<pre> <sysId>401b83365dcd48cf8a8518849dfb28c4</sysId> <taskname/> <url>test</url> <urlParameters> <urlParameter> <name>A</name> <value>abc</value> </urlParameter> </urlParameters> </webhook> </pre>	<pre> { "retainSysIds": true, "status": "Disabled", "statusDescription": "", "sysId": "401b83365dcd48cf8a8518849dfb28c4", "taskname": null, "url": "test", "urlParameters": [{ "name": "A", "value": "abc" }] } </pre>

4.41.9 Register a Webhook

	Description
URI	<code>http://host_name/uc/resources/webhook</code>
HTTP Method	POST
Description	Register a webhook.
Example URI	http://localhost:8080/uc/resources/webhook
Authentication	HTTP Basic
Produces Content-Type	application/xml, application/json
Consumes Content-Type	application/xml, application/json
Example Request	See Register a Webhook: Example Request, below.
Example Responses	- Status 200 - Successfully created the webhook with id {uuid}. - Status 400 - Error message. - Status 403 - Operation prohibited due to security constraints. - Status 404 - A webhook with name "{name}" does not exist. - A webhook with id "{uuid}" does not exist. - Status 500 - Unexpected request failure. See log(s) for more details.

4.41.9.1 Register a Webhook: Payload Properties

Property	UI Field Name	Description	Specifications	Required
name	Webhook Name	Name of the Webhook.		Y
description	Description	User-defined; description of this record.		N
opswiseGroups	Member of Business Services	Business Services that this record belongs to. XML <pre><opswiseGroups> <opswiseGroup>group1</opswiseGroup> <opswiseGroup>group2</opswiseGroup> </opswiseGroups></pre> JSON <pre>"opswiseGroups": ["group1","group2"]</pre>		N
retainSysIds	n/a	Specification for whether or not the Create a Webhook web service will persist the sysId property. - If retainSysIds="true" and sysId is included in the request/response, sysId will be persisted to the database. - If retainSysIds="false" and sysId is included in the request/response, sysId will be ignored; it will be autogenerated by the Controller. Note In XML web services, retainSysIds is specified as an attribute in the <webhook> element.	Valid values: true/false (default is true).	N
action	Action	Type of Action to perform	Valid Values: - As String = URL, As Value = 1 - As String = Launch Task, As Value = 2 Default is URL (1).	Y

Property	UI Field Name	Description	Specifications	Required
event	Event	Universal Event Template name. XML <pre><event label="Test Event A">test_event_a</event></pre> JSON <pre>"event": { "label": "Test Event A", "value": "test_event_a" }</pre> Only system level event templates will be allowed.	The label is included when reading a Webhook; however, it is ignored when creating/updating a Webhook.	Y
url	URL	full URL of the action to be executed. (Including parameters)		Y (if action = Url)
taskname	Task	Task of the action to be executed. (Including parameters)		Y (if action = Launch Task)
httpAuth	HTTP Authentication	HTTP authentication scheme to use.	Valid values: - As String = None, As Value = 0 - As String = Basic, As Value = 1 Default is None (0).	N
credentials	Credentials	Credentials to be used to authenticate.		N

Property	UI Field Name	Description	Specifications	Required
httpHeaders	HTTP Headers	HTTP headers.	Format: <pre> <httpHeaders> <httpHeader> <name>header1</ name> <value>val1</ value> </httpHeader> <httpHeader> <name>header2</ name> <value>val2</ value> </httpHeader> </httpHeaders> </pre>	N
urlParameters	URL Query Parameters	Any query parameters to be encoded as a query string and appended to the URL.	Format: <pre> <urlParameters> <urlParameter> <name>param1</ name> <value>value1</value> </urlParameter> <urlParameter> <name>param2</ name> <value>value2</value> </urlParameter> </urlParameters> </pre>	N
filter	Event Attribute Criteria	Universal Event criteria to execute the Webhook.		N
eventBusinessServiceCriteria	Event Business Service Criteria	Specifies the type of business service filtering to apply when monitoring on Universal Events.	Valid values (case-insensitive): - As String = Member of Any Business Service or Unassigned, As Value = 1 - As String = Member of Specific Business Services or Unassigned, As Value = 2 - As String = Member of Specific Business Services, As Value = 3 - As String = Unassigned, As Value = 4 Default is Member of Any Business Service or Unassigned (1).	N

Property	UI Field Name	Description	Specifications	Required
eventBusinessServices	Event Member of Business Services	Specifies one or more business services to filter on when Event Business Service Criteria is one of the following. - Member of Specific Business Services or Unassigned - Member of Specific Business Services	Format: XML <pre><eventBusinessServices> <businessService>A</businessService> <businessService>B</businessService> </eventBusinessServices></pre> JSON <pre>"eventBusinessServices": ["A", "B"]</pre>	

