



**stonebranch**

Universal Controller 7.4.x

Connections

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1. Connections	3
1.1 Connections Overview	3
1.2 Email Connections	3
1.2.1 Copying Email Connections	9
1.3 Database Connections	11
1.3.1 Copying Database Connections	14
1.4 SAP Connections	16
1.4.1 Copying SAP Connections	21
1.5 PeopleSoft Connections	23
1.5.1 Copying PeopleSoft Connections	25

# Connections



Overview

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[Connections Overview](#)



Types of Connections

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[Email Connections](#)

[Database Connections](#)

[PeopleSoft Connections](#)

[SAP Connections](#)



The information on these pages also is located in the [Universal Controller 7.2.x Resources.pdf](#).

## Connections Overview

Universal Controller Connections are records that provide server information required by Universal Controller.

<a href="#">Email Connections</a>	Provide email server information required for the Controller to send an email.
<a href="#">Database Connections</a>	Provide database server information required for running <a href="#">SQL tasks</a> and <a href="#">Stored Procedure tasks</a> .
<a href="#">SAP Connections</a>	Provide SAP server information required for running <a href="#">SAP tasks</a> .
<a href="#">PeopleSoft Connections</a>	Provide PeopleSoft server information required for running <a href="#">PeopleSoft tasks</a> .

## Email Connections

- [Overview](#)
- [Creating an Email Connection](#)
  - [Email Connection Details](#)
  - [Email Connection Details Field Descriptions](#)

### Overview

Email connections provide all of the email server information necessary for Universal Controller to send emails.

Email connections are used these ways within the Controller:

- An **Email Task** uses the Email connection to generate emails independent of tasks.
- An **Email Notification** uses the Email connection to generate notifications related to tasks.
- **Agents, OMS Servers, and Cluster Nodes** use the Email connection to generate email notifications.
- **System Operations** use Email connections to generate system notifications.

Email Connections can receive Email Notifications when:

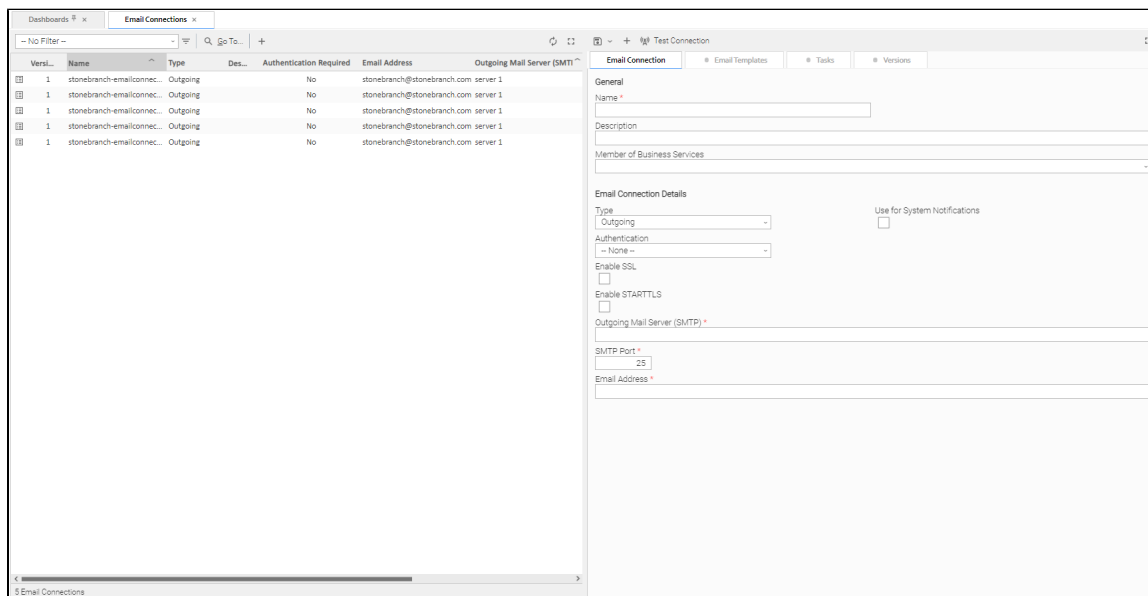
- An **Agent** or **OMS Server** goes down or comes back up.
- A **Cluster Node** goes Offline or becomes Active.
- An **Email Notification** is associated with a task.

**Note**  
 Email Notifications on Cluster Nodes cannot be exported; therefore, they cannot be imported. You must set up new Email Notifications for Cluster Nodes whenever an **export / import** has been run.

### Creating an Email Connection

Step 1

From the **Agents & Connections** navigation pane, select **System > Email Connections**. The Email Connections list displays. Below the list, Email Connection Details for a new Email Connection displays.



Step 2


Enter / select Details for a new Email Connection, using the **field descriptions** below as a guide.

- Required fields display an asterisk ( \* ) after the field name.
- Default values for fields, if available, display automatically.

To display more of the Details fields on the screen, you can either:

- Use the scroll bar.
- Temporarily **hide the list** above the Details.
- Click the **+** button above the list to display a pop-up version of the Details.

Step 3

Click a  button. The Email Connection is added to the database, and all buttons and tabs in the Email Connection Details are enabled.

**Note**  
 To **open** an existing record on the list, either:

- Click a record in the list to display its record Details below the list. (To clear record Details below the list, click the **New** button that displays above and below the Details.)
- Clicking the [Details icon](#) next to a record name in the list, or right-click a record in the list and then click **Open** in the [Action menu](#) that displays, to display a pop-up version of the record Details.
- Right-click a record in the a list, or open a record and right-click in the record Details, and then click **Open In Tab** in the [Action menu](#) that displays, to display the record Details under a new tab on the record list page (see [Record Details as Tabs](#)).

## Email Connection Details

The following Email Connection Details is for an existing Email Connection. See the [field descriptions](#), below, for a description of all fields that display in the Email Connection Details.

- [ ] x
Email Connection Details: stonebranch-emailconnection-01

Test Connection
[refresh]

Email Connection
● Email Templates
● Tasks
● Versions

**General**

Name \* Version

stonebranch-emailconnection-01 1

Description

Member of Business Services

**Email Connection Details**

Type Use for System Notifications

Outgoing

Authentication

-- None --

Enable SSL

Enable STARTTLS

Outgoing Mail Server (SMTP) \*

server 1

SMTP Port \*

25

Email Address \*

stonebranch@stonebranch.com

For information on how to access additional details - such as [Metadata](#) and complete [database Details](#) - for Email Connections (or any type of record), see [Records](#).

## Email Connection Details Field Descriptions

The following table describes the fields, buttons, and tabs that display in the Email Connection Details.

Field Name	Description
<b>Details</b>	This section contains detailed information about the Email Connection.
Name	Name (maximum 40 alphanumeric characters) used within the Controller to identify this resource. It is the responsibility of the user to develop a workable <a href="#">naming scheme</a> for resources.

