# stonebranch

**Universal Controller 6.4.x** 

**Triggers and Calendars** 

© 2018 by Stonebranch, Inc. All Rights Reserved.

Triverse and Only deep	~
. Triggers and Calendars	. 3
	. 4
1.1.1 Cron Trigger	. 12
1.1.2 Time Trigger	. 26
1.1.3 Manual Trigger	. 43
1.1.4 Temporary Trigger	. 49
1.1.5 File Monitor Trigger	
1.1.6 Task Monitor Trigger	. 67
1.1.7 Variable Monitor Trigger	. 77
1.1.8 Email Monitor Trigger	. 87
1.1.9 Composite Trigger	. 97
1.1.10 Enabling and Disabling Triggers	. 134
1.1.11 Assigning and Unassigning Trigger Execution Users	. 136
1.1.12 Copying Triggers	
1.1.13 Triggering with Variables	. 143
1.1.14 Triggering by Date and Time	. 147
1.1.15 Displaying Trigger Forecast Information	
1.2 Calendars	. 160
1.2.1 Creating Custom Days	. 161
1.2.2 Creating Calendars	. 181
1.2.3 Copying Calendars	. 191
	-

# **Triggers and Calendars**

Triggers	Displaying Trigger Forecast Information
Overview	Overview
Trigger Types	Forecast Calendar
Enabling and Disabling Triggers	Forecast List
Assigning and Unassigning Trigger Execution Users	Forecast Calculation
Copying Triggers	Forecast Re-Calculation
Triggering with Variables	Setting up Forecasting
Triggering by Date and Time	Next Scheduled Time
_	List Qualifying Times
Calendars	

**Overview** 

**Creating Custom Days** 

**Creating Calendars** 

**Copying Calendars** 



The information on these pages also is located in the Universal Controller 6.4.x Triggers and Calendars.pdf.

# **Triggers**

- Triggers
- Trigger Types
- Creating a Trigger
- All Triggers / Active Triggers Lists
  - All Triggers / Active Triggers Lists Information
- <Trigger Type> Triggers List
  - <Trigger Type> Triggers List Information
- Trigger Details
- Daylight Saving Time
  - Interval-Based Times
  - Absolute Times
- Additional Information

# Triggers

A trigger specifies times and/or events that trigger the launching of one or more tasks.

When a trigger is satisfied, Universal Controller launches the tasks specified in the trigger. Each trigger can have an unlimited number of tasks associated with it. All of the specified tasks are run each time the trigger is satisfied. If you want to specify dependencies such as "run Task B only if Task A fails," create a Workflow, which is a series of inter-connected tasks.

A built-in trigger variable is available for returning the trigger name. Additional built-in variables are supported for specific trigger types.

# **Trigger Types**

Trigger Type	Usage
Application Monitor	Trigger one or more tasks based on the status of one or more application resources.
Composite	Trigger one or more tasks based on multiple file monitoring, task monitoring, variable monitoring, and/or email monitoring events.
Cron	Specify dates and times, using Cron syntax, at which a task will be triggered.
Email Monitor	Trigger one or more Email Monitor tasks.
File Monitor	Trigger one or more tasks based on the creation, deletion, change, existence or non-existence of a file on a particular machine.
Manual	Launch task(s) immediately, while setting or overriding the value of one or more user-defined variables specified in the task(s).
Task Monitor	Trigger one or more tasks based on the conditions specified in an associated Task Monitor task.
Temporary	Set up a one-time trigger for a task, based on a single date and time.
Time	Specify dates and times at which a task will be triggered.
Variable Monitor	Trigger one or more tasks based on the conditions specified in an associated Variable Monitor task.

# **Creating a Trigger**

There are multiple ways to create a trigger:

- 1. On the All Triggers or Active Triggers list, click the New drop-down list and select a trigger type. A Trigger Details pop-up displays that lets you enter / select information for a new trigger.
- 2. On the Triggers list for a specific trigger type, click the **New** icon. A Trigger Details pop-up displays that lets you enter / select information for a new trigger.
- 3. In the empty (except for default values) Trigger Details that displays below the trigger list for a specific trigger type, enter / select information for a new trigger. If the Trigger Details displays information for an existing trigger, click the **New** button to clear the Trigger Details and enter / select information for a new trigger.
- 4. Create a copy of a trigger by clicking the Copy button in the Trigger Details and renaming the trigger.

For detailed information on creating a trigger for a specific trigger type, click that trigger type in the Trigger Types table, above.

# All Triggers / Active Triggers Lists

To display a list of all currently defined triggers for all trigger types, from the Automation Center navigation pane select Triggers > All Triggers. The All Triggers list displays.

To display a list of all currently defined and enabled triggers for all trigger types, from the Automation Center navigation pane select Triggers > Active Triggers. The Active Triggers list.

Note

The All Triggers list and the Active Triggers list display the same columns of information about triggers.

4	0 Triggers		Custo	m Filter Unsaved 1	~	Version Filter	New -
	Name A	Туре	1	Description	Enabled	Next Scheduled Time	Updated E
	stonebranch-applicationmonitortrigger-01	Application Mor	nitor		8		ops.admin
]	stonebranch-applicationmonitortrigger-02	Application Mor	nitor		8		ops.admin
	stonebranch-applicationmonitortrigger-03	Application Mor	nitor		8		ops.admin
	stonebranch-applicationmonitortrigger-04	Application Mor	nitor		8		ops.admin
	stonebranch-applicationmonitortrigger-05	Application Mor	nitor		8		ops.admin
]	stonebranch-compositetrigger-01	Composite			8		ops.admin
]	stonebranch-compositetrigger-02	Composite			8		ops.admin
	stonebranch-compositetrigger-03	Composite			8		ops.admin
	stonebranch-compositetrigger-04	Composite			8		ops.admin
	stonebranch-compositetrigger-05	Composite			8		ops.admin
	stonebranch-crontrigger-01	Cron			8		ops.admin
	stonebranch-crontrigger-02	Cron			8		ops.admin
	stonebranch-crontrigger-03	Cron			8		ops.admin
	stonebranch-crontrigger-04	Cron			8		ops.admin
	stonebranch-crontrigger-05	Cron			8		ops.admin
	stonebranch-filemonitortrigger-01	File Monitor			8		ops.admin
	stonebranch-filemonitortrigger-02	File Monitor			8		ops.admin
				11			

# All Triggers / Active Triggers Lists Information

The following table provides a description of the default columns that display on the All Triggers and Active Triggers lists.

For information about customizing this list, including filtering, sorting, searching, and other list features, see Record Lists.

Column	Description
Name	Name used within the Controller to identify this trigger. It can contain a maximum of 255 alphanumerics. It is the responsibility of the user to develop a workable naming scheme for triggers.
Туре	User-defined; type of trigger. Options: Composite CRON Time Temporary Manual Email Monitor File Monitor Task Monitor Variable Monitor Application Monitor
Description	User-defined; description of this trigger.
Next Scheduled Time	System-supplied; for time-based triggers. If Status = Enabled, the next date and time this trigger will be satisfied. See Displaying Trigger Forecast Information.
Enabled	User-defined; indication of whether the trigger is enabled (checked) or disabled (not checked). The user enables and disables the trigger by clicking the Enable Trigger / Disable Trigger buttons. Only enabled triggers are processed by the Controller.
Updated By	User that triggered or last updated this trigger.
Updated	Date and time this trigger was triggered or last updated.

# <Trigger Type> Triggers List

If you select Triggers > < Trigger Type> from the Automation Center navigation pane, a triggers list for that selected trigger type displays.

For example:

5 Cron Triggers		Custom Filter	None		× 🔻	Filter 🔯 <u>G</u>	o To   📑 N	ew   🌊
Name 👚	De	escription	Enabled	Next Scheduled Time	Cron Criteria	Updated By	Updated	
stonebranch-cront	rigger-01		8		0 20 * * *	ops.admin	2016-05-24 14	29:09 -0
stonebranch-cront	rigger-02		8		0 * * * *	ops.admin	2016-05-24 14	:29:09 -0
stonebranch-cront	rigger-03		8		0 * * * *	ops.admin	2016-05-24 14	:29:09 -0
stonebranch-cront	rigger-04		8		0 * * * *	ops.admin	2016-05-24 14	:29:09 -0
stonebranch-cront	rigger-05		8		0 * * * *	ops.admin	2016-05-24 14	:29:09 -0
Com Triance Dataila		Indata 🗖 Na	u 🙆 Enabla		List Qualifying Time		Poloto -	e Dofro
Cron Trigger Details Cron Trigger 🖉 😐 — General		Update 📃 Ne	ew 🛐 Enable		List Qualifying Time	es ᄓ Copy	Delete [	Refre
Cron Trigger General		sions	w 🛐 Enable		List Qualifying Time	es 🛅 Copy	🚮 Delete 📑	Refre
Cron Trigger General	Variables Vers	sions	ew 🛐 Enable	🔞 Trigger Now 🛅		ss 📴 Copy	👔 Delete [	Refre
Cron Trigger General Name :	Variables Vers	sions	ew 💽 Enable	🔞 Trigger Now 🛅		es 📑 Copy	👔 Delete [	
Cron Trigger  General General Description : Member of Business	Variables Vers	sions	w 💽 Enable	🔞 Trigger Now 🛅		es 🕒 Copy	Delete [	Sefre
Cron Trigger  General General Description : Member of Business Services :	Variables Vers	sions		Version :	1	es 🖺 Copy	Delete	
Cron Trigger  General General Description : Member of Business Services :	Variables Vers	trigger-01		Version :		es 🖺 Copy	Delete	¥

## <Trigger Type> Triggers List Information

The default columns that display on a <Trigger Type> Triggers list are specific to that type of trigger.

# **Trigger Details**

When you click the Details icon for a trigger in a Triggers List, the Trigger Details displays all currently defined information for that trigger.

i Trigger Details: sto	nebranch-crontrigger-01	_	-				-			[_][
		👸 Update	🚯 Enable 🤇	🌛 Triç	gger Now 觉 List	Qualifying Times	🖺 Сору 🔋	🗊 Delete	S Refresh	💥 Clo
on Trigger 🛛 🔍 Vari	iables <ul> <li>Versions</li> </ul>									
General	atoma haran haran hirana 04				Marai an a	0				
	stonebranch-crontrigger-01				Version :	2				
Description : Member of										
Business Services :										~
Calendar :	System Default				Time Zone :	Server (US/Easter	n)			~
	stonebranch-windowstask-01									
Task(s) :										
Purge By Retention Duration :										
Status										
Forecast:					Status :	Disabled				
Skip Count :	0				Disabled By :					
Task Launch Skip Condition :	None									
Simulate :	System Default		*							
Cron Details										
Minutes :	0				Day Logic :	And	~			
Hours :					,,					
Day of Month :										
Month :										
Day of Week :										
Cron Criteria :										
					1					
Restrictions										
Special Restriction :					Action :	Do Not Trigger			~	
Simple Restriction :					Complex Restriction :	×				
Situation :	On Holiday		*		Restriction Adjective :	Every			~	
Restriction Mode :	Or		*		Restriction Noun :					~
					Restriction Qualifier :	Voor				~
							( 100 - ·			
🔚 Update	🚳 Enable 🛛 🚱 Trigger	Now 🛅 Lis	st Qualifying Ti	mes	Сору	il Delete	🔄 😫 Refres	n 🔰	Close	

For information on Details for a specific trigger type, click the appropriate link in Trigger Types, above.

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

# **Daylight Saving Time**

For Cron and Time triggers, the Controller handles the switch to and from Daylight Saving Time as described below.

How the time change is handled differs between interval-based times (such as "every 15 minutes") and absolute times (such as "2:30 a.m.").

## **Interval-Based Times**

For interval-based time Cron and Time triggers, the behavior is the same.

#### When Time Moves Forward

An interval-based time Cron or Time trigger defined to run at a time that is being skipped due to the time change will also be "skipped," as shown in the following example; the time zone is Eastern (EST) and the time changes from 2 a.m. EST to 3 a.m. on March 12. In this case, the 15 minute interval trigger will run at the following times:

Sunday,	March	12,	2017	00:00:00	EST -0500
Sunday,	March	12,	2017	00:15:00	EST -0500
Sunday,	March	12,	2017	00:30:00	EST -0500
Sunday,	March	12,	2017	00:45:00	EST -0500
Sunday,	March	12,	2017	01:00:00	EST -0500
Sunday,	March	12,	2017	01:15:00	EST -0500
Sunday,	March	12,	2017	01:30:00	EST -0500
Sunday,	March	12,	2017	01:45:00	EST -0500
Sunday,	March	12,	2017	03:00:00	EDT -0400
Sunday,	March	12,	2017	03:15:00	EDT -0400
Sunday,	March	12,	2017	03:30:00	EDT -0400
Sunday,	March	12,	2017	03:45:00	EDT -0400

#### When Time Moves Back

A Time or Cron trigger defined to run at a time that is being repeated due to the time change will also be repeated, as shown in the following example; the time zone is Eastern (EST) and the time changes from 2 a.m. EST to 1 a.m. on November 5. In this case, the 15 minute interval trigger will run at the following times:

Sunday,	November	05,	2017	00:00:00	EDT -0	400
Sunday,	November	05,	2017	00:15:00	EDT -0	400
Sunday,	November	05,	2017	00:30:00	EDT -0	400
Sunday,	November	05,	2017	00:45:00	EDT -0	400
Sunday,	November	05,	2017	01:00:00	EDT -0	400
Sunday,	November	05,	2017	01:15:00	EDT -0	400
Sunday,	November	05,	2017	01:30:00	EDT -0	400
Sunday,	November	05,	2017	01:45:00	EDT -0	400
Sunday,	November	05,	2017	01:00:00	EST -0	500
Sunday,	November	05,	2017	01:15:00	EST -0	500
Sunday,	November	05,	2017	01:30:00	EST -0	500
Sunday,	November	05,	2017	01:45:00	EST -0	500
Sunday,	November	05,	2017	02:00:00	EST -0	500
Sunday,	November	05,	2017	02:15:00	EST -0	500
Sunday,	November	05,	2017	02:30:00	EST -0	500
Sunday,	November	05,	2017	02:45:00	EST -0	500
Sunday,	November	05,	2017	03:00:00	EST -0	500
Sunday,	November	05,	2017	03:15:00	EST -0	500
Sunday,	November	05,	2017	03:30:00	EST -0	500
Sunday,	November	05,	2017	03:45:00	EST -0	500

## **Absolute Times**

For absolute time Cron and Time triggers, the behavior is different.

#### **Cron Trigger**

#### **Basic Behavior**

The behavior of the Cron trigger follows the standard Cron behavior as described in the man page for Cron.

Each line has five time and date fields, followed by a user name if this is the system crontab file, followed by a command. Commands are executed by cron(8) when the minute, hour, and month of year fields match the current time, and at least one of the two day fields (day of month, or day of week) match the current time. This means that non-existent times, such as "missing hours" during daylight saving conversion, will never match, causing jobs scheduled during the "missing times" not to be run. Similarly, times that occur more than once (again, during daylight savings conversion) will cause matching jobs to be run twice.

#### When Time Moves Forward

A Cron trigger defined to run at a time that is being skipped due to the time change will also be skipped.

For example: A trigger is defined for every Sunday at 2:30 a.m. On March 12, 2017, the time changes from 2 a.m. EST to 3 a.m., so on March 12 the 2:30 a.m. run is skipped and runs the following Sunday at 2:30 a.m.

#### When Time Moves Back

A Cron trigger defined to run at a time that is being repeated due to the time change will also be repeated.

For example: A trigger is defined for every Sunday at 1:30 a.m. On November 5, 2017, the time changes from 2 a.m. EDT to 1 a.m., so on November 5 the 1:30 a.m. run is repeated, as shown below:

Sunday, November 05, 2017 01:30:00 EDT -0400 Sunday, November 05, 2017 01:30:00 EST -0500

#### **Time Trigger**

#### When Time Moves Forward

A Time trigger defined to run at a time that is being skipped due to the time change will run as though the time did not change; however, the recorded run time will be one hour later.

For example: A trigger is defined for every Sunday at 2:30 a.m. On March 12, 2017, the time changes from 2 a.m. EST to 3 a.m. EST, so on March 12 the 2:30 a.m. run fires at 3:30. The following Sunday, and henceforth, it runs at 2:30 a.m., as shown below:

Sunday, March 05, 2017 02:30:00 EST -0500 Sunday, March 12, 2017 03:30:00 EDT -0400 Sunday, March 19, 2017 02:30:00 EDT -0400 Sunday, March 26, 2017 02:30:00 EDT -0400

#### When Time Moves Back

A Time trigger defined to run at a time that is being repeated due to the time change will not be repeated.

For example: A trigger is defined for every Sunday at 1:30 a.m. On November 5, 2017, the time changes from 2 a.m. EDT to 1 a.m. EST, so on November 5 the 1:30 a.m. run fires once, as shown below:

Sunday, October 29, 2017 01:30:00 EDT -0400 Sunday, November 05, 2017 01:30:00 EDT -0400 Sunday, November 12, 2017 01:30:00 EST -0500 Sunday, November 19, 2017 01:30:00 EST -0500 Sunday, November 26, 2017 01:30:00 EST -0500

# **Additional Information**

The following pages provide additional information for triggers:

- Enabling and Disabling Triggers
- Copying Triggers
- Triggering with Variables
- Triggering by Date and Time
- Displaying Trigger Forecast Information

# **Cron Trigger**

- Overview
- Cron Syntax
  - Cron Fields
    - Cron Special Characters
  - Cron Criteria Examples
- Creating a Cron Trigger
  - Cron Trigger Details
  - Cron Trigger Details Field Descriptions
- Scheduling a Time Interval
- Generating a List of Qualifying Times

## Overview

The Cron trigger, similar to the Time trigger, allows you to specify dates and times at which a task will be triggered.

With both Cron and Time triggers, you can define:

- Simple date and times, such as "every weekday at 12:00 a.m."
- Specific dates and times, such as "March 15 at 12:00 a.m."
- A series of dates and times, such as "every Friday at every hour."
- A mixture of specific dates/times and a series, such as "every Monday at 9 a.m."
- Complex dates and times, such as "every 3 hours between 8 a.m. and 5 p.m. on the last business day of the year."

(Read Daylight Saving Time for details about how Universal Controller handles Daylight Saving Time.)

It is recommended that you use a Cron trigger, rather than a Time trigger, if you want to schedule non-standard time intervals for a triggering a task (see Scheduling a Time Interval, below).

# **Cron Syntax**

The Cron trigger uses standard Cron syntax. Once the Cron trigger is entered into the system, the Controller interprets it and processes it as it would any other trigger. The trigger is satisfied when the current date and time match all the values specified in the Minutes, Hours, Day of Month, Month, and Day of Week fields.

## **Cron Fields**

The following table identifies the allowed values for the time and date fields that are used to specify the Cron Criteria in the Cron Trigger Details.

Field Name	Required	Allowed Values	Allowed Special Characters
Minutes	Yes	0-59	*/,-
Hours	Yes	0-23	*/,-
Day of Month	Yes	1-31	*/,-
Month	Yes	1-12 or JAN-DEC	*/,-

Day of Week	Yes	0-7 or SUN (0 or 7)-SAT	*/,-
-------------	-----	-------------------------	------

#### Note

The day when a Cron trigger launches can be specified by two fields: Day of Month and Day of Week. If both fields are restricted (that is, they both are not \*), the trigger launches based on the Day Logic field value. If Day Logic is set to **Or**, when either Day field matches, the trigger can launch. For example: 30 4 1,20 \* 5 would cause the trigger to launch at 4:30 a.m. on the 1st and 20th of each month, as well as on every Friday. If, however, Day Logic is set to **And**, the trigger would launch at 4:30 a.m. only on days that are the 1st or 20th which are also a Friday.

## **Cron Special Characters**

Asterisk (*)	An asterisk indicates that the expression matches for all values of the field. For example, using * in the Month field indicates every month.
Slash ( / )	A slash describes an increment of ranges. For example, <b>5-50/15</b> in the Minutes field indicate the fifth minute of the hour and every 15 minutes thereafter until the 50th minute (5,20,35,50).
Hyphen ( - )	Defines a range of numbers, which are two numbers separated by a hyphen. The specified range is inclusive. For example, <b>9-17</b> in the Hours field means from 9 a.m. to 5 p.m., inclusive.
Comma ( , )	Separates items in a list. A list is a set of numbers or ranges separated by commas. For example, <b>1,5-9,18-20</b> in the Hours field indicate the following hours 1,5,6,7,8,9,18,19,20.

## **Cron Criteria Examples**

Cron Criteria	Description
0 3 30 4,6,9,11 5	At 3 a.m. on the 30th of the month, for months with exactly 30 days, if the 30th is a Friday.
0 3 31 * 0	At 3 a.m. on the 31st of the month if the 31st is a Sunday.
0 3 22-28 * 0	At 3 a.m. on the 4th Sunday of every month.
0 5-19/7 * * *	Every 7 hours between 5 a.m. and 7 p.m., daily.
0 5,12,19 * * 1,3	Every 7 hours between 5 a.m. to 7 p.m. on Monday and Wednesday.
0 9-17 * * Mon-Fri	Every hour between 9 a.m. and 5 p.m. from Monday to Friday.
0 2-11/3 * * *	Every 3 hours between 2 a.m. and 11 a.m., daily.
0 3 29 2 *	At 3 a.m. on February 29th.
30 1-3,17 * * 1,3,5	At 30 minutes past the hours of 1 a.m., 2 a.m., 3 a.m., and 5 p.m. on Monday, Wednesday, and Friday.

# Creating a Cron Trigger

Image: Stonebranch-crontrigger-02         Image: Stonebranch-crontrigger-03         Image: Stonebranch-crontrigger-03         Image: Stonebranch-crontrigger-04         Image: Stonebranch-crontrigger-04         Image: Stonebranch-crontrigger-05         Image: Stonebranch-crontrigger-05<	Name       Description       Enabled       Next Scheduled Time       Cron Criteria       Updated         is stonebranch-crontrigger-01       20       020***       ops admin       2016-05-24 14 29 09         is stonebranch-crontrigger-03       20       0****       ops admin       2016-05-24 14 29 09         is stonebranch-crontrigger-03       20       0*****       ops admin       2016-05-24 14 29 09         is stonebranch-crontrigger-04       20       0*****       ops admin       2016-05-24 14 29 09         is stonebranch-crontrigger-05       20       0*****       ops admin       2016-05-24 14 29 09         is stonebranch-crontrigger-05       20       0*****       ops admin       2016-05-24 14 29 09         is stonebranch-crontrigger-05       20       0*****       ops admin       2016-05-24 14 29 09         is stonebranch-crontrigger-05       20       0*****       ops admin       2016-05-24 14 29 09         is stonebranch-crontrigger-01       Versions       2016-05-24 14 29 09       2016-05-24 14 29 09         is stonebranch-crontrigger-01       Versions       2016-05-24 14 29 09       2016-05-24 14 29 09         is stonebranch-crontrigger-01       Versions       2016-05-24 14 29       2016-05-24 14 29         is stonebranch-crontrigger-01       Versions	Name       Description       Enabled       Next Scheduled Time       Cron Citeria       Updated By       Updated         Stonebranch-crontrigger-01       ©       0 20***       ops.admin       2016-05-24 14.29.09         Stonebranch-crontrigger-02       ©       0 *****       ops.admin       2016-05-24 14.29.09         Stonebranch-crontrigger-03       ©       0 *****       ops.admin       2016-05-24 14.29.09         Stonebranch-crontrigger-04       ©       0 *****       ops.admin       2016-05-24 14.29.09         Stonebranch-crontrigger-05       ©       0 *****       ops.admin       2016-05-24 14.29.09         Stonebranch-crontrigger-05       ©       0 *****       ops.admin       2016-05-24 14.29.09         Constrainger       Variables       Update       New       Trigger Now       ©       List Qualifying Times       Enable       Refr         Constrainger       Variables       Versions       ©       Constraines       W       Stonebranch-crontrigger-01       Version :       1       Description :       W       W       Stonebranch-crontrigger-01       W       W       Stonebranch-windowstask-01       W       Stonebranch-windowstask-01       W       Stonebranch-windowstask-01       Stonebranch-windowstask-01       Stonebranch-windowstask-01       S								
istonebranch-crontrigger-01       Image: Construction of the second of the	stonebranch-crontrigger-01       Image: Constraint of the stonebranch-crontrigger-02       Image: Constraint of the stonebranch-crontrigger-03       Image: Constraint of the stonebranch-crontrigger-03       Image: Constraint of the stonebranch-crontrigger-04       Image: Constraint of the stonebranch-crontrigger-05       Image: Constraint of the stonebranch-crontrigger-04       Image: Constraint of the stonebranch-crontrigger-05         Image: Constraint of the stonebranch-crontrigger-01         Image: Constraint of the stonebranch-crontrigger-01       Image: Constraint of the stonebranch-crontrigger-01       Image: Constraint of the stonebranch-crontrigger-01       Image: Constraint of the stonebranch-crontrigger-01         Image: Constraint of the stonebranch-crontrigger-01       Image: Constraint of the stonebranch-crontrigger-01       Image: Constraint of the stonebranch-crontrigger-01       Image: Constraint of the stonebranch-crontrigger-01         Image: Constraint of the stonebranch-crontrigger-01       Image: Constraint of the stonebranch-crontrigger-01       Image: Constraint of the stonebranch-crontrigger-01       Image: Constraint of the stonebranch-crontrigger-01       Image: Constraint of the stonebranch-crontrigger-01       Image: Constraint of the stonebranch-crontrigger-01       Image: Constraint of the stonebranch-crontrigger-01       Image: Constraint of the stonebranch-crontrigger-01       Image: Constraint of	istonebranch-crontrigger-01       Image: Construction of the second of the	✓ 5 Cron Triggers	Custom Filter N	one		× 🔻	Filter 🔯 🧿	<u>6</u> o To   📑 New	
stonebranch-crontrigger-02 Image: Stonebranch-crontrigger-03   stonebranch-crontrigger-04 Image: Stonebranch-crontrigger-05   v Cron Trigger Details   Image: Stonebranch-crontrigger-01 Version :	stonebranch-crontrigger-02 Image: Stonebranch-crontrigger-03   stonebranch-crontrigger-04 Image: Stonebranch-crontrigger-05   v comps.admin   comps.admin 2016-05-24 14.29.09   stonebranch-crontrigger-05 Image: Stonebranch-crontrigger-05   v comps.admin   comps.admin 2016-05-24 14.29.09   stonebranch-crontrigger-05 Image: Stonebranch-crontrigger-05   comps.admin 2016-05-24 14.29.09   v Cron Trigger Details   image: Stonebranch-crontrigger-05 image: Stonebranch-crontrigger-06   comps.admin 2016-05-24 14.29.09   v Cron Trigger Variables   v Cron Trigger Variables   v Versions   comps.admin 2016-05-24 14.29.09   v Cron Trigger Variables   v Cron Trigger Variables   v Versions   comps.admin 2016-05-24 14.29.09	Stonebranch-crontrigger-02       S       0 ************************************	Name 👚	Description	Enabled	Next Scheduled Time	Cron Criteria	Updated By	Updated	
is stonebranch-crontrigger-03 Image: stonebranch-crontrigger-04   is stonebranch-crontrigger-04 Image: stonebranch-crontrigger-05   is stonebranch-crontrigger-05 Image: stonebranch-crontrigger-05   image: stonebranch-crontrigger-05 Image: stonebranch-crontrigger-01   image: stonebranch-crontrigger-01 Version:   Image: stonebranch-windowstask-01 Image: stonebranch-windowstask-01   Image: stonebranch-windowstask-01 Image: stonebranch-windowstask-01	is stonebranch-crontrigger-03 Image: Constraint of the stonebranch-crontrigger-04   is stonebranch-crontrigger-05 Image: Constraint of the stonebranch-crontrigger-05   image: Constraint of the stonebranch-crontrigger-01 Image: Constraint of the stonebranch-crontrigger-01   image: Constraint of the stonebranch-crontrigger-01 Version:   image: Constraint of the stonebranch-crontrigger-01 Version:   image: Stonebranch-windowstask-01 Image: Stonebranch-windowstask-01   image: Stonebranch-windowstask-01 Image: Stonebranch-windowstask-01	stonebranch-crontrigger-03 Image: Control of the stonebranch-crontrigger-04     stonebranch-crontrigger-05     Image: Control of the stonebranch-crontrigger-01     Version:     Image: Conebranch-windowstask-01     Image: Conebranch-windowstask-01     Image: Conebranch-windowstask-01     Image: Conebranch-windowstask-01     Image: Conebranch-windowstask-01  <	stonebranch-crontrigger-01		8		0 20 * * *	ops.admin	2016-05-24 14:29	09 -0
Image: stonebranch-crontrigger-04       Image: stonebranch-crontrigger-05       Image: stonebranch-crontrigger-05         Image: stonebranch-crontrigger-05       Image: stonebranch-crontrigger-05       Image: stonebranch-crontrigger-04         Image: stonebranch-crontrigger-05       Image: stonebranch-crontrigger-04       Image: stonebranch-crontrigger-04         Image: stonebranch-crontrigger-05       Image: stonebranch-crontrigger-04       Image: stonebranch-crontrigger-04         Image: stonebranch-crontrigger-01       Image: stonebranch-crontrigger-01       Image: stonebranch-crontrigger-01         Image: stonebranch-windowstask-01       Image: stonebranch-windowstask-01       Image: stonebranch-windowstask-01         Image: stonebranch-windowstask-01       Image: stonebranch-windowstask-01       Image: stonebranch-windowstask-01         Image: stonebranch-windowstask-01       Image: stonebranch-windowstask-01       Image: stonebranch-windowstask-01         Image: stonebranch-windowstask-01       Image: stonebranch-windowstask-01       Image: stonebranch-windowstask-01       Image: stonebranch-windowstask-01	Image: stonebranch-crontrigger-04 Image: stonebranch-crontrigger-05   Image: stonebranch-crontrigger-05 Image: stonebranch-crontrigger-05   Image: stonebranch-crontrigger-05 Image: stonebranch-crontrigger-06   Image: stonebranch-crontrigger-01 Image: stonebranch-crontrigger-01   Image: stonebranch-windowstask-01 Image: stonebranch-windowstask-01   Image: stonebranch-windowstask-01 Image: stonebranch-windowstask-01	istonebranch-crontrigger-04       Image: Construction of the second of the	stonebranch-crontrigger-02		_			ops.admin	2016-05-24 14:29	09 -0
Image: Stonebranch-crontrigger-05       Image: Other Stonebranch-crontrigger-05       Image: Other Stonebranch-crontrigger-01       Image: Stonebranch-crontriger-01       Image: Stonebranch-crontrigger-01	image: stonebranch-crontrigger-05       image: stonebranch-crontrigger-05       0 ***** ops.admin       2016-05-24 14-29.09 ·         * Cron Trigger Details       Image: stonebranch-crontrigger-01       Image: stonebranch-crontrigger-01       Image: stonebranch-crontrigger-01       Version :       1         Description :       Image: stonebranch-crontrigger-01       Version :       1       Image: stonebranch-crontrigger-01       Version :       1         Description :       Image: stonebranch-crontrigger-01       Version :       1       Image: stonebranch-crontrigger-01       Version :       1         Calendar :       System Default       Image: stonebranch-windowstask-01       Image: stonebranch-windowstask-01       Image: stonebranch-windowstask-01       Image: stonebranch-windowstask-01	Image: stonebranch-crontrigger-05       Image: stonebranch-crontrigger-05       Image: stonebranch-crontrigger-05         Image: stonebranch-crontrigger-01       Image: stonebranch-crontrigger-01       Image: stonebranch-crontrigger-01         Image: stonebranch-windowstask-01       Image: stonebranch-windowstask-01       Image: stonebranch-windowstask-01       Image: stonebranch-windowstask-01	stonebranch-crontrigger-03		-		-	ops.admin	2016-05-24 14:29	09 -0
Con Trigger Details Variables Variables Versions General General Scription: Member of Business Services: Calendar: System Default Stonebranch-windowstask-01	Con Trigger Details Variables Variables Versions General General Scorebranch-crontrigger-01 Version : 1 Delete % Refn Cron Trigger Variables Versions Calendar: System Default stonebranch-windowstask-01 fask(s): Stonebranch-windowstask-01 Stone	Cron Trigger Details Update New S Enable Trigger Now EList Qualifying Times Copy Delete Refr Cron Trigger Variables Versions General General Name : stonebranch-crontrigger-01 Version : 1 Description : Member of Business Services : Calendar: System Default Time Zone : Server (US/Eastern) It is to rebranch-windowstask-01 It is to rebranch-windowstask-01 It is to rebranch and it is to rebran	stonebranch-crontrigger-04				0	ops.admin	2016-05-24 14:29	09 -0
Cron Trigger Details Update New S Enable Trigger Now List Qualifying Times Copy Delete Refr     Cron Trigger Variables Versions     General     General     Mame : stonebranch-crontrigger-01     Version :     1     Description :     Member of   Business   Services :     Calendar : System Default     Stonebranch-windowstask-01     Image: Server (US/Eastern)     Task(s) :     Image: Server (US/Eastern)	Cron Trigger Details       Image: Update       New Image: Enable Image: Copy	<ul> <li>Cron Trigger Details</li> <li>Update New S Enable S Trigger Now E List Qualifying Times Copy Delete Refr</li> <li>Cron Trigger Variables Versions</li> <li>General</li> <li>General</li> <li>Business</li> <li>Services :</li> <li>Calendar : System Default</li> <li>stonebranch-windowstask-01</li> <li>Time Zone : Server (US/Eastern)</li> </ul>	stonebranch-crontrigger-05		8		0 * * * *	ops.admin	2016-05-24 14:29	09 -0
Name : stonebranch-crontrigger-01 Version : 1   Description :	Name : stonebranch-crontrigger-01 Version : 1   Description :	Name : stonebranch-crontrigger-01 Version : 1   Description :	✓ Cron Trigger Details		🚳 Enable 🄇	-	List Qualifying Tim	es 🕒 Copy	🚮 Delete 🛭 😫 F	Refre
Name : stonebranch-crontrigger-01 Version : 1   Description :	Name : stonebranch-crontrigger-01 Version : 1   Description :	Name : stonebranch-crontrigger-01 Version : 1   Description :	Cron Trigger 🛛 🔍 Variables	Versions						
Description :       Member of Business Services :       Calendar :       System Default       stonebranch-windowstask-01       Image: Stonebranch-windowstask-01       Image: Stonebranch-windowstask-01	Description :       Member of Business Services :       Calendar :       System Default       istonebranch-windowstask-01       istonebranch-windowstask-01	Description :   Member of   Business   Services :   Calendar :   System Default   Imask(s) :     Image: Imag	General							_
Description :       Member of Business Services :       Calendar :       System Default       stonebranch-windowstask-01       Image: Stonebranch-windowstask-01       Image: Stonebranch-windowstask-01	Description :       Member of Business Services :       Calendar :       System Default       istonebranch-windowstask-01       istonebranch-windowstask-01	Description :   Member of Business   Services :     Calendar :   System Default     Image: System Default     Time Zone :   Server (US/Eastern)     Image: System Default     Image: Server (US/Eastern)     Image: System Default     Image: Server (US/Eastern)     Image: Server (US/Eastern) <td></td> <td>ch-crontrigger-01</td> <td></td> <td>Version :</td> <td>1</td> <td></td> <td></td> <td></td>		ch-crontrigger-01		Version :	1			
Member of Business Services : Calendar : System Default Image: Server (US/Eastern) Image: Server (US/E	Member of Business Services : Calendar : System Default tonebranch-windowstask-01 Task(s) : Task(s) :	Member of Business Services : Calendar : System Default		33						
Business Services : Calendar : System Default	Business Services : Calendar : System Default Task(s) :	Business Services : Calendar : System Default Time Zone : Server (US/Eastern) V Stonebranch-windowstask-01	Debenption .							
Calendar : System Default v E Time Zone : Server (US/Eastern) v	Calendar : System Default v C Time Zone : Server (US/Eastern) v stonebranch-windowstask-01	Calendar :       System Default       Time Zone :       Server (US/Eastern)         stonebranch-windowstask-01       Image: Calendar Content of Conte	Member of						~	
Task(s):	stonebranch-windowstask-01       Task(s):	Task(s):	Business							
Task(s):	Task(s):	Task(s):         Image: Comparison of the second secon	Business Services :							
			Business Services :	fault	~	Time Zone :	Gerver (US/Eastern)		*	
			Business Services : Calendar : System De		~	Time Zone :	Server (US/Eastern)		~	
4	e m		Business Services : Calendar : System De stonebranc				Gerver (US/Eastern)		v	
i in la	á í í		Business Services : Calendar : System De stonebranc				Server (US/Eastern)		v	
		stor/select Datails for a new Crop trigger, using the field descriptions below as a guide	Business Services : Calendar : System De stonebranc				Server (US/Eastern)		~	
nter/select Details for a new Cron trigger, using the field descriptions below as a guide.	nter/select Details for a new Cron trigger, using the field descriptions below as a guide.		Business Services : Calendar : System De stonebranc Task(s) :	h-windowstask-01					×	
<ul> <li>nter/select Details for a new Cron trigger, using the field descriptions below as a guide.</li> <li>Required fields display in <b>boldface</b>.</li> </ul>		<ul> <li>Required fields display in <b>boldface</b>.</li> </ul>	Business Services : Calendar : System De stonebranc Task(s) :	h-windowstask-01					×	
	Required fields display in <b>boldface</b> .		Business Services : Calendar : System Do stonebranc Task(s) :	h-windowstask-01 ew Cron trigger, using play in <b>boldface</b> .	g the field	descriptions belo			×	5
<ul> <li>Required fields display in <b>boldface</b>.</li> <li>Default values for fields, if available, display automatically.</li> </ul>	<ul> <li>Required fields display in <b>boldface</b>.</li> <li>Default values for fields, if available, display automatically.</li> </ul>	Default values for fields, if available, display automatically.	Business Services : Calendar : System De stonebrance Task(s) : 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	h-windowstask-01 ew Cron trigger, using play in <b>boldface</b> . fields, if available, dis	g the field	descriptions belo			×	>
<ul> <li>Required fields display in <b>boldface</b>.</li> <li>Default values for fields, if available, display automatically.</li> </ul>	<ul> <li>Required fields display in <b>boldface</b>.</li> <li>Default values for fields, if available, display automatically.</li> </ul>	Default values for fields, if available, display automatically.	Business Services : Calendar : System De stonebranc Task(s) : 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	h-windowstask-01 ew Cron trigger, using play in <b>boldface</b> . fields, if available, dis	g the field	descriptions belo			×	
<ul> <li>Required fields display in <b>boldface</b>.</li> <li>Default values for fields, if available, display automatically.</li> <li>o display more of the Details fields on the screen, you can either:</li> </ul>	<ul> <li>Required fields display in <b>boldface</b>.</li> <li>Default values for fields, if available, display automatically.</li> <li>D display more of the Details fields on the screen, you can either:</li> </ul>	Default values for fields, if available, display automatically.     o display more of the Details fields on the screen, you can either:	Business Services : Calendar : System De stonebrance Task(s) : • • • Required fields dis • Default values for to display more of the Deta	h-windowstask-01 ew Cron trigger, using play in <b>boldface</b> . fields, if available, dis	g the field	descriptions belo			×	
<ul> <li>Required fields display in <b>boldface</b>.</li> <li>Default values for fields, if available, display automatically.</li> </ul>	<ul> <li>Required fields display in <b>boldface</b>.</li> <li>Default values for fields, if available, display automatically.</li> <li>o display more of the Details fields on the screen, you can either:</li> <li>Use the scroll bar.</li> </ul>	<ul> <li>Default values for fields, if available, display automatically.</li> <li>o display more of the Details fields on the screen, you can either:</li> <li>Use the scroll bar.</li> </ul>	Business Services : Calendar : System De stonebranc Task(s) : 1 1	h-windowstask-01 ew Cron trigger, using play in <b>boldface</b> . fields, if available, dis ails fields on the scre	g the field splay autor en, you ca	descriptions belo			×	

