



stonebranch

Universal Controller 7.3.x

Calendars

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Calendars



Calendars

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[Creating Calendars](#)

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

Calendars Overview

- [Overview](#)
- [Setting up Calendars](#)
- [Using Calendars](#)

Overview

Calendars define business days, holidays, and other special days. Universal Controller uses calendars, in conjunction with [triggers](#), to define when tasks are run.

Setting up Calendars

The process for setting up your calendars is:

Create global custom days	Create the global custom days that you will need for any of your calendars.
Create calendars	Create one or more calendars that will need for any of your triggers.
Assign global custom days to calendars	Assign one or more of the global custom days to one or more of the calendar(s).
Create local custom days	Create any local custom days to be used only by the Calendars for which they were created.
Create copies of calendars	Create one or more copies of any calendar, as desired.

You can assign a global custom day, which can be used by any calendar, to a calendar either from the [Custom Day](#) or from the [Calendar](#).

A local custom day, which can be used only by the calendar for which it was created, is automatically assigned to that calendar.

Using Calendars

The Controller uses the calendar specified in a trigger to determine the run dates for the task(s) specified in that trigger:

- If you select Business Days in a trigger, the calendar identifies those business days.
- If you select Day Style = Complex in a trigger:
 - All [custom days](#) - for a single day - attached to the calendar are selectable day types (in the trigger's Date Noun drop-down menu).
 - All custom days - for a period of days - attached to the calendar are selectable day types (in the trigger's Date Qualifier drop-down menu).
- If you select Special Restriction in a trigger, the calendar defines the Holidays or Non Business days.

Creating Custom Days

- [Overview](#)
- [Creating \(Global\) Custom Days](#)
 - [Custom Day Details](#)
 - [Custom Day Details Field Descriptions](#)
- [Creating Local Custom Days](#)
 - [Local Custom Day Details](#)
 - [Local Custom Day Details Field Descriptions](#)
- [Generating a List of Qualifying Dates](#)
- [Generating a List of Qualifying Periods](#)
- [Assigning a Custom Day to a Calendar](#)
 - [Assign a Custom Day to an Existing Calendar](#)
 - [Create a Calendar and Assign the Custom Day to It](#)

Overview

A Custom Day defines a single one-time date, a repeating date, or a list of dates. Custom Days are assigned to Calendars.

There are two types of Custom Days:

Custom Days	Custom Days are global custom days; they can be assigned to any Calendar. You create a Custom Day via the Custom Days page, which is accessed via the Automation Center navigation pane.
Local Custom Days	Local Custom Days are assigned automatically only to the Calendar for which they were created. You create a Local Custom Day via the Local Custom Days tab in a Calendar Details.

Creating (Global) Custom Days

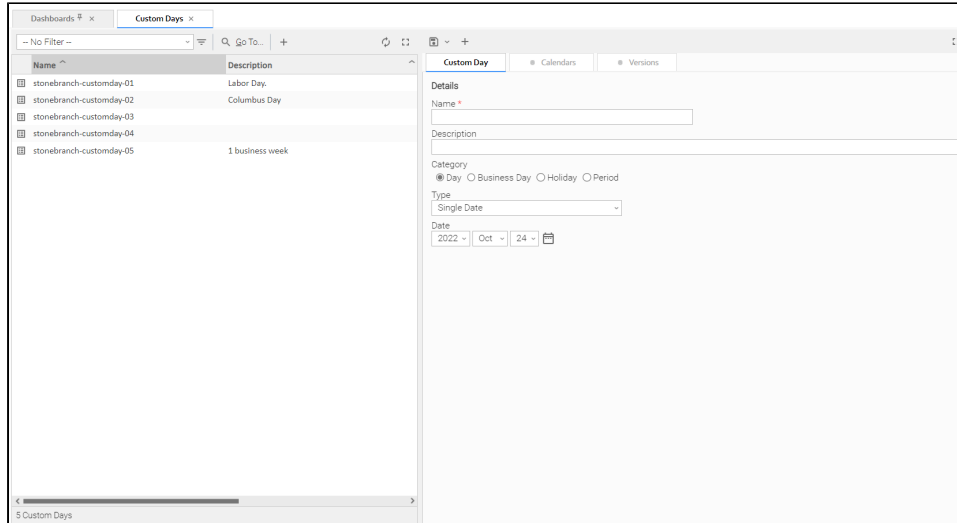
Note



The [Custom Day Global Permitted](#) Universal Controller system property must be set to **true** (the default) in order for you to create global Custom Days. If Custom Days already exist on the Controller, you cannot set the property to **false**.

Step 1 From the [Automation Center](#) navigation pane, select **Calendars > Custom Days**. The Custom Days list displays.


To the right of the list, Custom Day Details for a new Custom Day displays.




Step 2 Enter / select Details for a new Custom Day, 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 the  button. The Custom Day is added to the database, and all buttons and tabs in the 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](#)).

Custom Day Details

The following Custom Day Details is for an existing Custom Day.

Depending on the values that you enter / select for these fields, more (or less) fields may display. See the [field descriptions](#), below, for a description of all fields that may display in the Custom Day Details.

Custom Day Details: stonebranch-customday-01

List Qualifying Dates...

Custom Day | Calendars | Versions

Details

Name * Version

Description

Category Day Business Day Holiday Period

Type

When

Day Of Week

Month

Adjustment

Observed Rules

Actual Day Of Week	Observed Day Of Week
No items to show.	

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

Custom Day Details Field Descriptions

The following table describes the fields, buttons, and tabs that display in the Custom Day Details.

Field Name	Description
Details	This section contains detailed information about the Custom Day.
Name	Name of this Custom Day.
Version	System-supplied; version number of the current record, which is incremented by the system every time a user updates a record. Click the Versions tab to view previous versions. For details, see Record Versioning .