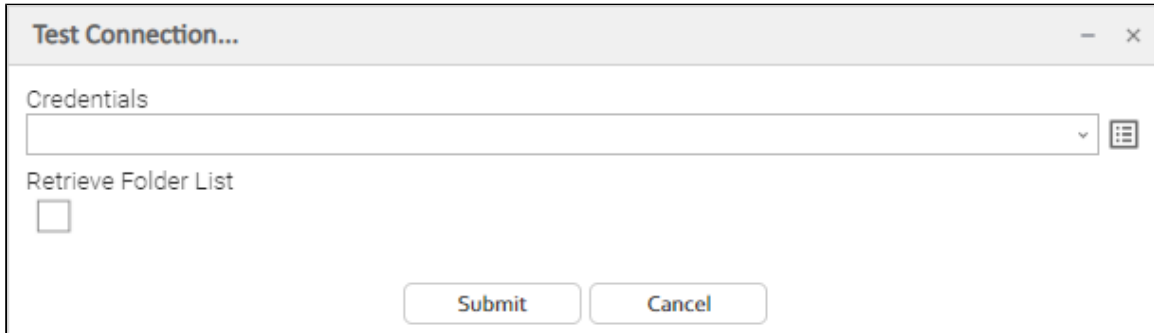
Version	System-supplied; version number of the current record, which is incremented by the Controller very time a user updates a record. Click the <a href="#">Versions</a> tab to view previous versions. For details, see <a href="#">Record Versioning</a> .
Description	Description of this record. (Maximum = 255 characters.)
Member of Business Services	User-defined; Allows you to select one or more <a href="#">Business Services</a> that this record belongs to. (You also can Check All or Uncheck All Business Services for this record.)  You can select up to 62 Business Services for any record type, and enter a maximum of 2048 characters for each Business Service.  If the <a href="#">Business Service Visibility Restricted</a> Universal Controller system property is set to true, depending on your assigned (or inherited) <a href="#">Permissions</a> or <a href="#">Roles</a> , Business Services available for selection may be restricted.
Type	Type of Email Connection:  Options: <ul style="list-style-type: none"><li>• Outgoing</li><li>• Incoming</li></ul> Default is Outgoing.
Outgoing Mail Server (SMTP)	If <a href="#">Type</a> is Outgoing; Name or IP address of the outgoing email server.
SMTP Port	If <a href="#">Type</a> is Outgoing; <a href="#">Port</a> on the machine where the outgoing email server resides.
Incoming Mail Server (IMAP)	If <a href="#">Type</a> is Incoming; Name or IP address of the incoming email server.
IMAP Port	If <a href="#">Type</a> is Incoming; <a href="#">Port</a> on the machine where the incoming email server resides.
Enable SSL	Enables SSL/TLS connectivity for your server.
Enable STARTTLS	Enables the use of the <b>STARTTLS</b> command (if supported by the server) 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. )
Email Address	If <a href="#">Type</a> is Outgoing; Email address of the sender.  <div style="border: 1px solid red; padding: 10px;"><b>Warning</b> If the selected sender email address is invalid, or becomes invalid at any time after you create an Email Connection, all <a href="#">Email Notifications</a> that specify that Email Connection will fail, but no warning will be issued. You must click the <a href="#">Test Connection</a> button to test the Email Connection, which will generate an error message in the <a href="#">Console</a>.</div>
Authentication	Specifies method of authentication. <ul style="list-style-type: none"><li>• If <a href="#">Type</a> is Outgoing; – None –</li><li>• Password</li><li>• OAuth 2.0</li></ul>
User Name	If <a href="#">Type</a> is Outgoing and Authentication is Password or OAuth 2.0 or <a href="#">Type</a> is Incoming and Authentication is OAuth 2.0.; user name that the Controller will use to connect to the server.
Password	If <a href="#">Type</a> is Outgoing and Authentication is Password; password that the Controller will use to connect to the server.  (This field is cleared if the Email Connection is <a href="#">copied</a> .)

OAuth Client	<p>If Authentication is OAuth 2.0, the <a href="#">OAuth Client</a> used to authorize the email connection.</p> <div style="border: 1px solid #c8e6c9; padding: 10px; margin-top: 10px;"> <p>Click the details icon next to the OAuth Client field to create a new OAuth Client or view a selected OAuth Client's definition.</p> </div>
Use for System Notifications	<p>If <a href="#">Type</a> is Outgoing; Indicates whether or not this Email Connection is to be used for <a href="#">system notifications</a>. (This field is set to false if the Email Connection is <a href="#">copied</a>.)</p> <div style="border: 1px solid #ffcdd2; padding: 10px; margin-top: 10px;"> <p><b>Note</b> Only one Email Connection can be used for system notifications. If this field is checked in an Email Connection Details, it will appear unchecked on all other Email Connection Details. If you then check this field in another Email Connection Details, it automatically will be unchecked from the Details in which it had been checked.</p> </div>
Trash Folder	<p>If <a href="#">Type</a> is Incoming; Folder to use for deleted emails.</p>
<b>Metadata</b>	<p>This section contains <a href="#">Metadata</a> information about this record.</p>
UUID	<p>Universally Unique Identifier of this record.</p>
Updated By	<p>Name of the user that last updated this record.</p>
Updated	<p>Date and time that this record was last updated.</p>
Created By	<p>Name of the user that created this record.</p>
Created	<p>Date and time that this record was created.</p>
<b>Buttons</b>	<p>This section identifies the buttons displayed above and below the Email Connection Details that let you perform various actions.</p>
<b>Save</b>	<p>Saves a new Email Connection record in the Controller database.</p>
<b>Save &amp; New</b>	<p>Saves a new record in the Controller database and redisplay empty Details so that you can create another new record.</p>
<b>Save &amp; View</b>	<p>Saves a new record in the Controller database and continues to display that record.</p>
<b>New</b>	<p>Displays empty (except for default values) Details for creating a new record.</p>
<b>Update</b>	<p>Saves updates to the record.</p>

**Test Connection**

After saving the record to the database, click **Test Connection** to run a connection test.

If the Email Connection Type is Incoming, clicking **Test Connection** causes a Test Connection... pop-up dialog to display



The following table describes the fields on the Test Connection... dialog:

Field	Description
Credentials	<a href="#">Credentials</a> to be used to connect to the Email server.
Retrieve Folder List	Enabling this field instructs the Controller to retrieve a list of all the Folders within the connected User's mailbox.

**Test Connection** dialog will only show **Credentials** field if Authentication is Password.

**Authorize**

After saving the record to the database, click **Authorize** to authorize the connection.

The **Authorize** button will change to **Reauthorize** once the Email Connection has been authorized. Reauthorize allows you to renew your consent if the access token is invalid or it has expired and cannot be refreshed.

The Authorize button will only be shown if Authentication is OAuth 2.0. Email Connections using OAuth 2.0 authentication need to be authorized before they can be used.

**Copy**

Creates a [copy](#) of this Email Connection, which you are prompted to rename.

**Delete**

Deletes the current record.

**Refresh**

Refreshes any dynamic data displayed in the Details.

**Close**

For pop-up view only; closes the pop-up view of this Email Connection.

**Tabs**

This section identifies the tabs across the top of the Email Connection Details that provide access to additional information about the Email Connection.