 Step 3
 Click a Save button. The trigger is added to the database, and all buttons and tabs in the Trigger Details are enabled.

 Step 4
 Enable the trigger(s) as desired.

Note

Δ

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).

## **Cron Trigger Details**

The following Cron Trigger Details is for an existing Cron trigger. See the field descriptions, below, for a description of the fields that display in the Cron Trigger Details.

		_	~	~	472		-	-		
		💾 Update	🚳 Enable	TI 🕑	igger Now 觉 List	Qualifying Times	Copy (	🗊 Delete	😫 Refresh	💥 Clo
ron Trigger 🛛 🔋 Var	ables   Versions									
General										
	stonebranch-crontrigger-01				Version :	2				
Description :										
Member of Business Services :										~
Calendar:	System Default			¥ 8	Time Zone :	Server (US/Eastern	ו)			~
	stonebranch-windowstask-01									
Task(s) :										
Purge By Retention Duration :										
Status										
Forecast:					Status :	Disabled				
Skip Count :	0				Disabled By:					
Task Launch Skip Condition :	None		*							
Simulate :	System Default		~							
Cron Details										
Minutes :	0				Day Logic :	And	× .			
Hours :										
Day of Month :					-					
Month :										
Day of Week :										
Cron Criteria :										
Croir Citiena .	•									
Restrictions										
Special Restriction :					Action :	Do Not Trigger			~	
Simple Restriction :					Complex					
					Restriction :					
Situation :	On Holiday		~		Restriction Adjective :	Every			~	
Restriction Mode :	Or		~		Restriction Noun :					~
					Restriction Qualifier :	Year				*

# Cron Trigger Details Field Descriptions

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

Field Name	me Description	
------------	----------------	--

General	This section contains general information about the trigger.
Name	Name used within the Controller to identify this trigger. It can contain a maximum of 255 alphanumerics. It is the responsibility of the user to develop a workable naming scheme for triggers.
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	User-defined; description of this trigger.
Member of Business Services	User-defined; allows you to select one or more Business Services that this record belongs to.
Calendar	Calendar that defines the business days, holidays, and other special days that determine the run dates for the task(s) specified in the trigger. Select a Calendar from the drop-down list of all existing Calendars. To display detailed information about a selected calendar, click the Details icon next to the Calendar field.
Time Zone	User-defined; allows you to specify the time zone that will be applied to the time(s) specified in the trigger. For example, if you specify 23:00 and a time zone of Canada/Central, the task will run at 11:00 p.m. Central Canada time.
Task(s)	Name of the task(s) being triggered when this trigger is satisfied. When selecting tasks from the Details, click on the lock icon to unlock the field and select tasks.
Purge By Retention Duration	Specification for whether triggered task instances can be purged by retention duration.
Exclude Backup	If Purge By Retention Duration is selected; Specification for whether qualifying task instances can be excluded from the backup when being purged by retention duration.
Retention Duration	If Purge By Retention Duration is selected; Minimum retention duration for the selected Retention Duration Unit before triggered task instances can qualify for purge.
Retention Duration Unit	If Purge By Retention Duration is selected; Retention duration unit. Options:
	<ul><li>Hours</li><li>Days</li></ul>

Execution User	Read-only; Execution user that has been selected (via the Assign Execution User action) to override the execution user of task instances being launched by the trigger.
Status	This section contains information about the current status of the trigger.
Forecast	If checked, the Controller calculates the date and time when this trigger will be satisfied for the next number of days, as specified in the Forecast Period In Days Universal Controller system property. The Controller writes the forecasting entries to the Forecasts List.
	Note If this field is checked on a trigger and the trigger is promoted, it will not be checked for that trigger on the target system.
Status	User-defined; indication of whether the trigger is enabled (checked) or disabled (not checked). The user enables and disables the trigger by clicking the Enable / Disable buttons. Only enabled triggers are processed by the Controller.
Skip Count	User-defined; allows you to specify that the Controller should skip the next <i>N</i> times this task is triggered.
Enabled By	System-supplied. If Status = Enabled, ID of the user who most recently enabled this trigger.
Disabled By	System-supplied; If Status = Disabled, ID of the user who most recently enabled this trigger. (By default, all new triggers are disabled.)
Task Launch Skip Condition	User-defined; Controls when launching a task for the trigger will be skipped. Options:
	<ul> <li>- None - Do not skip the task launch.</li> <li>Active Skip the task launch if a previous instance is still active.</li> <li>Active By Trigger Skip the task launch if a previous instance launched by the trigger is still active.</li> </ul>
Next Scheduled Time	System-supplied; for time-based triggers. If Status = Enabled, the next date and time this trigger will be satisfied. See Displaying Trigger Forecast Information.

Freehender verste stelle Triner O'meletie Universit Orsteller verste sonner st. 17. d. f. d.
Enables the override of the Enable Trigger Simulation Universal Controller system property specification for whether or not to simulate the launching of tasks when triggers are eligible to fire. (If simulation is enabled, only the scheduled launch of the task by the trigger is inhibited.)
Options:
<ul> <li> System Default Use the system default for enabling / disabling trigger simulation as specified by Enable Trigger Simulation.</li> <li>True - Enable trigger simulation</li> <li>False - Disable trigger simulation.</li> </ul>
This section contains assorted detailed information about the trigger.
Time in minutes, using standard Cron syntax.
Time in hours, using standard Cron syntax. (See also Daylight Saving Time.)
Day of the month, using standard Cron syntax.
Required. Month, using standard Cron syntax.
Day of the week, using standard Cron syntax.
System-supplied; summary of the Cron specifications. Also displays in the Cron Criteria column on the Cron Triggers list.
Specification for whether to And the Day of Month with the Day of Week criteria or to Or the Day of Month with the Day of Week criteria.
This section specifies any restrictions that apply to the trigger.
Enable this field in order to specify additional parameters that tell the Controller how to handle exceptions, such as when the trigger is satisfied on a holiday or non-business day. You can specify simple and/or complex restrictions. For example, you can specify a Simple Restriction that disables the trigger if it is satisfied on a holiday identified in the calendar and/or a Complex Restriction that disables the trigger on the last business day of every month.

Action	
	If Special Restriction is enabled, allows you to select an action to take on a non-business day or holiday (see Situation field).
	Options:
	<ul> <li>Do Not Trigger</li> <li>Next Day (run on the next day)</li> </ul>
	<ul> <li>Next Business Day (run on the next business day, as defined in the calendar)</li> <li>Previous Day (run on the previous day)</li> </ul>
	Previous Business Day (run on the previous business day, as defined in the calendar)
Simple	
Restriction	If enabled, allows you to specify an action (see Action field) such as Do Not Trigger on a non-business day or holiday (see Situation field). For example, do not trigger on a non-business day.
Situation	If Simple Restriction is enabled, allows you to select the situation that causes the system to initiate the action specified in the Action field.
	Options:
	<ul> <li>On Non Business Day</li> <li>On Holiday</li> </ul>
Complex Restriction	If enabled, allows you to specify a set of parameters that determine one or more situations when this trigger should not be satisfied. Used in conjunction with the following fields: Restriction Mode, Restriction Adjective, Restriction Noun, Restriction Qualifier. For example, you may specify that you do not want to satisfy this trigger on the last business day of the year or the first day of each month.
Restriction Mode	If both Simple Restriction and Complex Restriction are enabled, specifies whether you want to use both restriction types (AND) or one or the other (OR).
	Options:
	<ul> <li>And</li> <li>Or</li> </ul>
Restriction Adjective	If Complex Restriction is enabled, the type of selection.
Rujective	Options:
	Every
	• 1st
	<ul> <li>2nd</li> <li>3rd</li> </ul>
	<ul> <li>4th</li> <li>Last</li> </ul>
	Example: The <b>last</b> business day of the month.

Restriction         It Complex Restriction is enabled, the day you want to select.           Options:         • Sunday through Saturday           • Day         Day           Example: The last business day of the month.           Restriction         Container Day           Example: The last business day of the month.           Restriction         Container Day           Value         Provide Restriction is enabled, the period you are selecting from.           Options:         • Month           • Year         - January through December           • Catation period         Example: The last business day of the record.           UUD         Universally Unique Identifier of this record.           UUD         Universally Unique Identifier of this record.           Updated         Date and time that this record was last updated.           Created P         Name of the user that created this accord.           Utions         This section identifier of this record.           Updated         Date and time that this record was created.           Utions         This section identifier of this record.           Updated P         Name of the user that created this record.           Utions         This section identifier of this record.           Save a new record in the Controller database.         Save a new record in the Con		
Provide       Sunday through Saturday         Provide       Suspense Day         Business Day       Example: The tast business day of the month.         Restidient       If Complex Restriction is enabled, the period you are selecting from.         Options:       Provide Pro		If Complex Restriction is enabled, the day you want to select.
Pay       Pay         Restriction       Example: The last business Day         Restriction       If Complex Restriction is enabled, the period you are selecting from.         Options: <ul> <li>Month</li> <li>Yaar</li> <li>Using period</li> <li>Custom Day</li> <li>Konth</li> <li>Yaar</li> <li>Using period</li> <li>Custom period</li> <li>Example: The last quater of the year.</li> </ul> Metadata       This section contains Metadata information about this record.         UUID       Universally Unique Identifier of this record.         UUID       Name of the user that last updated this record.         Updated       Data and time that this record was last updated.         Created by       Name of the user that last updated this record.         Updated       Data and time that this record was last updated.         Created by       Name of the user that careated this record.         Utations       This section identifies the buitons displayed above and below the Trigger Details that let up up of rom various actions.         Save A       Saves a new record in the Controller database.         Save A       Saves a new record in the Controller database and continues to display that record.         Ware       Saves a new record in the Controller database and continues to display that record.         Save A       Saves a new record in the Controller database and continues to display that re		Options:
Residences Day         Example: The last business day of the month.         Residence         Residence         Promplex Restriction is enabled, the period you are selecting from.         Options:         Promplex Restriction is enabled, the period you are selecting from.         Options:         Promplex Restriction is enabled, the period you are selecting from.         Options:         Promplex Restriction is enabled, the period you are selecting from.         Options:         Promplex Restriction is enabled, the period you are selecting from.         Options:         Promplex Restriction is enabled, the period you are selecting from.         Promplex Restriction is enabled, the period you are selecting from.         Promplex Restriction is enabled, the period you are selecting from.         Promplex Restriction is enabled, the period you are selecting from.         Promplex Restriction is enabled, the period you are selecting from y		
Residuation       Example: The last business day of the month.         Residuation       If complex Restriction is enabled, the period you are selecting from.         Options:       Options:         • Month       • Years         • Custom Devid       Example: The last quarter of the year.         Metadata       Misechico custom period         Nume of the user that last quarter of the year.         Volume       Nume of the user that last quarter of the year.         Volume       Nume of the user that last quarter of the year.         Volume       Nume of the user that last quarter of the year.         Volume       Nume of the user that last quarter of the year.         Volume       Nume of the user that last quarter of the year.         Volume       Nume of the user that last quarter of the year.         Volume       Nume of the user that last quarter of the year.         Volume       Nume of the user that last quarter of the year.         Volume       Nume of the user that last quarter of the year.         Volume       Nume of the user that last quarter of the year.         Volume       Nume of the user that last quarter of the year.         Volume       Nume of the user that created this record.         Volume       Nume of the user that created this record.         Sevea       Nume of the Unto		
Restriction is enabled, the period you are selecting from.         Options:         • Month         • Year         • Lampy through December         • Custom period         Example: The last quarter of the year.         Medatata         Minitad         UDID         UNiversalty Unique Identifier of this record.         UID4         Variation of the user that last updated this record.         UDID4         Date and time that this record was last updated.         Created B5         Name of the user that created this record.         UDID5         Insection identifies the button displayed above and below the Trigger Details that let you perform various actions.         Created B5         Oster and time that this record was created.         Stave A New         Saves a new task record in the Controller database.         Save A New         Saves a new record in the Controller database.         Save A New         Saves a new record in the Controller database.         Save A New         Saves A New cord in the Controller database.         Save A New         Saves a new record in the Controller database and recipipaly that record.         New       Isaves a new record in the Controller databas		
Cualitier       If Complex Restriction is enabled, the period you are selecting from.         Options:       Northin         Year       January through December         January through December       Sumple: The last quarter of the year.         Wetdatta       This section contains Metadata Information about this record.         UID       Niversally Unique Identifier of this record.         UID       New of the user that last updated this record.         UID4       Data and time that this record was last updated.         Created8       New of the user that created this record.         Create9       New of the user that created this record.         Streate9       Section contains Metadata Information about the Trigger Details that Let you perform various actions.         Streate9       New of the user that created this record.         Create9       Section identifies the buttons displayed above and below the Trigger Details that Let you perform various actions.         Streate9       Section identifies the buttons displayed above and below the Trigger Details that Let you perform various actions.         Streate9       Section identifies the buttons displayed above and pelosy that precord.         Streate9       Section identifies the buttons displayed above and pelosy that precord.         Streate9       Section identifies the buttons displayed above and pelosy that precord.         Streate9		Example: The last <b>business day</b> of the month.
Nonth       * Nonth         * Year       * Sanuary through December         Custom period       Example: The last quarter of the year.         Metadata       fissection contains Metadata information about this record.         UIDm       Universally Unique Identifier of this record.         Updated 5       Ame of the user that last updated this record.         Updated 6       Cae and time that this record was last updated.         Created 7       Ame of the user that created this record.         Updated 7       Bae and time that this record was created.         Butoms       This section identifies the buttons displayed above and below the Trigger Details that let you perform various actions.         Save 8       New 1 are was record in the Controller database.         Save 9       Saves a new record in the Controller database.         Save 9       Saves a new record in the Controller database.         Save 9       Saves a new record in the Controller database.         Save 9       Saves a new record in the Controller database and continues to display that record.         View 9       Saves a new record in the Controller database and continues to display that record.         Save 9       Save supdates to the record.         Finable       Image: Save 1		If Complex Restriction is enabled, the period you are selecting from.
Year       Year         Year       Year         Custom period       Example: The last quarter of the year.         Metadata       This section contains Metadata information about this record.         UUD       Universally Unique Identifier of this record.         Updated       Name of the user that last updated this record.         Updated       Date and time that this record was last updated.         Created       Name of the user that created this record.         Vertain       This section identifies the buttons displayed above and below the Trigger Details that let you perform various actions.         Returns       This section identifies the buttons displayed above and below the Trigger Details that let you perform various actions.         Save       Saves a new task record in the Controller database.         Save       Saves a new task record in the Controller database.         Saves       Saves a new record in the Controller database.         Saves       Saves a new record in the Controller database.         Saves       Saves a new record in the Controller database and redisplays empty Details so that you can create another new record.         Saves       Saves a new record in the Controller database and continues to display that record.         Saves       Saves a new record in the Controller database and continues to display that record.         Saves       Saves updates to the re		Options:
<ul> <li>January through December</li> <li>Custom period</li> <li>Example: The last quarter of the year.</li> <li>Metadata</li> <li>This section contains Metadata information about this record.</li> <li>UID U</li> <li>UiVersally Unique Identifier of this record.</li> <li>Updated B</li> <li>Ame of the user that last updated this record.</li> <li>Updated D</li> <li>Data nd time that this record was last updated.</li> <li>Created B</li> <li>Ame of the user that created this record.</li> <li>Created B</li> <li>Ame of the user that created this record.</li> <li>Created B</li> <li>Anse of the user that created this record.</li> <li>Created B</li> <li>Ains exciton identifies the buttons displayed above and below the Trigger Details that let you perform various actions.</li> <li>Save A</li> <li>Save a new record in the Controller database.</li> <li>Save an ew record in the Controller database and redisplays empty Details to that you can create another new record.</li> <li>Save A</li> <li>Save a new record in the Controller database and redisplays empty Details to that you can create another new record.</li> <li>Save B</li> <li>Save a new record in the Controller database and redisplays empty Details to that you can create another new record.</li> <li>Save B</li> <li>Save a new record in the Controller database and redisplays empty Details to that you can create another new record.</li> <li>Save B</li> <li>Save a new record in the Controller database and redisplays empty Details to that you can create another new record.</li> <li>Save B</li> <li>Save a new record in the Controller database and redisplays empty Details to the record.</li> <li>Save a user record in the Controller database and redisplays empty Details to the record.</li> <li>Save B</li> <li>Save a new record in the Controller database and redisplays empty endate the controller database and continus to display that reco</li></ul>		Month
Image: Processing and Processing an		
NetadataThis section contains Metadata information about this record.UUIDUniversally Unique Identifier of this record.Updated PaName of the user that last updated this record.Updated PaDate and time that this record was last updated.Created PaName of the user that created this record.Created PaDate and time that this record was created.ButtonsThis section identifies the buttons displayed above and below the Trigger Details that let you perform various actions.SaveSaves a new task record in the Controller database.Save & NewSaves a new record in the Controller database and redisplays empty Details so that you can create another new record.Save & NewDisplays empty (except for default values) Details for creating a new record.UpdateSaves updates to the record.UpdateSaves updates to the record.		
UUD       Universally Unique Identifier of this record.         Updated by       Name of the user that last updated this record.         Updated by       Date and time that this record was last updated.         Created by       Name of the user that created this record.         Created by       Date and time that this record was created.         Buttons       This section identifies the buttons displayed above and below the Trigger Details that let you perform various actions.         Save a       Saves a new task record in the Controller database.         Save & New       Saves a new record in the Controller database and redisplays empty Details so that you can create another new record.         Save & New       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.         Updated by       Saves updates to the record.		Example: The last quarter of the <b>year</b> .
Updated ByName of the user that last updated this record.UpdatedDate and time that this record was last updated.Created ByName of the user that created this record.Created ByDate and time that this record was created.ButtonsThis section identifies the buttons displayed above and below the Trigger Details that let you perform various actions.SaveSaves a new task record in the Controller database.Save & NewSaves a new record in the Controller database and redisplays empty Details so that you can create another new record.Save & Saves a new record in the Controller database and continues to display that record.ViewDisplays empty (except for default values) Details for creating a new record.UpdatedSaves updates to the record.	Metadata	This section contains Metadata information about this record.
UpdatedDate and time that this record was last updated.Created ByName of the user that created this record.Created Date and time that this record was created.ButtonsThis section identifies the buttons displayed above and below the Trigger Details that let you perform various actions.SaveSaves a new task record in the Controller database.Save & NewSaves a new record in the Controller database and redisplays empty Details so that you can create another new record.Save & NewSaves a new record in the Controller database and continues to display that record.NewDisplays empty (except for default values) Details for creating a new record.UpdatedSaves updates to the record.	UUID	Universally Unique Identifier of this record.
Created ByName of the user that created this record.CreatedDate and time that this record was created.ButtonsThis section identifies the buttons displayed above and below the Trigger Details that let you perform various actions.SaveSaves a new task record in the Controller database.Save & NewSaves a new record in the Controller database and redisplays empty Details so that you can create another new record.Save & NewSaves a new record in the Controller database and continues to display that record.ViewDisplays empty (except for default values) Details for creating a new record.UpdateSaves updates to the record.	Updated By	Name of the user that last updated this record.
CreatedDate and time that this record was created.ButtonsThis section identifies the buttons displayed above and below the Trigger Details that let you perform various actions.SaveSaves a new task record in the Controller database.Save & NewSaves a new record in the Controller database and redisplays empty Details so that you can create another new record.Save & ViewDisplays enew record in the Controller database and continues to display that record.NewDisplays empty (except for default values) Details for creating a new record.UpdateSaves updates to the record.	Updated	Date and time that this record was last updated.
ButtonsThis section identifies the buttons displayed above and below the Trigger Details that let you perform various actions.SaveSaves a new task record in the Controller database.Save & NewSaves a new record in the Controller database and redisplays empty Details so that you can create another new record.Save & NewSaves a new record in the Controller database and continues to display that record.NewDisplays empty (except for default values) Details for creating a new record.UpdateSaves updates to the record.	Created By	Name of the user that created this record.
Save       Saves a new task record in the Controller database.         Save & New       Saves a new record in the Controller database and redisplays 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.	Created	Date and time that this record was created.
Save & New       Saves a new record in the Controller database and redisplays 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.	Buttons	This section identifies the buttons displayed above and below the Trigger Details that let you perform various actions.
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.       Enable     Image: Saves updates to the record.	Save	Saves a new task record in the Controller database.
View     Image: Second Se	Save & New	Saves a new record in the Controller database and redisplays empty Details so that you can create another new record.
Update     Saves updates to the record.       Enable     Image: Constraint of the record of the record.		Saves a new record in the Controller database and continues to display that record.
Enable	New	Displays empty (except for default values) Details for creating a new record.
	Update	Saves updates to the record.
	Enable	Activates this trigger and writes your User ID to the Enabled By field.

Disable	Deactivates this trigger.
Trigger Now	Immediately triggers all the tasks specified in this trigger. Optionally, you also can select to:   Launch the task(s) specified in the trigger with one or more variables. Launch the task(s) specified in the trigger by a specified date and time. Launch the task(s) specified in the trigger but place them in Held status; they will not run until they are released.  Note If you click Trigger Now for an Enabled trigger that does not have an assigned Execution User, the trigger will launch its task(s) under the context of the Enabled By user. If you click Trigger Now for a Disabled trigger that does not have an assigned Execution User, the trigger will launch its task(s) under the context of your user name and ID. If you click Trigger Now for an Enabled or Disabled trigger that has an assigned Execution User, the trigger will launch its task(s) under the context of the assigned Execution User.
List Qualifying Times	Lets you generate a list of future dates and times that the trigger will trigger the specified task (see Generating a List of Qualifying Times, below).
Сору	Creates a copy of this trigger, 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 trigger.
Tabs	This section identifies the tabs across the top of the Trigger Details that provide access to additional information about the trigger.
Variables	Lists all user-defined variables associated with this record; that is, variables that have been defined for this specific record.
Versions	Stores copies of all previous versions of the current record. See Record Versioning.

# Scheduling a Time Interval

A Cron trigger lets you schedule a time interval for how often a task will be triggered. You also can select a time frame that restricts the time during which the trigger is active, so that a task will be triggered only at the time intervals within that time frame.

The time interval for a Cron trigger resets at the end of the day; when the 24-hour clock expires, the time interval count begins again at 12 a.m. on the next specified day. Therefore, if you select a time interval for multiple days, the task will be triggered at the same times each day.