4.41.9.2 Register a Webhook: Example Request

XML Request	JSON Request
XML <pre><?xml version="1.0" encoding="UTF-8" standalone="yes"?> <webhook exportReleaseLevel="7.7.0.0" exportTable="ops_webhook" retainSysIds="true"> <action>Url</action> <eventBusinessServiceCriteria>Member of Specific Business Services or Unassigned</ eventBusinessServiceCriteria> <eventBusinessServices> <businessService>X</businessService> <businessService>Y</businessService> <businessService>Z</businessService> </eventBusinessServices> <credentials>web-serv-1</credentials> <description /> <disabledBy>ops.admin</disabledBy> <disabledTime>2023-03-15 15:34:24 -0400</ disabledTime> <enabledBy></enabledBy> <enabledTime></enabledTime> <event label="UAC - Agent Changed">uac_agent_changed</event> <executionUser /> <filter> <criterion> <name>name</name> <operator>CONTAINS</operator> <value>test1</value> </criterion> <logicalOperator>And</ logicalOperator> </filter> <httpAuth>Basic</httpAuth> <httpHeaders> <httpHeader> <name>B</name> <value>123</value> </httpHeader> </httpHeaders> <name>test-1</name> <opswiseGroups> <opswiseGroup>A</opswiseGroup> </opswiseGroups> <status>Disabled</status> <statusDescription></statusDescription></pre>	JSON <pre>{ "action": "Url", "credentials": "web-serv-1", "description": null, "disabledBy": "ops.admin", "disabledTime": "2023-03-15 15:34:24 -0400", "enabledBy": "", "enabledTime": "", "event": { "label": "UAC - Agent Changed", "value": "uac_agent_changed" }, "eventBusinessServiceCriteria": "Member of Specific Business Services or Unassigned", "eventBusinessServices": ["X", "Y", "Z"], "executionUser": null, "exportReleaseLevel": "7.7.0.0", "exportTable": "ops_webhook", "filter": { "criteria": [{ "type": "criterion", "name": "name", "operator": "CONTAINS", "value": "test1" }], "logicalOperator": "And" }, "httpAuth": "Basic", "httpHeaders": [{ "name": "B", "value": "123" }], "name": "test-1", "opswiseGroups": ["A"], }</pre>

XML Request	JSON Request
<pre> <sysId>401b83365dcd48cf8a8518849dfb28c4</sysId> <taskname/> <url>test</url> <urlParameters> <urlParameter> <name>A</name> <value>abc</value> </urlParameter> </urlParameters> </webhook> </pre>	<pre> { "retainSysIds": true, "status": "Disabled", "statusDescription": "", "sysId": "401b83365dcd48cf8a8518849dfb28c4", "taskname": null, "url": "test", "urlParameters": [{ "name": "A", "value": "abc" }] } </pre>

4.41.10 Unassign an Execution User from a Webhook

	Description
URI	<code>http://host_name/uc/resources/webhook/unassignexecutionuser</code>
HTTP Method	POST
Description	Unassigns an Execution User to the specified webhook.
Example URI	http://localhost:8080/uc/resources/webhook/unassignexecutionuser?webhookid=http://localhost:8080/uc/resources/webhook/unassignExecutionUser?webhookname=
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Response	Status 200 /OK Successfully unassigned execution user "test" to webhook "testWebhook".

4.41.10.1 Unassign an Execution User from a Webhook: Query Parameters

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>webhookid</code>		ID used within the Controller to identify this webhook.	String; URI parameter.	Y (unless <code>webhookname</code> is specified)	<code>webhookname</code>
<code>webhookname</code>	Name	Name used within the Controller to identify this webhook.	String; URI parameter.	Y (unless <code>webhookid</code> is specified)	<code>webhookid</code>

4.41.11 Unregister a Webhook

	Description
URI	<code>http://host_name/uc/resources/webhook</code>
HTTP Method	DELETE
Description	Unregister a webhook.
Example URI	http://localhost:8080/uc/resources/webhook?webhookname= http://localhost:8080/uc/resources/webhook?webhookid=
Authentication	HTTP Basic
Example Responses	Webhook deleted successfully.

4.41.11.1 Unregister a Webhook: Query Parameters

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>webhookid</code>		ID used within the Controller to identify this webhook.	String; URI parameter.	Y (unless <code>webhookname</code> is specified)	<code>webhookname</code>
<code>webhookname</code>	Name	Name used within the Controller to identify this webhook.	String; URI parameter.	Y (unless <code>webhookid</code> is specified)	<code>webhookid</code>

5 RESTful Web Services UAC CLI

- [What is the RESTful Web Services UAC Command Line Interface?](#)
- [How does the UAC CLI work?](#)
- [Benefits of Using UAC CLI](#)

5.1 What is the RESTful Web Services UAC Command Line Interface?

The UAC Command Line Interface (UAC CLI) is a tool that enables you to interact with UAC services using commands in your command-line shell. With minimal configuration, the UAC CLI can implement functionality equivalent to that provided by the browser-based Universal Controller Web Interface, by running commands in your terminal:

- **Linux Shells:** Run commands seamlessly in commonly used Linux shell environments.
- **Windows Command Line:** Execute commands via the Windows Command Prompt or PowerShell.

5.2 How does the UAC CLI work?

The UAC CLI communicates with the Universal Controller through the [RESTful Web Services API](#), covering the vast majority of API operations. This enables robust interactions with server functionalities, while simplifying access for both developers and technical users.

5.3 Benefits of Using UAC CLI

- **Simplified Access to Server Functionality**
 - Interact directly with the server's API without needing to craft manual HTTP requests or rely on third-party tools
 - Use straightforward, human-readable commands to perform complex API operations
- **Improved Developer Productivity**
 - Explore UAC service capabilities quickly and efficiently
 - Lower the learning curve for users unfamiliar with API integrations
 - Automate repetitive tasks with easy-to-use commands and options
- **Scripting and Automation**
 - Integrate CLI commands into scripts for batch processing, CI pipelines, and automated deployments
- **Broad Accessibility**
 - Empower technical users, including system administrators, to perform tasks without requiring in-depth knowledge of REST APIs

Discover more about UAC CLI, including detailed usage guides, examples, and advanced functionality by visiting our [UAC CLI Documentation](#).