For an Agent-Only installation of Universal Controller, the Email Templates and Tasks tabs do not display.

**Email Templates**

Provides a list of Email Templates that specify this Email Connection, and lets you create a new Email Template with its Email Connection field pre-populated with this Email Connection.

This tab is enabled only if the Email Connection [Type](#) = Outgoing.

<b>Tasks</b>	<p>Provides a list of <a href="#">Email</a> tasks (for <a href="#">Outgoing</a> Email Connections) and <a href="#">Email Monitor</a> tasks (for <a href="#">Incoming</a> Email Connections).</p> <p>It also lets you create a new Email task (from the Email Tasks list), or a new Email Monitor Task (from the Email Monitor Tasks list), with its Email Connection field pre-populated with this Email Connection.</p>
<b>Versions</b>	<p>Stores copies of all previous versions of the current record. See <a href="#">Record Versioning</a>.</p>

## Copying Email Connections

- [Overview](#)
- [Copying One or More Email Connections from an Email Connections List](#)
- [Copying an Email Connection from the Email Connection Details](#)
- [Copy Permissions](#)

### Overview

You can make copies of all Universal Controller records, including Email Connections, using the standard method for [Copying a Record](#): selecting **Insert** on the [Action menu](#).

However, you also can use the Copy action on the Email Connections [Action menu](#) or the Copy button in the Email Connections Details.

#### Note

If you use the Copy action or Copy button to copy an Email Connection, the [Password](#) field is cleared and the [Use for System Notifications](#) field is set to false in the Email Connection copy.

### Copying One or More Email Connections from an Email Connections List

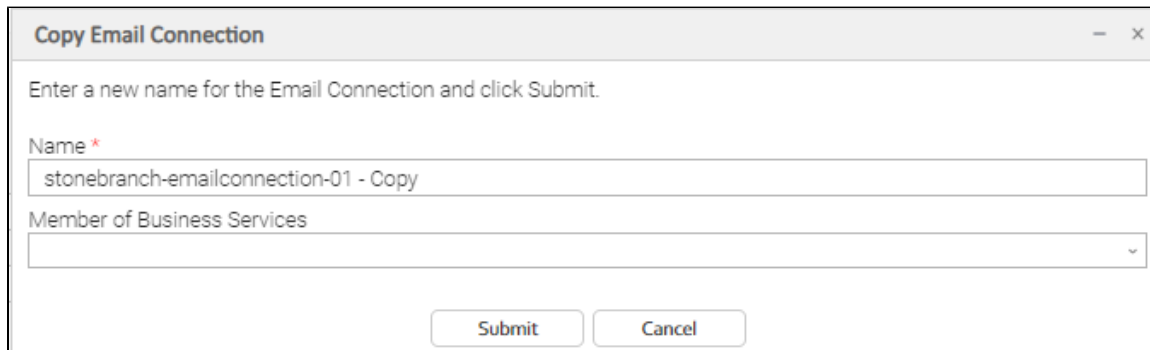
<b>S t e p 1</b>	From the <a href="#">Agents &amp; Connections</a> navigation pane, select <b>System &gt; Email Connections</b> to display the Email Connections list.
<b>S t e p 2</b>	Locate the Email Connection(s) you want to copy (see <a href="#">Filtering</a> ).

Step 3

Copy the Email Connection(s):

### Copy One Email Connection

1. Right-click the **Email Connection Name**.
2. On the [Action menu](#), select **Copy**. A Copy Email Connection pop-up dialog displays.



3. Enter a new name for the Email Connection and, optionally, select any [Business Services](#) that you want the Email Connection assigned to
4. Click **Submit** to create a copy of the Email Connection.

### Copy Multiple Email Connections

1. Ctrl-Click the Email Connections you want to copy.
2. Right-click any of the selected Email Connections.
3. On the [Action menu](#), select **Copy**.
4. On the Confirmation pop-up that displays, click **OK**. The copied Email Connections are added to the list, with **- Copy** added as a suffix to the Email Connection Name for each Email Connection. If an Email Connection with that **- Copy** name already exists, another copy is not created.

## Copying an Email Connection from the Email Connection Details

Step 1

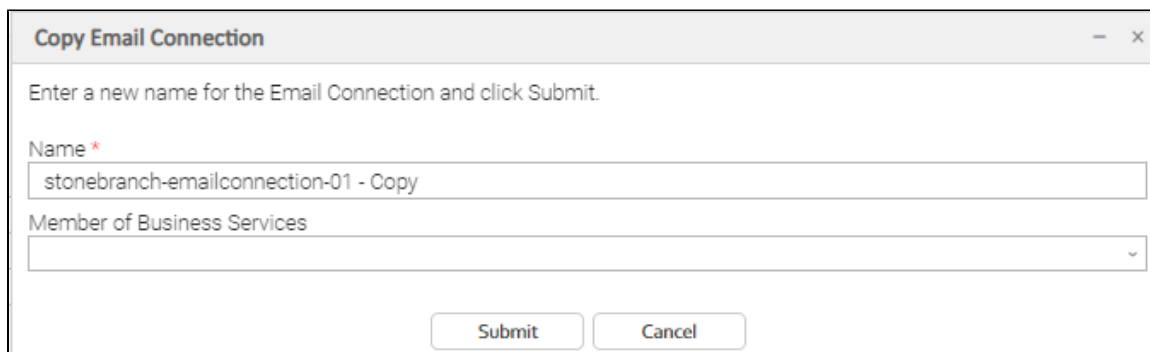
Select an Email Connection from the Email Connection list. The [Email Connection Details](#) for that Email Connection displays.

Step 2

Either:

- Click the **Copy** button.
- Right-click the Details to display the [Action menu](#), and then click **Copy**.

A Copy Email Connection pop-up dialog displays.



Step 3

Enter a new name for the Email Connection and, optionally, select any [Business Services](#) that you want the Email Connection assigned to.

**S** Click **Submit** to create a copy of the Email Connection.

**t**  
**e**  
**p**  
**4**

## Copy Permissions

To copy an Email Connection, you must have both Read [permission](#) and Copy command permission for the Email Connection you are copying, in addition to having Create permission for the copied Email Connection.

## Database Connections

- [Overview](#)
- [Creating a Database Connection](#)
- [Database Connection Details](#)
- [Database Connection Details Field Descriptions](#)

### Overview

Database Connections provide all database server information required for Universal Controller to execute an [SQL task](#) or a [Stored Procedure Task](#).

Database Connections can receive Email Notifications when:

- An [Agent](#) or [OMS Server](#) goes down or comes back up.
- A [Cluster Node](#) goes Offline or becomes Active.

### Creating a Database Connection

**S** From the [Agents & Connections](#) navigation pane, select **System > Database Connections**. The Database Connections list displays.