Description	Description of this record. (Maximum = 255 characters.)								
Category	<p>Category of this Custom Day.</p> <p>Options:</p> <table border="1" data-bbox="264 337 1959 591"> <tr> <td data-bbox="264 337 436 391">Day</td> <td data-bbox="436 337 1959 391">This Custom Day defines any day.</td> </tr> <tr> <td data-bbox="264 391 436 469">Business Day</td> <td data-bbox="436 391 1959 469">This Custom Day defines a business day.</td> </tr> <tr> <td data-bbox="264 469 436 537">Holiday</td> <td data-bbox="436 469 1959 537">This Custom Day defines a holiday. Dates flagged as holidays become involved when the user enables Special Restriction on a trigger and selects a situation of On Holiday.</td> </tr> <tr> <td data-bbox="264 537 436 591">Period</td> <td data-bbox="436 537 1959 591">This Custom Day defines a custom period of days (for example: quarters, fiscal year, or 4-5-4 calendar).</td> </tr> </table> <p>You can select a Period Custom Day in:</p> <ul data-bbox="281 659 1369 727" style="list-style-type: none"> • Date Qualifier field for Time Triggers and Composite Trigger Time Components. • Restriction Qualifier field for all triggers (except Manual and Temporary triggers) and all Composite Trigger Components. • Complex Qualifier field for Task Run Criteria. <p>You can select Day, Business Day, and Holiday Custom Days in:</p> <ul data-bbox="281 797 1341 865" style="list-style-type: none"> • Date Noun field for Time triggers and Composite Trigger Time Components. • Restriction Noun field for all triggers (except Manual and Temporary triggers) and all Composite Trigger Components. • Complex Noun field for Task Run Criteria. 	Day	This Custom Day defines any day.	Business Day	This Custom Day defines a business day.	Holiday	This Custom Day defines a holiday. Dates flagged as holidays become involved when the user enables Special Restriction on a trigger and selects a situation of On Holiday.	Period	This Custom Day defines a custom period of days (for example: quarters, fiscal year, or 4-5-4 calendar).
Day	This Custom Day defines any day.								
Business Day	This Custom Day defines a business day.								
Holiday	This Custom Day defines a holiday. Dates flagged as holidays become involved when the user enables Special Restriction on a trigger and selects a situation of On Holiday.								
Period	This Custom Day defines a custom period of days (for example: quarters, fiscal year, or 4-5-4 calendar).								
Type	<p>Type of Custom Day.</p> <p>Options:</p> <ul data-bbox="281 1024 1932 1141" style="list-style-type: none"> • Single Date - Any one-time date. • Relative Repeating Date - An annual (repeating) date that changes from year to year. For example, the U.S. Thanksgiving falls on the 4th Thursday of November, and is therefore on a different date every year. • Absolute Repeating Date - An annual (repeating) date that does not change from year to year. For example, the Canadian holiday Canada Day falls on July 1st of every year. • List of Dates - The dates are listed below. 								
Date (yyyy-mm-dd)	If Type = Single Date; specific date for this Custom Day (selected from the drop-down lists or the Calendar tool).								

Dates

If **Type** = List of Dates; multiple specific dates for this Custom Day.

Type

List of Dates ▼

Dates

Dates
2022-10-24
2022-10-25
2022-10-26

The icons at the top of the list let you perform the following tasks:




	Add Dates	Displays a Date Picker dialog that lets you: <ul style="list-style-type: none"> Add one or more Dates to the list. Clear all Dates from the list. Display a list of selected Dates.
	Add item	Lets you add a single Date to the list.
	Remove selected item	Lets you remove one or more selected Dates from the list.
	Remove Past Dates	Lets you remove all Dates prior to the current Date from the list.

Note

The [Purge Dates From Custom Day List Older Than](#) Universal Controller system property lets you automatically purge dates from a List of Dates.

When If **Type** = Relative Repeating Date; Occurrence of this day in the month. Options: 1st, 2nd, 3rd, 4th, Last, Last Day, Last Business Day, Every, Nth. Example: The 4th Thursday of November.

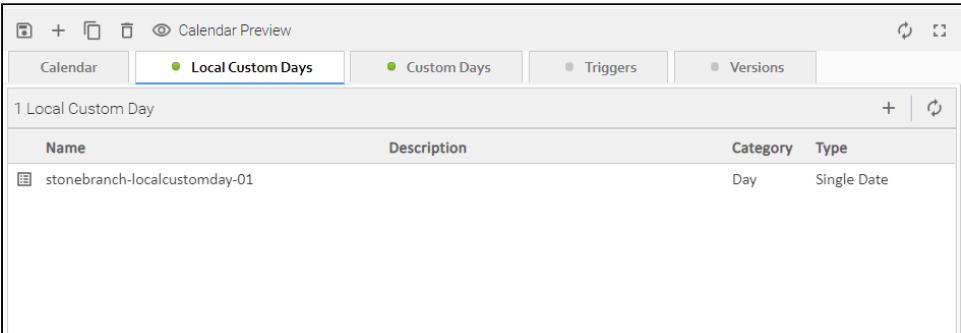
Nth Amount If **Category** = Day, Business Day, or Holiday and **When** = Nth; Value of N.

Nth Type	<p>If When = Nth; Type of Nth Day.</p> <p>Options:</p> <ul style="list-style-type: none"> • Day • Business Day <p>Default is Day.</p> <p>Note  Business Day is not allowed if Category is Holiday or Business Day.</p>
Day Of Week	<p>If Type = Relative Repeating Date and When is 1st, 2nd, 3rd, 4th, Last, or Every; Day of the week. Example: The 4th Thursday of November.</p>
Month	<p>If Type = Relative Repeating Date or Absolute Repeating Date; Month of the year, or All. Example: The fourth Thursday of November.</p>
Day	<p>If Type = Absolute Repeating Date; Day of the month (1 through 31). Example: December 25.</p>
Adjustment	<p>If Type = Relative Repeating Date; Allows you to adjust the Relative Repeating Date by a less or plus number of Days or Business Days.</p> <p>Options:</p> <ul style="list-style-type: none"> • - - None - - • Less • Plus <p>Default is - - None - -.</p> <p>Note  The Adjustment field is not available if the Category is Period.</p>
Adjustment Amount	<p>If Adjustment = Less or Plus; Allows you to specify the number of Days or Business Days to adjust the Relative Repeating Date. Maximum is 366. Default is 1.</p>
Adjustment Type	<p>If Adjustment = Less or Plus; Allows you to specify the type of day by which to adjust the Relative Repeating Date.</p> <p>Options:</p> <ul style="list-style-type: none"> • Day • Business Day <p>Default is Day.</p> <p>Note  Business Day is not allowed if Category is Holiday or Business Day.</p>


<p>Observed Rules</p>	<p>If Category = Holiday and Type = Relative Repeating Date or Absolute Repeating Date; Allows you to specify the actual day of the week on which the holiday occurs and a day of the week on which you want the holiday observed.</p> <div data-bbox="264 207 999 542" style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p>Observed Rules</p> <div style="border: 1px solid gray; padding: 5px; display: flex; justify-content: flex-end; align-items: center; gap: 10px;"> + - </div> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Actual Day Of Week</th> <th style="width: 50%;">Observed Day Of Week</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: center; padding: 10px;">No items to show.</td> </tr> </tbody> </table> </div> <p>You can specify any number of actual days of the week for a holiday, and any corresponding observed days. The specified observed day for a holiday is the day of the week closest to the holiday, whether it is a preceding day or a following day.</p> <p>For example, if you specify the day of the week for a holiday as Sunday, and the observed day as Monday, the observed day will be the Monday following the Sunday holiday, since that is the Monday closest to the holiday. Similarly, if you specify the day of the week for a holiday as Saturday, and the observed day as Friday, the observed day will be the Friday preceding the Saturday holiday, since that is the Friday closest to the holiday.</p>	Actual Day Of Week	Observed Day Of Week	No items to show.	
Actual Day Of Week	Observed Day Of Week				
No items to show.					
<p>Metadata</p>	<p>This section contains Metadata information about this record.</p>				
<p>UUID</p>	<p>Universally Unique Identifier of this record.</p>				
<p>Updated By</p>	<p>Name of the user that last updated this record.</p>				
<p>Updated</p>	<p>Date and time that this record was last updated.</p>				
<p>Created By</p>	<p>Name of the user that created this record.</p>				
<p>Created</p>	<p>Date and time that this record was created.</p>				
<p>Buttons</p>	<p>This section identifies the buttons displayed above and below the Custom Day Details that let you perform various actions.</p>				
<p>Save</p>	<p>Saves a new task record in the Controller database.</p>				
<p>Save & New</p>	<p>Saves a new record in the Controller database and redisplay empty Details so that you can create another new record.</p>				
<p>Save & View</p>	<p>Saves a new record in the Controller database and continues to display that record.</p>				
<p>New</p>	<p>Displays empty (except for default values) Details for creating a new record.</p>				
<p>Update</p>	<p>Saves updates to the record.</p>				
<p>List Qualifying Dates</p>	<p>If Period is not enabled and Type is not Single Date; Displays a list of the next 30 dates on which this day occurs (see Generating a List of Qualifying Dates, below).</p>				