Although you also can use a Time trigger to schedule a time interval for a task to be triggered on multiple days, you should use a Cron trigger if the time interval is not one by which the 24-hour clock is even divisible (2, 3, 4, 6, 8, and 12), such as in the Cron criteria examples, above. Using a Time trigger to schedule this type of time interval could produce unexpected results, since the time interval for a Time trigger does not reset at the end of the day. It continues into the next day, regardless of the 24-hour clock (see Scheduling a Time Interval with a Time Trigger).

Conversely, if you want to trigger a task on multiple days at a time interval without regard to the time of day, and the interval is not one by which the 24-hour clock is even divisible, you must use a Time trigger, which will not reset at the end of the day. For example, if you want to trigger a task every 5 hours, from Monday to Friday, without regard to the time of day, a Time trigger will allow you to trigger the task on Monday at 12 a.m., 5 a.m., 10 a.m., 3 p.m., 8 p.m. and then next (5 hours later) on Tuesday at 1 a.m.. This time interval scheduling cannot be accomplished with a Cron trigger.

# Generating a List of Qualifying Times

The Controller allows you to generate a list of future dates and times that a trigger will trigger the specified task.

Step 1	Click the List Qualifying Times button in the Cron Trigger Details. The List Qualifying Times Input dialog displays
	List Qualifying Times Number of Dates/Times : 30 Start Date : 2017 v Aug v 10 v  Submit
Step 2	Select a Number of Dates/Times (1 - 1000) that you want to list. The default is 30.
Step 3	Select a Start Date from when you want the list to begin.
Step 4	Click the Submit button to generate the list. For example:

Qualifying Times	_DX
stonebranch-crontrigger-02	
Listing From: 2017-08-10 11:42:45 -0400	e
User/Trigger Timezone: America/New_York	
Thursday, August 10, 2017 12:00:00 EDT -0400	<b>^</b>
Thursday, August 10, 2017 13:00:00 EDT -0400	
Thursday, August 10, 2017 14:00:00 EDT -0400	
Thursday, August 10, 2017 15:00:00 EDT -0400	
Thursday, August 10, 2017 16:00:00 EDT -0400	
Thursday, August 10, 2017 17:00:00 EDT -0400	
Thursday, August 10, 2017 18:00:00 EDT -0400	
Thursday, August 10, 2017 19:00:00 EDT -0400	
Thursday, August 10, 2017 20:00:00 EDT -0400	
Thursday, August 10, 2017 21:00:00 EDT -0400	
Thursday, August 10, 2017 22:00:00 EDT -0400	
Thursday, August 10, 2017 23:00:00 EDT -0400	
Friday, August 11, 2017 00:00:00 EDT -0400	
Friday, August 11, 2017 01:00:00 EDT -0400	
Friday, August 11, 2017 02:00:00 EDT -0400	
Friday, August 11, 2017 03:00:00 EDT -0400	
Friday, August 11, 2017 04:00:00 EDT -0400	
Friday, August 11, 2017 05:00:00 EDT -0400	
Friday, August 11, 2017 06:00:00 EDT -0400	
Friday, August 11, 2017 07:00:00 EDT -0400	
Friday, August 11, 2017 08:00:00 EDT -0400	
Friday, August 11, 2017 09:00:00 EDT -0400	

FILUAV. AUGUST 11. 2017 10.00.00 ED1 -0400

# **Time Trigger**

- Overview
- Creating a Time Trigger
  - Time Trigger Details
  - Time Trigger Details Field Descriptions
- Scheduling a Time Interval
  - Restrict Times
- Generating a List of Qualifying Times

## Overview

The Time trigger, similar to the Cron trigger, allows you to specify dates and times at which a task will be triggered.

With both Time and Cron triggers, you can define:

- Simple date and times, such as "every weekday at 12:00 a.m."
- Specific dates and times, such as "March 15 at 12:00 a.m."
- A series of dates and times, such as "every Friday at every hour."
- A mixture of specific dates/times and a series, such as "every Monday at 9 a.m."
- Complex dates and times, such as "every 3 hours between 8 a.m. and 5 p.m. on the last business day of the year."

(Read Daylight Saving Time for details about how Universal Controller handles Daylight Saving Time.)

If you want to schedule time intervals for triggering a task on multiple days, use the trigger type (Time or a Cron) that allows you to most accurately select the scheduling parameters (see Scheduling a Time Interval, below).

# **Creating a Time Trigger**

	<ul> <li>✓ 5 Time Triggers</li> <li>Name ▲</li> <li>Stonebranch-timetrigger</li> <li>stonebranch-timetrigger</li> <li>stonebranch-timetrigger</li> <li>stonebranch-timetrigger</li> </ul>	02 Run Every Two Hours 03 04	Enabled	Next Scheduled Time	<ul> <li>Time Style</li> <li>Time</li> <li>Time Interval</li> <li>Time</li> <li>Time</li> <li>Time</li> <li>Time</li> </ul>	Simple of Simple of Simple	Jpdated pps.admin 2 pps.admin 2 pps.admin 2 pps.admin 2	Image: Provide the system         New           Updated         2016-05-24         14:2           2016-05-24         14:2         2016-05-24         14:2           2016-05-24         14:2         2016-05-24         14:2           2016-05-24         14:2         2016-05-24         14:2	29:09 -0400 29:09 -0400 29:09 -0400 29:09 -0400
	stonebranch-timetrigger- stonebranch-timetrigger- stonebranch-timetrigger- stonebranch-timetrigger-	01 02 Run Every Two Hour: 03 04	© 1000000000000000000000000000000000000	Next Scheduled Time	Time Time Interval Time Time	Simple of Simple of Simple of Simple of	ps.admin 2 pps.admin 2 pps.admin 2 pps.admin 2	2016-05-24 14:2 2016-05-24 14:2 2016-05-24 14:2 2016-05-24 14:2	29:09 -040( 29:09 -040( 29:09 -040(
	stonebranch-timetrigger- stonebranch-timetrigger- stonebranch-timetrigger-	02 Run Every Two Hours 03 04	s Du 🙁		Time Interval Time Time	Simple of Simple of Simple of	pps.admin 2 pps.admin 2 pps.admin 2	2016-05-24 14:2 2016-05-24 14:2 2016-05-24 14:2	29:09 -040( 29:09 -040( 29:09 -040(
	stonebranch-timetrigger-	03 04	8		Time Time	Simple of	ps.admin 2 ps.admin 2	2016-05-24 14:2 2016-05-24 14:2	?9:09 -040( ?9:09 -040(
	stonebranch-timetrigger-	04	8		Time	Simple o	ps.admin	2016-05-24 14:2	29:09 -040
	_		_						
	stonebranch-timetrigger-	05	8		Time	Complex o	ps.admin 3	2016-05-24 14:2	9.09 -0400
	▲ ✓ Time Trigger Details			m			Save 🕞 S	Save & New	New
	Time Trigger   Varial	oles 🛛 🖉 Versions							
	General								-
	Name :								E
	Description :								=
	Member of								
	Business Services :							~	
	Calendar : Syst	em Default		V Time Zo	one : Server (US/Easte	(n)		~	
	oulendur . Oys	embeldalt			ociver (conzaste	,		*	
l	Task(s) :	No items to sh	DW.						
	Task(s) :	No items to sh	DW.						
	Task(s) :	No items to sh	DW.	<b>E</b> _					-
	Task(s) :	No items to sh	DW.						Ţ
En	Task(s) :				below as a gui	de.			Y
En	nter/select Details for • Required fields	a new Time trigge s display in <b>boldfa</b> d	r, using the t	ield descriptions	below as a gui	de.			v
	nter/select Details for • Required fields • Default values	a new Time trigge s display in <b>boldfa</b> for fields, if availat	r, using the ce. ole, display a	ield descriptions	below as a gui	de.			
	nter/select Details for • Required fields	a new Time trigge s display in <b>boldfa</b> for fields, if availat	r, using the ce. ole, display a	ield descriptions	below as a gui	de.			
	nter/select Details for • Required fields • Default values	a new Time trigge s display in <b>boldfa</b> for fields, if availat Details fields on th	r, using the ce. ole, display a	ield descriptions	below as a gui	de.			
	nter/select Details for • Required fields • Default values • display more of the • Use the scroll	a new Time trigge s display in <b>boldfa</b> for fields, if availat Details fields on th	r, using the t ce. ole, display a e screen, yo	ield descriptions	below as a gui	de.			

Step 3	Clicka Save button. The trigger is added to the database, and all buttons and tabs in the Trigger Details are enabled.
Step 4	Enable the trigger(s) as desired.

Note

۸

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).

### **Time Trigger Details**

The following Time Trigger Details is for an existing Time trigger. See the field descriptions below for a description of the fields that display in the Time Trigger Details.

ne Trigger Details: sto	inobranon announggor or		>	0				a		[_]
		Update	Enable	设 Trigger	Now 📰 List	Qualifying Times	Сору	Delete	s Refresh	💥 Clo
Time Trigger 🛛 🗧 Var	ables Versions									
General										
Name :	stonebranch-timetrigger-0*	I			Version :	1				
Description :										
Member of Business										~
Services :										Ť
Calendar :	System Default			•	Time Zone :	Server (US/Easter	n)			~
	stonebranch-timertask-01									
Task(s):										
Purge By Retention Duration :										
Status										
Forecast:					Status :	Disabled				
Skip Count :	0				Disabled By :					
Task Launch Skip Condition :	None		~							
	System Default		*							
Time Details										
Time Style :	Time 🗸									
Time :	Hour Min 00 v 00 v									
Day Details										
Day Styl	e : Simple	~								
	O Daily O Business D	ays 💿 Speci	ific Day(s)							
Sunday Mo	nday 👿 Tuesday 🔲 Wed	nesday 🔲 Th	nursday 🔲	Friday 📃 Sa	turday					
- Restrictions										
Special Restriction :					Action :	Do Not Trigger			~	
Simple Restriction :					Complex					
	On Holiday		~		Restriction :					

## Time Trigger Details Field Descriptions

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

Field Name	Description
General	This section contains general information about the trigger.

NI	
Name	Name used within the Controller to identify this trigger. It can contain a maximum of 255 alphanumerics. It is the responsibility of the user to develop a workable naming scheme for triggers.
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	User-defined; description of this trigger.
Member of Business Services	User-defined; allows you to select one or more Business Services that this record belongs to.
Calendar	Calendar that defines the business days, holidays, and other special days that determine the run dates for the task(s) specified in the trigger.
	Select a Calendar from the drop-down list of all existing Calendars. To display detailed information about a selected calendar, click the Details icon next to the Calendar field.
Time Zone	User-defined; allows you to specify the time zone that will be applied to the time(s) specified in the trigger. For example, if you specify 23:00 and a time zone of Canada/Central, the task will run at 11:00 p.m. Central Canada time.
Task(s)	Name of the task(s) being triggered when this trigger is satisfied. When selecting tasks from the Details, click on the lock icon to unlock the field and select tasks.
Purge By Retention Duration	Specification for whether triggered task instances can be purged by retention duration.
Exclude Backup	If Purge By Retention Duration is selected; Specification for whether qualifying task instances can be excluded from the backup when being purged by retention duration.
Retention Duration	If Purge By Retention Duration is selected; Minimum retention duration for the selected Retention Duration Unit before triggered task instances can qualify for purge.
Retention Duration Unit	If Purge By Retention Duration is selected; Retention duration unit. Options:
	<ul><li>Hours</li><li>Days</li></ul>

Execution User	Read-only; Execution user that has been selected (via the Assign Execution User action) to override the execution user of task instances being launched by the trigger.				
Status	This section contains information about the current status of the trigger.				
Forecast	If checked, the Controller calculates the date and time when this trigger will be satisfied for the next number of days, as specified in the Forecast Period In Days Universal Controller system property. The Controller writes the forecasting entries to the Forecasts List.				
	Note If this field is checked on a trigger and the trigger is promoted, it will not be checked for that trigger on the target system.				
Status	User-defined; indication of whether the trigger is enabled (checked) or disabled (not checked). The user enables and disables the trigger by clicking the Enable / Disable buttons. Only enabled triggers are processed by the Controller.				
Skip Count	User-defined; allows you to specify that the Controller should skip the next <i>N</i> times this task is triggered.				
Enabled By	System-supplied. If Status = Enabled, ID of the user who most recently enabled this trigger.				
Disabled By	System-supplied; If Status = Disabled, ID of the user who most recently enabled this trigger. (By default, all new triggers are disabled.)				
Task Launch Skip Condition	User-defined; Controls when launching a task for the trigger will be skipped. Options:				
	<ul> <li>- None - Do not skip the task launch.</li> <li>Active Skip the task launch if a previous instance is still active.</li> <li>Active By Trigger Skip the task launch if a previous instance launched by the trigger is still active.</li> </ul>				
Next Scheduled Time	System-supplied; for time-based triggers. If Status = Enabled, the next date and time this trigger will be satisfied. See Displaying Trigger Forecast Information.				

Simulate	Enables the override of the Enable Trigger Simulation Universal Controller system property specification for whether or not to simulate the launching of tasks when triggers are eligible to fire. (If simulation is enabled, only the scheduled launch of the task by the trigger is inhibited.)
	<ul> <li>Options:</li> <li>- System Default Use the system default for enabling / disabling trigger simulation as specified by Enable Trigger Simulation.</li> <li>True - Enable trigger simulation</li> <li>False - Disable trigger simulation.</li> </ul>
Time Details	This section contains assorted detailed information about the trigger.
Time Style	Specifies whether this trigger is for a specific time or a series of times. Options: • Time - Triggers the task at a specific time. • Required field: Time. • Time Interval - Triggers the task at specific intervals of times. • Required fields: Time Interval, Time Interval Units. • Optional fields: Enable Offset, Restrict Times.
Time	Required if Time Style = Time; time of the trigger in hours and minutes, using 24-hour time. For example, 01:45 means trigger the task at 1:45 a.m.; 13:45 means trigger the task at 1:45 p.m. (See also Daylight Saving Time.)
Time Interval	Required if Time Style = Time Interval; number of Time Interval Units. For example, for a Time Interval of every three hours, specify 3 in this field and select <b>Hours</b> in the Time Interval Units field.
	Note See Scheduling a Time Interval, below, for information on using a Time Trigger to schedule a time interval for triggering a task.
Time Interval Units	Required if Time Style = Time Interval; Type of time interval. Used in conjunction with the Time Interval field. For example, for a Time Interval of every three hours, specify 3 in the Time Interval field and select Hours in this field. Options:  Seconds Minutes Hours
Enable Offset	If Time Style = Time Interval, allows you to define (in the Initial Time Offset field) a starting time, in minutes offset from the hour, for the trigger to run.

Initial Time Offset (hh:mm)	If Enable Offset is selected, allows you to define a starting time, in minutes offset from the hour.
()	The default value (*) lets you select a starting hour (0 to 23) other than the next hour.
	For example:
	<ul> <li>If you want the task to run every 30 minutes at the :15 and :45 minute mark, you would select Time Interval = 30, Time Interval Units = minutes, and Initial Time Offset =         <sup>*</sup>:15.</li> </ul>
	<ul> <li>If you want the task to run every 30 minutes at the :15 and :45 minute mark starting at 6:15 p.m., you would select Time Interval = 30, Time Interval Units = minutes, and Initial Time Offset = 18:15.</li> </ul>
Day Details	This section contains assorted detailed information about the trigger day.
Day Style	Allows you to indicate when this trigger will be run:
	Options:
	• Simple - Trigger is run every day, on business days, or on one or more specific days, depending on what you select in the Daily, Business Days, and Specific Day(s) fields
	<ul> <li>(see below).</li> <li>Complex - Trigger is run on one or more days selected by a formula specified using the Date Adjective, Date Noun, and Date Qualifier fields (see below).</li> <li>Every - Trigger is run at an interval of a specified number of days (see Day Interval, below) starting on a specified date (see Interval Start, below).</li> </ul>
Daily	If Day Style = Simple, allows you to specify that the trigger is active every day of the week.
Business Days	If Day Style = Simple, allows you to specify that the trigger is active on the business days specified in the calendar selected in the Calendar field.
Specific Day(s)	If Day Style = Simple, allows you to specify one or more specific days of the week that the trigger is active in the calendar selected in the Calendar field.
Date Adjective	If Day Style = Complex, allows you to specify which in a series of days you want to select. Used in conjunction with the Date Noun and the Date Qualifier fields.
	For example, to specify "the 15th business day of the month," select Date Adjective = Nth, Date Noun = Business Day, Date Qualifier = Month, and Nth Amount = 15.
	Options:
	<ul> <li>Every</li> <li>1st</li> </ul>
	• 2nd
	<ul> <li>3rd</li> <li>4th</li> </ul>
	<ul> <li>Nth</li> <li>Last</li> </ul>

Nth Amount	If Day Adjective = Nth, allows you to specify the value of N.
Date Noun	If Day Style = Complex, allows you to specify the type of day you want to select. Used in conjunction with the Date Adjective and the Date Qualifier fields. For example, to specify "the 15th business day of the month," select Date Adjective = Nth, Date Noun = Business Day, Date Qualifier = Month, and Nth Amount = 15. This drop-down menu is populated as follows: • Sunday through Saturday • Day = any day • Business Day = The business days specified in the calendar selected in the Calendar field. • Any Custom Days specified in the calendar selected in the Calendar field.
Date Qualifier	If Day Style = Complex, allows you to specify the period for your selection formula. Used in conjunction with the Date Noun and Date Adjective fields. For example, to specify "the 15th business day of the month," select Date Adjective = Nth, Date Noun = Business Day, Date Qualifier = Month, and Nth Amount = 15. Options: • Month • Year • January through December • Custom Period (see Creating Custom Days)
Date Adjustment	If Day Style = Complex, allows you to adjust your date setting by a less or plus number of Days or Business Days. For example, to specify the 2nd to last day of the month (last day of the month less one day), select Date Adjective = Last, Date Noun = Day, Date Qualifier = Month, Data Adjustment = Less, Adjustment Amount = 1, and Adjustment Type = Day. Options: • None • Less • Plus Default is None.
Adjustment Amount	Required if Day Adjustment = Less or Plus; Allows you to specify the number of Days or Business Days to adjust your date setting. Maximum is 366. Default is 1.

Adjustment Type	If Day Adjustment = Less or Plus, allows you to specify the type of day by which to adjust your date setting. Options: • Day • Business Day
Day Interval	If Day Style = Every, allows you to specify the interval (in days) at which this trigger will run.
Interval Start	If Day Style = Every, allows you to specify the first day of the interval on which this trigger will run.
Restrictions	This section specifies any restrictions that apply to the trigger.
Restrict Times	If Time Style = Time Interval, period during which the trigger is active. Enable this field and specify the start and end times in the Enabled Start and Enabled End fields.
Enabled Start	If Restrict Times is enabled, allows you to specify the start time of the period during which the trigger should be active. Use 24-hour time.
Enabled End	If Restrict Times is enabled, allows you to specify the end time of the period during which the trigger should be active. Use 24-hour time.
Adjust Interval To Enabled Start	If Restrict Times is enabled; Specification for whether to always begin at the Enabled Start, regardless of the time interval, or to begin based on the actual interval. If Adjust Interval To Enabled Start is not selected, the start time and end time specify only the time frame/window during which the trigger is active; they do not modify the actual time interval (see Restrict Times).
Special Restriction	Enable this field in order to specify additional parameters that tell the Controller how to handle exceptions, such as when the trigger is satisfied on a holiday or non-business day. You can specify simple and/or complex restrictions. For example, you can specify a Simple Restriction that disables the trigger if it is satisfied on a holiday identified in the calendar and/or a Complex Restriction that disables the trigger on the last business day of every month.
Simple Restriction	If enabled, allows you to specify an action (see Action field) such as Do Not Trigger on a non-business day or holiday (see Situation field). For example, do not trigger on a non-business day.
Situation	If Simple Restriction is enabled, allows you to select the situation that causes the system to initiate the action specified in the Action field. Options: • On Non Business Day
	On Holiday

Action	
, lotion	If Special Restriction is enabled, allows you to select an action to take on a non-business day or holiday (see Situation field).
	Options:
	Do Not Trigger
	<ul> <li>Next Day (run on the next day)</li> <li>Next Business Day (run on the next business day, as defined in the calendar)</li> </ul>
	<ul> <li>Previous Day (run on the previous day)</li> </ul>
	Previous Business Day (run on the previous business day, as defined in the calendar)
Complex	
Restriction	If enabled, allows you to specify a set of parameters that determine one or more situations when this trigger should not be satisfied. Used in conjunction with the following fields: Restriction Mode, Restriction Adjective, Restriction Noun, Restriction Qualifier. For example, you may specify that you do not want to satisfy this trigger on the last business day of the year or the first day of each month.
Restriction Mode	If both Simple Restriction and Complex Restriction are enabled, specifies whether you want to use both restriction types (AND) or one or the other (OR).
Mode	Options:
	<ul> <li>And</li> <li>Or</li> </ul>
Restriction Adjective	If Complex Restriction is enabled, the type of selection.
Aujeenve	
	Options:
	<ul> <li>Every</li> <li>1st</li> </ul>
	<ul> <li>2nd</li> <li>3rd</li> </ul>
	• 4th
	• Last
	Example: The <b>last</b> business day of the month.
Restriction Noun	If Complex Restriction is enabled, the day you want to select.
	Options:
	<ul> <li>Sunday through Saturday</li> </ul>
	<ul> <li>Day</li> <li>Business Day</li> </ul>
	Custom Day
	Example: The last <b>business day</b> of the month.

Restriction Qualifier	If Complex Restriction is enabled, the period you are selecting from. Options:
	<ul> <li>Month</li> <li>Year</li> </ul>
	January through December
	Custom period
	Example: The last quarter of the <b>year</b> .
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 Trigger 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 redisplays 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.
Enable	Activates this trigger and writes your User ID to the Enabled By field.
Disable	Deactivates this trigger.

Trigger Now	Immediately triggers all the tasks specified in this trigger.			
	Optionally, you also can select to:			
	<ul> <li>Launch the task(s) specified in the trigger with one or more variables.</li> <li>Launch the task(s) specified in the trigger by a specified date and time.</li> <li>Launch the task(s) specified in the trigger but place them in Held status; they will not run until they are released.</li> </ul>			
	Note If you click <b>Trigger Now</b> for an Enabled trigger that does not have an assigned Execution User, the trigger will launch its task(s) under the context of the Enabled By user.			
	If you click <b>Trigger Now</b> for a Disabled trigger that does not have an assigned Execution User, the trigger will launch its task(s) under the context of your user name and ID.			
	If you click <b>Trigger Now</b> for an Enabled or Disabled trigger that has an assigned Execution User, the trigger will launch its task(s) under the context of the assigned Execution User.			
List				
Qualifying Times	Lets you generate a list of future dates and times that the trigger will trigger the specified task (see Generating a List of Qualifying Times, below).			
Сору	Creates a copy of this trigger, 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 trigger.			
Tabs	This section identifies the tabs across the top of the Trigger Details that provide access to additional information about the trigger.			
Variables	Lists all user-defined variables associated with this record; that is, variables that have been defined for this specific record.			
Versions	Stores copies of all previous versions of the current record. See Record Versioning.			

### Scheduling a Time Interval

A Time trigger time interval lets you specify how often a task will be triggered, but for triggering a task on multiple days, you may not be able to specify the same time every day that the task will be triggered. This could produce unexpected results.

By default, a time interval count begins at 12 a.m.. If you schedule a time interval for a task to be triggered on multiple days, the task will be triggered at the first specified time interval, and then again whenever the time interval is reached. When the 24-hour clock expires, the time interval count does not reset to 12 a.m.; it continues into the next day. If the time interval is not one by which the 24-hour clock is even divisible (2, 3, 4, 6, 8, and 12), the task will be triggered at different times than on the first day.

#### Note See Daylight Saving Time for information on how it impacts time intervals.

For example, if you want a task to be triggered at the same time every 4 hours from Monday to Friday, a Time trigger will trigger the task on Monday at 4 a.m., 8 a.m., 12 p.m., 4 p.m., 8 p.m., and Tuesday at 12 a.m.. 4 hours later, at 4 a.m. - it will again start triggering the task every 4 hours. Since the time interval (4) divides evenly into 24, the task is triggered at the same time every day, and results will be as expected.

However, if you want a task to be triggered every 7 hours from Monday to Friday, a Time trigger will trigger the task on Monday at 7 a.m., 2 p.m., and 9 p.m., and then - 7 hours later - Tuesday at 4 a.m. The time interval "rolls over" to the next day. It does not restart at 12:00 a.m. when the 24-hour clock expires, and so the task will not be triggered at the same time every day. The same results will occur if you use Restrict Times, below, for the time interval.

Therefore, for scheduling time intervals by which the 24-hour clock is not evenly divisible, it is recommended that instead you use a Cron trigger.

For example:

Time Details		
Time Style : Time Interval		
Time Interval : 4	Enable Offset:	
Time Interval Units : Hours		

#### **Restrict Times**

If you are triggering a task on a time interval, the Restrict Times field lets you select a time frame during which the trigger is active. The task will be triggered at the specified time interval only when the time interval occurs during the specified Restrict Times.

For example, if you want a task to be triggered every 4 hours from Monday to Friday and only between the hours of 8 a.m. (Enabled Start) and 7 p.m. (Enabled End), a Time trigger will check the time on Monday at 4 a.m., 8 a.m., 12 p.m., 4 p.m., 8 p.m., and Tuesday at 12 a.m., but only will trigger the task at 8:00 a.m., 12 p.m., and 4 p.m. (the only three 4-hour interval times between 8 a.m. and 7 p.m.). On Tuesday at 12 a.m., it will continue checking the time every 4 hours and will trigger the task at the same times it did on Monday.

However, if you want a task to be triggered every 7 hours from Monday to Friday and only between the hours of 8 a.m. and 7 p.m., a Time trigger will check the time on Monday at 12 a.m., 7 a.m., 2 p.m., and 9 p.m., but only will trigger the task at 2 p.m. (the only 7-hour interval time between 8 a.m. and 7 p.m.). On Monday at 9 p.m., it will continue checking the time every 7 hours, beginning on Tuesday at 4 a.m., and will trigger the task on Tuesday at 11 a.m. and 6 p.m. (both of which are 7-hour interval times between 8 a.m. and 7 p.m.).

For example:

Restrictions		
Restrict Times : 🔽		
Enabled Start : 00 V 00 V	Adjust Interval To Enabled Start : 🕅	
Enabled End : 00 V 00 V		
Special Restriction :		

# Generating a List of Qualifying Times

The Controller allows you to generate a list of future dates and times that a trigger will trigger the specified task.

Step 1	Click the List Qualifying Times button in the Time Trigger Details. The List Qualifying Times Input dialog displays.
	List Qualifying Times
	Number of Dates/Times : 30 Start Date : 2017 v Aug v 10 v 📰 Submit
Step 2	Select a Number of Dates/Times (1 - 1000) that you want to list. The default is 30.
Step 3	Select a Start Date from when you want the list to begin.

stoneb	
	ranch-timetrigger-01
Listing From: 2017-08-10 10:47:01 -0500	
User TimeZone: America/New_York	Trigger Timezone: SystemV/EST5
Thursday, August 10, 2017 11:48:01 EDT -0400	Thursday, August 10, 2017 10:48:01 EST -0500
Thursday, August 10, 2017 11:49:01 EDT -0400	Thursday, August 10, 2017 10:49:01 EST -0500
Thursday, August 10, 2017 11:50:01 EDT -0400	Thursday, August 10, 2017 10:50:01 EST -0500
Thursday, August 10, 2017 11:51:01 EDT -0400	Thursday, August 10, 2017 10:51:01 EST -0500
Thursday, August 10, 2017 11:52:01 EDT -0400	Thursday, August 10, 2017 10:52:01 EST -0500
Thursday, August 10, 2017 11:53:01 EDT -0400	Thursday, August 10, 2017 10:53:01 EST -0500
Thursday, August 10, 2017 11:54:01 EDT -0400	Thursday, August 10, 2017 10:54:01 EST -0500
Thursday, August 10, 2017 11:55:01 EDT -0400	Thursday, August 10, 2017 10:55:01 EST -0500
Thursday, August 10, 2017 11:56:01 EDT -0400	Thursday, August 10, 2017 10:56:01 EST -0500
Thursday, August 10, 2017 11:57:01 EDT -0400	Thursday, August 10, 2017 10:57:01 EST -0500
Thursday, August 10, 2017 11:58:01 EDT -0400	Thursday, August 10, 2017 10:58:01 EST -0500
Thursday, August 10, 2017 11:59:01 EDT -0400	Thursday, August 10, 2017 10:59:01 EST -0500
Thursday, August 10, 2017 12:00:01 EDT -0400	Thursday, August 10, 2017 11:00:01 EST -0500
Thursday, August 10, 2017 12:01:01 EDT -0400	Thursday, August 10, 2017 11:01:01 EST -0500
Thursday, August 10, 2017 12:02:01 EDT -0400	Thursday, August 10, 2017 11:02:01 EST -0500
Thursday, August 10, 2017 12:03:01 EDT -0400	Thursday, August 10, 2017 11:03:01 EST -0500
Thursday, August 10, 2017 12:04:01 EDT -0400	Thursday, August 10, 2017 11:04:01 EST -0500
Thursday, August 10, 2017 12:05:01 EDT -0400	Thursday, August 10, 2017 11:05:01 EST -0500
Thursday, August 10, 2017 12:06:01 EDT -0400	Thursday, August 10, 2017 11:06:01 EST -0500
Thursday, August 10, 2017 12:07:01 EDT -0400	Thursday, August 10, 2017 11:07:01 EST -0500
Thursday, August 10, 2017 12:08:01 EDT -0400	Thursday, August 10, 2017 11:08:01 EST -0500
Thursday, August 10, 2017 12:09:01 EDT -0400	Thursday, August 10, 2017 11:09:01 EST -0500

Universal Controller 6.4.x Triggers and Calendars

# **Manual Trigger**

#### Overview

- Creating a Manual Trigger and Triggering One or More Tasks
  - Manual Trigger Details
  - Manual Trigger Details Field Descriptions
- Entering Variables
  - Using the Trigger with Variables Menu Option
  - Using the Variables Tab

#### Overview

The Manual trigger allows you to launch a task immediately, while setting or overriding the value of one or more user-defined variables specified in the task.

Use a Manual trigger if you want to manually launch a task but cannot use the **Launch Task** or **Trigger Now** buttons because you have to set or override one or more variables. For example, you might choose to use a Manual trigger to launch a "generic" Workflow that you run occasionally with a slight variation in specific details. In this case, you will launch the Workflow and pass in the appropriate details using variables.

You can use the Manual trigger to set values to pre-existing variables or create new variables. The variable values you enter here override all others. However, the change in value only persists while this launched task instance(s) is running. Future executions of the task(s), unless they are launched by a Manual trigger, will use the standard methods for resolving user-defined variables.

The audit message created when you use a Manual trigger is the same as Trigger Now.