**t** Below the list, Database Connection Details for a new Database Connection displays.

**p**  
**1**


The screenshot shows the 'Database Connections' page in a web application. On the left, there is a table with columns: 'Vers...', 'Name', 'Description', 'Member of Business Services', 'Database Type', and 'Creden'. The table lists five connections with names like 'stonebranch-databaseconnection-01' through '05'. On the right, there is a 'Database Connection' details panel with tabs for 'Details', 'SQL Tasks', 'Stored Procedure Tasks', and 'Versions'. The 'Details' tab is active, showing fields for 'Name \*', 'Description', 'Member of Business Services', 'Database Type' (set to 'MySQL'), 'Connection URL' (set to 'jdbc:mysql://cserver-vport3306x/database'), 'Driver' (set to 'com.mysql.cj.jdbc.Driver'), and 'Maximum Rows' (set to '100').

**S** Enter / select Details for a new Database Connection, using the [field descriptions](#) below as a guide.

**t**  
**e**  
**p**  
**2**

- Required fields display an asterisk ( \* ) after the field name.
- Default values for fields, if available, display automatically.

To display more of the Details fields on the screen, you can either:

- Use the scroll bar.
- Temporarily [hide the list](#) above the Details.
- Click the  button above the list to display a pop-up version of the Details.

**S**  
**t**  
**e**  
**p**  
**3**

Click a  button. The Database Connection is added to the database, and all buttons and tabs in the Database Connection Details are er

**Note**

To [open](#) an existing record on the list, either:

- Click a record in the list to display its record Details below the list. (To clear record Details below the list, click the **New** button that displays above and below the Details.)
- Clicking the [Details icon](#) next to a record name in the list, or right-click a record in the list and then click **Open** in the [Action menu](#) that displays, to display a pop-up version of the record Details.
- Right-click a record in the a list, or open a record and right-click in the record Details, and then click **Open In Tab** in the [Action menu](#) that displays, to display the record Details under a new tab on the record list page (see [Record Details as Tabs](#)).

## Database Connection Details

The following Database Connection Details is for an existing Database Connection. See the [field descriptions](#), below, for a description of all fields that display in the Database Connection Details.

The screenshot shows a web application window titled "Database Connection Details: stonebranch-databaseconnection-01". It features a tabbed interface with tabs for "Database Connection", "SQL Tasks", "Stored Procedure Tasks", and "Versions". The "Database Connection" tab is active, displaying a "Details" section with the following fields:

- Name \***: stonebranch-databaseconnection-01
- Version**: 2
- Description**: (empty text area)
- Member of Business Services**: (empty dropdown menu)
- Database Type**: MySQL (dropdown menu)
- Credentials**: build1 (dropdown menu)
- Connection URL \***: jdbc:mysql://<server>:<port3306>/<database>
- Driver \***: com.mysql.jdbc.Driver
- Maximum Rows**: 100

For information on how to access additional details - such as [Metadata](#) and complete [database Details](#) - for Database Connections (or any type of record), see [Records](#).

## Database Connection Details Field Descriptions

The following table describes the fields, buttons, and tabs that display in the Database Connection Details.

Field Name	Description
<b>Details</b>	This section contains detailed information about the Database Connection.
Name	Name (maximum 40 alphanumeric characters) used within the Controller to identify this resource. It is the responsibility of the user to develop a workable <a href="#">naming scheme</a> for resources.
Version	System-supplied; version number of the current record, which is incremented by the Controller every time a user updates a record. Click the <a href="#">Versions</a> tab to view previous versions. For details, see <a href="#">Record Versioning</a> .
Description	Description of this record. (Maximum = 255 characters.)

Member of Business Services	<p>User-defined; Allows you to select one or more <a href="#">Business Services</a> that this record belongs to. (You also can Check All or Uncheck All Business Services for this record.)</p> <p>You can select up to 62 Business Services for any record type, and enter a maximum of 2048 characters for each Business Service.</p> <p>If the <a href="#">Business Service Visibility Restricted</a> Universal Controller system property is set to true, depending on your assigned (or inherited) <a href="#">Permissions</a> or <a href="#">Roles</a>, Business Services available for selection may be restricted.</p>
Database Type	<p>Type of database.</p> <p>Options:</p> <ul style="list-style-type: none"> <li>• <a href="#">MySQL</a></li> <li>• MS SQL Server</li> <li>• Oracle</li> <li>• DB2</li> <li>• Sybase SQL Anywhere</li> <li>• Other</li> </ul> <div data-bbox="261 695 1479 842" style="border: 1px solid #ccc; padding: 10px; margin-top: 10px;"> <p><b>Note</b> When using the database type <b>Other</b>, you will need to source the JDBC driver from your database vendor. Simply place the JDBC driver .jar file into the <code>\$CATALINA_HOME/webapps/uc/WEB-INF/lib</code> directory and restart Tomcat. Format the <b>Connection URL</b> and <b>Driver</b> fields per the database vendor's documentation.</p> </div> <div data-bbox="261 863 1479 1146" style="border: 1px solid #ccc; padding: 10px; margin-top: 10px;"> <p><b>Note</b> Customers have reported difficulty establishing secure SQL connections using the jTDS open source JDBC driver for Microsoft SQL Server (<b>Driver=net.sourceforge.jtds.jdbc.Driver</b>) when SSL/TLS is enabled on the server.</p> <p>We have received feedback that the issue can be resolved by installing a patched version of the jTDS driver from bug report <a href="https://sourceforge.net/p/jtds/bugs/725/">https://sourceforge.net/p/jtds/bugs/725/</a>.</p> <p>Stonebranch only bundles the official jTDS release, currently 1.3.1, with the Universal Controller.</p> <p>We do not include unofficial patches, and if you decide to use them, you do so at your own risk.</p> </div>
Credentials	<p>Credentials for this Database Connection. Click the Details icon to create a new Credentials record, or select an existing Credentials record from the drop-down list.</p>
Connection URL	<p>URL of the database. <a href="#">Variables</a> supported.</p> <div data-bbox="261 1356 1479 1430" style="border: 1px solid #ccc; padding: 10px; margin-top: 10px;"> <p><a href="#">Variables</a> might not resolve correctly if the user does not have Read Permission on the variable.</p> </div> <p>If you are using a MySQL database and want the ability to issue multiple SQL commands from a single task, you need to enable this by appending the following string to the end of the connection string:</p> <div data-bbox="302 1528 1443 1581" style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <pre>?allowMultiQueries=true</pre> </div> <p>For example:</p> <div data-bbox="302 1650 1443 1703" style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <pre>jdbc:mysql://localhost:3306/uc?allowMultiQueries=true</pre> </div>
Driver	<p>Name of the JDBC driver.</p>
Maximum Rows	<p>If necessary, specifies a limit to the number of rows you want returned by the SQL statement.</p>
Metadata	<p>This section contains <a href="#">Metadata</a> information about this record.</p>

UUID	Universally Unique Identifier of this record.
Updated By	Name of the user that last updated this record.
Updated	Date and time that this record was last updated.
Created By	Name of the user that created this record.
Created	Date and time that this record was created.
<b>Buttons</b>	This section identifies the buttons displayed above and below the Database Connection Details that let you perform various actions.
<b>Save</b>	Saves a new Database Connection record in the Controller database.
<b>Save &amp; New</b>	Saves a new record in the Controller database and redisplay empty Details so that you can create another new record.
<b>Save &amp; View</b>	Saves a new record in the Controller database and continues to display that record.
<b>New</b>	Displays empty (except for default values) Details for creating a new record.
<b>Update</b>	Saves updates to the record.
<b>Test Connection</b>	After saving the record to the database, click <b>Test Connection</b> to run a connection test.
<b>Copy</b>	Creates a <a href="#">copy</a> of this Database Connection, which you are prompted to rename.
<b>Delete</b>	Deletes the current record.
<b>Refresh</b>	Refreshes any dynamic data displayed in the Details.
<b>Close</b>	For pop-up view only; closes the pop-up view of this Database Connection.
<b>Tabs</b>	This section identifies the tabs across the top of the Database Connection Details that provide access to additional information about the Database Connection.
<b>SQL Tasks</b>	Lists all SQL tasks that are using this Database Connection.
<b>Stored Procedure Tasks</b>	Lists all Stored Procedure tasks that are using this Database Connection.
<b>Versions</b>	Stores copies of all previous versions of the current record. See <a href="#">Record Versioning</a> .