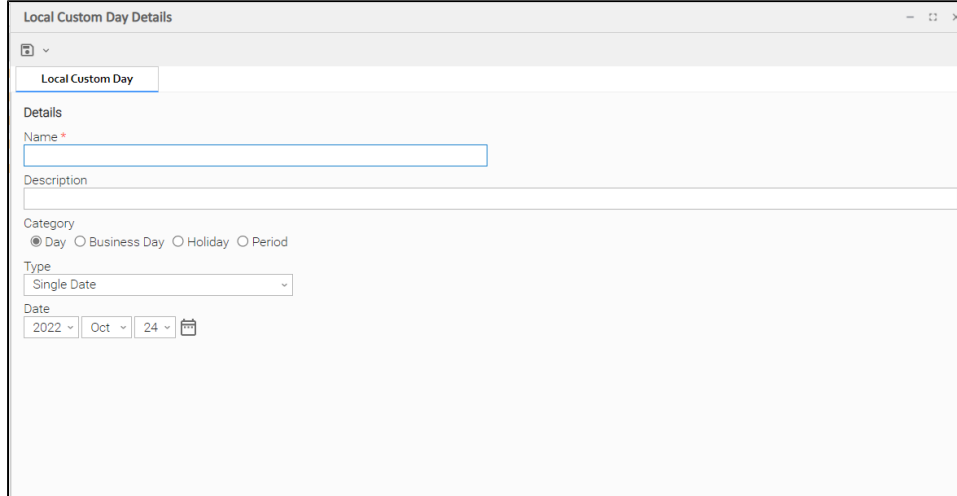
List Qualifying Periods	If Period is enabled; Displays a list of the next 30 periods in which this day occurs (see Generating a List of Qualifying Periods , below).
Delete	Deletes the current record.
Refresh	Refreshes any dynamic data displayed in the Details.
Close	For pop-up view only; closes the pop-up view of this task.
Tabs	This section identifies the tabs across the top of the Custom Day Details that provide access to additional information about the task instance.
Calendars	Displays all calendars that use this custom day.
Versions	Stores copies of all previous versions of the current record. See Record Versioning .

Creating Local Custom Days

Step 1	Open a Calendar for which you want to create a Local Custom Day.												
Step 2	<p>Click the Local Custom Days tab to display a list of existing Local Custom Days for that Calendar.</p>  <p>The screenshot shows a 'Calendar Preview' window with the following structure:</p> <ul style="list-style-type: none"> Window Title: Calendar Preview Navigation: +, -, Refresh, Maximize icons Tab Bar: Calendar, Local Custom Days (active), Custom Days, Triggers, Versions Content Area: <table border="1"> <thead> <tr> <th colspan="4">1 Local Custom Day</th> </tr> <tr> <th>Name</th> <th>Description</th> <th>Category</th> <th>Type</th> </tr> </thead> <tbody> <tr> <td>stonebranch-localcustomday-01</td> <td></td> <td>Day</td> <td>Single Date</td> </tr> </tbody> </table> 	1 Local Custom Day				Name	Description	Category	Type	stonebranch-localcustomday-01		Day	Single Date
1 Local Custom Day													
Name	Description	Category	Type										
stonebranch-localcustomday-01		Day	Single Date										

Step 3

Click the  button to display Local Custom Day Details for a new Local Custom Day.




Step 4


Enter / select Details for a new Custom Day, 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 5

Click the  button. The Custom Day is added to the database, and all buttons and tabs in the Details are enabled.

Local Custom Day Details

The following Local Custom Day Details is for an existing Local Custom Day.

Depending on the values that you enter / select for these fields, more (or less) fields may display. See the [field descriptions](#), below, for a description of all fields that may display in the Custom Day Details.

The screenshot shows a web application window titled "Local Custom Day Details: stonebranch-localcustomday-01". Below the title bar is a tab labeled "Local Custom Day". The main content area is titled "Details" and contains the following fields:


- Name ***: A text input field containing "stonebranch-localcustomday-01".
- Description**: A large empty text area.
- Category**: Radio buttons for "Day" (selected), "Business Day", "Holiday", and "Period".
- Type**: A dropdown menu showing "Single Date".
- Date**: Three dropdown menus for year, month, and day, showing "2022", "Oct", and "24" respectively, followed by a calendar icon.













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



Local Custom Day Details Field Descriptions

The following table describes the fields, buttons, and tabs that display in the Local Custom Day Details.

Field Name	Description
Details	This section contains detailed information about the Custom Day.
Name	Name of this Custom Day.