### Creating a Manual Trigger and Triggering One or More Tasks

Step 1		on Center navigation pane, ual Trigger Details for a ne			anual Trigge	ers list displays.
	Deatherante III Hannal Trie					
	Dashboards Manual Trig	geis 🔄	Custom Filter None		🗸 🦁 Filter 🛽	🗟 Go To   🤷 New   🍣
					-	
	Name A		Descr	ption	Updated By	Updated A
	stonebranch-manualtrigge				ops.admin	2018-05-29 15:50:11 -0400 2018-05-29 15:50:26 -0400
	stonebranch-manualtrigge				ops.admin	
	stonebranch-manualtrigge				ops.admin	2018-05-29 15:50:33 -0400 2018-05-29 15:50:38 -0400
	stonebranch-manualtrigge				ops.admin ops.admin	2018-05-29 15:50:42 -0400
	✓ Manual Trigger Details				🖷 Sav	e 🕼 Save & New 📃 New
	Manual Trigger 🛛 🔍 Varial	bles Versions				
	General					
	Name :					
	Description :					
	Member of Business					
	Services :					*
	Calendar : S	System Default	▼	Time Zone : Server (America/New_Yo	rk)	▼ E
		No items to show.	<b></b>			
	Task(s) :	to neurs to show.				
			*			
	Purge By Retention Duration :					-
Step 2		for a new Manual trigger,	using the field des	criptions below as a guide		
		ields display in <b>boldface</b> . ues for fields, if available, o	display automatica	lly.		
	To display more of	the Details fields on the sc	reen, you can eith	er:		
		roll bar. ly hide the list above the D lew button above the list to		version of the Details.		
Step 3	Click a Save buttor	n. The trigger is added to th	ne database, and a	Il buttons and tabs in the	Trigger Deta	ils are enabled.
Step 4	Enable the trigger(s	s) as desired.				

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).

#### Manual Trigger Details

The following Manual Trigger Details is for an existing Manual trigger. See the field descriptions, below, for a description of the fields that display in the Manual Trigger Details.

Manual Trigger Details: s	onebranch-manualtrigger-01					[_][][×
		🔚 Update	🔞 Trigger Now 🖺 Cop	oy 🍿 Delete	Scherk Refresh	💢 Close
Manual Trigger 🛛 🔍 Va	riables Versions					
General						
Name :	stonebranch-manualtrigger-01	Versio	n : 1			
Description :						
Member of Business Services :						*
Calendar:	System Default 💌 📰	Time Zon	e : Server (America/New_Yor	k)		~
	stonebranch-windowstask-01					
Task(s) :	<u>-</u>					
Purge By Retention Duration :						
F Update 👔	Trigger Now) 🖺 Copy 🧊 Delete 🕼 Refresh	n 🛛 🗱 (	Close			

#### Manual Trigger Details Field Descriptions

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

Field Name	Description
General	This section contains general information about the trigger.

Name	Name used within the Controller to identify this trigger. It can contain a maximum of 255 alphanumerics. It is the responsibility of the user to develop a workable naming scheme for triggers.
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	User-defined; description of this trigger.
Member of Business Services	User-defined; allows you to select one or more Business Services that this record belongs to.
Calendar	Calendar that defines the business days, holidays, and other special days that determine the run dates for the task(s) specified in the trigger. Select a Calendar from the drop-down list of all existing Calendars. To display detailed information about a selected calendar, click the Details icon next to the Calendar field.
Time Zone	User-defined; allows you to specify the time zone that will be applied to the time(s) specified in the trigger. For example, if you specify 23:00 and a time zone of Canada/Central, the task will run at 11:00 p.m. Central Canada time.
Task(s)	Name of the task(s) being triggered when this trigger is satisfied. When selecting tasks from the Details, click on the lock icon to unlock the field and select tasks.
Purge By Retention Duration	Specification for whether triggered task instances can be purged by retention duration.
Exclude Backup	If Purge By Retention Duration is selected; Specification for whether qualifying task instances can be excluded from the backup when being purged by retention duration.
Retention Duration	If Purge By Retention Duration is selected; Minimum retention duration for the selected Retention Duration Unit before triggered task instances can qualify for purge.
Retention Duration Unit	If Purge By Retention Duration is selected; Retention duration unit. Options: • Hours • Days

Execution User	Read-only; Execution user that has been selected (via the Assign Execution User action) to override the execution user of task instances being launched by the trigger.
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 Trigger 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 redisplays 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.
Trigger Now	Immediately triggers all the tasks specified in this trigger. Optionally, you also can select to: • Launch the task(s) specified in the trigger with one or more variables. • Launch the task(s) specified in the trigger by a specified date and time. • Launch the task(s) specified in the trigger but place them in Held status; they will not run until they are released.
	<ul> <li>Note         If you click Trigger Now for an Enabled trigger that does not have an assigned Execution User, the trigger will launch its task(s) under the context of the Enabled By user.         If you click Trigger Now for a Disabled trigger that does not have an assigned Execution User, the trigger will launch its task(s) under the context of your user name and ID.         If you click Trigger Now for an Enabled or Disabled trigger that has an assigned Execution User, the trigger will launch its task(s) under the context of the assigned Execution User.     </li> </ul>
Сору	Creates a copy of this trigger, 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 trigger.
Tabs	This section identifies the tabs across the top of the Trigger Details that provide access to additional information about the trigger.
Variables	Lists all user-defined variables associated with this record; that is, variables that have been defined for this specific record.
Versions	Stores copies of all previous versions of the current record. See Record Versioning.

### **Entering Variables**

Two methods are available for entering variables:

- 1. Use the Trigger With Variables Action menu item.
- 2. Use the Variables tab and Trigger Now button.

If you want to preserve information about the variables you are setting or overriding (the name and value), or if you want to specify default values, use the Variables tab. If you set up a Manual trigger with default values in the Variables tab, any values you set using the Trigger With Variables popup window override the values in the Variables tab. Each method is described below.

#### Using the Trigger with Variables Menu Option

Step 1	Select a trigger from the Manual Triggers list.
Step 2	Access the Action menu.
Step 2	Select <b>Trigger Now With Variables</b> . A <b>Trigger Now</b> pop-up window displays that lets you set or override the values of up to 10 variables that will be used in the execution of the task(s) named in the Manual trigger. These can be existing or new variables. Any existing variables are automatically populated in the window.
Step 3	Click <b>Submit</b> to launch the tasks named in the trigger. The variable information in the <b>Trigger Now</b> pop-up is passed into the task instance(s) where referenced and the contents of the pop-up are deleted.

#### Using the Variables Tab

Step 1	Click the Variables tab.
Step 2	Use the <b>New</b> button to add the variables you want to set.
Step 3	When you are finished, click the Manual Trigger tab and then click the Trigger Now button to launch the tasks named in the trigger.

# **Temporary Trigger**

<ul> <li>Overview</li> <li>Creating a Temporary Trigger         <ul> <li>Temporary Trigger Details</li> <li>Temporary Trigger Details Field Descriptions</li> </ul> </li> </ul>
---

# Overview

The Temporary trigger allows you to set up a one-time trigger for a task, based on a single date and time. You will use this trigger if you want to set up a task to run once at some time in the future.

## Creating a Temporary Trigger

✓ 5 Temporary Triggers									
		Custom Filter	None		~	🦁 Filt	er 🔯 <u>G</u> oʻ	To   🐯 New	
Name 🔦		Description	Enabled	Next Scheduled Time	Date	Time	Updated By	Updated	
stonebranch-temporarytri	gger-01		8	2014-06-13 00:00:00 -0400	2014-06-13	00:00	ops.admin	2016-05-24 14:29	9:0
stonebranch-temporarytri	gger-02		8	2014-06-13 00:00:00 -0400	2014-06-13	00:00	ops.admin	2016-05-24 14:29	9:0
stonebranch-temporarytri	gger-03		8	2014-06-13 00:00:00 -0400	2014-06-13	00:00	ops.admin	2016-05-24 14:29	9:0
stonebranch-temporarytri	gger-04		8	2014-06-13 00:00:00 -0400	2014-06-13	00:00	ops.admin	2016-05-24 14:29	9:0
stonebranch-temporarytri	gger-05		8	2014-06-13 00:00:00 -0400	2014-06-13	00:00	ops.admin	2016-05-24 14:29	9:0
4				111					
₹ ✓ Temporary Trigger Details				111			🏹 Save 🞼	Save & New	
✓ Temporary Trigger Details     Temporary Trigger     ● Va	ariables	Versions		119			📮 Save 🎼	Save & New	
Temporary Trigger Details     Temporary Trigger     Va     General	ariables 🛛 💿	Versions		111			🏹 Save 🎼	3 Save & New 📄	
Temporary Trigger Details     Temporary Trigger     General     Name :	ariables 🖉	Versions					🗑 Save 🕞	Save & New	
Temporary Trigger Details     Temporary Trigger     General     Name :     Description :	ariables 🖉	Versions		119			🏹 Save 🕞	Save & New	
Temporary Trigger Details     Temporary Trigger     General     Name :	ariables	Versions		119			🏹 Save 🎼	Save & New	
Temporary Trigger Details     Temporary Trigger     General     Name :     Description :     Member of	ariables	Versions					🏹 Save 🕞		
Temporary Trigger Details     Temporary Trigger     Ovi     General     Name :     Description :     Member of     Business		Versions			Server (US/Easte		🏹 Save 🎼		

Step 2	<ul> <li>Enter/select Details for a new Temporary trigger, using the field descriptions below as a guide.</li> <li>Required fields display in <b>boldface</b>.</li> <li>Default values for fields, if available, display automatically.</li> <li>To display more of the Details fields on the screen, you can either: <ul> <li>Use the scroll bar.</li> <li>Temporarily hide the list above the Details.</li> <li>Click the New button above the list to display a pop-up version of the Details.</li> </ul> </li> </ul>
Step 3	Click a <b>Save</b> button. The trigger is added to the database, and all buttons and tabs in the Trigger Details are enabled.
Step 4	Enable the trigger(s) as desired.

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).

#### **Temporary Trigger Details**

The following Temporary Trigger Details is for an existing Temporary trigger. See the field descriptions, below, for a description of the fields that display in the Temporary Trigger Details.

nporary Trigger Detai	ls: stonebranch-temporarytrigg	er-01	🔲 Lindate	🔞 Enable	💊 Trigger Now		te 🕞 Refresh	
emporary Trigger 🛛 💿	Variables Versions		C Opdate			- oopy is beie	ite 4 Reliesh	
General								
Name :	stonebranch-temporarytrigger-	01		Version	1: 1			
Description :								
Member of Business Services :								~
Calendar :	System Default	-	¥ .	Time Zone	: Server (US/Eastern	)		~
	stonebranch-windowstask-01	The calendar this trigger uses.						
Task(s) :								
Purge By Retention Duration :								
Status				Otation	Disabled			
Forecast :								
Skip Count :				Disabled B	:			
Task Launch Skip Condition :	None	~						
Simulate :	System Default	*						
Temporary Details								
Date :	2018 v May v 1 v							
Time :	Hour Min 00 V 00 V							
🐺 Update	🔯 Enable 🛛 🔞 Trigger No	w 🗈 Copy	🇊 Delete	😫 Re	fresh 🛛 💥 Clos	e		

### **Temporary Trigger Details Field Descriptions**

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

Field Name	Description
General	This section contains general information about the trigger.
Name	Name used within the Controller to identify this trigger. It can contain a maximum of 255 alphanumerics. It is the responsibility of the user to develop a workable naming scheme for triggers.
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	User-defined; description of this trigger.
Member of Business Services	User-defined; allows you to select one or more Business Services that this record belongs to.
Calendar	Calendar that defines the business days, holidays, and other special days that determine the run dates for the task(s) specified in the trigger. Select a Calendar from the drop-down list of all existing Calendars. To display detailed information about a selected calendar, click the Details icon next to the Calendar field.
Time Zone	User-defined; allows you to specify the time zone that will be applied to the time(s) specified in the trigger. For example, if you specify 23:00 and a time zone of Canada/Central, the task will run at 11:00 p.m. Central Canada time.
Task(s)	Name of the task(s) being triggered when this trigger is satisfied. When selecting tasks from the Details, click on the lock icon to unlock the field and select tasks.
Purge By Retention Duration	Specification for whether triggered task instances can be purged by retention duration.
Exclude Backup	If Purge By Retention Duration is selected; Specification for whether qualifying task instances can be excluded from the backup when being purged by retention duration.
Retention Duration	If Purge By Retention Duration is selected; Minimum retention duration for the selected Retention Duration Unit before triggered task instances can qualify for purge.
Retention Duration Unit	If Purge By Retention Duration is selected; Retention duration unit. Options: • Hours • Days
Execution User	Read-only; Execution user that has been selected (via the Assign Execution User action) to override the execution user of task instances being launched by the trigger.
Status	This section contains information about the current status of the trigger.

Forecast	If checked, the Controller calculates the date and time when this trigger will be satisfied for the next number of days, as specified in the Forecast Period In Days Universal Controller system property. The Controller writes the forecasting entries to the Forecasts List.
	Note If this field is checked on a trigger and the trigger is promoted, it will not be checked for that trigger on the target system.
Status	User-defined; indication of whether the trigger is enabled (checked) or disabled (not checked). The user enables and disables the trigger by clicking the Enable / Disable buttons. Only enabled triggers are processed by the Controller.
Skip Count	User-defined; allows you to specify that the Controller should skip the next N times this task is triggered.
Enabled By	System-supplied. If Status = Enabled, ID of the user who most recently enabled this trigger.
Disabled By	System-supplied; If Status = Disabled, ID of the user who most recently enabled this trigger. (By default, all new triggers are disabled.)
Task Launch Skip Condition	User-defined; Controls when launching a task for the trigger will be skipped. Options: • - None - Do not skip the task launch. • Active Skip the task launch if a previous instance is still active. • Active By Trigger Skip the task launch if a previous instance launched by the trigger is still active.
Next Scheduled Time	System-supplied; for time-based triggers. If Status = Enabled, the next date and time this trigger will be satisfied. See Displaying Trigger Forecast Information.
Simulate	Optional. Enables the override of the Enable Trigger Simulation Universal Controller system property specification for whether or not to simulate the launching of tasks when triggers are eligible to fire. (If simulation is enabled, only the scheduled launch of the task by the trigger is inhibited.) Options:
	<ul> <li> System Default Use the system default for enabling / disabling trigger simulation as specified by Enable Trigger Simulation.</li> <li>True - Enable trigger simulation</li> <li>False - Disable trigger simulation.</li> </ul>

This section contains assorted detailed information about the trigger.
Date you want the trigger to be satisfied.
Required. Specifies the time of the trigger in hours and minutes. For example, 01:45 means trigger the task at 1:45 a.m.; 13:45 means trigger the task at 1:45 p.m.
This section contains Metadata information about this record.
Universally Unique Identifier of this record.
Name of the user that last updated this record.
Date and time that this record was last updated.
Name of the user that created this record.
Date and time that this record was created.
This section identifies the buttons displayed above and below the Trigger Details that let you perform various actions.
Saves a new task record in the Controller database.
Saves a new record in the Controller database and redisplays empty Details so that you can create another new record.
Saves a new record in the Controller database and continues to display that record.
Displays empty (except for default values) Details for creating a new record.
Saves updates to the record.
Activates this trigger and writes your User ID to the Enabled By field.
Deactivates this trigger.

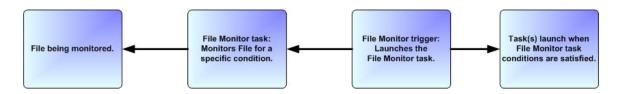
Trigger Now	Immediately triggers all the tasks specified in this trigger. Optionally, you also can select to: • Launch the task(s) specified in the trigger with one or more variables. • Launch the task(s) specified in the trigger by a specified date and time. • Launch the task(s) specified in the trigger but place them in Held status; they will not run until they are released.
	<ul> <li>Note         If you click Trigger Now for an Enabled trigger that does not have an assigned Execution User, the trigger will launch its task(s) under the context of the Enabled By user.         If you click Trigger Now for a Disabled trigger that does not have an assigned Execution User, the trigger will launch its task(s) under the context of your user name and ID.         If you click Trigger Now for an Enabled or Disabled trigger that has an assigned Execution User, the trigger will launch its task(s) under the context of the assigned Execution User.     </li> </ul>
Сору	Creates a copy of this trigger, 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 trigger.
Tabs	This section identifies the tabs across the top of the Trigger Details that provide access to additional information about the trigger.
Variables	Lists all user-defined variables associated with this record; that is, variables that have been defined for this specific record.
Versions	Stores copies of all previous versions of the current record. See Record Versioning.
Versions	

### **File Monitor Trigger**

- Overview
- Built-In Variables
- Prerequisites
- Creating a File Monitor Trigger
  - File Monitor Trigger Details
  - File Monitor Trigger Details Field Descriptions

#### Overview

The File Monitor trigger allows you to trigger one or more tasks based on the creation, deletion, change, existence or non-existence of a file on a particular machine, as specified by a selected File Monitor task, as illustrated below. For a detailed description, see Launching a File Monitor Task Using a File Monitor Trigger.



#### Note

Æ

Using a File Monitor trigger to trigger a File Monitor task that is monitoring for the creation of one or more files (Monitor Type = Exists) will disable the trigger. You should instead specify (Monitor Type = Create) and check Trigger on Existence.

### **Built-In Variables**

The built-in variables outlined below can be used to pass data where appropriate:

- Task and Task Instance Variables
- File Monitor Variables.

#### Prerequisites

Before you can use a File Monitor Trigger, you need the following:

- A Windows, Linux/Unix, or z/OS agent, which will execute the File Monitor task.
- A File Monitor task, which watches for the creation, deletion, change, existence, or non-existence of a file.

A

Any changes made to a File Monitor task are not recognized by its respective File Monitor Triggers until those Triggers are disabled and re-enabled.

## Creating a File Monitor Trigger

Name         Description         Enabled         File Monitor         Monitor Status         Updated By         Updated           stonebranch-filemonitortrigger-01         Image: Stonebranch-filemonitor-01         ops.admin         2016-05-24 14:29:09 -0400           stonebranch-filemonitortrigger-02         Image: Stonebranch-filemonitor-01         ops.admin         2016-05-24 14:29:09 -0400           stonebranch-filemonitortrigger-03         Image: Stonebranch-filemonitor-01         ops.admin         2016-05-24 14:29:09 -0400	Name         Description         Enabled         File Monitor         Monitor Status         Updated By         Updated           stonebranch-filemonitor.filemonitor.filemonitor.01         0ps admin         2016-05-24 14:29:09 -0400
stonebranch-filemonitortrigger-01       Stonebranch-filemonitor-01       ops.admin       2016-05-24       14:29:09       -0400         stonebranch-filemonitortrigger-02       Stonebranch-filemonitor-01       ops.admin       2016-05-24       14:29:09       -0400         stonebranch-filemonitortrigger-03       Stonebranch-filemonitor-01       ops.admin       2016-05-24       14:29:09       -0400         stonebranch-filemonitortrigger-03       Stonebranch-filemonitor-01       ops.admin       2016-05-24       14:29:09       -0400         stonebranch-filemonitor-01       ops.admin       2016-05-24       14:29:09       -0400	stonebranch-filemonitortrigger-01 😵 stonebranch-filemonitor-01 ops.admin 2016-05-24 14:29:09 -0400
stonebranch-filemonitortrigger-02         Stonebranch-filemonitor-01         ops.admin         2016-05-24         14:29:09-0400           stonebranch-filemonitortrigger-03         Stonebranch-filemonitor-01         ops.admin         2016-05-24         14:29:09-0400           stonebranch-filemonitortrigger-04         Stonebranch-filemonitor-01         ops.admin         2016-05-24         14:29:09-0400	
stonebranch-filemonitortrigger-02         Stonebranch-filemonitor-01         ops.admin         2016-05-24         14:29:09-0400           stonebranch-filemonitortrigger-03         Stonebranch-filemonitor-01         ops.admin         2016-05-24         14:29:09-0400           stonebranch-filemonitortrigger-04         Stonebranch-filemonitor-01         ops.admin         2016-05-24         14:29:09-0400	
stonebranch-filemonitortrigger-04 😰 stonebranch-filemonitor-01 ops.admin 2016-05-24 14:29:09 -0400	
stonebranch-filemonitortrigger-04 😰 stonebranch-filemonitor-01 ops.admin 2016-05-24 14:29:09 -0400	🗐 stonebranch-filemonitortrigger-03 😰 <u>stonebranch-filemonitor-01</u> ops.admin 2016-05-24 14:29:09 -0400
stonebranch-filemonitor-01 ops.admin 2016-05-24 14:29:09 -0400	
ile Monitor Trigger Details	File Monitor Trigger Details
e Monitor Trigger Variables Versions	File Monitor Trigger Variables Versions
e Monitor Trigger Variables Versions General	File Monitor Trigger Variables Versions General
e Monitor Trigger Variables Versions General Name :	File Monitor Trigger Variables Versions General Name :
e Monitor Trigger Variables Versions General Name : Description :	File Monitor Trigger Variables Versions General Name: Description:
e Monitor Trigger Variables Versions General Name :	File Monitor Trigger  Variables Versions General Description: Member of
e Monitor Trigger Variables Versions General Description : Member of	File Monitor Trigger  Variables Versions General Description: Member of Business
e Monitor Trigger Variables Versions General Description : Member of Business	File Monitor Trigger Variables Versions  General  Description :  Member of Business Services :
stonebranch-hiemonitortrigger-U5 🔯 stonebranch-hiemonitor-U1 ops.admin 2016-05-24 14:29:09 -0400	
stonebranch-filemonitortrigger-05 😢 stonebranch-filemonitor-01 ops.admin 2016-05-24 14:29:09 -0400	🗄 stonebranch-filemonitor-01 ops.admin 2016-05-24 14:29:09 -0400
	stonebranch-filemonitortrigger-03 🛛 stonebranch-filemonitor-01 ops.admin 2016-05-24 14:29:09 -0400
stonebranch-filemonitortrigger-04 🛛 stonebranch-filemonitor-01 ops.admin 2016-05-24 14:29:09 -0400	
stonebranch-filemonitortrigger-03     Stonebranch-filemonitor-01     ops.admin     2016-05-24     14:29:09     -0400       stonebranch-filemonitor-filemonitor-01     ops.admin     2016-05-24     14:29:09     -0400	stonebranch-hilemonitorfrigger-02 Stonebranch-hilemonitor-01 ops.admin 2016-05-24 14:29:09 -0400
stonebranch-filemonitortrigger-02         Stonebranch-filemonitor-01         ops.admin         2016-05-24 14:29:09 -0400           stonebranch-filemonitortrigger-03         Stonebranch-filemonitor-01         ops.admin         2016-05-24 14:29:09 -0400           stonebranch-filemonitortrigger-04         Stonebranch-filemonitor-01         ops.admin         2016-05-24 14:29:09 -0400	
stonebranch-filemonitortrigger-01       Stonebranch-filemonitor-01       ops.admin       2016-05-24 14:29:09 -0400         stonebranch-filemonitortrigger-02       Stonebranch-filemonitor-01       ops.admin       2016-05-24 14:29:09 -0400         stonebranch-filemonitortrigger-03       Stonebranch-filemonitor-01       ops.admin       2016-05-24 14:29:09 -0400         stonebranch-filemonitortrigger-03       Stonebranch-filemonitor-01       ops.admin       2016-05-24 14:29:09 -0400         stonebranch-filemonitortrigger-04       Stonebranch-filemonitor-01       ops.admin       2016-05-24 14:29:09 -0400	stonebranch-filemonitortrigger-01 😵 stonebranch-filemonitor-01 ops.admin 2016-05-24 14:29:09 -0400

Step 2	Enter/select Details for a new File Monitor trigger, using the field descriptions below as a guide.
	<ul> <li>Required fields display in <b>boldface</b>.</li> <li>Default values for fields, if available, display automatically.</li> </ul>
	To display more of the Details fields on the screen, you can either:
	<ul> <li>Use the scroll bar.</li> <li>Temporarily hide the list above the Details.</li> <li>Click the New button above the list to display a pop-up version of the Details.</li> </ul>
Step 3	Click a Save button. The trigger is added to the database, and all buttons and tabs in the Trigger Details are enabled.
Step 4	Enable the trigger(s) as desired.

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).

#### File Monitor Trigger Details

The following File Monitor Trigger Details is for an existing File Monitor trigger. See the field descriptions, below, for a description of the fields that display in the File Monitor Trigger Details.

				🔛 Upda	e 🔞 Enable	🔞 Trigger N	low 🗈 Copy	💣 Delete	Refresh	Clos
ile Monitor Trigger	Variables	Versions		0.00		•	,	00		••
- General										
Name :	stonebranch	filemonitortrigge	r-01		Version	n :	1			
Description :										
Member of Business Services :										~
Calendar :	System Defa	ult		¥ .	Time Zone	e : Server (US	/Eastern)			~
	stonebranch-w	vindowstask-01								
Task(s) :										
Purge By Retention Duration :										
Purge By Retention Duration : - Status Skip Count :		0			Status	s : Disabled				
- Status	Nana	0		v	Statu: Disabled B					
- Status	None	0		×						
- Status Skip Count : Task Launch Skip Condition : - File Monitor Details	None	0 filemonitortask-	01	V V						
- Status	None		01							
- Status	None stonebranch-		01							
- Status - Skip Count : Task Launch Skip Condition : - File Monitor Details File Monitor : - Restrictions - Restrictions	None stonebranch-		01							

### File Monitor Trigger Details Field Descriptions

The following table describes the fields, buttons, and tabs that display in the File Monitor Trigger Details.

Field Name	Description
General	This section contains general information about the trigger.
Name	Name used within the Controller to identify this trigger. It can contain a maximum of 255 alphanumerics. It is the responsibility of the user to develop a workable naming scheme for triggers.
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	User-defined; description of this trigger.

Member of	
Business Services	User-defined; allows you to select one or more Business Services that this record belongs to.
Calendar	Calendar that defines the business days, holidays, and other special days that determine the run dates for the task(s) specified in the trigger.
	Select a Calendar from the drop-down list of all existing Calendars. To display detailed information about a selected calendar, click the Details icon next to the Calendar field.
Time Zone	User-defined. Allows you to specify the time zone that will be applied to the times specified in the Restrict Times parameters. For example, if you specify an Enabled Start of 23:00, an Enabled End of 24:00, and a time zone of Canada/Central, the trigger is enabled at 11:00 p.m. and disabled at 12:00 a.m., Central Canada time.
Task(s)	Name of the task(s) being triggered when this trigger is satisfied. When selecting tasks from the Details, click on the lock icon to unlock the field and select tasks.
Purge By Retention Duration	Specification for whether triggered task instances can be purged by retention duration.
Exclude Backup	If Purge By Retention Duration is selected; Specification for whether qualifying task instances can be excluded from the backup when being purged by retention duration.
Retention Duration	If Purge By Retention Duration is selected; Minimum retention duration for the selected Retention Duration Unit before triggered task instances can qualify for purge.
Retention Duration Unit	If Purge By Retention Duration is selected; Retention duration unit.
Onit	Options:
	<ul><li>Hours</li><li>Days</li></ul>
Execution User	Read-only; Execution user that has been selected (via the Assign Execution User action) to override the execution user of task instances being launched by the trigger.
Status	This section contains information about the current status of the trigger.
Skip Count	User-defined; allows you to specify that the Controller should skip the next N times this task is triggered.

Task Launch Skip Condition	User-defined; Controls when launching a task for the trigger will be skipped. Options: • - None - Do not skip the task launch. • Active Skip the task launch if a previous instance is still active. • Active By Trigger Skip the task launch if a previous instance launched by the trigger is still active.
Status	User-defined; indication of whether the trigger is enabled (checked) or disabled (not checked). The user enables and disables the trigger by clicking the Enable / Disable buttons. Only enabled triggers are processed by the Controller.
Enabled By	System-supplied. If Status = Enabled, ID of the user who most recently enabled this trigger.
Disabled By	System-supplied; If Status = Disabled, ID of the user who most recently enabled this trigger. (By default, all new triggers are disabled.)
File Monitor Details	This section contains assorted detailed information about the trigger.
File Monitor	Required; File Monitor task being executed. Enter a task name, select a task from the drop-down list, or click the Task Details icon to create a new task. If a task already is specified in this field, click the Task Details icon to view the Details of that task.
Running Monitor	System-supplied; Name of the currently running task instance of the specified File Monitor task that was launched by this enabled trigger.
Restrictions	This section specifies any restrictions that apply to the trigger.
Restrict Times	Period during which the trigger is active. Enable this field and specify the start and end times in the Enabled Start and Enabled End fields.
Enabled Start	If Restrict Times is enabled, allows you to specify the start time of the period during which the trigger should be active. Use 24-hour time.
Enabled End	If Restrict Times is enabled, allows you to specify the end time of the period during which the trigger should be active. Use 24-hour time.

Special Restriction	Enable this field in order to specify additional parameters that tell the Controller how to handle exceptions, such as when the trigger is satisfied on a holiday or non-business day. You can specify simple and/or complex restrictions. For example, you can specify a Simple Restriction that disables the trigger if it is satisfied on a holiday identified in the calendar and/or a Complex Restriction that disables the trigger on the last business day of every month.
Simple Restriction	If enabled, allows you to specify an action (see Action field) such as Do Not Trigger on a non-business day or holiday (see Situation field). For example, do not trigger on a non-business day.
Situation	If Simple Restriction is enabled, allows you to select the situation that causes the system to initiate the action specified in the Action field. Options:  On Non Business Day On Holiday
Action	If Special Restriction is enabled, allows you to select an action to take on a non-business day or holiday (see Situation field). Options: • Do Not Trigger • Next Day (run on the next day) • Next Business Day (run on the next business day, as defined in the calendar) • Previous Day (run on the previous day) • Previous Business Day (run on the previous business day, as defined in the calendar)
Complex Restriction	If enabled, allows you to specify a set of parameters that determine one or more situations when this trigger should not be satisfied. Used in conjunction with the following fields: Restriction Mode, Restriction Adjective, Restriction Noun, Restriction Qualifier. For example, you may specify that you do not want to satisfy this trigger on the last business day of the year or the first day of each month.
Restriction Mode	If both Simple Restriction and Complex Restriction are enabled, specifies whether you want to use both restriction types (AND) or one or the other (OR). Options:

Restriction Adjective	
/ lajoolivo	If Complex Restriction is enabled, the type of selection.
	Options:
	• Every
	<ul> <li>1st</li> <li>2nd</li> </ul>
	• 3rd
	<ul> <li>4th</li> <li>Last</li> </ul>
	Example: The last business day of the month.
Restriction Noun	If Complex Restriction is enabled, the day you want to select.
	Options:
	<ul> <li>Sunday through Saturday</li> <li>Day</li> </ul>
	<ul> <li>Business Day</li> <li>Custom Day</li> </ul>
	Example: The last <b>business day</b> of the month.
	Example. The last <b>busiless day</b> of the month.
Restriction Qualifier	If Complex Restriction is enabled, the period you are selecting from.
	Options:
	• Month
	<ul> <li>Year</li> <li>January through December</li> </ul>
	Custom period
	Example: The last quarter of the <b>year</b> .
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 Trigger 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 redisplays 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.					
Enable	Activates this trigger and writes your User ID to the Enabled By field.					
Disable	Deactivates this trigger.					
Trigger Now	Immediately triggers all the tasks specified in this trigger. Optionally, you also can select to:   Launch the task(s) specified in the trigger with one or more variables. Launch the task(s) specified in the trigger by a specified date and time. Launch the task(s) specified in the trigger by a specified date and time. Launch the task(s) specified in the trigger but place them in Held status; they will not run until they are released.  Note If you click Trigger Now for an Enabled trigger that does not have an assigned Execution User, the trigger will launch its task(s) under the context of the Enabled By user. If you click Trigger Now for a Disabled trigger that does not have an assigned Execution User, the trigger will launch its task(s) under the context of your user name and ID. If you click Trigger Now for an Enabled trigger that has an assigned Execution User, the trigger will launch its task(s) under the context of the assigned Execution User.					
Сору	Creates a copy of this trigger, 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 trigger.					
Tabs	This section identifies the tabs across the top of the Trigger Details that provide access to additional information about the trigger.					
Variables	Lists all user-defined variables associated with this record; that is, variables that have been defined for this specific record.					