## Copying Database Connections

- [Overview](#)
- [Copying One or More Database Connections from a Database Connections List](#)
- [Copying a Database Connection from the Database Connection Details](#)
- [Copy Permissions](#)

### Overview

You can make copies of all Universal Controller records, including Database Connections, using the standard method for [Copying a Record](#): selecting **Insert** on the [Action menu](#).

However, you also can use the Copy action on the Database Connections [Action menu](#) or the Copy button in the Database Connections Details.

## Copying One or More Database Connections from a Database Connections List

Step 1

From the [Agents & Connections](#) navigation pane, select **System > Database Connections** to display the Database Connections list.

Step 2

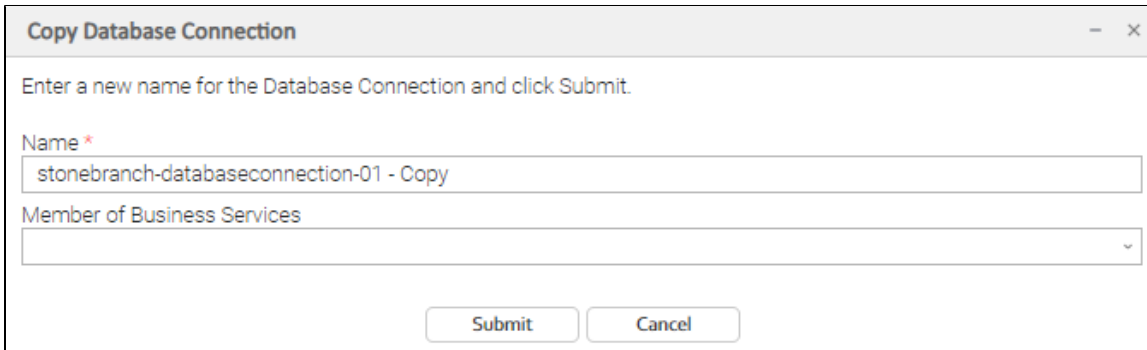
Locate the Database Connection(s) you want to copy (see [Filtering](#)).

Step 3

Copy the Database Connection(s):

### Copy One Database Connection

1. Right-click the **Database Connection Name**.
2. On the [Action menu](#), select **Copy**. A Copy Database Connection pop-up dialog displays.



3. Enter a new name for the Database Connection and, optionally, select any [Business Services](#) that you want the Database Connection assigned to.
4. Click **Submit** to create a copy of the Database Connection.

### Copy Multiple Database Connections

1. Ctrl-Click the Database Connections you want to copy.
2. Right-click any of the selected Database Connections.
3. On the [Action menu](#), select **Copy**.
4. On the Confirmation pop-up that displays, click **OK**. The copied Database Connections are added to the list, with **-Copy** added as a suffix to the Database Connection Name for each Database Connection. If a Database Connection with that **-Copy** name already exists, another copy is not created.

## Copying a Database Connection from the Database Connection Details

Step 1

Select a Database Connection from the Database Connections list. The [Database Connection Details](#) for that Database Connection displays

Step 2

Either:

- Click the **Copy** button.
- Right-click the Details to display the [Action menu](#), and then click **Copy**.

A Copy Database Connection pop-up dialog displays.

**Copy Database Connection**

Enter a new name for the Database Connection and click Submit.

Name \*

stonebranch-databaseconnection-01 - Copy

Member of Business Services

Submit Cancel

Step 3

Enter a new name for the Database Connection and, optionally, select any [Business Services](#) that you want the Database Connection assigned to.

Step 4

Click **Submit** to create a copy of the Database Connection.

## Copy Permissions

To copy a Database Connection, you must have both Read [permission](#) and Copy command permission for the Database Connection you are copying, in addition to having Create permission for the copied Database Connection.

## SAP Connections

- [Overview](#)
- [Creating an SAP Connection](#)
  - [SAP Connection Details](#)
  - [SAP Connection Details Field Descriptions](#)

### Overview

SAP Connections provide all the SAP server information necessary for Universal Controller to execute an [SAP Task](#) on an SAP system. These instructions assume the user is familiar with SAP.

### Creating an SAP Connection

**S** From the [Agents & Connections](#) navigation pane, select **System > SAP Connections**. The SAP Connections list displays.

**t** Below the list, SAP Connection Details for a new SAP Connection displays.

**e**

**p**

**1**

The screenshot shows the SAP Connections interface. On the left, there is a table with columns: Name, Connection Type, Description, Updated By, and Updated. The table contains five entries, all with 'Specific Application Server' as the connection type and 'oss.admin' as the updated by user. On the right, the 'SAP Connection' details form is displayed, showing fields for Name, Description, Member of Business Services, Connection Type, Application Server, System Number, Gateway, Gateway Service, Single Sign-On Ticket, X.509 Certificate, SAProuter, SNC Options, SNC Mode, SNC Library, SNC My Name, SNC Partner Name, and SNC Quality of Protection.

**S** Enter / select Details for a new SAP Connection, using the [field descriptions](#) below as a guide.


**t**

**e**

**2**

- Required fields display an asterisk ( \* ) after the field name.
- Default values for fields, if available, display automatically.

To display more of the Details fields on the screen, you can either:

- Use the scroll bar.
- Temporarily [hide the list](#) above the Details.
- Click the  button above the list to display a pop-up version of the Details.


**S**

**t**

**e**

**p**

**3**

Click a  button. The SAP Connection is added to the database, and all buttons and tabs in the SAP Connection Details are enabled.

#### Note

To [open](#) an existing record on the list, either:

- Click a record in the list to display its record Details below the list. (To clear record Details below the list, click the **New** button that displays above and below the Details.)
- Clicking the [Details icon](#) next to a record name in the list, or right-click a record in the list and then click **Open** in the [Action menu](#) that displays, to display a pop-up version of the record Details.
- Right-click a record in the a list, or open a record and right-click in the record Details, and then click **Open In Tab** in the [Action menu](#) that displays, to display the record Details under a new tab on the record list page (see [Record Details as Tabs](#)).

#### SAP Connection Details

The following SAP Connection Details is for an existing SAP Connection. See the [field descriptions](#), below, for a description of all fields that display in the SAP Connection Details.