<p>Calendar</p>	<p>Read only; Calendar for which this Local Custom Day was created.</p> <p>Note </p> <p>This field displays only if the Local Custom Day Details is opened:</p> <ul style="list-style-type: none"> • From a reference item. • From a report on the Local Custom Day table (ops_local_custom_day). • In a tab from the Local Custom Days list. 								
<p>Description</p>	<p>Description of this record. (Maximum = 255 characters.)</p>								
<p>Category</p>	<p>Category of this Custom Day.</p> <p>Options:</p> <table border="1" data-bbox="264 605 1957 857"> <tr> <td data-bbox="264 605 436 659">Day</td> <td data-bbox="436 605 1957 659">This Custom Day defines any day.</td> </tr> <tr> <td data-bbox="264 659 436 737">Business Day</td> <td data-bbox="436 659 1957 737">This Custom Day defines a business day.</td> </tr> <tr> <td data-bbox="264 737 436 807">Holiday</td> <td data-bbox="436 737 1957 807">This Custom Day defines a holiday. Dates flagged as holidays become involved when the user enables Special Restriction on a trigger and selects a situation of On Holiday.</td> </tr> <tr> <td data-bbox="264 807 436 857">Period</td> <td data-bbox="436 807 1957 857">This Custom Day defines a custom period of days (for example: quarters, fiscal year, or 4-5-4 calendar).</td> </tr> </table> <p>You can select a Period Custom Day in:</p> <ul style="list-style-type: none"> • Date Qualifier field for Time Triggers and Composite Trigger Time Components. • Restriction Qualifier field for all triggers (except Manual and Temporary triggers) and all Composite Trigger Components. • Complex Qualifier field for Task Run Criteria. <p>You can select Day, Business Day, and Holiday Custom Days in:</p> <ul style="list-style-type: none"> • Date Noun field for Time triggers and Composite Trigger Time Components. • Restriction Noun field for all triggers (except Manual and Temporary triggers) and all Composite Trigger Components. • Complex Noun field for Task Run Criteria. 	Day	This Custom Day defines any day.	Business Day	This Custom Day defines a business day.	Holiday	This Custom Day defines a holiday. Dates flagged as holidays become involved when the user enables Special Restriction on a trigger and selects a situation of On Holiday.	Period	This Custom Day defines a custom period of days (for example: quarters, fiscal year, or 4-5-4 calendar).
Day	This Custom Day defines any day.								
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Holiday	This Custom Day defines a holiday. Dates flagged as holidays become involved when the user enables Special Restriction on a trigger and selects a situation of On Holiday.								
Period	This Custom Day defines a custom period of days (for example: quarters, fiscal year, or 4-5-4 calendar).								
<p>Type</p>	<p>Type of Custom Day.</p> <p>Options:</p> <ul style="list-style-type: none"> • Single Date - Any one-time date. • Relative Repeating Date - An annual (repeating) date that changes from year to year. For example, the U.S. Thanksgiving falls on the 4th Thursday of November, and is therefore on a different date every year. • Absolute Repeating Date - An annual (repeating) date that does not change from year to year. For example, the Canadian holiday Canada Day falls on July 1st of every year. • List of Dates - The dates are listed below. 								

Date (yyyy-mm-dd)	If Type = Single Date; specific date for this Custom Day (selected from the drop-down lists or the Calendar tool).																
Dates	<p>If Type = List of Dates; multiple specific dates for this Custom Day.</p> <div data-bbox="262 251 972 755" style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>Type</p> <p>List of Dates ▼</p> <hr/> <p>Dates</p> <div style="border: 1px solid gray; padding: 2px; display: flex; justify-content: flex-end; gap: 5px;"> 📅 + - 🗑️ </div> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; padding: 5px;">Dates</th> </tr> </thead> <tbody> <tr> <td style="text-align: right; padding: 5px;">2022-10-24</td> </tr> <tr> <td style="text-align: right; padding: 5px;">2022-10-25</td> </tr> <tr> <td style="text-align: right; padding: 5px;">2022-10-26</td> </tr> </tbody> </table> </div> <p>The icons at the top of the list let you perform the following tasks:</p> <table border="1" data-bbox="262 852 1144 1242" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="text-align: center; width: 50px;"></td> <td style="width: 200px;">Add Dates</td> <td>Displays a Date Picker dialog that lets you: <ul style="list-style-type: none"> Add one or more Dates to the list. Clear all Dates from the list. Display a list of selected Dates. </td> </tr> <tr> <td style="text-align: center;"></td> <td>Add item</td> <td>Lets you add a single Date to the list.</td> </tr> <tr> <td style="text-align: center;"></td> <td>Remove selected item</td> <td>Lets you remove one or more selected Dates from the list.</td> </tr> <tr> <td style="text-align: center;"></td> <td>Remove Past Dates</td> <td>Lets you remove all Dates prior to the current Date from the list.</td> </tr> </tbody> </table>	Dates	2022-10-24	2022-10-25	2022-10-26		Add Dates	Displays a Date Picker dialog that lets you: <ul style="list-style-type: none"> Add one or more Dates to the list. Clear all Dates from the list. Display a list of selected Dates. 		Add item	Lets you add a single Date to the list.		Remove selected item	Lets you remove one or more selected Dates from the list.		Remove Past Dates	Lets you remove all Dates prior to the current Date from the list.
Dates																	
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	Add item	Lets you add a single Date to the list.															
	Remove selected item	Lets you remove one or more selected Dates from the list.															
	Remove Past Dates	Lets you remove all Dates prior to the current Date from the list.															
When	If Type = Relative Repeating Date; Occurrence of this day in the month. Options: 1st, 2nd, 3rd, 4th, Last, Last Day, Last Business Day, Every. Example: The 4th Thursday of November.																
Nth Amount	If Category = Day, Business Day, or Holiday and When = Nth; Value of N.																

Nth Type	<p>If When = Nth; Type of Nth Day.</p> <p>Options:</p> <ul style="list-style-type: none"> • Day • Business Day <p>Default is Day.</p>
Day Of Week	<p>If Type = Relative Repeating Date; Day of the week. Example: The 4th Thursday of November.</p>
Month	<p>If Type = Relative Repeating Date or Absolute Repeating Date; Month of the year, or All. Example: The fourth Thursday of November.</p>
Day	<p>If Type = Absolute Repeating Date; Day of the month (1 through 31). Example: December 25.</p>
Adjustment	<p>If Type = Relative Repeating Date; Allows you to adjust the Relative Repeating Date by a less or plus number of Days or Business Days.</p> <p>Options:</p> <ul style="list-style-type: none"> • -- None -- • Less • Plus <p>Default is -- None --.</p> <p>Note  The Adjustment field is not available if the Category is Period.</p>
Adjustment Amount	<p>If Adjustment = Less or Plus; Allows you to specify the number of Days or Business Days to adjust the Relative Repeating Date. Maximum is 366. Default is 1.</p>
Adjustment Type	<p>If Adjustment = Less or Plus; Allows you to specify the type of day by which to adjust the Relative Repeating Date.</p> <p>Options:</p> <ul style="list-style-type: none"> • Day • Business Day <p>Default is Day.</p> <p>Note  Business Day is not allowed if Category is Holiday or Business Day.</p>