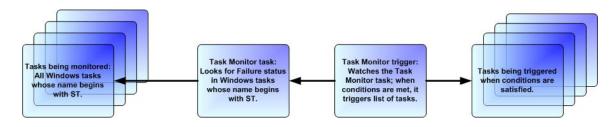
Versions	Stores copies of all previous versions of the current record. See Record Versioning.

# **Task Monitor Trigger**

- Overview
- Built-In Variables
- Prerequisites
- Creating a Task Monitor Trigger
  - Task Monitor Trigger Details
    - Task Monitor Trigger Details Field Descriptions

#### Overview

The Task Monitor Trigger allows you to trigger one or more tasks, as specified in a selected Task Monitor task, as illustrated below. For details, see Launching a Task Monitor Task Using a Task Monitor Trigger.



## **Built-In Variables**

The built-in variables outlined below can be used to pass data where appropriate:

- Task Monitor Variables
- Trigger Variables

### Prerequisites

Before you can use a Task Monitor Trigger, you need a Task Monitor task, which defines the statuses being monitored for and the tasks being monitored.



### **Creating a Task Monitor Trigger**

	Triggers 🛛					
✓ 5 Task Monitor Triggers	Custom Filte	er None		× 😵	Filter 🔯 G	<u>è</u> o To   🗔 New   🍣
Name *	Description	Enabled	Task Monitor	Monitor Status	Updated By	Updated
stonebranch-taskmonitortrig	gger-01	8	stonebranch-taskmonitor		ops.admin	2016-05-24 14:29:09 -040
stonebranch-taskmonitortrig		8	stonebranch-taskmonitor		ops.admin	2016-05-24 14:29:09 -040
stonebranch-taskmonitortrig		8	stonebranch-taskmonitor		ops.admin	2016-05-24 14:29:09 -040
stonebranch-taskmonitortrig		8	stonebranch-taskmonitor		ops.admin	2016-05-24 14:29:09 -040
stonebranch-taskmonitortrig	gger-05	8	stonebranch-taskmonitor	r <u>-01</u>	ops.admin	2016-05-24 14:29:09 -040
✓ Task Monitor Trigger Details					🔚 Save	🕞 Save & New 📃 New
	ariables Versions				🗑 Save	
Task Monitor Trigger 🛛 Va	ariables Versions				T Save	🕞 Save & New 📃 New
Task Monitor Trigger Va	ariables Versions				Save 🕻	🕞 Save & New 📃 New
Task Monitor Trigger     Value       General     Name :       Description :     Member of	ariables Versions				🕅 Save 🕻	🕼 Save & New 📃 New
Task Monitor Trigger • Va General	ariables Versions				F Save	🕼 Save & New 📃 New
Task Monitor Trigger     Value       General     Name :       Description :     Member of				erver (US/Eastern)	Save (	🕼 Save & New 📃 New
Task Monitor Trigger       Va         General				erver (US/Eastern)	Save (	Save & New New
Task Monitor Trigger     Va       General     Image: Comparison of the comparison	I Default		Time Zone : S	erver (US/Eastern)	Save (	Save & New New
Task Monitor Trigger       Va         General	I Default		Time Zone : S	erver (US/Eastern)	Save (	Save & New New
Task Monitor Trigger       Va         General	I Default		Time Zone : S	erver (US/Eastern)	Save (	Save & New New
Task Monitor Trigger       Va         General	I Default No items to show.		Time Zone : s			Save & New New
Task Monitor Trigger       Va         General       General         Name :       Description :         Description :       Member of         Business       Services :         Calendar :       System         Task(s) :       Enter/select Details for a	Default No items to show.	trigger, using	Time Zone : s			Save & New New
Task Monitor Trigger       Va         General       General         Description :       Member of         Business       Services :         Calendar :       System         Task(s) :       Task(s) :         Enter/select Details for a       • Required fields of	new Task Monitor	trigger, using	Time Zone : S			Save & New New
Task Monitor Trigger       Va         General       General         Description :       Member of         Business       Services :         Calendar :       System         Task(s) :       Task(s) :         Enter/select Details for a       • Required fields of	Default No items to show.	trigger, using	Time Zone : S			Save & New New

**Step 3** Click a **Save** button. The trigger is added to the database, and all buttons and tabs in the Trigger Details are enabled.

**Step 4** Enable the trigger(s) as desired.

Note

Δ

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).

#### **Task Monitor Trigger Details**

The following Task Monitor Trigger Details is for an existing Task trigger. See the field descriptions, below, for a description of the fields that display in the Task Monitor Trigger Details.

sk Monitor Trigger Det	ails: stonebranch-taskmonitortrigger-01	
	🔚 Update 🚳 Enable 🚱 Trigger Now 🛅 Copy 🍰 Delete 🐚 Refresh	💢 Close
Task Monitor Trigger 🧧	Variables Versions	
- General		
Name :	stonebranch-taskmonitortrigger-01 Version : 1	
Description :		
Member of Business Services :		~
Calendar :	System Default v 📰 Time Zone : Server (US/Eastern)	~
Testie	stonebranch-windowstask-01	
Task(s) :		
Purge By Retention Duration :		
- Status		
Skip Count :	0 Status : Disabled	
Task Launch Skip Condition :	None Disabled By :	
- Task Monitor Details		
Task Monitor :	stonebranch-taskmonitortask-01 v 🔄	
- Restrictions		
Restrict Times :		
Enabled Start :	Hour Min 00 v 00 v	
Enabled End :	Hour Min 15 v 00 v	
Special Restriction :		
🔛 Update	🚯 Enable 🛛 🚱 Trigger Now 🔋 Copy 👔 Delete 🕞 Refresh 🛛 💥 Close	

#### Task Monitor Trigger Details Field Descriptions

The following table describes the fields, buttons, and tabs that display in the Task Monitor Trigger Details.

Field Name	Description
General	This section contains general information about the trigger.
Name	Name used within the Controller to identify this trigger. It can contain a maximum of 255 alphanumerics. It is the responsibility of the user to develop a workable naming scheme for triggers.

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	User-defined; description of this trigger.
Member of Business Services	User-defined; allows you to select one or more Business Services that this record belongs to.
Calendar	Calendar that defines the business days, holidays, and other special days that determine the run dates for the task(s) specified in the trigger.
	Select a Calendar from the drop-down list of all existing Calendars. To display detailed information about a selected calendar, click the Details icon next to the Calendar field.
Time Zone	User-defined. Allows you to specify the time zone that will be applied to the times specified in the Restrict Times parameters. For example, if you specify an Enabled Start of 23:00, an Enabled End of 24:00, and a time zone of Canada/Central, the trigger is enabled at 11:00 p.m. and disabled at 12:00 a.m., Central Canada time.
Task(s)	Name of the task(s) being triggered when this trigger is satisfied. When selecting tasks from the Details, click on the lock icon to unlock the field and select tasks.
Purge By Retention Duration	Specification for whether triggered task instances can be purged by retention duration.
Exclude Backup	If Purge By Retention Duration is selected; Specification for whether qualifying task instances can be excluded from the backup when being purged by retention duration.
Retention Duration	If Purge By Retention Duration is selected; Minimum retention duration for the selected Retention Duration Unit before triggered task instances can qualify for purge.
Retention Duration Unit	If Purge By Retention Duration is selected; Retention duration unit. Options:
	<ul><li>Hours</li><li>Days</li></ul>
Execution User	Read-only; Execution user that has been selected (via the Assign Execution User action) to override the execution user of task instances being launched by the trigger.
Status	This section contains information about the current status of the trigger.

Skip Count	User-defined; allows you to specify that the Controller should skip the next <i>N</i> times this task is triggered.
Task Launch Skip Condition	User-defined; Controls when launching a task for the trigger will be skipped. Options: • - None - Do not skip the task launch. • Active Skip the task launch if a previous instance is still active. • Active By Trigger Skip the task launch if a previous instance launched by the trigger is still active.
Status	User-defined; indication of whether the trigger is enabled (checked) or disabled (not checked). The user enables and disables the trigger by clicking the Enable / Disable buttons. Only enabled triggers are processed by the Controller.
Enabled By	System-supplied. If Status = Enabled, ID of the user who most recently enabled this trigger.
Disabled By	System-supplied; If Status = Disabled, ID of the user who most recently enabled this trigger. (By default, all new triggers are disabled.)
Task Monitor Details	This section contains assorted detailed information about the trigger.
Task Monitor	Required; Task Monitor task being executed. Enter a task name, select a task from the drop-down list, or click the Task Details icon to create a new task. If a task already is specified in this field, click the Task Details icon to view the Details of that task.
Running Monitor	System-supplied; Name of the currently running task instance of the specified Task Monitor task that was launched by this enabled trigger.
Restrictions	This section specifies any restrictions that apply to the trigger.
Restrict Times	Period during which the trigger is active. Enable this field and specify the start and end times in the Enabled Start and Enabled End fields.
Enabled Start	If Restrict Times is enabled, allows you to specify the start time of the period during which the trigger should be active. Use 24-hour time.
Enabled End	If Restrict Times is enabled, allows you to specify the end time of the period during which the trigger should be active. Use 24-hour time.

Special Restriction	Enable this field in order to specify additional parameters that tell the Controller how to handle exceptions, such as when the trigger is satisfied on a holiday or non-business day. You can specify simple and/or complex restrictions. For example, you can specify a Simple Restriction that disables the trigger if it is satisfied on a holiday identified in the calendar and/or a Complex Restriction that disables the trigger on the last business day of every month.
Simple Restriction	If enabled, allows you to specify an action (see Action field) such as Do Not Trigger on a non-business day or holiday (see Situation field). For example, do not trigger on a non-business day.
Situation	If Simple Restriction is enabled, allows you to select the situation that causes the system to initiate the action specified in the Action field. Options: • On Non Business Day • On Holiday
Action	If Special Restriction is enabled, allows you to select an action to take on a non-business day or holiday (see Situation field). Options: • Do Not Trigger • Next Day (run on the next day) • Next Business Day (run on the next business day, as defined in the calendar) • Previous Day (run on the previous day) • Previous Business Day (run on the previous business day, as defined in the calendar)
Complex Restriction	If enabled, allows you to specify a set of parameters that determine one or more situations when this trigger should not be satisfied. Used in conjunction with the following fields: Restriction Mode, Restriction Adjective, Restriction Noun, Restriction Qualifier. For example, you may specify that you do not want to satisfy this trigger on the last business day of the year or the first day of each month.
Restriction Mode	If both Simple Restriction and Complex Restriction are enabled, specifies whether you want to use both restriction types (AND) or one or the other (OR). Options:

Restriction Adjective	
/ lajoolivo	If Complex Restriction is enabled, the type of selection.
	Options:
	• Every
	<ul> <li>1st</li> <li>2nd</li> </ul>
	• 3rd
	<ul> <li>4th</li> <li>Last</li> </ul>
	Example: The last business day of the month.
Restriction Noun	If Complex Restriction is enabled, the day you want to select.
	Options:
	<ul> <li>Sunday through Saturday</li> <li>Day</li> </ul>
	<ul> <li>Business Day</li> <li>Custom Day</li> </ul>
	Example: The last <b>business day</b> of the month.
	Example. The last <b>busiless day</b> of the month.
Restriction Qualifier	If Complex Restriction is enabled, the period you are selecting from.
	Options:
	• Month
	<ul> <li>Year</li> <li>January through December</li> </ul>
	Custom period
	Example: The last quarter of the <b>year</b> .
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 Trigger Details that let you perform various actions.
Save	Saves a new task record in the Controller database.

Saves a new record in the Controller database and redisplays empty Details so that you can create another new record.         Saves a new record in the Controller database and continues to display that record.         Displays empty (except for default values) Details for creating a new record.					
Displays empty (except for default values) Details for creating a new record.					
Saves updates to the record.					
Activates this trigger and writes your User ID to the Enabled By field.					
Deactivates this trigger.					
Immediately triggers all the tasks specified in this trigger. Optionally, you also can select to:      Launch the task(s) specified in the trigger with one or more variables.     Launch the task(s) specified in the trigger by a specified date and time.     Launch the task(s) specified in the trigger but place them in Held status; they will not run until they are released.      Note If you click Trigger Now for an Enabled trigger that does not have an assigned Execution User, the trigger will launch its task(s) under the context of the Enabled By user. If you click Trigger Now for a Disabled trigger that does not have an assigned Execution User, the trigger will launch its task(s) under the context of your user name and ID. If you click Trigger Now for an Enabled trigger that has an assigned Execution User, the trigger will launch its task(s) under the context of the assigned Execution User.					
Creates a copy of this trigger, which you are prompted to rename.					
Deletes the current record.					
Refreshes any dynamic data displayed in the Details.					
For pop-up view only; closes the pop-up view of this trigger.					
This section identifies the tabs across the top of the Trigger Details that provide access to additional information about the trigger.					
Lists all user-defined variables associated with this record; that is, variables that have been defined for this specific record.					

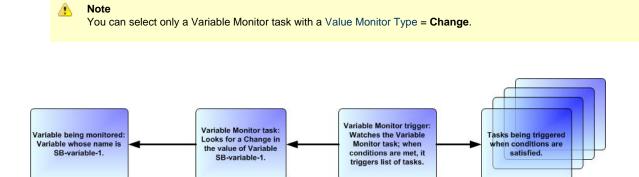
Versions	Stores copies of all previous versions of the current record. See Record Versioning.

# Variable Monitor Trigger

- Overview
- Built-In Variables
- Prerequisites
- Creating a Variable Monitor Trigger
  - Variable Monitor Trigger Details
  - Variable Monitor Trigger Details Field Descriptions

#### **Overview**

The Variable Monitor trigger allows you to trigger one or more tasks based on the conditions specified by a selected Variable Monitor task.



#### **Built-In Variables**

The built-in variables outlined below can be used to pass data where appropriate:

- Variable Monitor Task Instance/Trigger Variables
- Trigger Variables

### Prerequisites

Before you can use a Variable Monitor Trigger, you need a Variable Monitor task, which defines the conditions for the variable being monitored.

Note

Any changes made to a Variable Monitor task are not recognized by its respective Variable Monitor Triggers until those Triggers are disabled and re-enabled.

# Creating a Variable Monitor Trigger

Dashboards 🛛 Var	iable Monitor Trigger	s 🗵						
✓ 5 Variable Monitor	Triggers	Custom Filter			× 😵	Filter 🔯 G	o To   🔯 New	2
Name 👚		Description	Enabled	Variable Monitor	Monitor Status	Updated By	Updated	*
📰 stonebranch-varia	blemonitortrigger-01		8	stonenbranch-variablemonitor-01	-	ops.admin	2016-05-24 14:29:09	-0400
📰 stonebranch-varia	blemonitortrigger-02		8	stonenbranch-variablemonitor-02		ops.admin	2016-05-24 14:29:09	-0400
📰 stonebranch-varia	blemonitortrigger-03		8	stonenbranch-variablemonitor-03		ops.admin	2016-05-24 14:29:09	-0400
stonebranch-varia	blemonitortrigger-04		8	stonenbranch-variablemonitor-04		ops.admin	2016-05-24 14:29:09	-0400
stonebranch-varia	blemonitortrigger-05		8	ecu-variable-monitor		ops.admin	2016-05-24 14:29:09	-0400
1	izza Dataila			111		Fill Sauce	🕞 Sauce & Norre 🗖	Now
Variable Monitor Tr	igger Details			111		Save 🕻	🔓 Save & New 📃	New
		Versions		m		Fr Save	🔓 Save & New 📃	620
Variable Monitor Tr     Variable Monitor Trig     General	iger 🕒 Variables	B Versions		111		Save 1	🔓 Save & New 📃	620
Variable Monitor Tr     Variable Monitor Trig     General     Name	iger Variables	B Versions		111		Fr Save	🔓 Save & New 📑	620
Variable Monitor Tr     Variable Monitor Trig     General	iger Variables	Versions		111		Save	🔓 Save & New 📃	620
Variable Monitor Tri     Variable Monitor Trig     General     Name     Description     Member o	iger Variables	B Versions		111		Save	🔓 Save & New 📑	620
Variable Monitor Tri     Variable Monitor Tri     General     Oscription     Member o     Business	iger Variables	B Versions		111		Save	Save & New 📑	620
<ul> <li>Variable Monitor Tri</li> <li>Variable Monitor Trig</li> <li>General</li> <li>Name</li> <li>Description</li> <li>Member o</li> <li>Business</li> <li>Services</li> </ul>	s	B Versions			or (ISE setors)	Save 1	Save & New	620
Variable Monitor Tri     Variable Monitor Trig     General     Name     Description     Member o     Business     Services	iger Variables	Versions		Time Zone : Serve	er (US/Eastern)	Save 1	Save & New	620

Step 2	<ul> <li>Enter/select Details for a new Variable Monitor trigger, using the field descriptions below as a guide.</li> <li>Required fields display in <b>boldface</b>.</li> <li>Default values for fields, if available, display automatically.</li> <li>To display more of the Details fields on the screen, you can either: <ul> <li>Use the scroll bar.</li> <li>Temporarily hide the list above the Details.</li> <li>Click the New button above the list to display a pop-up version of the Details.</li> </ul> </li> </ul>
Step 3	Click a Save button. The trigger is added to the database, and all buttons and tabs in the Trigger Details are enabled.
Step 4	Enable the trigger(s) as desired.

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).

#### Variable Monitor Trigger Details

The following Variable Monitor Trigger Details is for an existing Variable Monitor trigger. See the field descriptions, below, for a description of the fields that display in the Variable Monitor Trigger Details.

	Details: stonebranch-variablemonito	ringger-vi	E Undata	🔯 Epoblo	💊 Trigger Now 🛙	Dopy 🖑 Dol	ata 🕞 Bafrach	
/ariable Monitor Trigger	Variables Versions		C Opuale	Chaple		E Coby i Dei	ete 4 Kellesti	🦱 CIUS
General								
	stonebranch-variablemonitortrigger	-01		Version	: 1			
Description :								
Member of								~
Business Services :								
Calendar:	System Default		¥	Time Zone	: Server (US/Eastern	1)		*
	stonebranch-windowstask-01							
Task(s) :			<b>a</b>					
Purge By Retention Duration :								
01-1								
	0			Status	Disablad			
Skip Count :					Disabled			
			~	Status Disabled By				
Skip Count : Task Launch Skip Condition :	None		~					
Skip Count : Task Launch Skip Condition : - Variable Monitor Def	None		×					
Task Launch Skip Condition : - Variable Monitor Def Variable Monitor :	None							
Skip Count : Task Launch Skip Condition : - Variable Monitor Def	None ails							
Skip Count : Task Launch Skip Condition : Variable Monitor Det Variable Monitor : Restrictions	None ails							

#### Variable Monitor Trigger Details Field Descriptions

The following table describes the fields, buttons, and tabs that display in the Variable Monitor Trigger Details.

Field Name	Description
General	This section contains general information about the trigger.
Name	Name used within the Controller to identify this trigger. It can contain a maximum of 255 alphanumerics. It is the responsibility of the user to develop a workable naming scheme for triggers.
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	User-defined; description of this trigger.

Member of	
Business Services	User-defined; allows you to select one or more Business Services that this record belongs to.
Calendar	Calendar that defines the business days, holidays, and other special days that determine the run dates for the task(s) specified in the trigger.
	Select a Calendar from the drop-down list of all existing Calendars. To display detailed information about a selected calendar, click the Details icon next to the Calendar field.
Time Zone	User-defined. Allows you to specify the time zone that will be applied to the times specified in the Restrict Times parameters. For example, if you specify an Enabled Start of 23:00, an Enabled End of 24:00, and a time zone of Canada/Central, the trigger is enabled at 11:00 p.m. and disabled at 12:00 a.m., Central Canada time.
Task(s)	Name of the task(s) being triggered when this trigger is satisfied. When selecting tasks from the Details, click on the lock icon to unlock the field and select tasks.
Purge By Retention Duration	Specification for whether triggered task instances can be purged by retention duration.
Exclude Backup	If Purge By Retention Duration is selected; Specification for whether qualifying task instances can be excluded from the backup when being purged by retention duration.
Retention Duration	If Purge By Retention Duration is selected; Minimum retention duration for the selected Retention Duration Unit before triggered task instances can qualify for purge.
Retention Duration Unit	If Purge By Retention Duration is selected; Retention duration unit.
Onit	Options:
	<ul><li>Hours</li><li>Days</li></ul>
Execution User	Read-only; Execution user that has been selected (via the Assign Execution User action) to override the execution user of task instances being launched by the trigger.
Status	This section contains information about the current status of the trigger.
Skip Count	User-defined; allows you to specify that the Controller should skip the next N times this task is triggered.

Task Launch	
Skip Condition	User-defined; Controls when launching a task for the trigger will be skipped. Options:
	<ul> <li>- None - Do not skip the task launch.</li> <li>Active Skip the task launch if a previous instance is still active.</li> <li>Active By Trigger Skip the task launch if a previous instance launched by the trigger is still active.</li> </ul>
Status	User-defined; indication of whether the trigger is enabled (checked) or disabled (not checked). The user enables and disables the trigger by clicking the Enable / Disable buttons. Only enabled triggers are processed by the Controller.
Enabled By	System-supplied. If Status = Enabled, ID of the user who most recently enabled this trigger.
Disabled By	System-supplied; If Status = Disabled, ID of the user who most recently enabled this trigger. (By default, all new triggers are disabled.)
Variable Monitor Details	This section contains assorted detailed information about the trigger.
Variable Monitor	Required; Variable Monitor task being executed. Enter a task name, select a task from the drop-down list, or click the Task Details icon to create a new task. If a task already is specified in this field, click the Task Details icon to view (and change, as desired) the Details of that task.
	Note If you click the Details icon to create or update a Variable Monitor, Change is pre-selected for the Variable Monitor Type field and cannot be changed.
Running Monitor	System-supplied; Name of the currently running task instance of the specified Variable Monitor task that was launched by this enabled trigger.
Restrictions	This section specifies any restrictions that apply to the trigger.
Restrict Times	Period during which the trigger is active. Enable this field and specify the start and end times in the Enabled Start and Enabled End fields.
Enabled Start	If Restrict Times is enabled, allows you to specify the start time of the period during which the trigger should be active. Use 24-hour time.

Enabled End	If Restrict Times is enabled, allows you to specify the end time of the period during which the trigger should be active. Use 24-hour time.
Special Restriction	Enable this field in order to specify additional parameters that tell the Controller how to handle exceptions, such as when the trigger is satisfied on a holiday or non-business day. You can specify simple and/or complex restrictions. For example, you can specify a Simple Restriction that disables the trigger if it is satisfied on a holiday identified in the calendar and/or a Complex Restriction that disables the trigger on the last business day of every month.
Simple Restriction	If enabled, allows you to specify an action (see Action field) such as Do Not Trigger on a non-business day or holiday (see Situation field). For example, do not trigger on a non-business day.
Situation	If Simple Restriction is enabled, allows you to select the situation that causes the system to initiate the action specified in the Action field. Options: • On Non Business Day • On Holiday
Action	If Special Restriction is enabled, allows you to select an action to take on a non-business day or holiday (see Situation field). Options: • Do Not Trigger • Next Day (run on the next day) • Next Business Day (run on the next business day, as defined in the calendar) • Previous Day (run on the previous day) • Previous Business Day (run on the previous business day, as defined in the calendar)
Complex Restriction	If enabled, allows you to specify a set of parameters that determine one or more situations when this trigger should not be satisfied. Used in conjunction with the following fields: Restriction Mode, Restriction Adjective, Restriction Noun, Restriction Qualifier. For example, you may specify that you do not want to satisfy this trigger on the last business day of the year or the first day of each month.
Restriction Mode	If both Simple Restriction and Complex Restriction are enabled, specifies whether you want to use both restriction types (AND) or one or the other (OR). Options: • And • Or

Restriction Adjective	If Complex Restriction is enabled, the type of selection.
	Options:
	<ul> <li>Every</li> <li>1st</li> <li>2nd</li> <li>3rd</li> <li>4th</li> <li>Last</li> </ul>
	Example: The <b>last</b> business day of the month.
Restriction Noun	If Complex Restriction is enabled, the day you want to select.
	Options:
	Sunday through Saturday
	<ul> <li>Day</li> <li>Business Day</li> </ul>
	Custom Day
	Example: The last <b>business day</b> of the month.
Restriction Qualifier	If Complex Restriction is enabled, the period you are selecting from.
	Options:
	Month
	<ul> <li>Year</li> <li>January through December</li> </ul>
	Custom period
	Example: The last quarter of the <b>year</b> .
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 Trigger 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 redisplays 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.		
Enable	Activates this trigger and writes your User ID to the Enabled By field.		
Disable	Deactivates this trigger.		
Trigger Now	Immediately triggers all the tasks specified in this trigger. Optionally, you also can select to:   Launch the task(s) specified in the trigger with one or more variables. Launch the task(s) specified in the trigger by a specified date and time. Launch the task(s) specified in the trigger by a specified date and time. Launch the task(s) specified in the trigger but place them in Held status; they will not run until they are released.  Note If you click Trigger Now for an Enabled trigger that does not have an assigned Execution User, the trigger will launch its task(s) under the context of the Enabled By user. If you click Trigger Now for a Disabled trigger that does not have an assigned Execution User, the trigger will launch its task(s) under the context of your user name and ID. If you click Trigger Now for an Enabled trigger that has an assigned Execution User, the trigger will launch its task(s) under the context of the assigned Execution User.		
Сору	Creates a copy of this trigger, 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 trigger.		
Tabs	This section identifies the tabs across the top of the Trigger Details that provide access to additional information about the trigger.		
Variables	Lists all user-defined variables associated with this record; that is, variables that have been defined for this specific record.		

Versions	Stores copies of all previous versions of the current record. See Record Versioning.

# **Email Monitor Trigger**

- Overview
- Built-In Variables
- Prerequisites
- Creating an Email Monitor Trigger
  - Email Monitor Trigger Details
  - Email Monitor Trigger Details Field Descriptions

#### **Overview**

The Email Monitor trigger allows you to trigger one or more tasks based on the status of a Mailbox Folder being monitored, as specified by a selected Email Monitor task.

### **Built-In Variables**

The built-in variables outlined below can be used to pass data where appropriate:

- Task and Task Instance Variables
- Email Monitor Variables.

### Prerequisites

Before you can use a Email Monitor Trigger, you need the following:

- A Windows, Linux/Unix, or z/OS agent, which will execute the Email Monitor task.
- An Email Monitor task, which specifies an Email Mailbox folder to monitor.

Note Any changes made to an Email Monitor task are not recognized by its respective Email Monitor Triggers until those Triggers are disabled and re-enabled.

## **Creating an Email Monitor Trigger**

	X				
✓ 5 Email Monitor Triggers		Custom Filter None		👻 🦁 Filter 🔯 <u>G</u> o To	🖴 New   🎅
Name A	Descriptio		Enabled	Email Monitor Monitor State	
stonebranch-emailmonitortrigger-01			Output de la construction de	stonebranch-emailmonitortask-01 Running	ops.admin
stonebranch-emailmonitortrigger-02			8	stonebranch-emailmonitortask-01	ops.admin
stonebranch-emailmonitortrigger-03			8	stonebranch-emailmonitortask-01	ops.admin
stonebranch-emailmonitortrigger-04			8	stonebranch-emailmonitortask-01	ops.admin
stonebranch-emailmonitortrigger-05			8	stonebranch-emailmonitortask-01	ops.admin
<ul> <li>Email Monitor Trigger Details</li> </ul>				🔚 Save 🕼 Save 8	& New 📃 New
Email Monitor Trigger  Variables	Versions				
General					
Name :					
Description :					
					~
Member of					
Business Services :	-fourth		Time Zene : Orever (110	( <b>T</b> = = 4 = = = )	
	efault No items to show.		Time Zone : Server (US	/Eastern)	·
Business Services :			Time Zone : Server (US	/Eastern)	
Business Services : Calendar : System De			Time Zone : Server (US	/Eastern)	
Business Services : Calendar : System De Task(s) : Purge By Retention			Time Zone : Server (US	/Eastern)	
Business Services : Calendar : System De Task(s) : Purge By Retention Duration :			Time Zone : Server (US	/Eastern)	
Business Services : Calendar : System De Task(s) : Purge By Retention Duration :	No items to show.				
Business Services : Calendar : System De Task(s) : Purge By Retention Duration :	No items to show.				
Enter/select Details for a r	No items to show.	gger, using the fie	eld descriptions be		
Enter/select Details for a r	No items to show. No items to show. No items to show. No items to show.	gger, using the field	eld descriptions be		

Step 3 Click a Save button. The trigger is added to the database, and all buttons and tabs in the Trigger Details are enabled.

**Step 4** Enable the trigger(s) as desired.

Note

Δ

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 Monitor Trigger Details**

The following Email Monitor Trigger Details is for an existing File Monitor trigger. See the field descriptions, below, for a description of the fields that display in the Email Monitor Trigger Details.

ail Monitor Trigger De	tails: stonebranch-emailmonitortrigger-01		20	<b>.</b>	<b>.</b>	
		Update	Ma Disable (	💫 Trigger Now 🗈 Copy	Delete 🔄 😫 Refres	h 🐹 Clo
mail Monitor Trigger	Variables					
General						
Name :	stonebranch-emailmonitortrigger-01		Version :	3		
Description :						
Member of Business Services :						~
	System Default	× 1	Time Zone :	Server (US/Eastern)		~
	stonebranch-emailtask-01					
Task(s) :						
Purge By Retention Duration :		]				
Status						
Skip Count :			Status :	Enabled		
Task Launch Skip Condition :	None	*	Enabled By :	ops.admin		
- Email Monitor Detail						
	stonebranch-emailmonitortask-01					
Restrictions						
Restrict Times :	$\checkmark$					
Enabled Start :	Hour Min 00 v 00 v					
Enabled End :	Hour Min 03 v 00 v					_
Special Restriction :			Action :	Do Not Trigger	~	
Simple Restriction :	$\checkmark$		Complex Restriction :			
Situation :	On Holiday	*	-			
🔛 Update	🚰 Disable 🛛 🚱 Trigger Now 📄 🖺 Copy	y 💼 Delete	🔄 🕼 Refr	esh 🛛 💥 Close		

## **Email Monitor Trigger Details Field Descriptions**

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

Field Name	Description
General	This section contains general information about the trigger.
Name	Name used within the Controller to identify this trigger. It can contain a maximum of 255 alphanumerics. It is the responsibility of the user to develop a workable naming scheme for triggers.