SAP Connection Details: stonebranch-sapconnection-01
- ☐ ×

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🔄

SAP Connection
SAP Tasks
Versions

**Details**

Name \*  Version

Description

Member of Business Services

Connection Type  Client \*

Application Server \*

System Number \*

Gateway

Gateway Service

Single Sign-On Ticket

X.509 Certificate

SAProuter

**SNC Options**

SNC Mode

SNC Library

SNC My Name

SNC Partner Name

SNC Quality Of Protection  SNC Single Sign-On

For information on how to access additional details - such as [Metadata](#) and complete [database Details](#) - for SAP Connections (or any type of record), see [Records](#).

**SAP Connection Details Field Descriptions**

The following table describes the fields, buttons, and tabs that display in the SAP Connection Details.

Field Name	Description
<b>Details</b>	This section contains detailed information about the SAP Connection.
Name	Name (maximum 40 alphanumeric characters) used within the Controller to identify this resource. It is the responsibility of the user to develop a workable <a href="#">naming scheme</a> for resources.

Version	System-supplied; version number of the current record, which is incremented by the Controller every time a user updates a record. Click the <a href="#">Versions</a> tab to view previous versions. For details, see <a href="#">Record Versioning</a> .
Description	Description of this record. (Maximum = 255 characters.)
Member of Business Services	User-defined; Allows you to select one or more <a href="#">Business Services</a> that this record belongs to. (You also can Check All or Uncheck All Business Services for this record.)  You can select up to 62 Business Services for any record type, and enter a maximum of 2048 characters for each Business Service.  If the <a href="#">Business Service Visibility Restricted</a> Universal Controller system property is set to true, depending on your assigned (or inherited) <a href="#">Permissions</a> or <a href="#">Roles</a> , Business Services available for selection may be restricted.
Connection Type	Type of SAP connection.  Options: <ul style="list-style-type: none"> <li>• <b>Specific Application Server</b> Connection to a specific SAP application server (type A RFC connection).</li> <li>• <b>Load Balancing</b> Connection to an SAP system where the application server is determined by load balancing (type B RFC connection).</li> </ul>
Application Server	If <a href="#">Connection Type</a> = Specific Application Server; ASHOST parameter; 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.
Client	CLIENT parameter; SAP Client number. This field is not required if <a href="#">Connection Type</a> is <b>Load Balancing</b> .  <div style="border: 1px solid #f0e68c; padding: 10px; margin: 10px 0;"> <p><b>Note</b> Originally, the Client field was not available for a <b>Load Balancing</b> Connection Type; therefore, you may have applied the CLIENT parameter on each SAP task as an SAP Command option or used a "destination" connection via the <code>sapnwrfc.ini</code> file. For this reason, the Client field is optional when the Connection Type is <b>Load Balancing</b> even though. normally, you would want to specify it.</p> </div>
System Number	If <a href="#">Connection Type</a> = Specific Application Server; SYSNR parameter.
Gateway	If <a href="#">Connection Type</a> = Specific Application Server; GWHOST parameter; Host name of the SAP gateway.
Gateway Service	If <a href="#">Connection Type</a> = Specific Application Server; GWSERV parameter; Service name of the SAP gateway.
System ID	If <a href="#">Connection Type</a> = Load Balancing; R3NAME/SYSID parameter; System ID of the SAP system to which you want to connect.
Message Server	If <a href="#">Connection Type</a> = Load Balancing; MSHOST parameter; Host name of the message server.
Group	If <a href="#">Connection Type</a> = Load Balancing; GROUP parameter; Application servers group name.
Use Symbolic Names	If <a href="#">Connection Type</a> = Load Balancing; USE_SYMBOLIC_NAMES parameter; Specification for whether or not to use symbolic service names.  Options: <ul style="list-style-type: none"> <li>• No</li> <li>• Yes</li> </ul>
Single Sign-On Ticket	Path to a file that contains the actual value for the MYSAPSSO2 parameter.

X.509 Certificate	Path to a file that contains the actual value for the X509CERT parameter.
SAPRouter	SAPROUTER parameter.
<b>SNC Options</b>	This section contains detailed information about the SAP Secure Network Communications (SNC).
SNC Mode	SNC_MODE parameter; Specification for whether or not SNC is activated.  Options: <ul style="list-style-type: none"> <li>• Off</li> <li>• On</li> </ul>
SNC Library	SNC_LIB parameter; Path to the third-party security library for SNC.
SNC My Name	SNC_MYNAME parameter; Token/identifier representing the external RFC program.
SNC Partner Name	SNC_PARTNERNAME parameter; Token/identifier representing the back-end system.
SNC Quality of Protection	SNC_QOP parameter; Quality of protection level.  Options: <ul style="list-style-type: none"> <li>• Authentication Only</li> <li>• Integrity Protection</li> <li>• Privacy Protection</li> <li>• Default Protection</li> <li>• Maximum Protection</li> </ul>
SNC Single Sign-On	SNC_SSO parameter; Specification for whether or not to use single sign-on for SNC.  Options: <ul style="list-style-type: none"> <li>• No</li> <li>• Yes</li> </ul>
<b>Buttons</b>	This section identifies the buttons displayed above and below the SAP Connection Details that let you perform various actions.
<b>Save</b>	Saves a new SAP Connection record in the Controller database.
<b>Save &amp; New</b>	Saves a new record in the Controller database and redisplay empty Details so that you can create another new record.
<b>Save &amp; View</b>	Saves a new record in the Controller database and continues to display that record.
<b>New</b>	Displays empty (except for default values) Details for creating a new record.
<b>Update</b>	Saves updates to the record.
<b>Copy</b>	Creates a <a href="#">copy</a> of this SAP Connection, which you are prompted to rename.
<b>Delete</b>	Deletes the current record.
<b>Refresh</b>	Refreshes any dynamic data displayed in the Details.
<b>Close</b>	For pop-up view only; closes the pop-up view of this SAP Connection.
<b>Tabs</b>	This section identifies the tabs across the top of the SAP Connection Details that provide access to additional information about the SAP Connection.

<b>SAP Tasks</b> tab	Lists all <a href="#">SAP tasks</a> that use this SAP connection.
<b>Versions</b> tab	Stores copies of all previous versions of the current record. See <a href="#">Record Versioning</a> .

## Copying SAP Connections

- [Overview](#)
- [Copying One or More SAP Connections from an SAP Connections List](#)
- [Copying an SAP Connection from the SAP Connection Details](#)
- [Copy Permissions](#)

### Overview

You can make copies of all Universal Controller records, including SAP Connections, using the standard method for [Copying a Record](#): selecting **I**[n](#)[s](#)[e](#)[r](#)[t](#) on the [Action menu](#).

However, you also can use the Copy action on the SAP Connections [Action menu](#) or the Copy button in the SAP Connections Details.