<p>Observed Rules</p>	<p>If Category = Holiday and Type = Relative Repeating Date or Absolute Repeating Date; Allows you to specify the actual day of the week on which the holiday occurs and a day of the week on which you want the holiday observed.</p> <div data-bbox="264 207 999 542" style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p>Observed Rules</p> <div style="border: 1px solid gray; padding: 5px; display: flex; justify-content: flex-end; align-items: center; gap: 10px;"> + - </div> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Actual Day Of Week</th> <th style="width: 50%;">Observed Day Of Week</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: center; padding: 10px;">No items to show.</td> </tr> </tbody> </table> </div> <p>You can specify any number of actual days of the week for a holiday, and any corresponding observed days. The specified observed day for a holiday is the day of the week closest to the holiday, whether it is a preceding day or a following day.</p> <p>For example, if you specify the day of the week for a holiday as Sunday, and the observed day as Monday, the observed day will be the Monday following the Sunday holiday, since that is the Monday closest to the holiday. Similarly, if you specify the day of the week for a holiday as Saturday, and the observed day as Friday, the observed day will be the Friday preceding the Saturday holiday, since that is the Friday closest to the holiday.</p>	Actual Day Of Week	Observed Day Of Week	No items to show.	
Actual Day Of Week	Observed Day Of Week				
No items to show.					
<p>Metadata</p>	<p>This section contains Metadata information about this record.</p>				
<p>UUID</p>	<p>Universally Unique Identifier of this record.</p>				
<p>Updated By</p>	<p>Name of the user that last updated this record.</p>				
<p>Updated</p>	<p>Date and time that this record was last updated.</p>				
<p>Created By</p>	<p>Name of the user that created this record.</p>				
<p>Created</p>	<p>Date and time that this record was created.</p>				
<p>Buttons</p>	<p>This section identifies the buttons displayed above and below the Custom Day Details that let you perform various actions.</p>				
<p>Save</p>	<p>Saves a new task record in the Controller database.</p>				
<p>Save & New</p>	<p>Saves a new record in the Controller database and redisplay empty Details so that you can create another new record.</p>				
<p>Save & View</p>	<p>Saves a new record in the Controller database and continues to display that record.</p>				
<p>New</p>	<p>Displays empty (except for default values) Details for creating a new record.</p>				
<p>Update</p>	<p>Saves updates to the record.</p>				
<p>List Qualifying Dates</p>	<p>If Period is not enabled and Type is not Single Date; Displays a list of the next 30 dates on which this day occurs (see Generating a List of Qualifying Dates, below).</p>				

List Qualifying Periods	If Period is enabled; Displays a list of the next 30 periods in which this day occurs (see Generating a List of Qualifying Periods , below).
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 task.
Tabs	This section identifies the tabs across the top of the Custom Day Details that provide access to additional information about the task instance.
Calendars	Displays all calendars that use this custom day.
Versions	Stores copies of all previous versions of the current record. See Record Versioning .

Generating a List of Qualifying Dates

The Controller allows you to generate a list of future dates that that a Custom Day (global or Local) will qualify for.

Note



Since Business Days are defined by a Calendar and its Custom Days (if the [Exclude Holidays For Business Days](#) Universal Controller system property is set to true), specifying a Business Day [Adjustment Type](#) requires that the Custom Day belong to at least one Calendar in order to generate a list of qualifying dates.

The following error message will display if you try to generate a list of qualifying dates before adding the Custom Day to a Calendar:

Custom Day has Business Day adjustment type and must be associated with at least one Calendar before List Qualifying Dates can be executed.

Step 1	Click the List Qualifying Dates button in the Custom Day Details.
Step 2	If the Custom Day does not specify a Business Day Adjustment Type , a list of Qualifying Dates for the Custom Day displays.

Qualifying Dates [- [[x]

stonebranch-customday-01

Labor Day.

Qualifying Dates

Mon, Sep 04, 2023
Mon, Sep 02, 2024
Mon, Sep 01, 2025
Mon, Sep 07, 2026
Mon, Sep 06, 2027
Mon, Sep 04, 2028
Mon, Sep 03, 2029
Mon, Sep 02, 2030
Mon, Sep 01, 2031
Mon, Sep 06, 2032
Mon, Sep 05, 2033
Mon, Sep 04, 2034
Mon, Sep 03, 2035
Mon, Sep 01, 2036
Mon, Sep 07, 2037
Mon, Sep 06, 2038
Mon, Sep 05, 2039
Mon, Sep 03, 2040
Mon, Sep 02, 2041
Mon, Sep 01, 2042
Mon, Sep 07, 2043
Mon, Sep 05, 2044

Step 3 If the Custom Day specifies a Business Day [Adjustment Type](#), the List Qualifying Dates Input dialog displays when you click the [List Qualifying Dates](#) button.

Select a Calendar and click **Submit** to see list of Qualifying Dates for the selected Calendar, which is identified at the top of the list.

Note



This step does not apply to Local Custom Days, since each Local Custom Day belongs to a single calendar.

Generating a List of Qualifying Periods

Step 1 Click the [List Qualifying Period](#) button in the Custom Day Details.

Step 2 A list of Qualifying Periods for the Custom Day displays.

Qualifying Dates

stonebranch-customday-01

Labor Day.

Qualifying Dates

Mon, Sep 04, 2023
Mon, Sep 02, 2024
Mon, Sep 01, 2025
Mon, Sep 07, 2026
Mon, Sep 06, 2027
Mon, Sep 04, 2028
Mon, Sep 03, 2029
Mon, Sep 02, 2030
Mon, Sep 01, 2031
Mon, Sep 06, 2032
Mon, Sep 05, 2033
Mon, Sep 04, 2034
Mon, Sep 03, 2035
Mon, Sep 01, 2036
Mon, Sep 07, 2037
Mon, Sep 06, 2038
Mon, Sep 05, 2039
Mon, Sep 03, 2040
Mon, Sep 02, 2041
Mon, Sep 01, 2042
Mon, Sep 07, 2043
Mon, Sep 05, 2044

Assigning a Custom Day to a Calendar

There are two ways to assign a Custom Day to a Calendar from Custom Day Details:

1. [Assign a Custom Day to an Existing Calendar](#)
2. [Create a Calendar and Assign the Custom Day to It](#)

Assign a Custom Day to an Existing Calendar

Step 1	Display the Custom Day Details of the Custom Day that you want to assign to a Calendar.
Step 2	Click the Calendars tab. A list of any Calendars to which the Custom Day is assigned displays.

Custom Day Details: stonebranch-customday-01 - ☰ ×

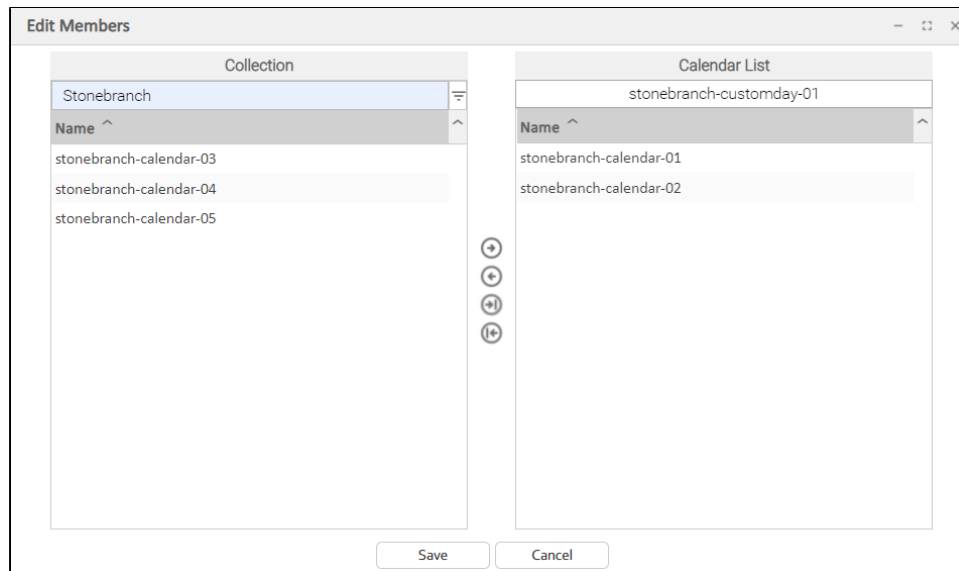
🔍 🗑️ 📅 List Qualifying Dates... 🔄

Custom Day ● Calendars ● Versions

2 Calendar Custom Days + ✎ 🔄

Calendar	Calendar Description	Updated By	Updated
📅 stonebranch-calendar-01	Defines our company business days and holidays	ops.admin	2014-07-24 17:15:29 -0400
📅 stonebranch-calendar-02		ops.admin	2014-07-08 09:20:32 -0400

Step 3 Click the **Edit** button. The Edit Members pop-up dialog displays:



- The **Collection** window lists Calendars to which the Custom Day is not assigned.
- The **Calendars List** lists Calendars to which the Custom Day is assigned.