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	User-defined; description of this trigger.
Member of Business Services	User-defined; allows you to select one or more Business Services that this record belongs to.
Calendar	Calendar that defines the business days, holidays, and other special days that determine the run dates for the task(s) specified in the trigger.
	Select a Calendar from the drop-down list of all existing Calendars. To display detailed information about a selected calendar, click the Details icon next to the Calendar field.
Time Zone	User-defined. Allows you to specify the time zone that will be applied to the times specified in the Restrict Times parameters. For example, if you specify an Enabled Start of 23:00, an Enabled End of 24:00, and a time zone of Canada/Central, the trigger is enabled at 11:00 p.m. and disabled at 12:00 a.m., Central Canada time.
Task(s)	Name of the task(s) being triggered when this trigger is satisfied. When selecting tasks from the Details, click on the lock icon to unlock the field and select tasks.
Purge By Retention Duration	Specification for whether triggered task instances can be purged by retention duration.
Exclude Backup	If Purge By Retention Duration is selected; Specification for whether qualifying task instances can be excluded from the backup when being purged by retention duration.
Retention Duration	If Purge By Retention Duration is selected; Minimum retention duration for the selected Retention Duration Unit before triggered task instances can qualify for purge.
Retention Duration Unit	If Purge By Retention Duration is selected; Retention duration unit. Options:
	<ul><li>Hours</li><li>Days</li></ul>
Execution User	Read-only; Execution user that has been selected (via the Assign Execution User action) to override the execution user of task instances being launched by the trigger.
Status	This section contains information about the current status of the trigger.

Skip Count	User-defined; allows you to specify that the Controller should skip the next <i>N</i> times this task is triggered.
Task Launch Skip Condition	User-defined; Controls when launching a task for the trigger will be skipped. Options: • - None - Do not skip the task launch. • Active Skip the task launch if a previous instance is still active. • Active By Trigger Skip the task launch if a previous instance launched by the trigger is still active.
Status	User-defined; indication of whether the trigger is enabled (checked) or disabled (not checked). The user enables and disables the trigger by clicking the Enable / Disable buttons. Only enabled triggers are processed by the Controller.
Enabled By	System-supplied. If Status = Enabled, ID of the user who most recently enabled this trigger.
Disabled By	System-supplied; If Status = Disabled, ID of the user who most recently enabled this trigger. (By default, all new triggers are disabled.)
Email Monitor Details	This section contains assorted detailed information about the trigger.
Email Monitor	Required; Email Monitor task being executed. Enter a task name, select a task from the drop-down list, or click the Task Details icon to create a new task. If a task already is specified in this field, click the Task Details icon to view the Details of that task.
Running Monitor	System-supplied; Name of the currently running task instance of the specified Email Monitor task that was launched by this enabled trigger.
Restrictions	This section specifies any restrictions that apply to the trigger.
Restrict Times	Period during which the trigger is active. Enable this field and specify the start and end times in the Enabled Start and Enabled End fields.
Enabled Start	If Restrict Times is enabled, allows you to specify the start time of the period during which the trigger should be active. Use 24-hour time.
Enabled End	If Restrict Times is enabled, allows you to specify the end time of the period during which the trigger should be active. Use 24-hour time.

Special Restriction	Enable this field in order to specify additional parameters that tell the Controller how to handle exceptions, such as when the trigger is satisfied on a holiday or non-business day. You can specify simple and/or complex restrictions. For example, you can specify a Simple Restriction that disables the trigger if it is satisfied on a holiday identified in the calendar and/or a Complex Restriction that disables the trigger on the last business day of every month.
Simple Restriction	If enabled, allows you to specify an action (see Action field) such as Do Not Trigger on a non-business day or holiday (see Situation field). For example, do not trigger on a non-business day.
Situation	If Simple Restriction is enabled, allows you to select the situation that causes the system to initiate the action specified in the Action field. Options:  On Non Business Day On Holiday
Action	If Special Restriction is enabled, allows you to select an action to take on a non-business day or holiday (see Situation field). Options: • Do Not Trigger • Next Day (run on the next day) • Next Business Day (run on the next business day, as defined in the calendar) • Previous Day (run on the previous day) • Previous Business Day (run on the previous business day, as defined in the calendar)
Complex Restriction	If enabled, allows you to specify a set of parameters that determine one or more situations when this trigger should not be satisfied. Used in conjunction with the following fields: Restriction Mode, Restriction Adjective, Restriction Noun, Restriction Qualifier. For example, you may specify that you do not want to satisfy this trigger on the last business day of the year or the first day of each month.
Restriction Mode	If both Simple Restriction and Complex Restriction are enabled, specifies whether you want to use both restriction types (AND) or one or the other (OR). Options:

Restriction Adjective	
/ lajoolivo	If Complex Restriction is enabled, the type of selection.
	Options:
	• Every
	<ul> <li>1st</li> <li>2nd</li> </ul>
	• 3rd
	<ul> <li>4th</li> <li>Last</li> </ul>
	Example: The last business day of the month.
Restriction Noun	If Complex Restriction is enabled, the day you want to select.
	Options:
	<ul> <li>Sunday through Saturday</li> <li>Day</li> </ul>
	<ul> <li>Business Day</li> <li>Custom Day</li> </ul>
	Example: The last <b>business day</b> of the month.
	Example. The last <b>busiless day</b> of the month.
Restriction Qualifier	If Complex Restriction is enabled, the period you are selecting from.
	Options:
	• Month
	<ul> <li>Year</li> <li>January through December</li> </ul>
	Custom period
	Example: The last quarter of the <b>year</b> .
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 Trigger 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 redisplays 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.		
Enable	Activates this trigger and writes your User ID to the Enabled By field.		
Disable	Deactivates this trigger.		
Trigger Now	Immediately triggers all the tasks specified in this trigger. Optionally, you also can select to:   Launch the task(s) specified in the trigger with one or more variables. Launch the task(s) specified in the trigger by a specified date and time. Launch the task(s) specified in the trigger by a specified date and time. Launch the task(s) specified in the trigger but place them in Held status; they will not run until they are released.  Note If you click Trigger Now for an Enabled trigger that does not have an assigned Execution User, the trigger will launch its task(s) under the context of the Enabled By user. If you click Trigger Now for a Disabled trigger that does not have an assigned Execution User, the trigger will launch its task(s) under the context of your user name and ID. If you click Trigger Now for an Enabled trigger that has an assigned Execution User, the trigger will launch its task(s) under the context of the assigned Execution User.		
Сору	Creates a copy of this trigger, 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 trigger.		
Tabs	This section identifies the tabs across the top of the Trigger Details that provide access to additional information about the trigger.		
Variables	Lists all user-defined variables associated with this record; that is, variables that have been defined for this specific record.		

Versions	Stores copies of all previous versions of the current record. See Record Versioning.

# **Composite Trigger**

- Overview
- Built-In Variables
- Monitoring Component Status
- Forecasting
- Creating a Composite Trigger
  - Composite Trigger Details
    - Composite Trigger Details Field Descriptions
- Time Component
  - Time Component Details Field Descriptions
  - Generating a List of Qualifying Times
- File Monitor Component
  - File Monitor Component Details Field Descriptions
- Task Monitor Component
  - Task Monitor Component Details Field Descriptions
- Variable Monitor Component
  - Variable Monitor Component Details Field Descriptions
- Email Monitor Component
  - Email Monitor Component Details Field Descriptions

#### **Overview**

The Composite trigger consists of Time, File Monitor, Task Monitor, and Variable Monitor components - which function like Time, File Monitor, Task Monitor, Variable Monitor, and Email Monitor triggers - that allow you to trigger one or more tasks based on correlated events from those components.

Each Composite trigger can contain the following number of components:

- Time Component (0 or 1)
- File Monitor Component (0 or more)
- Task Monitor Component (0 or more)
- Variable Monitor Component (0 or more)
- Email Monitor Component (0 or more)

When you enable a Composite trigger, all components of that trigger are enabled. Each enabled component has its own event queue. When a component fires, an event is enqueued and the component notifies its parent Composite trigger. The Composite trigger will then check the event queues of all of its components and launch the specified task(s) if a correlated set of events is found.

The Composite Trigger Details provides the following fields for component queue specifications:

- Time Limit and Time Limit Details specify the length of time that events are maintained in all component queues.
- Queue Depth specifies the maximum number of events that can be contained in each component queue. If the maximum has been reached but more events are ready to be placed in a queue, the oldest events are discarded.

### **Built-In Variables**

In order to propagate built-in variables up to a Composite trigger, from the files, tasks, and variables being monitored by its File Monitor, Task Monitor, Variable Monitor, and Email Monitor components, the Component Details provide a Variable Prefix field.

- If a Variable Prefix is not specified, no built-in variables for that component will be propagated.
- If a Variable Prefix is specified, all built-in variables supported by the component type will be propagated using the specified prefix rather than the reserved ops\_ prefix.

Additionally, all components - File Monitor, Task Monitor, Variable Monitor, Email Monitor, and Time - support the built-in variable <prefix>trigger\_component\_event\_time that resolves to the time when the component fired.

### **Monitoring Component Status**

You can monitor the following statuses of each enabled component in its component Details (available via the Components tab of the Composite trigger).

Component	Status
Time	<ul><li>Status</li><li>Next Scheduled Time</li></ul>
File Monitor	<ul><li>Status</li><li>Running Monitor</li><li>Monitor Status</li></ul>
Task Monitor	<ul><li>Status</li><li>Running Monitor</li><li>Monitor Status</li></ul>
Variable Monitor	<ul><li>Status</li><li>Running Monitor</li><li>Monitor Status</li></ul>
Email Monitor	<ul><li>Status</li><li>Running Monitor</li><li>Monitor Status</li></ul>

# Forecasting

Forecasting is not supported for Composite triggers.

### Creating a Composite Trigger

5 Composite Trig     Name	-	Quetern Filter					_	
	D	Custom Filter	1			-		o To   🤯 New   🧃
		escription	Enabled	Time Limit	Time Limit Unit	Queue Depth	Updated By	Updated
	mpositetrigger-01		8	5	Days	100	ops.admin	2016-12-15 14:35:13 -
	mpositetrigger-02		8		Minutes	100	ops.admin	2016-05-24 14:29:09 -
	mpositetrigger-03		8		Minutes	100	ops.admin	2016-05-24 14:29:09 -
=	mpositetrigger-04		8		Minutes	100	ops.admin	2016-05-24 14:29:09 -
stonebranch-co	mpositetrigger-05		8		Minutes	100	ops.admin	2016-05-24 14:29:09 -
4				111				
↑ ✓ Composite Trigge	er Details			111			🔚 Save 🕻	🗟 Save & New 📃 N
	\	Variables	<ul> <li>Versions</li> </ul>	m			📆 Save 🌘	🔓 Save & New 📃 N
V Composite Trigge	\	Variables (	<ul> <li>Versions</li> </ul>				T Save 🕻	🗟 Save & New 📃 N
Composite Trigger	Components	Variables (	<ul> <li>Versions</li> </ul>				R Save (	Save & New 📃 N
Composite Trigger     Composite Trigger     General	Components	Variables (	<ul> <li>Versions</li> </ul>				R Save (	🗟 Save & New 📃 N
Composite Trigger Composite Trigger General Nam Descriptio Member	Components	Variables (	<ul> <li>Versions</li> </ul>				Save 🕻	
Composite Trigger Composite Trigger General Nam Descriptio Member Busine	e: of components e: of	Variables (	<ul> <li>Versions</li> </ul>				R Save (	Save & New 📃 N
Composite Trigger Composite Trigger General Nam Descriptio Member Busine Service	e: n: rof ss:	Variables (	<ul> <li>Versions</li> </ul>		Time Zone - Sana	r (I IS/Fastern)	R Save (	×
Composite Trigger Composite Trigger General Nam Descriptio Member Busine Service	e: of components e: of	Variables (	<ul> <li>Versions</li> </ul>		Time Zone : Serve	r (US/Eastern)	R Save (	

Step 2	Enter/select Details for a new Composite trigger, using the field descriptions below as a guide.
	<ul> <li>Required fields display in <b>boldface</b>.</li> <li>Default values for fields, if available, display automatically.</li> </ul>
	To display more of the Details fields on the screen, you can either:
	<ul> <li>Use the scroll bar.</li> <li>Temporarily hide the list above the Details.</li> <li>Click the New button above the list to display a pop-up version of the Details.</li> </ul>
Step 3	Click a <b>Save</b> button. The trigger is added to the database, and all buttons and tabs in the Trigger Details are enabled.
Step 4	Enable the trigger(s) as desired.

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).

#### **Composite Trigger Details**

The following Composite Trigger Details is for an existing Composite trigger. See the field descriptions, below, for a description of the fields that display in the Composite Trigger Details.

mposite Trigger Detail	s: stonebranc	h-compositetr	igger-01			a	<u> </u>	<b>○</b> - ·			()		
Composite Trigger 🛛 🛛	Components	Variables	• Vers	iono	6	Update	Enable Enable	🐚 Ingge	rNow 📮	Copy	O Delete	S Refresh	× Clo:
	components	• variables	o vers	ions									
- General			04				Manaian						
	stonebranch-	compositetrig	jer-01				Version		1				
Description :													
Member of Business Services :													~
Calendar:	System Defa	ult			~		Time Zone	: Server (l	JS/Eastern	)			
	stonebranch-w	vindowstask-01											
Task(s) :						<b>a</b>							
Duration :													
- Status		0					01-1	Disabled					
Skip Count : Task Launch Skin		U											
Task Launch Skip Condition :	None				*		Disabled By	(:					
- Composite Details													
Time Limit :							Queue Depth	1:	100				
Time Limit Unit :	Minutes	~											
- Restrictions													
Restrict Times :													
Special Restriction :													
🔛 Update	🚯 Enable	🔞 Trigger I	Now	Сору	6	Delete	Re	fresh	X Clos	•			

# **Composite Trigger Details Field Descriptions**

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

Field Name	Description
General	This section contains general information about the trigger.
Name	Name used within the Controller to identify this trigger. It can contain a maximum of 255 alphanumerics. It is the responsibility of the user to develop a workable naming scheme for triggers.
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.

User-defined; description of this trigger.
User-defined; allows you to select one or more Business Services that this record belongs to.
Calendar that defines the business days, holidays, and other special days that determine the run dates for the task(s) specified in the trigger.
Select a Calendar from the drop-down list of all existing Calendars. To display detailed information about a selected calendar, click the Details icon next to the Calendar field.
User-defined; allows you to specify the time zone that will be applied to the time(s) specified in the trigger. For example, if you specify 23:00 and a time zone of Canada/Central, the task will run at 11:00 p.m. Central Canada time.
Name of the task(s) being triggered when this trigger is satisfied. When selecting tasks from the Details, click on the lock icon to unlock the field and select tasks.
Specification for whether triggered task instances can be purged by retention duration.
If Purge By Retention Duration is selected; Specification for whether qualifying task instances can be excluded from the backup when being purged by retention duration.
If Purge By Retention Duration is selected; Minimum retention duration for the selected Retention Duration Unit before triggered task instances can qualify for purge.
If Purge By Retention Duration is selected; Retention duration unit.
Options: • Hours • Days
Read-only; Execution user that has been selected (via the Assign Execution User action) to override the execution user of task instances being launched by the trigger.
This section contains information about the current status of the component.
User-defined; indication of whether the trigger is enabled (checked) or disabled (not checked). The user enables and disables the trigger by clicking the Enable / Disable buttons. Only enabled triggers are processed by the Controller.

Skip Count	User-defined; allows you to specify that the Controller should skip the next N times this task is triggered.
Enabled By	System-supplied. If Status = Enabled, ID of the user who most recently enabled this trigger.
Disabled By	System-supplied; If Status = Disabled, ID of the user who most recently enabled this trigger. (By default, all new triggers are disabled.)
Task Launch Skip Condition	User-defined; Controls when launching a task for the trigger will be skipped. Options:
	<ul> <li>- None - Do not skip the task launch.</li> <li>Active Skip the task launch if a previous instance is still active.</li> <li>Active By Trigger Skip the task launch if a previous instance launched by the trigger is still active.</li> </ul>
Composite Details	This section contains assorted detailed information about the trigger.
Time Limit	Amount of time (in Time Limit Units) that component events will remain in their queue before being removed.
Time Limit Units	Unit of time specified in the Time Limit field. Options: • Seconds • Minutes • Hours • Days
Queue Depth	Number of events that are maintained in the queue for each component at any time. To maintain the Queue Depth, the Controller discards the oldest events.
Restrictions	Valid values are 1 to 100 (default is 100). If Queue Depth = 1, only the most recent event from each component can be matched. This section specifies any restrictions that apply to the trigger.
Restrict Times	Period during which the trigger is active. Enable this field and specify the start and end times in the Enabled Start and Enabled End fields.
Enabled Start	If Restrict Times is enabled, allows you to specify the start time of the period during which the trigger should be active. Use 24-hour time.
Enabled End	If Restrict Times is enabled, allows you to specify the end time of the period during which the trigger should be active. Use 24-hour time.

Special	
Restriction	Enable this field in order to specify additional parameters that tell the Controller how to handle exceptions, such as when the trigger is satisfied on a holiday or non-business day. You can specify simple and/or complex restrictions. For example, you can specify a Simple Restriction that disables the trigger if it is satisfied on a holiday identified in the calendar and/or a Complex Restriction that disables the trigger on the last business day of every month.
Action	If Special Restriction is enabled, allows you to select an action to take on a non-business day or holiday (see Situation field).
	Options:
	Do Not Trigger
	Next Day (run on the next day)
	<ul> <li>Next Business Day (run on the next business day, as defined in the calendar)</li> <li>Previous Day (run on the previous day)</li> </ul>
	<ul> <li>Previous Business Day (run on the previous business day, as defined in the calendar)</li> </ul>
Simple	
Restriction	If enabled, allows you to specify an action (see Action field) such as Do Not Trigger on a non-business day or holiday (see Situation field). For example, do not trigger on a non-business day.
Situation	If Simple Restriction is enabled, allows you to select the situation that causes the system to initiate the action specified in the Action field.
	Options:
	<ul> <li>On Non Business Day</li> <li>On Holiday</li> </ul>
Complex Restriction	If enabled, allows you to specify a set of parameters that determine one or more situations when this trigger should not be satisfied. Used in conjunction with the following fields: Restriction Mode, Restriction Adjective, Restriction Noun, Restriction Qualifier. For example, you may specify that you do not want to satisfy this trigger on the last business day o the year or the first day of each month.
Restriction Mode	If both Simple Restriction and Complex Restriction are enabled, specifies whether you want to use both restriction types (AND) or one or the other (OR).
	Options:
	<ul> <li>And</li> <li>Or</li> </ul>

Restriction	
Adjective	If Complex Restriction is enabled, the type of selection.
	Options:
	Every     1st
	• 2nd
	<ul> <li>3rd</li> <li>4th</li> </ul>
	• Last
	Example: The <b>last</b> business day of the month.
Restriction Noun	If Complex Restriction is enabled, the day you want to select.
	Options:
	<ul> <li>Sunday through Saturday</li> <li>Day</li> </ul>
	<ul> <li>Business Day</li> <li>Custom Day</li> </ul>
	Example: The last <b>business day</b> of the month.
Restriction	
Qualifier	If Complex Restriction is enabled, the period you are selecting from.
	Options:
	• Month
	<ul> <li>Year</li> <li>January through December</li> </ul>
	Custom period
	Example: The last quarter of the <b>year</b> .
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 Trigger 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 redisplays 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.
Enable	Activates this trigger and writes your User ID to the Enabled By field.
Disable	Deactivates this trigger.
Trigger Now	Immediately triggers all the tasks specified in this trigger. Optionally, you also can select to:      Launch the task(s) specified in the trigger with one or more variables.     Launch the task(s) specified in the trigger by a specified date and time.     Launch the task(s) specified in the trigger by a specified date and time.     Launch the task(s) specified in the trigger by a specified date and time.     Launch the task(s) specified in the trigger but place them in Held status; they will not run until they are released.     Note     If you click Trigger Now for an Enabled trigger that does not have an assigned Execution User, the trigger will launch its task(s) under the context of the     Enabled By user.     If you click Trigger Now for a Disabled trigger that does not have an assigned Execution User, the trigger will launch its task(s) under the context of your user     name and ID.     If you click Trigger Now for an Enabled or Disabled trigger that has an assigned Execution User, the trigger will launch its task(s) under the context of the     assigned Execution User.

Component Events										
Events	Dashboards 🗵 Composite Triggers 🖾	List Component Events 🗵								
	Name: stonebranch-composite Description:	erigger-01	— <b> </b>							
	Time Limit: 5									
	Time Limit Unit: Days									
	Queue Depth: 100									
	6 Components									
	Name A	Туре	Description	Event Count						
	email monitor test	Email Monitor		5						
	▶ == test	File Monitor		0						
	▶ = test 2	File Monitor		2						
	test task monitor	Task Monitor		0						
	▶ 📰 test time	Time		0						
	▶ In variable test	Variable Monitor		0						
	Print Refresh									
Сору	Creates a copy of this trigge	r, which you are prompted t	o rename.							
Delete	Deletes the current record.									
	Deletes the current record.									
Refresh	Deletes the current record. Refreshes any dynamic data	a displayed in the Details.								
Refresh Close		· ·	ger.							
	Refreshes any dynamic data For pop-up view only; closes	s the pop-up view of this trig	-	s to additional information about	the trigger.					
Close	Refreshes any dynamic data For pop-up view only; closes	s the pop-up view of this trig bs across the top of the Trig	-	s to additional information about	the trigger.					
Close Tabs	Refreshes any dynamic data For pop-up view only; closes This section identifies the tal Allows you to define the follo Single Time Trigger One or more Task M One or more File Me One or more Variab	s the pop-up view of this trig bs across the top of the Trig owing components:	ger Details that provide acces	s to additional information about	the trigger.					
Close Tabs	Refreshes any dynamic data For pop-up view only; closes This section identifies the tal Allows you to define the follo • Single Time Trigger • One or more Task N • One or more File Me • One or more Variab • One or more Email	the pop-up view of this trig bs across the top of the Trig owing components: component Monitor trigger components onitor trigger components le Monitor trigger components Monitor trigger components	iger Details that provide acces	s to additional information about been defined for this specific rec						

# Time Component

e Component Details	test time						
			👸 Update	🛅 List Qualifying Times	Delete	S Refresh	X Clos
ime Component							
General							
	test time						
Description :							
Built-in Variable Prefix :							
Status							
Event Match Type :	Single	~	Next Scheduled Time :	2015-07-31 01:27:23 -0400			
Status :	Enabled						
Time Details							
Time Style :	Time Interval 🗸						
Time Interval :	2		Enable Offset:				
Time Interval Units :	Hours v						
Day Details							
Day Style :							
Date Adjective :	Every v						
Date Noun :	Day	*					
Date Qualifier :	Year	~	Adjustment Amount :	1			
Date Adjustment :	Less v		Adjustment Type :	Day			
Restrictions							
Restrict Times :							
Special Restriction :				Do Not Trigger		~	
Simple Restriction :	V		Complex Restriction :				
Situation :	On Holiday	~	Restriction Adjective :	Every		~	
Restriction Mode :	Or	~	Restriction Noun :	1			*
			Restriction Qualifier :	Year			*
In data ( finite	List Qualifying Times	-t-					
🔚 Update 📰	List Qualifying Times 🏼 🎲 Del	ete 🔄 😫 Refresh	💥 Close				

## **Time Component Details Field Descriptions**

The following table describes the fields and buttons that display in the Time Component Details.

Field Name	Description
General	This section contains general information about the component.

Name used within the Controller to identify this component. It can contain a maximum of 255 alphanumerics.          Jser-defined; Description of this component.         Jser-specified prefix that enables built-in variables to be propagated up to the Composite trigger.         This section contains information about the current status of the component.         Controls whether events from the Time component will be used for a single match or multiple matches at the Composite trigger level.         Options:         • Single         • Multiple         Note         You can select Multiple only if a Time Limit is specified in the Composite Trigger Details.
Jser-specified prefix that enables built-in variables to be propagated up to the Composite trigger.  This section contains information about the current status of the component.  Controls whether events from the Time component will be used for a single match or multiple matches at the Composite trigger level.  Dptions:  Single Multiple Note
This section contains information about the current status of the component. Controls whether events from the Time component will be used for a single match or multiple matches at the Composite trigger level. Dptions:  Single Multiple Note
Controls whether events from the Time component will be used for a single match or multiple matches at the Composite trigger level.  Dptions:  Single Multiple Note
Dptions: • Single • Multiple Note
Jser-defined; indication of whether the trigger is enabled (checked) or disabled (not checked). The user enables and disables the trigger by clicking the Enable / Disable buttons. Only enabled triggers are processed by the Controller.
System-supplied; for time-based triggers. If Status = Enabled, the next date and time this trigger will be satisfied. See Displaying Trigger Forecast Information.
This section contains assorted detailed information about the component.
<ul> <li>Specifies whether this trigger is for a specific time or a series of times.</li> <li>Options: <ul> <li>Time - Triggers the task at a specific time.</li> <li>Required field: Time.</li> </ul> </li> <li>Time Interval - Triggers the task at specific intervals of times. <ul> <li>Required fields: Time Interval, Time Interval Units.</li> </ul> </li> </ul>
Optional fields: Enable Offset, Restrict Times.
Jplic

Time Interval	Required if Time Style = Time Interval; number of Time Interval Units. For example, for a Time Interval of every three hours, specify 3 in this field and select <b>Hours</b> in the Time Interval Units field.
	Note See Scheduling a Time Interval, below, for information on using a Time Trigger to schedule a time interval for triggering a task.
Time Interval Units	Required if Time Style = Time Interval; Type of time interval. Used in conjunction with the Time Interval field. For example, for a Time Interval of every three hours, specify 3 in the Time Interval field and select <b>Hours</b> in this field. Options:   Seconds  Minutes Hours
Enable Offset	If Time Style = Time Interval, allows you to define (in the Initial Time Offset field) a starting time, in minutes offset from the hour, for the trigger to run.
	Note     Enable Offset and Restrict Times are mutually exclusive.
Initial Time Offset (hh:mm)	If Enable Offset is selected, allows you to define a starting time, in minutes offset from the hour. The default value (*) lets you select a starting hour (0 to 23) other than the next hour. For example: • If you want the task to run every 30 minutes at the :15 and :45 minute mark, you would select Time Interval = 30, Time Interval Units = minutes, and Initial Time Offset = *:15. • If you want the task to run every 30 minutes at the :15 and :45 minute mark starting at 6:15 p.m., you would select Time Interval = 30, Time Interval = 30, Time Interval Units = minutes, and Initial Time Offset = 18:15.
Day Details	This section contains assorted detailed information about the trigger day.

Day Style	
	Allows you to indicate when this trigger will be run:
	Options: • Simple Trigger is run every day, on business days, or on one or more enceific days, depending on whet you calent in the Daily. Business Days, and Specific Day(s) fields
	<ul> <li>Simple - Trigger is run every day, on business days, or on one or more specific days, depending on what you select in the Daily, Business Days, and Specific Day(s) fields (see below).</li> <li>Complex - Trigger is run on one or more days selected by a formula specified using the Date Adjective, Date Noun, and Date Qualifier fields (see below).</li> </ul>
	<ul> <li>Every - Trigger is run at an interval of a specified number of days (see Day Interval, below) starting on a specified date (see Interval Start, below).</li> </ul>
Daily	If Day Style = Simple, allows you to specify that the trigger is active every day of the week.
Business Days	If Day Style = Simple, allows you to specify that the trigger is active on the business days specified in the calendar selected in the Calendar field.
Specific Day(s)	If Day Style = Simple, allows you to specify one or more specific days of the week that the trigger is active in the calendar selected in the Calendar field.
Date Adjective	If Day Style = Complex, allows you to specify which in a series of days you want to select. Used in conjunction with the Date Noun and the Date Qualifier fields.
	For example, to specify "the 15th business day of the month," select Date Adjective = Nth, Date Noun = Business Day, Date Qualifier = Month, and Nth Amount = 15.
	Options:
	<ul> <li>Every</li> <li>1st</li> </ul>
	2nd     3rd
	<ul> <li>4th</li> <li>Nth</li> </ul>
	• Last
Nth Amount	If Day Adjective = Nth, allows you to specify the value of N.
Date Noun	If Day Style = Complex, allows you to specify the type of day you want to select. Used in conjunction with the Date Adjective and the Date Qualifier fields.
	For example, to specify "the 15th business day of the month," select Date Adjective = Nth, Date Noun = Business Day, Date Qualifier = Month, and Nth Amount = 15.
	This drop-down menu is populated as follows:
	Sunday through Saturday
	<ul> <li>Day = any day</li> <li>Business Day = The business days specified in the calendar selected in the Calendar field.</li> <li>Any Custom Days specified in the calendar selected in the Calendar field.</li> </ul>

Date Qualifier	If Day Style = Complex, allows you to specify the period for your selection formula. Used in conjunction with the Date Noun and Date Adjective fields.
	For example, to specify "the 15th business day of the month," select Date Adjective = Nth, Date Noun = Business Day, Date Qualifier = Month, and Nth Amount = 15.
	Options:
	Month
	<ul> <li>Year</li> <li>January through December</li> </ul>
	Custom Period (see Creating Custom Days)
Date Adjustment	If Day Style = Complex, allows you to adjust your date setting by a less or plus number of Days or Business Days.
rajuotinont	
	For example, to specify the 2nd to last day of the month (last day of the month less one day), select Date Adjective = Last, Date Noun = Day, Date Qualifier = Month, Data Adjustment = Less, Adjustment Amount = 1, and Adjustment Type = Day.
	Options:
	• None
	<ul> <li>Less</li> <li>Plus</li> </ul>
	Default is None.
Adjustment Amount	Required if Day Adjustment = Less or Plus; Allows you to specify the number of Days or Business Days to adjust your date setting. Maximum is 366. Default is 1.
Amount	Required in Day Adjustment = Less of Plus, Allows you to specify the number of Days of Business Days to adjust your date setting. Maximum is 300. Default is 1.
Adjustment Type	If Day Adjustment = Less or Plus, allows you to specify the type of day by which to adjust your date setting.
.)po	Options:
	<ul> <li>Day</li> <li>Business Day</li> </ul>
Day Interval	
-	If Day Style = Every, allows you to specify the interval (in days) at which this trigger will run.
Interval Start	If Day Style - Eveny allows you to encode the first day of the interval on which this trigger will suc
	If Day Style = Every, allows you to specify the first day of the interval on which this trigger will run.
Restrictions	This section specifies any restrictions that apply to the component.