### Copying One or More SAP Connections from an SAP Connections List

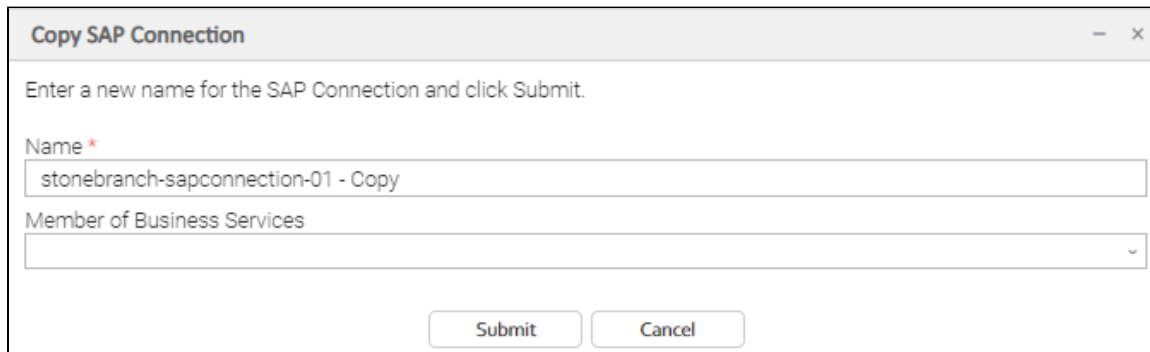
<b>S</b> <b>t</b> <b>e</b> <b>p</b> <b>1</b>	From the <a href="#">Agents &amp; Connections</a> navigation pane, select <b>System &gt; SAP Connections</b> to display the SAP Connections list.
<b>S</b> <b>t</b> <b>e</b> <b>p</b> <b>2</b>	Locate the SAP Connections(s) you want to copy (see <a href="#">Filtering</a> ).

Step 3

Copy the SAP Connection(s):

### Copy One SAP Connection

1. Right-click the **SAP Connection Name**.
2. On the [Action menu](#), select **Copy**. A Copy SAP Connection pop-up dialog displays.



3. Enter a new name for the SAP Connection and, optionally, select any [Business Services](#) that you want the SAP Connection assigned to.
4. Click **Submit** to create a copy of the SAP Connection.

### Copy Multiple SAP Connections

1. Ctrl-Click the SAP Connections you want to copy.
2. Right-click any of the selected SAP Connections.
3. On the [Action menu](#), select **Copy**.
4. On the Confirmation pop-up that displays, click **OK**. The copied SAP Connections are added to the list, with **- Copy** added as a suffix to the SAP Connection Name for each SAP Connection. If an SAP Connection with that **- Copy** name already exists, another copy is not created.

## Copying an SAP Connection from the SAP Connection Details

Step 1

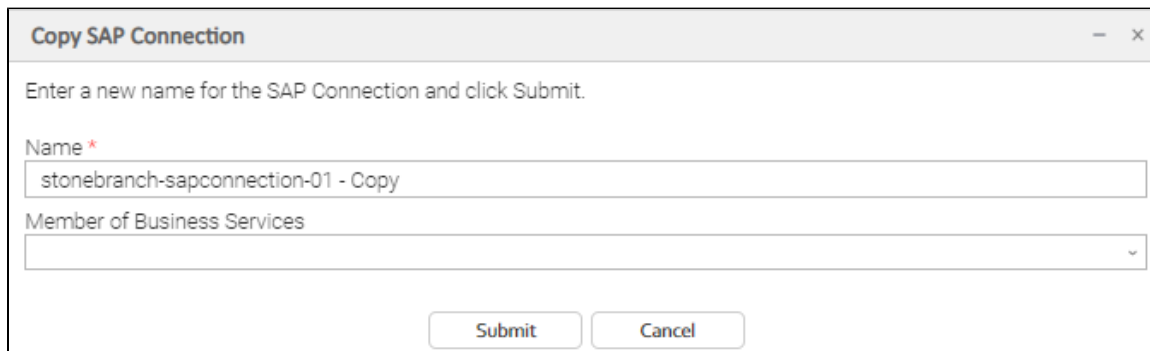
Select an SAP Connection from the SAP Connections list. The [SAP Connection Details](#) for that SAP Connection displays.

Step 2

Either:

- Click the **Copy** button.
- Right-click the Details to display the [Action menu](#), and then click **Copy**.

A Copy SAP Connection pop-up dialog displays.



Step 3

Enter a new name for the SAP Connection and, optionally, select any [Business Services](#) that you want the SAP Connection assigned to.

**S** Click **Submit** to create a copy of the SAP Connection.

**t**  
**e**  
**p**  
**4**

## Copy Permissions

To copy an SAP Connection, you must have both Read [permission](#) and Copy command permission for the SAP Connection you are copying, in addition to having Create permission for the copied SAP Connection.

## PeopleSoft Connections

- [Overview](#)
- [Creating a PeopleSoft Connection](#)
  - [PeopleSoft Connection Details](#)
  - [PeopleSoft Connection Details Field Descriptions](#)

### Overview

PeopleSoft Connections provide all the PeopleSoft server information necessary for Universal Controller to execute a [PeopleSoft task](#) on a PeopleSoft system. These instructions assume the user is familiar with PeopleSoft.

### Creating a PeopleSoft Connection

**S** From the [Agents & Connections](#) navigation pane, select **System > PeopleSoft Connections**. The PeopleSoft Connections list displays.

To the right of the list, PeopleSoft Connection Details for a new PeopleSoft Connection displays.

**t**  
**e**  
**p**  
**1**


Version	Name	Credentials	Description	Endpoint	Member
1	stonebranch-peoplesoftconnection-01			1	
1	stonebranch-peoplesoftconnection-02			1	
1	stonebranch-peoplesoftconnection-03			1	
1	stonebranch-peoplesoftconnection-04			1	
1	stonebranch-peoplesoftconnection-05			1	

**S** Enter / select Details for a new PeopleSoft Connection, using the [field descriptions](#) below as a guide.

**t**  
**e**  
**p**  
**2**

- Required fields display an asterisk ( \* ) after the field name.
- Default values for fields, if available, display automatically.

To display more of the Details fields on the screen, you can either:

- Use the scroll bar.
- Temporarily [hide the list](#) above the Details.
- Click the  button above the list to display a pop-up version of the Details.

**S**  
**t**  
**e**  
**p**  
**3**

Click a  button. The PeopleSoft Connection is added to the database, and all buttons and tabs in the PeopleSoft Connection Details are

### Note

To [open](#) an existing record on the list, either:

- Click a record in the list to display its record Details below the list. (To clear record Details below the list, click the **New** button that displays above and below the Details.)

- Clicking the [Details icon](#) next to a record name in the list, or right-click a record in the list and then click **Open** in the [Action menu](#) that displays, to display a pop-up version of the record Details.
- Right-click a record in the a list, or open a record and right-click in the record Details, and then click **Open In Tab** in the [Action menu](#) that displays, to display the record Details under a new tab on the record list page (see [Record Details as Tabs](#)).

## PeopleSoft Connection Details

The following PeopleSoft Connection Details is for an existing PeopleSoft Connection. See the [field descriptions](#), below, for a description of all fields that display in the PeopleSoft Connection Details.