Step 4 To filter the Calendars listed in the Collection window, enter characters in the text field above the **Name** column. Only Calendars containing that sequence of characters will display in the list.

Step 5 To assign the Custom Day to a Calendar, move the Calendar from the **Collection** window to the **Calendars List** window:

1. To move a single Calendar, double-click it or click it once and then click the > arrow.
2. To move multiple Calendars, Ctrl-click them and then click the > arrow.
3. To move all Calendars, click the >> arrow.

To unassign the Custom Day to a Calendar, move the Calendar from the **Calendars List** windows to the **Collection** window:

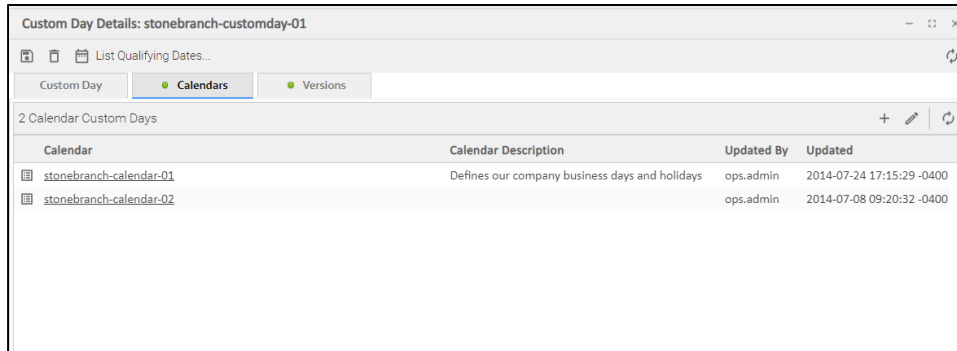
1. To move a single Calendar, double-click it or click it once and then click the < arrow.
2. To move multiple Calendars, Ctrl-click them and then click the < arrow.
3. To move all Calendars, click the << arrow.

Step 6 Click **Save**.

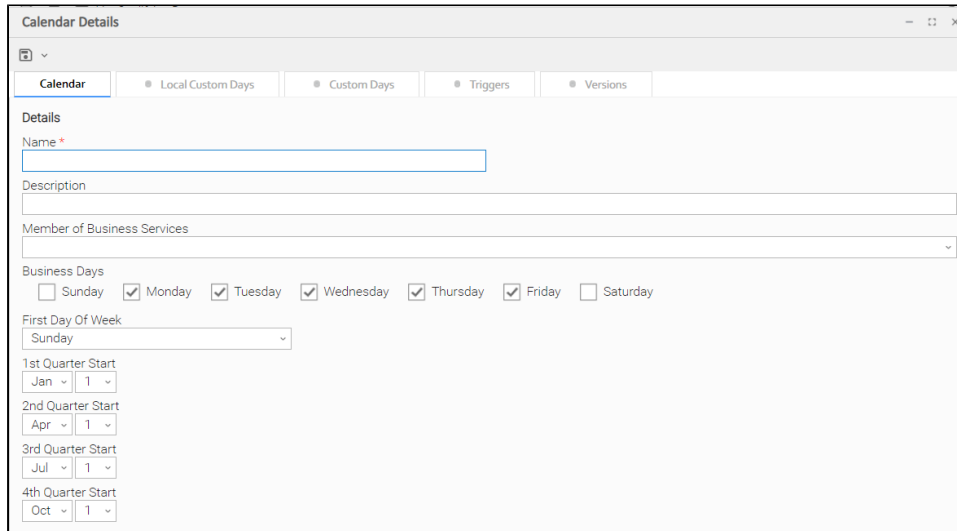
Create a Calendar and Assign the Custom Day to It

Step 1 Display the Custom Day Details of the Custom Day that you want to assign to a new Calendar.


Step 2 Click the **Calendars** tab. The Calendars list displays a list of any Calendars to which the Custom Day already is assigned.



Step 3 Click the **+** button. A Calendar Details pop-up for a new Calendar displays.



Step 4 Enter / select Details for a new Calendar (see [Calendar Details Field Descriptions](#)).

Step 5 Click the  button to create the Calendar, assign the Custom Day to it, and add it to the list of all Calendars.

Creating Calendars

- [Creating a Calendar](#)
 - [Calendars List Columns](#)
- [Calendar Details](#)
- [Calendar Details Field Descriptions](#)
- [Assigning a Custom Day to a Calendar](#)
 - [Assign an Existing Custom Day to a Calendar](#)
 - [Create a Custom Day and Assign It to a Calendar](#)
- [Creating a Local Custom Day for a Calendar](#)
- [Calendar Preview](#)


Creating a Calendar



Step 1 From the [Automation Center](#) navigation pane, select **Other > Calendars**. The Calendars list displays.

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

The screenshot shows the 'Calendars' page in the Automation Center. On the left, a list of calendars is displayed with columns for 'Name' and 'Description'. The list includes five entries: 'stonebranch-calendar-01' (Defines our company business days and holidays), 'stonebranch-calendar-02', 'stonebranch-calendar-03', 'stonebranch-calendar-04', and 'stonebranch-calendar-05'. On the right, the 'Calendar Details' form is visible, showing fields for 'Name', 'Description', and 'Member of Business Services'. Below these are 'Business Days' checkboxes for Sunday through Saturday, with Monday through Friday checked. There is also a 'First Day Of Week' dropdown set to 'Sunday' and four 'Quarter Start' date pickers for 1st, 2nd, 3rd, and 4th quarters, each set to the 1st of the month.

Note

 System Default, the default system calendar, defines the work week.

Step 2	<p>Enter / select Details for a new Calendar, using the field descriptions below as a guide.</p> <ul style="list-style-type: none"> • Required fields display an asterisk (*) after the field name. • Default values for fields, if available, display automatically. <p>To display more of the Details fields on the screen, you can either:</p> <ul style="list-style-type: none"> • 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	<p>Click the  button. The Calendar is added to the database, and all buttons and tabs in the Details are enabled.</p>

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](#)).