Restrict Times	If Time Style = Time Interval; Period during which the trigger is active. Enable this field and specify the start and end times in the Enabled Start and Enabled End fields. Restrict Times does not affect the start time or end time of the trigger Time Interval; it only specifies the time frame during which the trigger is active. (For additional information, see Restrict Times on the Time Trigger page.)
	Note     Restrict Times and Enable Offset are mutually exclusive.
Enabled Start	If Restrict Times is enabled, allows you to specify the start time of the period during which the trigger should be active. Use 24-hour time.
Enabled End	If Restrict Times is enabled, allows you to specify the end time of the period during which the trigger should be active. Use 24-hour time.
Adjust Interval To Enabled Start	If Restrict Times is enabled; Specification for whether to always begin at the Enabled Start, regardless of the time interval, or to begin based on the actual interval. If Adjust Interval To Enabled Start is not selected, the start time and end time specify only the time frame/window during which the trigger is active; they do not modify the actual time interval (see Restrict Times).
Special Restriction	Enable this field in order to specify additional parameters that tell the Controller how to handle exceptions, such as when the trigger is satisfied on a holiday or non-business day. You can specify simple and/or complex restrictions. For example, you can specify a Simple Restriction that disables the trigger if it is satisfied on a holiday identified in the calendar and/or a Complex Restriction that disables the trigger on the last business day of every month.
Simple Restriction	If enabled, allows you to specify an action (see Action field) such as Do Not Trigger on a non-business day or holiday (see Situation field). For example, do not trigger on a non-business day.
Situation	If Simple Restriction is enabled, allows you to select the situation that causes the system to initiate the action specified in the Action field. Options: • On Non Business Day • On Holiday

Action	
, lotion	If Special Restriction is enabled, allows you to select an action to take on a non-business day or holiday (see Situation field).
	Options:
	Do Not Trigger
	<ul> <li>Next Day (run on the next day)</li> <li>Next Business Day (run on the next business day, as defined in the calendar)</li> </ul>
	<ul> <li>Previous Day (run on the previous day)</li> </ul>
	Previous Business Day (run on the previous business day, as defined in the calendar)
Complex	
Restriction	If enabled, allows you to specify a set of parameters that determine one or more situations when this trigger should not be satisfied. Used in conjunction with the following fields: Restriction Mode, Restriction Adjective, Restriction Noun, Restriction Qualifier. For example, you may specify that you do not want to satisfy this trigger on the last business day of the year or the first day of each month.
Restriction Mode	If both Simple Restriction and Complex Restriction are enabled, specifies whether you want to use both restriction types (AND) or one or the other (OR).
Mode	Options:
	<ul> <li>And</li> <li>Or</li> </ul>
Restriction Adjective	If Complex Restriction is enabled, the type of selection.
Aujeenve	
	Options:
	<ul> <li>Every</li> <li>1st</li> </ul>
	<ul> <li>2nd</li> <li>3rd</li> </ul>
	• 4th
	• Last
	Example: The <b>last</b> business day of the month.
Restriction Noun	If Complex Restriction is enabled, the day you want to select.
	Options:
	<ul> <li>Sunday through Saturday</li> </ul>
	<ul> <li>Day</li> <li>Business Day</li> </ul>
	Custom Day
	Example: The last <b>business day</b> of the month.

Restriction Qualifier	If Complex Restriction is enabled, the period you are selecting from. Options:      Month     Year     January through December     Custom period Example: The last quarter of the <b>year</b> .
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 Component Details that let you perform various actions.
Save	Saves a new record in the Controller database.
Save & View	Saves a new record in the Controller database and continues to display that record.
Update	Saves updates to the record.
List Qualifying Times	Lets you generate a list of future dates and times that the trigger will trigger the specified task (see Generating a List of Qualifying Times, 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 component.

## Generating a List of Qualifying Times

The Controller allows you to generate a list of future dates and times that a trigger will trigger the specified task.

Step 1	Click the List Qualifying Times button in the Time Trigger Details. The List Qualifying Times Input dialog displays.	
Step 2	Select a Number of Dates/Times (1 - 1000) that you want to list. The default is 30.	
Step 3	Select a Start Date from when you want the list to begin.	

stonebranch-timetrigger-01           Isting From: 2017-08-10 10:47:01 -0500           User TimeZone: America/New_York         Trigger Timezone: SystemV/EST5           Thursday, August 10, 2017 11:48:01 EDT -0400         Thursday, August 10, 2017 10:48:01 EST -0500           Thursday, August 10, 2017 11:49:01 EDT -0400         Thursday, August 10, 2017 10:49:01 EST -0500           Thursday, August 10, 2017 11:50:01 EDT -0400         Thursday, August 10, 2017 10:50:01 EST -0500           Thursday, August 10, 2017 11:51:01 EDT -0400         Thursday, August 10, 2017 10:50:01 EST -0500           Thursday, August 10, 2017 11:52:01 EDT -0400         Thursday, August 10, 2017 10:51:01 EST -0500           Thursday, August 10, 2017 11:52:01 EDT -0400         Thursday, August 10, 2017 10:52:01 EST -0500           Thursday, August 10, 2017 11:52:01 EDT -0400         Thursday, August 10, 2017 10:52:01 EST -0500           Thursday, August 10, 2017 11:52:01 EDT -0400         Thursday, August 10, 2017 10:52:01 EST -0500           Thursday, August 10, 2017 11:53:01 EDT -0400         Thursday, August 10, 2017 10:53:01 EST -0500           Thursday, August 10, 2017 11:54:01 EDT -0400         Thursday, August 10, 2017 10:53:01 EST -0500           Thursday, August 10, 2017 11:54:01 EDT -0400         Thursday, August 10, 2017 10:53:01 EST -0500	
User TimeZone: America/New_York         Trigger Timezone: SystemV/EST5           Thursday, August 10, 2017 11:48:01 EDT -0400         Thursday, August 10, 2017 10:48:01 EST -0500           Thursday, August 10, 2017 11:49:01 EDT -0400         Thursday, August 10, 2017 10:49:01 EST -0500           Thursday, August 10, 2017 11:50:01 EDT -0400         Thursday, August 10, 2017 10:50:01 EST -0500           Thursday, August 10, 2017 11:50:01 EDT -0400         Thursday, August 10, 2017 10:50:01 EST -0500           Thursday, August 10, 2017 11:51:01 EDT -0400         Thursday, August 10, 2017 10:51:01 EST -0500           Thursday, August 10, 2017 11:52:01 EDT -0400         Thursday, August 10, 2017 10:52:01 EST -0500           Thursday, August 10, 2017 11:53:01 EDT -0400         Thursday, August 10, 2017 10:52:01 EST -0500           Thursday, August 10, 2017 11:53:01 EDT -0400         Thursday, August 10, 2017 10:52:01 EST -0500	
Thursday, August 10, 2017 11:48:01 EDT -0400       Thursday, August 10, 2017 10:48:01 EST -0500         Thursday, August 10, 2017 11:49:01 EDT -0400       Thursday, August 10, 2017 10:49:01 EST -0500         Thursday, August 10, 2017 11:50:01 EDT -0400       Thursday, August 10, 2017 10:50:01 EST -0500         Thursday, August 10, 2017 11:51:01 EDT -0400       Thursday, August 10, 2017 10:50:01 EST -0500         Thursday, August 10, 2017 11:51:01 EDT -0400       Thursday, August 10, 2017 10:51:01 EST -0500         Thursday, August 10, 2017 11:52:01 EDT -0400       Thursday, August 10, 2017 10:52:01 EST -0500         Thursday, August 10, 2017 11:52:01 EDT -0400       Thursday, August 10, 2017 10:52:01 EST -0500         Thursday, August 10, 2017 11:53:01 EDT -0400       Thursday, August 10, 2017 10:52:01 EST -0500	
Thursday, August 10, 2017 11:49:01 EDT -0400         Thursday, August 10, 2017 10:49:01 EST -0500           Thursday, August 10, 2017 11:50:01 EDT -0400         Thursday, August 10, 2017 10:50:01 EST -0500           Thursday, August 10, 2017 11:51:01 EDT -0400         Thursday, August 10, 2017 10:51:01 EST -0500           Thursday, August 10, 2017 11:52:01 EDT -0400         Thursday, August 10, 2017 10:52:01 EST -0500           Thursday, August 10, 2017 11:52:01 EDT -0400         Thursday, August 10, 2017 10:52:01 EST -0500           Thursday, August 10, 2017 11:53:01 EDT -0400         Thursday, August 10, 2017 10:52:01 EST -0500	
Thursday, August 10, 2017 11:50:01 EDT -0400         Thursday, August 10, 2017 10:50:01 EST -0500           Thursday, August 10, 2017 11:51:01 EDT -0400         Thursday, August 10, 2017 10:51:01 EST -0500           Thursday, August 10, 2017 11:52:01 EDT -0400         Thursday, August 10, 2017 10:52:01 EST -0500           Thursday, August 10, 2017 11:53:01 EDT -0400         Thursday, August 10, 2017 10:52:01 EST -0500           Thursday, August 10, 2017 11:53:01 EDT -0400         Thursday, August 10, 2017 10:53:01 EST -0500	
Thursday, August 10, 2017 11:51:01 EDT -0400         Thursday, August 10, 2017 10:51:01 EST -0500           Thursday, August 10, 2017 11:52:01 EDT -0400         Thursday, August 10, 2017 10:52:01 EST -0500           Thursday, August 10, 2017 11:53:01 EDT -0400         Thursday, August 10, 2017 10:53:01 EST -0500           Thursday, August 10, 2017 11:53:01 EDT -0400         Thursday, August 10, 2017 10:53:01 EST -0500	
Thursday, August 10, 2017 11:52:01 EDT -0400         Thursday, August 10, 2017 10:52:01 EST -0500           Thursday, August 10, 2017 11:53:01 EDT -0400         Thursday, August 10, 2017 10:53:01 EST -0500	
Thursday, August 10, 2017 11:53:01 EDT -0400 Thursday, August 10, 2017 10:53:01 EST -0500	
Thursday, August 10, 2017 11:54:01 EDT -0400 Thursday, August 10, 2017 10:54:01 EST -0500	
Thursday, August 10, 2017 11:55:01 EDT -0400 Thursday, August 10, 2017 10:55:01 EST -0500	
Thursday, August 10, 2017 11:56:01 EDT -0400 Thursday, August 10, 2017 10:56:01 EST -0500	
Thursday, August 10, 2017 11:57:01 EDT -0400 Thursday, August 10, 2017 10:57:01 EST -0500	
Thursday, August 10, 2017 11:58:01 EDT -0400 Thursday, August 10, 2017 10:58:01 EST -0500	
Thursday, August 10, 2017 11:59:01 EDT -0400 Thursday, August 10, 2017 10:59:01 EST -0500	
Thursday, August 10, 2017 12:00:01 EDT -0400 Thursday, August 10, 2017 11:00:01 EST -0500	
Thursday, August 10, 2017 12:01:01 EDT -0400 Thursday, August 10, 2017 11:01:01 EST -0500	
Thursday, August 10, 2017 12:02:01 EDT -0400 Thursday, August 10, 2017 11:02:01 EST -0500	
Thursday, August 10, 2017 12:03:01 EDT -0400 Thursday, August 10, 2017 11:03:01 EST -0500	
Thursday, August 10, 2017 12:04:01 EDT -0400 Thursday, August 10, 2017 11:04:01 EST -0500	
Thursday, August 10, 2017 12:05:01 EDT -0400 Thursday, August 10, 2017 11:05:01 EST -0500	
Thursday, August 10, 2017 12:06:01 EDT -0400 Thursday, August 10, 2017 11:06:01 EST -0500	
Thursday, August 10, 2017 12:07:01 EDT -0400 Thursday, August 10, 2017 11:07:01 EST -0500	
Thursday, August 10, 2017 12:08:01 EDT -0400 Thursday, August 10, 2017 11:08:01 EST -0500	
Thursday, August 10, 2017 12:09:01 EDT -0400 Thursday, August 10, 2017 11:09:01 EST -0500	

# File Monitor Component

e Monitor Component	Details: test				ch		
				🔚 Update	🗊 Delete	S Refresh	X Clos
File Monitor Component							
- General	1						
Description :							
Built-in Variable Prefix :	comp						
- Status							
Status :	Enabled						
- File Monitor Details							
File Monitor :	stonebranch-filemonitor-01	· • 53	Running Monitor :	stonebranch-filemonitor-01			1
Restrictions							
Restrict Times :	$\checkmark$						
Enabled Start :	Hour Min 01 V 00 V						
Enabled End :	Hour Min 00 v 00 v						
Special Restriction :	$\checkmark$			Do Not Trigger		~	
Simple Restriction :			Complex Restriction :				
Situation :	On Holiday	*	Restriction Adjective :	Every		~	
Restriction Mode :	Or	~	Restriction Noun :	Day			~
			Restriction Qualifier :	Year			*
📰 Update	🗊 Delete 📑 Refresh 🔰 Close						

# File Monitor Component Details Field Descriptions

The following table describes the fields and buttons that display in the File Monitor Component Details.

Field Name	Description
General	This section contains general information about the component.
Name	Name used within the Controller to identify this component. It can contain a maximum of 255 alphanumerics.
Description	User-defined; Description of this component.
Built-In Variable Prefix	User-specified prefix that enables built-in variables in the file(s) being monitored to be propagated up to the Composite trigger.

Status	This section contains information about the current status of the component.
Status	User-defined; indication of whether the trigger is enabled (checked) or disabled (not checked). The user enables and disables the trigger by clicking the Enable / Disable buttons. Only enabled triggers are processed by the Controller.
Monitor Status	System-supplied; Lists the status of File Monitor tasks currently running that were launched by this trigger.
File Monitor Details	This section contains assorted detailed information about the component.
File Monitor	Required; File Monitor task being executed. Enter a task name, select a task from the drop-down list, or click the Task Details icon to create a new task. If a task already is specified in this field, click the Task Details icon to view the Details of that task.
Running Monitor	System-supplied; Name of the currently running task instance of the specified File Monitor task that was launched by this enabled trigger.
Restrictions	This section specifies any restrictions that apply to the component.
Restrict Times	Period during which the component is active. Enable this field and specify the start and end times in the Enabled Start and Enabled End fields.
Enabled Start	If Restrict Times is enabled, allows you to specify the start time of the period during which the component should be active. Use 24-hour time.
Enabled End	If Restrict Times is enabled, allows you to specify the end time of the period during which the component should be active. Use 24-hour time.
Special Restriction	Enable this field in order to specify additional parameters that tell the Controller how to handle exceptions, such as when the component is satisfied on a holiday or non-business day. You can specify simple and/or complex restrictions. For example, you can specify a Simple Restriction that disables the component if it is satisfied on a holiday identified in the calendar and/or a Complex Restriction that disables the component on the last business day of every month.
Simple Restriction	If enabled, allows you to specify an action (see Action field) such as Do Not Trigger on a non-business day or holiday (see Situation field). For example, do not trigger on a non-business day.
Situation	If Simple Restriction is enabled, allows you to select the situation that causes the system to initiate the action specified in the Action field. Options: • On Non Business Day

A	
Action	If Special Restriction is enabled, allows you to select an action to take on a non-business day or holiday (see Situation field).
	Options:
	Do Not Trigger
	<ul> <li>Next Day (run on the next day)</li> <li>Next Business Day (run on the next business day, as defined in the calendar)</li> </ul>
	<ul> <li>Previous Day (run on the previous day)</li> <li>Previous Business Day (run on the previous business day, as defined in the calendar)</li> </ul>
Complex Restriction	If enabled, allows you to specify a set of parameters that determine one or more situations when this component should not be satisfied. Used in conjunction with the following fields: Restriction Mode, Restriction Adjective, Restriction Noun, Restriction Qualifier. For example, you may specify that you do not want to satisfy this component on the last business day of the year or the first day of each month.
Restriction Mode	If both Simple Restriction and Complex Restriction are enabled, specifies whether you want to use both restriction types (AND) or one or the other (OR).
	Options:
	• And
	• Or
Restriction Adjective	If Complex Restriction is enabled, the type of selection.
Aujective	Options:
	• Every • 1st
	<ul> <li>2nd</li> <li>3rd</li> </ul>
	<ul> <li>4th</li> <li>Last</li> </ul>
	Example: The <b>last</b> business day of the month.
Restriction Noun	If Complex Restriction is enabled, the day you want to select.
	Options:
	Sunday through Saturday
	<ul> <li>Day</li> <li>Business Day</li> </ul>
	Custom Day
	Example: The last <b>business day</b> of the month.

Restriction Qualifier	If Complex Restriction is enabled, the period you are selecting from. Options:  Month Year January through December Custom period Example: The last quarter of the <b>year</b> .
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 Component Details that let you perform various actions.
Save	Saves a new record in the Controller database.
Save & New	Saves a new record in the Controller database and redisplays 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.
Update	Saves updates to the record.
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 component.

# Task Monitor Component

ask Monitor Componen	nt Details: test task monitor				<b>a</b>		
Task Monitor Component				💾 Update	Delete	s Refresh	X Close
- General							
Name :	test						
Description :							
Built-in Variable Prefix :	comp						
- Status							
Status :	Enabled						
Task Monitor Details							
Task Monitor :	stonebranch-taskmonitor-01	× 55	Running Monitor :	stonebranch-taskmonitor-01			13
- Restrictions							
Restrict Times :							
Enabled Start :	Hour Min 00 v 00 v						
Enabled End :	Hour Min 00 v 00 v						
Special Restriction :				Do Not Trigger		*	
Simple Restriction :			Complex Restriction :				
Situation :	On Holiday		Restriction Adjective :	Every		~	
Restriction Mode :	Or	1	Restriction Noun :				~
			Restriction Qualifier :	Year			*
🔛 Update	🗊 Delete 🛛 😫 Refresh 🛛 💥 Close	)					

### Task Monitor Component Details Field Descriptions

The following table describes the fields and buttons that display in the Task Monitor Component Details.

Field Name	Description
General	This section contains general information about the component.
Name	Name used within the Controller to identify this component. It can contain a maximum of 255 alphanumerics.
Description	User-defined; Description of this component.
Built-In Variable Prefix	User-specified prefix that enables built-in variables in the task(s) being monitored to be propagated up to the Composite trigger.

Status	This section contains information about the current status of the trigger.
Status	User-defined; indication of whether the trigger is enabled (checked) or disabled (not checked). The user enables and disables the trigger by clicking the Enable / Disable buttons. Only enabled triggers are processed by the Controller.
Monitor Status	System-supplied; Lists the status of Task Monitor tasks currently running that were launched by this trigger.
Task Monitor Details	This section contains assorted detailed information about the component.
Task Monitor	Required; Task Monitor task being executed. Enter a task name, select a task from the drop-down list, or click the Task Details icon to create a new task. If a task already is specified in this field, click the Task Details icon to view the Details of that task.
Running Monitor	System-supplied; Name of the currently running task instance of the specified Task Monitor task that was launched by this enabled trigger.
Restrictions	This section specifies any restrictions that apply to the component.
Restrict Times	Period during which the component is active. Enable this field and specify the start and end times in the Enabled Start and Enabled End fields.
Enabled Start	If Restrict Times is enabled, allows you to specify the start time of the period during which the component should be active. Use 24-hour time.
Enabled End	If Restrict Times is enabled, allows you to specify the end time of the period during which the component should be active. Use 24-hour time.
Special Restriction	Enable this field in order to specify additional parameters that tell the Controller how to handle exceptions, such as when the component is satisfied on a holiday or non-business day. You can specify simple and/or complex restrictions. For example, you can specify a Simple Restriction that disables the component if it is satisfied on a holiday identified in the calendar and/or a Complex Restriction that disables the component on the last business day of every month.
Simple Restriction	If enabled, allows you to specify an action (see Action field) such as Do Not Trigger on a non-business day or holiday (see Situation field). For example, do not trigger on a non-business day.
Situation	If Simple Restriction is enabled, allows you to select the situation that causes the system to initiate the action specified in the Action field. Options: • On Non Business Day • On Holiday

Action	
ACTION	If Special Restriction is enabled, allows you to select an action to take on a non-business day or holiday (see Situation field).
	Options:
	<ul> <li>Do Not Trigger</li> <li>Next Day (run on the next day)</li> </ul>
	<ul> <li>Next Business Day (run on the next business day, as defined in the calendar)</li> <li>Previous Day (run on the previous day)</li> </ul>
	<ul> <li>Previous Business Day (run on the previous business day, as defined in the calendar)</li> </ul>
Complex Restriction	If enabled, allows you to specify a set of parameters that determine one or more situations when this component should not be satisfied. Used in conjunction with the following fields: Restriction Mode, Restriction Adjective, Restriction Noun, Restriction Qualifier. For example, you may specify that you do not want to satisfy this component on the last business day of the year or the first day of each month.
Restriction Mode	If both Simple Restriction and Complex Restriction are enabled, specifies whether you want to use both restriction types (AND) or one or the other (OR).
	Options:
	And
	• Or
Restriction Adjective	If Complex Restriction is enabled, the type of selection.
Aujective	
	Options:
	<ul> <li>Every</li> <li>1st</li> </ul>
	• 2nd
	<ul> <li>3rd</li> <li>4th</li> </ul>
	• Last
	Example: The <b>last</b> business day of the month.
Restriction Noun	If Complex Restriction is enabled, the day you want to select.
NUUII	
	Options:
	<ul> <li>Sunday through Saturday</li> <li>Day</li> </ul>
	Business Day
	Custom Day
	Example: The last <b>business day</b> of the month.

Restriction Qualifier	If Complex Restriction is enabled, the period you are selecting from. Options: • Month • Year • January through December • Custom period Example: The last quarter of the <b>year</b> .
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 Component Details that let you perform various actions.
Save	Saves a new record in the Controller database.
Save & New	Saves a new record in the Controller database and redisplays 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.
Update	Saves updates to the record.
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 component.

# Variable Monitor Component

able Monitor Compone	ent Details: variable test			💷 Undat	e 🕼 Delete	s Refresh	
ariable Monitor Compo	nent			C Opdat	boloto		
General							
Name :	variable test						
Description :							
Built-in Variable Prefix :							
Status							
Status :	Disabled						
Variable Monitor Deta	ails						
Variable Monitor :	stonenbranch-variablemonitor-01	*					
Restrictions							
Restrict Times :							
Enabled Start :	Hour Min 00 v 00 v						
Enabled End :	Hour Min 01 v 00 v						
Special Restriction :	$\checkmark$		Action :	Do Not Trigger		*	
Simple Restriction :	V		Complex Restriction :				
Situation :	On Holiday	*	Restriction Adjective :	Every		*	
Restriction Mode :	Or	~	Restriction Noun :				~
			Restriction Qualifier :	Year			*

### Variable Monitor Component Details Field Descriptions

The following table describes the fields and buttons that display in the Variable Monitor Component Details.

Field Name	Description
General	This section contains general information about the component.
Name	Name used within the Controller to identify this component. It can contain a maximum of 255 alphanumerics.
Description	User-defined; Description of this component.
Built-In Variable Prefix	User-specified prefix that enables built-in variables in the task(s) being monitored to be propagated up to the Composite trigger.

Status	This section contains information about the current status of the trigger.					
Status	User-defined; indication of whether the trigger is enabled (checked) or disabled (not checked). The user enables and disables the trigger by clicking the Enable / Disable buttons. Only enabled triggers are processed by the Controller.					
Monitor Status	System-supplied; Lists the status of Variable Monitor tasks currently running that were launched by this trigger.					
Variable Monitor Details	This section contains assorted detailed information about the component.					
Variable Monitor	Required; Variable Monitor task being executed. Enter a task name, select a task from the drop-down list, or click the Task Details icon to create a new task. If a task already is specified in this field, click the Task Details icon to view the Details of that task.					
	Note If you click the Details icon to create or update a Variable Monitor, Change is pre-selected for the Variable Monitor Type field and cannot be changed.					
Running Monitor	System-supplied; Name of the currently running task instance of the specified Variable Monitor task that was launched by this enabled trigger.					
Restrictions	S This section specifies any restrictions that apply to the component.					
Restrict Times	Period during which the component is active. Enable this field and specify the start and end times in the Enabled Start and Enabled End fields.					
Enabled Start	If Restrict Times is enabled, allows you to specify the start time of the period during which the component should be active. Use 24-hour time.					
Enabled End	If Restrict Times is enabled, allows you to specify the end time of the period during which the component should be active. Use 24-hour time.					
Special Restriction	Enable this field in order to specify additional parameters that tell the Controller how to handle exceptions, such as when the component is satisfied on a holiday or non-business day. You can specify simple and/or complex restrictions. For example, you can specify a Simple Restriction that disables the component if it is satisfied on a holiday or holiday identified in the calendar and/or a Complex Restriction that disables the component on the last business day of every month.					
Simple Restriction	If enabled, allows you to specify an action (see Action field) such as Do Not Trigger on a non-business day or holiday (see Situation field). For example, do not trigger on a non-business day.					
Situation	If Simple Restriction is enabled, allows you to select the situation that causes the system to initiate the action specified in the Action field. Options:					
	<ul> <li>On Non Business Day</li> <li>On Holiday</li> </ul>					

A	
Action	If Special Restriction is enabled, allows you to select an action to take on a non-business day or holiday (see Situation field).
	Options:
	Do Not Trigger
	<ul> <li>Next Day (run on the next day)</li> <li>Next Business Day (run on the next business day, as defined in the calendar)</li> </ul>
	<ul> <li>Previous Day (run on the previous day)</li> <li>Previous Business Day (run on the previous business day, as defined in the calendar)</li> </ul>
Complex Restriction	If enabled, allows you to specify a set of parameters that determine one or more situations when this component should not be satisfied. Used in conjunction with the following fields: Restriction Mode, Restriction Adjective, Restriction Noun, Restriction Qualifier. For example, you may specify that you do not want to satisfy this component on the last business day of the year or the first day of each month.
Restriction Mode	If both Simple Restriction and Complex Restriction are enabled, specifies whether you want to use both restriction types (AND) or one or the other (OR).
	Options:
	• And
	• Or
Restriction Adjective	If Complex Restriction is enabled, the type of selection.
Aujective	Options:
	• Every • 1st
	<ul> <li>2nd</li> <li>3rd</li> </ul>
	<ul> <li>4th</li> <li>Last</li> </ul>
	Example: The <b>last</b> business day of the month.
Restriction Noun	If Complex Restriction is enabled, the day you want to select.
	Options:
	Sunday through Saturday
	<ul> <li>Day</li> <li>Business Day</li> </ul>
	Custom Day
	Example: The last <b>business day</b> of the month.

Restriction Qualifier	If Complex Restriction is enabled, the period you are selecting from. Options:  Month Year January through December Custom period Example: The last quarter of the <b>year</b> .
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 Component Details that let you perform various actions.
Save	Saves a new record in the Controller database.
Save & New	Saves a new record in the Controller database and redisplays 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.
Update	Saves updates to the record.
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 component.

# **Email Monitor Component**

Email Monitor Compone	nt Details: email monitorr test	🖂 Lindate	and Delete	S Refresh	
Email Monitor Component		C Opdate	Delete	4 Keiresii	M Cluse
General					
Name :	email monitorr test				
Description :					
Built-in Variable Prefix :					
Status					
Status :	Disabled				
Email Monitor Detai	Is				
Email Monitor :	stonebranch-emailmonitortask-01				
Restrictions					
Restrict Times :					
Special Restriction :					
Update	🗊 Delete 🛛 🕼 Refresh 🛛 🗱 Close				

### **Email Monitor Component Details Field Descriptions**

The following table describes the fields and buttons that display in the Email Monitor Component Details.

Field Name	Description
General	This section contains general information about the component.
Name	Name used within the Controller to identify this component. It can contain a maximum of 255 alphanumerics.
Description	User-defined; Description of this component.
Built-In Variable Prefix	User-specified prefix that enables built-in variables in the task(s) being monitored to be propagated up to the Composite trigger.
Status	This section contains information about the current status of the trigger.
Status	User-defined; indication of whether the trigger is enabled (checked) or disabled (not checked). The user enables and disables the trigger by clicking the Enable / Disable buttons. Only enabled triggers are processed by the Controller.
Monitor Status	System-supplied; Lists the status of Email Monitor tasks currently running that were launched by this trigger.

Email Monitor Details	This section contains assorted detailed information about the component.
Email Monitor	Required; Email Monitor task being executed. Enter a task name, select a task from the drop-down list, or click the Task Details icon to create a new task. If a task already is specified in this field, click the Task Details icon to view the Details of that task.
	Note If you click the Details icon to create or update an Email Monitor, Change is pre-selected for the Email Monitor Type field and cannot be changed.
Running Monitor	System-supplied; Name of the currently running task instance of the specified Email Monitor task that was launched by this enabled trigger.
Restrictions	This section specifies any restrictions that apply to the component.
Restrict Times	Period during which the component is active. Enable this field and specify the start and end times in the Enabled Start and Enabled End fields.
Enabled Start	If Restrict Times is enabled, allows you to specify the start time of the period during which the component should be active. Use 24-hour time.
Enabled End	If Restrict Times is enabled, allows you to specify the end time of the period during which the component should be active. Use 24-hour time.
Special Restriction	Enable this field in order to specify additional parameters that tell the Controller how to handle exceptions, such as when the component is satisfied on a holiday or non-business day. You can specify simple and/or complex restrictions. For example, you can specify a Simple Restriction that disables the component if it is satisfied on a holiday or holiday identified in the calendar and/or a Complex Restriction that disables the component on the last business day of every month.
Simple Restriction	If enabled, allows you to specify an action (see Action field) such as Do Not Trigger on a non-business day or holiday (see Situation field). For example, do not trigger on a non-business day.
Situation	If Simple Restriction is enabled, allows you to select the situation that causes the system to initiate the action specified in the Action field.
	<ul> <li>Options:</li> <li>On Non Business Day</li> <li>On Holiday</li> </ul>

A	
Action	If Special Restriction is enabled, allows you to select an action to take on a non-business day or holiday (see Situation field).
	Options:
	Do Not Trigger
	<ul> <li>Next Day (run on the next day)</li> <li>Next Business Day (run on the next business day, as defined in the calendar)</li> </ul>
	<ul> <li>Previous Day (run on the previous day)</li> <li>Previous Business Day (run on the previous business day, as defined in the calendar)</li> </ul>
Complex Restriction	If enabled, allows you to specify a set of parameters that determine one or more situations when this component should not be satisfied. Used in conjunction with the following fields: Restriction Mode, Restriction Adjective, Restriction Noun, Restriction Qualifier. For example, you may specify that you do not want to satisfy this component on the last business day of the year or the first day of each month.
Restriction Mode	If both Simple Restriction and Complex Restriction are enabled, specifies whether you want to use both restriction types (AND) or one or the other (OR).
	Options:
	• And
	• Or
Restriction Adjective	If Complex Restriction is enabled, the type of selection.
Aujective	Options:
	• Every • 1st
	<ul> <li>2nd</li> <li>3rd</li> </ul>
	<ul> <li>4th</li> <li>Last</li> </ul>
	Example: The <b>last</b> business day of the month.
Restriction Noun	If Complex Restriction is enabled, the day you want to select.
	Options:
	Sunday through Saturday
	<ul> <li>Day</li> <li>Business Day</li> </ul>
	Custom Day
	Example: The last <b>business day</b> of the month.

Restriction Qualifier	If Complex Restriction is enabled, the period you are selecting from.
	Options:
	<ul> <li>Month</li> <li>Year</li> <li>January through December</li> <li>Custom period</li> </ul> Example: The last quarter of the year.
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 Component Details that let you perform various actions.
Save	Saves a new record in the Controller database.
Save & New	Saves a new record in the Controller database and redisplays 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.
Update	Saves updates to the record.
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 component.

# **Enabling and Disabling Triggers**

- Introduction
- Enabling/Disabling a Single Trigger
- Enabling/Disabling Multiple Triggers
- · Enabling/Disabling One or More Triggers from the Command Line

### Introduction

When you define and submit a new trigger, you must enable it in order for Universal Controller to begin processing it. The Controller only processes triggers that are flagged as Enabled (Enabled triggers are Active triggers).