The screenshot shows a browser window titled "PeopleSoft Connection Details: stonebranch-peoplesoftconnection-01". The interface includes a breadcrumb trail with tabs for "PeopleSoft Connection", "PeopleSoft Tasks", and "Versions". The "Details" section contains the following fields:

- Name \***: stonebranch-peoplesoftconnection-01
- Version**: 1
- Description**: (empty text box)
- Member of Business Services**: (empty dropdown menu)
- Server \***: upps.stone.branch
- Port**: (empty text box)
- Endpoint \***: upps.stone.branch:8080
- Credentials**: (empty dropdown menu with a calendar icon)

For information on how to access additional details - such as [Metadata](#) and complete [database Details](#) - for PeopleSoft Connections (or any type of record), see [Records](#).

## PeopleSoft Connection Details Field Descriptions

The following table describes the fields, buttons, and tabs that display in the PeopleSoft Connection Details.

Field Name	Description
<b>Details</b>	This section contains detailed information about the PeopleSoft Connection.
Name	Name (maximum 40 alphanumeric characters) used within the Controller to identify this resource. It is the responsibility of the user to develop a workable <a href="#">naming scheme</a> for resources.
Version	System-supplied; version number of the current record, which is incremented by the Controller every time a user updates a record. Click the <a href="#">#Versions</a> tab to view previous versions. For details, see <a href="#">Record Versioning</a> .
Description	Description of this record. (Maximum = 255 characters.)
Member of Business Services	User-defined; Allows you to select one or more <a href="#">Business Services</a> that this record belongs to. (You also can Check All or Uncheck All Business Services for this record.)  You can select up to 62 Business Services for any record type, and enter a maximum of 2048 characters for each Business Service.  If the <a href="#">Business Service Visibility Restricted</a> Universal Controller system property is set to true, depending on your assigned (or inherited) <a href="#">Permissions</a> or <a href="#">Roles</a> , Business Services available for selection may be restricted.
Server	Host name of the Name or IP address of the PeopleSoft application server.

Port	Port number for the PeopleSoft application server.
Endpoint	Web service endpoint for the PROCESSREQUEST service.
Credentials	Credentials for the PeopleSoft connection.  <div style="border: 1px solid #f0e68c; padding: 10px; margin: 10px 0;"> <p><b>Note</b>  Either the PeopleSoft Connection or the PeopleSoft task using that connection must specify PeopleSoft Credentials. If a PeopleSoft task using this PeopleSoft Connection specifies PeopleSoft Credentials, those PeopleSoft task credentials override the PeopleSoft Connection credentials.</p> </div>
<b>Metadata</b>	This section contains <a href="#">Metadata</a> information about this record.
UUID	Universally Unique Identifier of this record.
Updated By	Name of the user that last updated this record.
Updated	Date and time that this record was last updated.
Created By	Name of the user that created this record.
Created	Date and time that this record was created.
<b>Buttons</b>	This section identifies the buttons displayed above and below the PeopleSoft Connection Details that let you perform various actions.
<b>Save</b>	Saves a new PeopleSoft Connection record in the Controller database.
<b>Save &amp; New</b>	Saves a new record in the Controller database and redisplay empty Details so that you can create another new record.
<b>Save &amp; View</b>	Saves a new record in the Controller database and continues to display that record.
<b>New</b>	Displays empty (except for default values) Details for creating a new record.
<b>Update</b>	Saves updates to the record.
<b>Copy</b>	Creates a <a href="#">copy</a> of this PeopleSoft Connection, which you are prompted to rename.
<b>Delete</b>	Deletes the current record.
<b>Refresh</b>	Refreshes any dynamic data displayed in the Details.
<b>Close</b>	For pop-up view only; closes the pop-up view of this PeopleSoft Connection.
<b>Tabs</b>	This section identifies the tabs across the top of the PeopleSoft Connection Details that provide access to additional information about the PeopleSoft Connection.
<b>PeopleSoft Tasks</b> tab	Lists all <a href="#">PeopleSoft tasks</a> that use this PeopleSoft connection.
<b>Versions</b> tab	Stores copies of all previous versions of the current record. See <a href="#">Record Versioning</a> .

## Copying PeopleSoft Connections

- [Overview](#)
- [Copying One or More PeopleSoft Connections from a PeopleSoft Connections List](#)
- [Copying a PeopleSoft Connection from the PeopleSoft Connection Details](#)
- [Copy Permissions](#)

## Overview

You can make copies of all Universal Controller records, including PeopleSoft Connections, using the standard method for [Copying a Record](#): selecting **Insert** on the [Action menu](#).

However, you also can use the Copy action on the PeopleSoft Connections [Action menu](#) or the Copy button in the PeopleSoft Connections Details.

## Copying One or More PeopleSoft Connections from a PeopleSoft Connections List

**S** From the [Agents & Connections](#) navigation pane, select **System > PeopleSoft Connections** to display the PeopleSoft Connections list.

**t**

**S** Locate the PeopleSoft Connection(s) you want to copy (see [Filtering](#)).

**t**

**S** Copy the PeopleSoft Connection(s):

**e**

### Copy One PeopleSoft Connection

1. Right-click the **PeopleSoft Connection Name**.
2. On the [Action menu](#), select **Copy**. A Copy PeopleSoft Connection pop-up dialog displays.

3. Enter a new name for the PeopleSoft Connection and, optionally, select any [Business Services](#) that you want the PeopleSoft Connection assigned to.

4. Click **Submit** to create a copy of the PeopleSoft Connection.

### Copy Multiple PeopleSoft Connections

- Ctrl-Click the PeopleSoft Connections you want to copy.
- Right-click any of the selected PeopleSoft Connections.
- On the [Action menu](#), select **Copy**.
- On the Confirmation pop-up that displays, click **OK**. The copied PeopleSoft Connections are added to the list, with **- Copy** added as a suffix to the PeopleSoft Connection Name for each PeopleSoft Connection. If a PeopleSoft Connection with that **- Copy** name already exists, another copy is not created.

## Copying a PeopleSoft Connection from the PeopleSoft Connection Details

**S**  
**t**  
**e**  
**p**  
**1** Select a PeopleSoft Connection from the PeopleSoft Connections list. The [PeopleSoft Connection Details](#) for that PeopleSoft Connection displays.

**S**  
**t**  
**e**  
**p**  
**2** Either:  

- Click the **Copy** button.
- Right-click the Details to display the [Action menu](#), and then click **Copy**.

A Copy PeopleSoft Connection pop-up dialog displays.

**Copy PeopleSoft Connection** [Close]

Enter a new name for the PeopleSoft Connection and click Submit.

Name \*  
stonebranch-peoplesoftconnection-01 - Copy

Member of Business Services  
[Dropdown]

[Submit] [Cancel]

**S**  
**t**  
**e**  
**p**  
**3** Enter a new name for the PeopleSoft Connection and, optionally, select any [Business Services](#) that you want the PeopleSoft Connection assigned to.

**S**  
**t**  
**e**  
**p**  
**4** Click **Submit** to create a copy of the PeopleSoft Connection.

### Copy Permissions

To copy a PeopleSoft Connection, you must have both Read [permission](#) and Copy command permission for the PeopleSoft Connection you are copying, in addition to having Create permission for the copied PeopleSoft Connection.