Calendars List Columns

The following [Field Picker](#) pop-up dialog identifies the Calendars list columns that are:

- **Visible** by default.
- **Available** to be made visible.

Field Picker [-] [x]

Drag and drop or use arrows to move fields. Drag reorder to change field order.

Available Fields

[No title specified]

Name ^	Sample Value
Business Days	Monday, Tuesday, Wednesday, Thursday, Friday
Created	2021-06-21 17:14:15 -04...
Created By	ops.admin
Member of Business Services	
UUID	18010e29413b409aa088...
Version	2

Visible Fields

[No title specif]

Field Title	Sample Value
Form	
Name	yyx
Description	
First Day Of Week	Sunday
1st Quarter Start	Jan-01
2nd Quarter Start	Apr-01
3rd Quarter Start	Jul-01
4th Quarter Start	Oct-01

[Apply] [Cancel]

Calendar Details

The following Calendar Details is for an existing Calendar.

See the [field descriptions](#), below, for a description of all fields that display in the Calendar Details.


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

Calendar Details Field Descriptions

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

Field Name	Description
Details	This section contains detailed information about the Calendar.
Name	Required. Name used within the Controller to identify this calendar. Up to 40 alphanumeric. It is the responsibility of the user to develop a workable naming scheme for calendars.
Member of Business Services	User-defined; Allows you to select one or more Business Services 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 Business Service Visibility Restricted Universal Controller system property is set to true, depending on your assigned (or inherited) Permissions or Roles , Business Services available for selection may be restricted.

Description	Description of this record. (Maximum = 255 characters.)
Business Days	User-defined; allows the user to select which days of the week constitute business days for this calendar.
First Day Of Week	Day that is considered the start of the week.
1st Quarter Start	Specifies which day is considered the start of the 1st Quarter.
2nd Quarter Start	Specifies which day is considered the start of the 2nd Quarter.
3rd Quarter Start	Specifies which day is considered the start of the 3rd Quarter.
4th Quarter Start	Specifies which day is considered the start of the 4th Quarter.
Version	System-supplied; version number of the current record, which is incremented by the Controller every time a user updates a record. Click the Versions tab to view previous versions. For details, see Record Versioning .
Metadata	This section contains Metadata 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.
Buttons	This section identifies the buttons displayed above and below the Task Details that let you perform various actions.
Save	Saves a new task record in the Controller database.
Save & New	Saves a new record in the Controller database and redisplay empty Details so that you can create another new record.
Save & View	Saves a new record in the Controller database and continues to display that record.
New	Displays empty (except for default values) Details for creating a new record.
Update	Saves updates to the record.
Calendar Preview	Provides a month-by-month display, for the number of years specified in the Calendar Preview Period In Years Universal Controller system property (starting from the end of the current year), of all Custom Days defined for this calendar.
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 calendar.
Update	Saves updates to the record.
Tabs	This section identifies the tabs across the top of the Task Details that provide access to additional information about the task instance.
Local Custom Days	Lists all local custom days associated with this calendar.
Custom Days	<p>Lists all global custom days associated with this calendar.</p> <p>Note  The Custom Days tab displays in Calendar Details only if the Custom Day Global Permitted Universal Controller system property is set to true.</p>
Triggers	Lists all triggers that use this calendar.
Versions	Stores copies of all previous versions of the current record. See Record Versioning .

Assigning a Custom Day to a Calendar

There are two ways to assign a [Custom Day](#) to a Calendar from Calendar Details:

1. [Assign an Existing Custom Day to a Calendar](#)
2. [Create a Custom Day and Assign It to a Calendar](#)

Assign an Existing Custom Day to a Calendar


Step 1	Display the Calendar Details of the calendar to which you want to assign a Custom Day.
---------------	--

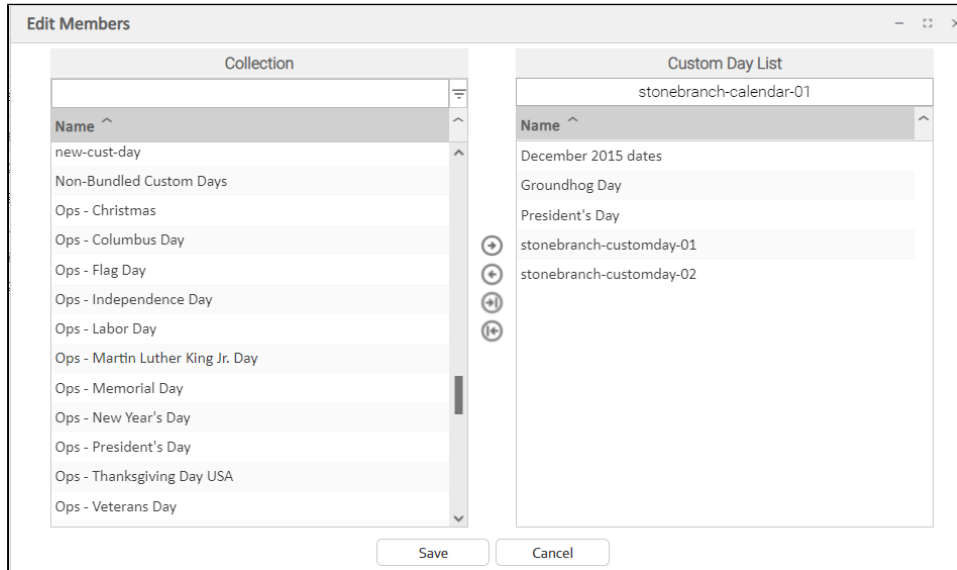
Step 2 Click the **Custom Days** tab. The Custom Days list displays a list of any global Custom Days assigned to this Calendar.

The screenshot shows a web application window titled "Calendar Details: stonebranch-calendar-01". The window has a navigation bar with tabs for "Calendar", "Local Custom Days", "Custom Days", "Triggers", and "Versions". The "Custom Days" tab is selected. Below the navigation bar, there is a header "5 Calendar Custom Days" with a plus sign, a pencil icon, and a refresh icon. The main content is a table with the following columns: Custom Day, Description, Category, Updated By, and Updated.

Custom Day	Description	Category	Updated By	Updated
stonebranch-customday-02	Columbus Day	Holiday	ops.admin	2014-07-24 17:38:45 -0400
Groundhog Day	Groundhog Day	Day	ops.admin	2015-02-06 09:29:32 -0500
December 2015 dates		Day	ops.admin	2015-01-12 15:01:04 -0500
President's Day	Holiday recognizing Washington's and Lincoln's birthdays	Holiday	ops.admin	2015-02-06 09:31:40 -0500
stonebranch-customday-01	Labor Day.	Holiday	ops.admin	2014-07-24 17:15:29 -0400

Step 3

Click the  button. The Edit Members pop-up dialog displays:



- The **Collection** window lists Custom Days that are not assigned to this calendar.
- The **Custom Days List** lists Custom Days that are assigned to this calendar.

Step 4

To filter the Custom Days listed in the Collection window, enter characters in the text field above the **Name** column. Only Custom Days containing that sequence of characters will display in the list.

Step 5

To assign a Custom Day to the calendar, move it from the **Collection** window to the **Custom Days List** window:

1. To move a single Custom Day, double-click it or click it once and then click the > arrow.
2. To move multiple Custom Days, Ctrl-click them and then click the > arrow.
3. To move all Custom Days, click the >> arrow.

To unassign a Custom Day to the calendar, move it from the **Custom Days List** windows to the **Collection** window:

1. To move a single Custom Day, double-click it or click it once and then click the < arrow.
2. To move multiple Custom Days, Ctrl-click them and then click the < arrow.
3. To move all Custom Days, click the << arrow.

Step 6

Click the  button.

Create a Custom Day and Assign It to a Calendar

Step 1


Display the Calendar Details of the calendar to which you want to assign a global Custom Day.

Step 2 Click the **Custom Days** tab. The Custom Days list displays a list of any global Custom Days assigned to this Calendar.


Custom Day	Description	Category	Updated By	Updated
stonebranch-customday-02	Columbus Day	Holiday	ops.admin	2014-07-24 17:38:45 -0400
Groundhog Day	Groundhog Day	Day	ops.admin	2015-02-06 09:29:32 -0500
December 2015 dates		Day	ops.admin	2015-01-12 15:01:04 -0500
President's Day	Holiday recognizing Washington's and Lincoln's birthdays	Holiday	ops.admin	2015-02-06 09:31:40 -0500
stonebranch-customday-01	Labor Day.	Holiday	ops.admin	2014-07-24 17:15:29 -0400

Step 3 Click the  button. A Custom Day Details pop-up for a new global Custom Day displays.

Step 4 Enter / select Details for a new Custom Day (see [Custom Day Details Field Descriptions](#)).

Step 5 Click the  button to create the Custom Day, assign it to the Calendar, and add it to the list of all Custom Days.

Note

 You also can assign a Custom Day to a Calendar from the Custom Day Details for that Custom Day (see [Creating Custom Days](#)).

Creating a Local Custom Day for a Calendar

You can create a [Local Custom Day](#) for a Calendar from the Local Custom Days tab in the Calendar Details.

Local Custom Days are assigned automatically to the Calendar for which they were created. You cannot assign a Local Custom Day to any other Calendar.

Calendar Preview

If you click the [Calendar Preview](#) button in the [Calendar Details](#), the Controller provides a month-by-month display, for the number of years specified in the [Calendar Preview Period In Years](#) Universal Controller system property (starting from the end of the current year), of all [Custom Days](#) defined for this calendar.

Calendar Preview: stonebranch-calendar-01

< Feb 2023

Sun	Mon	Tue	Wed	Thu	Fri	Sat
29	30	31	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20 President's Day	21	22	23	24	25
26	27	28	1	2	3	4

The Calendar Preview identifies, by color, the four [categories of Custom Days](#):

Name	Color
------	-------

Day	Custom Day name shaded in blue.
Holidays	Custom Day name shaded in yellow.
Business Days	Custom Day name shaded in red.
Period	Custom Day name shaded in green.

Local Custom Day names are preceded by {L} (if the [Custom Day Local Indicator Enabled](#) Universal Controller system property is set to true).

The current day is shaded in blue.

To see the description of a Custom Day in the Calendar Preview, hover your cursor over the Custom Day name.

To see Details of a Custom Day in the Calendar Preview, click the Custom Day name.

Copying Calendars

- [Overview](#)
- [Copying One or More Calendars from a Calendars List](#)
- [Copying a Calendar from the Calendar Details](#)
- [Copy Permissions](#)

Overview

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

However, this method does not make copies of any records that are associated with the copied record. For calendars, **Insert** does not make copies of any Custom Days and Triggers that are associated with the calendar.

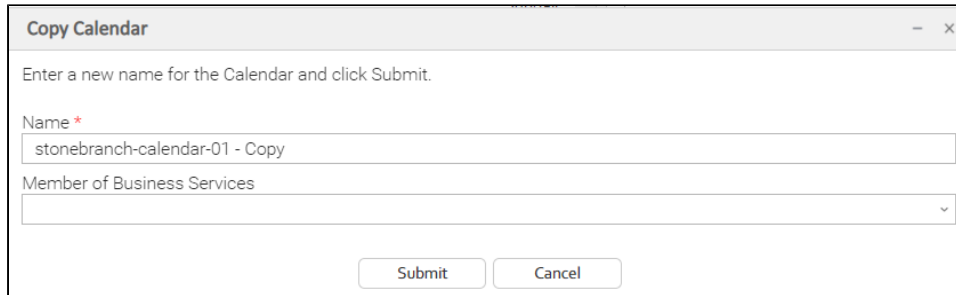
The Copy option allows you to make a complete copy of a calendar, including all of its associated records.

Copying One or More Calendars from a Calendars List

Step 1	From the Automation Center navigation pane, select Other > Calendars . The Calendars list displays.
Step 2	Locate the calendar(s) you want to copy (see Filtering).

Step 3 Copy the calendar(s):**Copy One Calendar**

1. Right-click the Calendar **Name** to display an [Action menu](#).
2. Click **Copy**. A Copy Calendar pop-up dialog displays.



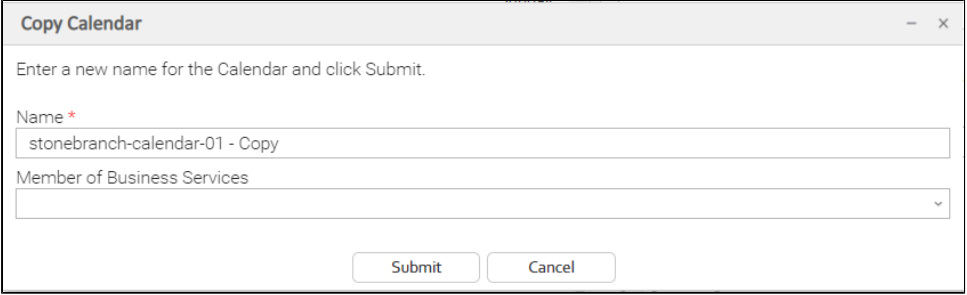
3. Enter a new name for the calendar and, optionally, select any [Business Services](#) that you want the calendar assigned to.
4. Click **Submit** to create a copy of the calendar.

Copy Multiple Calendars

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

Copying a Calendar from the Calendar Details

- | | |
|---------------|---|
| Step 1 | Select a calendar from the Calendars list. The Calendar Details for that calendar displays. |
|---------------|---|

<p>Step 2</p>	<p>Either:</p> <ul style="list-style-type: none"> • Click the Copy button. • Right-click in the Details to display the Action menu, and then click Copy. <p>A Copy Calendar pop-up dialog displays.</p> 
<p>Step 3</p>	<p>Enter a new name for the calendar and, optionally, select any Business Services that you want the calendar assigned to.</p>
<p>Step 4</p>	<p>Click Submit to create a copy of the calendar.</p>

Copy Permissions

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