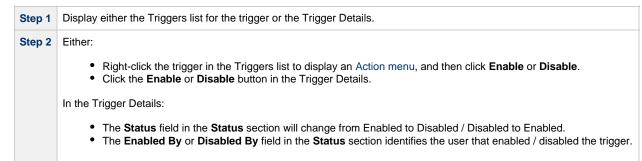
For tracking and compliance purposes, you must manually enable and disable triggers either by using:

- Enable Trigger and Disable Trigger buttons or Action menu items in Trigger Details.
- Enable a Trigger (ops-trigger-enable) and Disable a Trigger (ops-trigger-disable) CLI commands.

This process saves an audit record detailing the event. The trigger record also displays the ID of the user who enabled it.

Note This does not apply to Manual triggers.

## Enabling/Disabling a Single Trigger



## **Enabling/Disabling Multiple Triggers**

Step 1	Display a Triggers list or the Active Triggers list.	
Step 2	Ctrl-click each trigger on the list that you want to enable/disable.	

Step 3	Right-click any of the selected triggers to display an Action menu.
Step 4	Click Enable or Disable:
	<ul> <li>The Status field in the Status section of the Trigger Details for all selected will change from Enabled to Disabled / Disabled to Enabled.</li> <li>The Enabled By or Disabled By field in the Status section of the Trigger Details for all selected triggers identifies the user that enabled / disabled the trigger.</li> </ul>

# Enabling/Disabling One or More Triggers from the Command Line

See the Enable a Trigger (ops-trigger-enable) and Disable a Trigger (ops-trigger-disable) CLI commands for instructions.

# **Assigning and Unassigning Trigger Execution Users**

- Overview
- Determining Minimum Permissions for Assigned Execution User
- Assigning an Execution User
  - Users with ops admin Role
  - Users without ops\_admin Role
- Unassigning an Execution User

#### **Overview**

The Execution User of a task instance determines the security context under which the task instance runs.

How the task (from which the task instance was derived) is launched or triggered determines the Execution User:

- If a task is launched manually, via the Launch command, the Execution User of the task instance is the user who issued the Launch command.
- If a task is triggered manually, by issuing the Trigger Now... command:
  - For an Enabled trigger that does not have an assigned Execution User, the trigger will launch the task under the context of the user that enabled the trigger (the Enabled By user).
  - For a Disabled trigger that does not have an assigned Execution User, the trigger will launch the task under the context of the user that issued the Trigger Now... command.
  - For an Enabled or Disabled trigger that has an assigned Execution User, the trigger will launch the task under the context of the assigned Execution User.
- If a task is triggered when an Enabled trigger fires at its Next Scheduled Time, the trigger will launch the task under the context of the user that enabled the trigger (the Enabled By user), or, if the Execution User is assigned on the trigger via the Assign Execution User... command the trigger will launch the task under the context of the trigger's Execution User.

#### Note

If a user is referenced by an Enabled trigger in the Enabled By field of the trigger, you can delete that user if the trigger is assigned a different Execution User.

If you attempt to unassign an Execution User from an Enabled trigger, and the Enabled By field of the trigger references an invalid user (see above), the command will fail with the following error:

Enabled By user "<user-name>" is no longer a valid username; you must disable the trigger prior to unassigning the execution user.

### **Determining Minimum Permissions for Assigned Execution User**

When a trigger is assigned an Execution User, that Execution User becomes the user (or security context) under which all task instances launched by the Trigger run.

There are a number of Universal Controller definitions that require run-time security constraint validation, as shown in the following table. Understanding which of these definitions your task instances have a dependency on will help in determining the minimum permissions required for the Execution User; without these permissions, the task instances will transition into a Start Failure.

For tasks launched by a trigger, or tasks contained in a Workflow launched by a trigger, the following requirements apply:

Tasks running on an Agent	Execution User requires Execute permission for that Agent.
Tasks requiring a Credential	Execution User requires Execute permission for that Credential. (References to Credentials can exist for both non agent-based and agent-based task types. Furthermore, agents can specify default Credentials, even if the Credentials are not directly defined on the task.)
Tasks running a Script	Execution User requires Execute permission for that Script.
Tasks needing to read a Global Variable	Execution User requires Read permission for that Global Variable.
Tasks requiring a Virtual Resource	Execution User requires Execute permission for that Virtual Resource.

## Assigning an Execution User

To assign an Execution User to a trigger, you must have the **Assign Execution User** Trigger permission.

Additionally, users that do not have the ops\_admin role must provide Execution User login credentials (User ID and Password) in order to assign the Execution User to the trigger.

Step 1	Open the trigger.
--------	-------------------

Step 2	Right-click the trigger Details and, in the Action menu that displays, click Assign Execution User An Assign Execution User dialog displays.
	Users with ops_admin Role
	Assign Execution User Execution User : Submit Cancel
	Users without ops_admin Role           Assign Execution User
	Execution User : Password :
	Submit Cancel
Step 3	Enter the user ID of the user that you want to assign as the Execution User for the task instances to be launched by this trigger. If you do not have the ops_admin Role, also enter the Password of the user.
Step 4	Click Submit. The Execution User field displays in the General Information section of the trigger Details, identifying the user you selected in the Assign Execution User dialog.

# Unassigning an Execution User

To unassign an Execution User from a trigger, you must have the Assign Execution User Trigger permission.

s	tep 1	Open the trigger. The Execution User field should display in the General Information section of the trigger Details, identifying the currently defined Execution User for this trigger.
S		Right-click the trigger Details and, in the Action menu that displays, click Unassign Execution User The Execution User identified in the Execution User field is unassigned as the Execution User for this trigger, and the Execution User field is removed from the trigger Details.

# **Copying Triggers**

- Overview
- Copying One or More Triggers from a Triggers List
- Copying a Trigger from the Trigger Details
- Copy Permissions

## Overview

You can make copies of all Universal Controller records, including triggers, 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 copies record. For triggers, **Insert** does not make copies of any Variables that are associated with the trigger.

The Copy Trigger option allows you to make a complete copy of a trigger, including all of its Variables.

# Copying One or More Triggers from a Triggers List

Step 1 From the Automation Center navigation pane, select a trigger under **Triggers**. The Triggers list for that trigger type displays.

Step 2 Locate the trigger(s) you want to copy (see Filtering).

o 3	Copy the trigger(s):					
	Copy One Trigger					
	1. Right-click the Trigger Name.					
	2. On the Action menu, select <b>Copy</b> . A Copy Trigger pop-up dialog displays.					
	Copy Cron Trigger					
	Enter a new name for the Cron Trigger and click Submit.					
	Name : Copy Of stonebranch-crontrigger-01					
	Member of Business Services :					
	Submit Cancel					
	Submit Cancer					
	<ol> <li>Enter a new name for the trigger and, optionally, select any Business Services that you want the trigger assigned to.</li> <li>Click Submit to create a copy of the trigger.</li> </ol>					
	Copy Multiple Triggers					
	<ol> <li>Ctrl-Click the triggers you want to copy.</li> <li>Right-click any of the selected triggers .</li> </ol>					
	3. On the Action menu, select <b>Copy</b> .					
	<ol> <li>On the Confirmation pop-up that displays, click OK. The copied triggers are added to the list, with Copy of added as a prefix to the Trigger Name for each trigger. If a trigger with that Copy of name already exists, a numerical suffix is added to the trigger name.</li> </ol>					

# Copying a Trigger from the Trigger Details

**Step 1** Select a task from a Triggers list. The Trigger Details for that trigger displays.

Step 2	<ul> <li>2 Either:</li> <li>Click the Copy button.</li> <li>Right-click the Details to display the Action menu, and then click Copy.</li> <li>A Copy Trigger pop-up dialog displays.</li> </ul>		
Copy Cron Trigger Enter a new name for the Cron Trigger and click Submit. Name : Copy Of stonebranch-crontrigger-01 Member of Business Services : Submit Cancel			
Step 3	Enter a new name for the trigger and, optionally, select any Business Services that you want the trigger assigned to.		
Step 4	Click <b>Submit</b> to create a copy of the trigger.		

# **Copy Permissions**

To copy a Trigger, you must have both Read permission and Copy command permission for the Trigger you are copying, in addition to having Create permission for the copied Trigger.

# **Triggering with Variables**

- Overview
- Using the Trigger Now... Pop-up Method
- Using the Variables Tab Method

### Overview

Universal Controller provides two methods for manually launching all of the tasks associated with a trigger while supplying values for variables used by the task(s):

- Use the Trigger Now... pop-up method if you do not want the values that you enter for variables to persist. The values will apply only for the time the task(s) is running.
- Use the Variables tab method if you want to preserve the information (name and value) about the variables you are setting.

Both methods are available for all trigger types. You can use either method to manually launch task(s) when you cannot use the Launch Task button (in the task Details) because you want to override one or more variables.

The values that you enter when using either method override the all other values, set elsewhere, for those variables.

Variables set with the Trigger Now... pop-up method override any variables specified with the Variables tab method, but only for that run of the task(s).

The audit message created when you use either method is the same.

### Using the Trigger Now... Pop-up Method

Step 1	From the Automation Center navigation pane, select Triggers > <trigger type="">. The Triggers list for that trigger type displays.</trigger>		
Step 2	Right-click the trigger whose tasks you want to launch to display an Action menu.		
Step 3	Click Trigger Now The Trigger Now pop-up dialog displays.		
	Trigger Now       Image: Constant of the second se		
Step 4	The <b>Trigger Time Zone</b> field displays, by default, the time zone of the trigger, but you can change it to any time zone in the drop-down list for this particular execution of the trigger to run in.		

Step 5	If you want to put the task instances in held status when the tasks specified in the trigger are started, select Hold on Start.				
Step 6	Select <b>Override Trigger Variables</b> to display a Variable window in the Trigger Now pop-up dialog. Any variables already attached to the trigger (via the Variables tab method) display in alphabetic order (a-z).				
	Trigger Now				
	Trigger Time Zone : Server (US/Eastern)				
	Override Trigger Date/Time :				
	Override Trigger Variables : 🔽				
	Name variable_1	Value 1			
	variable_2	2			
	Variables :				
Submit Cancel		icel			
	Note     Additionally, you also can select Override Trigger Dat     and Time).	te/Time if you want to launch the tasks specified in the trigger by a specific date and time (see Triggering by Date			
Step 7					
Step 8	To remove a variable from the list, click it and then click the - icon. Click <b>Submit</b> to launch the tasks named in the trigger. The variable information in the list is used where referenced in the tasks. After launching the tasks, the Controller deletes the contents of the list.				

# Using the Variables Tab Method

Step 1	From the Automation Center navigation pane, select <b>Triggers &gt; <trigger type=""></trigger></b> . The Triggers list for that trigger type displays.							
Step 2								
Step 3	Click the Variables tab. The Trigger Variables list displays.							
	Cron Trigger Variables Versions							
	New 2							
	Name Value Description Updated By Updated							
	No items to show.							
Step 4	To add a variable:							
	1. Click <b>New</b> . A Variables Details pop-up displays.							
	Variable Details							
	Variable							
	Details							
	Name :							
	Value :							
	Description :							
	🔗 Save & New 👔 Save & View 🗱 Close							
	2. Enter a Name, Value, and Description for the variable, and then click <b>Save</b> .							
Step 5	To update a variable:							
	<ol> <li>Click the icon next to a variable Name on the Trigger Variables list to displays the Variables Details pop-up.</li> <li>Change the Name, Values, and/or Description of the variable, and then click Update.</li> </ol>							
Step 6	Click the <b><trigger type=""> Trigger</trigger></b> tab.							
-								

**Step 7** Click the **Trigger Now** button to launch the tasks named in the trigger.

## Triggering by Date and Time

Overview

• Trigger by Date/Time

## Overview

Universal Controller provides for the triggering of tasks at the present time or another specific date and time.

## **Trigger by Date/Time**

Step 1	From the Automation Center navigation pane, select Triggers > <trigger type="">. The Triggers list for that trigger type displays.</trigger>
Step 2	Right-click the trigger whose tasks you want to launch to display an Action menu.
Step 3	Click Trigger Now The Trigger Now pop-up dialog displays.
	Trigger Now
	Trigger Time Zone : Server (US/Eastern) v
	Hold on Start:
	Override Trigger Date/Time : 🔲
	Override Trigger Variables :
	Submit Cancel
Step 4	The <b>Trigger Time Zone</b> field displays, by default, the time zone of the trigger, but you can change it to any time zone in the drop-down list for this particular execution of the trigger to run in.
Step 5	If you want to put the task instances in held status when the tasks specified in the trigger are started, select Hold on Start.

Step 6	Select Override Trigger Date/Times to display fields in the Trigger Now pop-up dialog that allow you to select a Date, Time, and Time Zone for this execution of the trigger.
	Trigger Now
	Trigger Time Zone : Server (US/Eastern)
	Hold on Start :
	· Override Trigger Date/Time : ☑
	Date: 2018 v Feb v 14 v 📰
	Time: $\begin{array}{c c} Hour & Min \\ \hline 00 & \checkmark & 00 & \checkmark \end{array}$
	Time Zone : System (America/New_York) Vuse Trigger Time Zone : 🔽
	Override Trigger Variables :
	Submit Cancel
Step 7	If the <b>Trigger Time Zone</b> field displays in the pop-up, the <b>Time Zone</b> field, by default, is read-only and displays the time zone in the <b>Trigger Time Zone</b> field, since the <b>Use Trigger</b> <b>Time Zone</b> field is checked.
	If you want the trigger to run in a different time zone for the selected <b>Date</b> and <b>Time</b> , un-check the <b>Use Trigger Time Zone</b> field and select a time zone from the <b>Time Zone</b> drop-down list.
	The <b>Trigger Time Zone</b> and <b>Time Zone</b> fields allow the trigger to run as if in one time zone, and also allow the Date and Time of the trigger to be based upon another time zone. For example, you could execute Trigger Now to run at a specific date and time with respect to the <b>Time Zone</b> , and yet the trigger itself will run based upon the <b>Trigger Time Zone</b> .
	If the task is a Workflow, <b>Trigger Time Zone</b> lets you select a time zone for this specific launch of the Workflow so that it runs, and evaluates both Run Criteria and Execution Restrictions, according to that time zone.
Step 8	You also can select <b>Override Trigger Variables</b> if you want to launch the tasks specified in the trigger while supplying values for variables used by the tasks (see Triggering with Variables).
Step 9	Click <b>Submit</b> to launch the tasks named in the trigger. The variable information in the list is used where referenced in the tasks. After launching the tasks, the Controller deletes the contents of the list.

## **Displaying Trigger Forecast Information**

Overview
Forecast Calendar
Forecast List
Forecast Details
Forecast Details Field Descriptions
Forecast Calculation
Forecast Re-Calculation
Setting up Forecasting
Next Scheduled Time

Overdue Timers

List Qualifying Times

### **Overview**

Four methods are available for displaying forecasting information on time-based triggers (Time, Cron, and Temporary) and the tasks they launch:

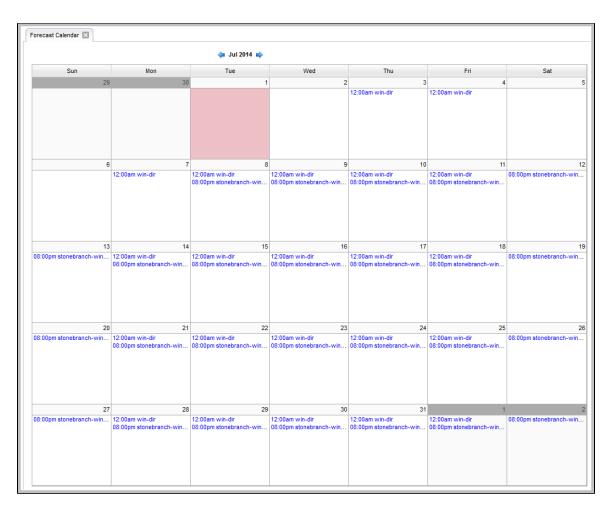
- Forecast Calendar displays a calendar showing tasks scheduled to run based on Time, Cron, and Temporary triggers. Where data is available, the estimated end time for each task also is calculated and displayed.
- Forecasts List displays a sequential list of the tasks shown in the Forecast Calendar.
- Next Scheduled Time field in Time, Cron, and Temporary trigger Details identifies the next time a trigger will launch its task(s).
- List Qualifying Times button in Time and Cron triggers Details displays a list of the next 30 qualifying dates and times.

Each of these methods is described below.

### **Forecast Calendar**

For enabled Time, Temporary, and Cron triggers where forecasting has been specified, Universal Controller writes an entry to the Forecast Calendar (and the Forecasts List) for each time that a trigger task is scheduled to run within the next *N* days, where *N* is the forecast period specified in the Forecast Period in Days Universal Controller system property.

To display the Forecast Calendar, from the Automation Center navigation pane select Triggers > Forecast Calendar.



To display Details about an entry in the Forecast Calendar, click the entry. A Forecast Details pop-up displays. (You also can display Forecast Details by clicking an entry in the Forecasts List.)

### **Forecasts List**

The Forecasts list displays information about every entry in the Forecast Calendar, plus information on tasks within a Workflow launched by a trigger.

To display the Forecasts List, from the Automation Center navigation pane select Triggers > Forecasts.

31	Forecasts			Custom Filter None	👻 🤝 Filter 🗧	
	Trigger 🔻	Task	Launch Time	End Time	Updated By	Updated
1	stonebranch-crontrigger-01	stonebranch-windowstask-01	2014-07-08 20:00:00 -0400	2014-07-08 20:00:00 -0400	stonebranch-user-01	2014-07-07 17:13:19 -0400
	stonebranch-crontrigger-01	stonebranch-windowstask-01	2014-07-09 20:00:00 -0400	2014-07-09 20:00:00 -0400	stonebranch-user-02	2014-07-07 17:13:19 -0400
	stonebranch-crontrigger-01	stonebranch-windowstask-01	2014-07-10 20:00:00 -0400	2014-07-10 20:00:00 -0400	stonebranch-user-03	2014-07-07 17:13:19 -0400
1	stonebranch-crontrigger-01	stonebranch-windowstask-01	2014-07-11 20:00:00 -0400	2014-07-11 20:00:00 -0400	stonebranch-user-04	2014-07-07 17:13:19 -0400
Ţ	stonebranch-crontrigger-01	stonebranch-windowstask-01	2014-07-12 20:00:00 -0400	2014-07-12 20:00:00 -0400	stonebranch-user-05	2014-07-07 17:13:19 -0400
ΥY	stonebranch-crontrigger-01	stonebranch-windowstask-01	2014-07-13 20:00:00 -0400	2014-07-13 20:00:00 -0400	stonebranch-user-02	2014-07-07 17:13:19 -0400
1	stonebranch-crontrigger-01	stonebranch-windowstask-01	2014-07-14 20:00:00 -0400	2014-07-14 20:00:00 -0400	stonebranch-user-01	2014-07-07 17:13:19 -0400
T,	stonebranch-crontrigger-01	stonebranch-windowstask-01	2014-07-15 20:00:00 -0400	2014-07-15 20:00:00 -0400	stonebranch-user-02	2014-07-07 17:13:19 -0400
Ţ	stonebranch-crontrigger-01	stonebranch-windowstask-01	2014-07-16 20:00:00 -0400	2014-07-16 20:00:00 -0400	stonebranch-user-03	2014-07-07 17:13:19 -0400
	stonebranch-crontrigger-01	stonebranch-windowstask-01	2014-07-17 20:00:00 -0400	2014-07-17 20:00:00 -0400	stonebranch-user-04	2014-07-07 17:13:19 -0400
1	stonebranch-crontrigger-01	stonebranch-windowstask-01	2014-07-18 20:00:00 -0400	2014-07-18 20:00:00 -0400	stonebranch-user-05	2014-07-07 17:13:19 -0400
Ţ	stonebranch-crontrigger-01	stonebranch-windowstask-01	2014-07-19 20:00:00 -0400	2014-07-19 20:00:00 -0400	stonebranch-user-02	2014-07-07 17:13:19 -0400
1	stonebranch-crontrigger-01	stonebranch-windowstask-01	2014-07-20 20:00:00 -0400	2014-07-20 20:00:00 -0400	stonebranch-user-01	2014-07-07 17:13:19 -0400
i i	stonebranch-crontrigger-01	stonebranch-windowstask-01	2014-07-21 20:00:00 -0400	2014-07-21 20:00:00 -0400	stonebranch-user-02	2014-07-07 17:13:19 -0400
1	stonebranch-crontrigger-01	stonebranch-windowstask-01	2014-07-22 20:00:00 -0400	2014-07-22 20:00:00 -0400	stonebranch-user-03	2014-07-07 17:13:19 -0400
	stonebranch-crontrigger-01	stonebranch-windowstask-01	2014-07-23 20:00:00 -0400	2014-07-23 20:00:00 -0400	stonebranch-user-04	2014-07-07 17:13:19 -0400
F	orecast Details					

To display the Details about a Forecast in the list, either:

- Click the Details icon next to the **Trigger** Name to display a Forecast Details pop-up.
  Click the Forecast entry in the list to display the Forecast Details below the list.

(You also can display Forecast Details by clicking an entry in the Forecast Calendar.)

## **Forecast Details**

Forecast Details displays information about the task, workflow, agent, and trigger associated with a trigger Forecast.

(For a workflow, only details about tasks and triggers are available.)

You can displays Forecast Details either by:

- Clicking an entry in the Forecasts Calendar.
- Clicking an entry in the Forecasts List.

Forecast       Child Forecast         Details       Task: istonebranch-windowstask-01         Task: Type:       Windows         Workflow:       End Time:         Workflow:       End Time:         Business Services:       V         Simulation:       Agent:         Stonebranch-windowsagent-01       Agent Cluster:	
Task:       stonebranch-windowstask-01       Trigger:       stonebranch-crontrigger-01         Task Type:       Windows       Launch Time:       2014-07-08 20:00:00 -0400         Workflow:       End Time:       2014-07-08 20:00:00 -0400         Member of Business Services:       Image: Services:       Run/Skip Evaluation:	
Task Type :       Windows       Launch Time :       2014-07-08 20:00:00 -0400         Workflow :       End Time :       2014-07-08 20:00:00 -0400         Member of Eusiness Services :       Image: Comparison of Eusiness Services :       Image: Comparison of Eusiness Services :         Simulation :       Image: Comparison of Eusiness Services :       Image: Comparison of Eusiness Services :	
Workflow :     End Time:     2014-07-08 20:00:00 -0400       Member of Business Services :     V     Run/Skip Evaluation :       Simulation :     Image: Construction of the service of t	57
Member of Run/Skip Evaluation :	
Simulation :	
Agent : stonebranch-windowsagent-01	
	57
Agent Variable : Agent Cluster Variable :	
Cluster Broadcast :	1

Click the Details icon next to any field to view Details of that record.

See the field descriptions below for a description of all fields in the Forecast Details.

### **Forecast Details Field Descriptions**

The following table describes the fields and tabs that display in the Forecast Details.

Field Name	Description
Details	This section contains detailed information about the forecast.
Task	Name of the task selected in the Forecast Calendar. The icon is a link to the Task Details for this task.
Task Type	Task type of this task.
Workflow	For tasks included in a Workflow: Name of the Workflow in which this task is included. The icon is a link to the Workflow Details for this Workflow.
Member of Business Services	One or more Business Services that this task belongs to.
Trigger	Name of the trigger that will launch this task (or the Workflow in which this task is included). The icon is a link to to the Trigger Details for this trigger.
Launch Time	Calculated start time of this task.
End Time	Calculated end time of this task.

Run/Skip Evaluation	Evaluation, based on run/skip criteria specified for this task via the Workflow Task Details, of whether this task will run or skip when the Workflow is run.
	Tasks, including Workflows, launched directly by the trigger will always have a run/skip evaluation of <b>Run</b> . Likewise, tasks within a launched Workflow that do not have any run or skip defined will always have a run/skip evaluation of <b>Run</b> .
	Any task within a Workflow with run or skip utilizing variables will have a run/skip evaluation of Not Evaluated.
Simulation	Indication of whether or not this forecast is based on the simulated launch of this trigger.
Agent	Name of the Agent resource record that identifies the machine where the task will run.
Agent Variable	If enabled in the Task Details for this task, the Agent field converts from a reference field (where you browse and select a record) into a text field that allows you to enter a variable.
Agent Cluster	Group of Agents, one of which the Controller will choose to run this task.
Agent Cluster Variable	If enabled in the Task Details for this task, the Agent Cluster field converts from a reference field (where you browse and select a record) into a text field that allows you to enter a variable.
Cluster Broadcast	Specification for a Cluster Broadcast in addition to or in place of a specific Agent and/or Agent Cluster. An agent cluster specified in this field causes the Controller to run the task task on all the Agents in the cluster. Each instance of the task running on its own Agent becomes a separate task instance record in the database and displays separately in the Activity monitor.
Tabs	This section identifies the tabs across the top of the Forecast Details that provide access to additional information about the forecast.
Child Forecasts tab	For Workflows only; Displays a list of forecast information for tasks within this Workflow (see Forecast List, below).

## **Forecast Calculation**

As the tasks are run, the Controller calculates the end time of each Forecast entry. The calculation is the average run time, based on task instances that already have run. This information is updated each time you display the forecast.

As task instances run within the Controller, task instance durations are collected, allowing the Controller to calculate their average run time. The average run time is used to determine the estimated end time provided on each Forecast entry. For task instances that run within a triggered Workflow, an average start offset within the Workflow, along with the average run time, are used to determine the estimated launch time and end time.

To reset the statistics information collected by the Controller for a particular task or Workflow, use the Reset Statistics command under Task Permissions.

### **Forecast Re-Calculation**

Certain changes in the system will automatically cause a re-calculation of forecast data. However, not all changes will result in immediate re-calculation.

Changes to the Details of an enabled trigger that impact the schedule of that trigger or the tasks launched by that trigger will result in an immediate re-calculation of the Forecast data for that trigger.

Changes to the agent, agent variable, agent cluster, agent cluster variable, or broadcast cluster fields of a task will be reflected immediately in the any forecast data referring to that particular task.

Changes to the Details of a Workflow launched by a trigger or a calendar used by a trigger (including the custom days within the calendar) will result in the forecast data of an associated trigger being flagged for re-calculation, as indicated by the Forecast Recalculation Required field. Any forecast data flagged for re-calculation will be re-calculated automatically at 12:00 a.m. (midnight) daily.

Whenever Override Calendar options are modified for a workflow, any forecast data associated with that workflow will be flagged for recalculation at the midnight refresh.

Statistics for a particular task may not be available at the time the original forecast calculation occurs. Therefore, the accuracy of estimated end times for triggered tasks, as well as the estimated start and end times of tasks launched within a triggered Workflow, may be inaccurate. The current accuracy of a Forecast record is indicated by the End Time Accuracy field. The End Time Accuracy is based upon the number of task instance runs for which historical data has been collected *at the time of forecast calculation*. It can have one of the following values.

Runs	Accuracy
0	0
1	Low
2-9	Medium
10+	High

A

Any Forecast data with accuracy that can be improved significantly through re-calculation will be re-calculated automatically at 12:00 a.m. (midnight) daily.

For any Forecast data for which you wish to force an immediate re-calculation, use the **Recalculate Forecast** command from the Trigger record or from the Workflow record.

Note By default, the Forecast Recalculation Required and End Time Accuracy columns are not included in the Forecasts list. However, you can add them to the list.

## **Setting up Forecasting**



We strongly discourage enabling forecasting for very frequent and predictable trigger schedules.

For example, if you enable forecasting on a trigger that runs every 30 seconds, that would generate - at a minimum - 89,280 forecast records, based on the default configuration of 31 days of forecasting. If that trigger launches a Workflow task, it would generate an extra 89,280 forecast records per task within the workflow.

For these types of triggers, the forecast feature does not provide much insight, yet it requires a very large amount of processing to compute.

Use the following points as a checklist when setting up forecasting:

- · Forecasting is supported for the following trigger types: Time, Temporary, and Cron.
- In the trigger Details, enable the Forecast field.
- Specify the number of days for which you want scheduled tasks to display in the Forecast Calendar / Forecast List (default is 31):
  - 1. From the Administration navigation pane, select Configuration > Properties. (You need administrative privileges to access this function.)
  - 2. Click **Forecast Period In Days** Value column and enter the number of days you want in the forecast period.
- Enable the trigger. (Disabling the trigger removes all related entries from the Forecast calendar / Forecast list.)

### **Next Scheduled Time**

For enabled Time, Temporary, and Cron triggers, the Controller calculates the next scheduled time and displays it on the Triggers list, as well as on the All Triggers and Active Triggers lists, for those trigger types.

~					Custor	m Filter None			👻 🤝 Filter	🔯 Go To 🗊 New 🏾 🍣
	Name *	Description	Next Scheduled Time	Time Style	Day Style	Calendar	Enabled	Calendar	Updated By	Updated
	stonebranch-timetrigger-01		2014-07-02 12:01:13 -0400	Time Interval	Simple	System Default	<b></b>	System Default	stonebranch-user-01	2014-06-20 14:35:00 -0
9	stonebranch-timetrigger-02			Time	Simple	System Default	8	System Default	stonebranch-user-02	2014-06-13 14:43:30 -0
8	stonebranch-timetrigger-03			Time	Simple	System Default		System Default	stonebranch-user-03	2014-06-13 14:43:36 -0
a	stonebranch-timetrigger-04			Time	Simple	System Default	8	System Default	stonebranch-user-04	2014-06-13 14:43:41 -0
17	stonebranch-timetrigger-05			Time	Simple	System Default	8	System Default	stonebranch-user-05	2014-06-13 14:43:46 -0

The next scheduled time also displays in the trigger Details:

Ceneral Ceneral Version: 1 Description: 1 Description: 1 Description: Calendar: System Default Calendar: System Default Time Zone : Server (US)Eastern)  Purge By Retention Duration: Status Forecast: For	e Trigger Detail	ls: stor	ebranch-timetrigger-01	_			alarta.					
General Name: stonebranch-timetingger-01 Version: Description: Business Business Business Business Business Business Catendar: Bystem Default Stonebranch-timetisst-01 Task(s): Business Forecast: Busines Status Forecast: Busines Status Forecast: Busines Status Forecast: Busines Fore				🔛 Update	🚰 Disable	🚱 Trig	ger Now  📰 List	Qualifying Times	🗈 Сору	Delete	😫 Refresh	X Clo
Name: stonebranch-limetriggef-01   Description:   Member of   Business   Strives:   Strives:   Strives:   Status:   Forecast:   Status:   Forecast:   Status:   Status: <t< td=""><td>me Trigger</td><td>Variable</td><td>es Versions</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	me Trigger	Variable	es Versions									
Description: Member of Business Services: Services: Calender: System Default Task(s): Purge By Retention Duration: Status Forecast: Status Forecast: Status Forecast: Status Time Style: Condition: Time Style: Time Style: Status Condition: Status S	General											
Member of Business   Services:   Services:   stonebranch-timertast-01   Task(s):   Purge By Retention Duration: Status: Forecast: Image By Retention Duration: Status: Forecast: Image By Retention Duration: TaskLaunch Step None	Na	ame :	stonebranch-timetrigger-01				Version :	1				
Member of Business   Services:   Services:   stonebranch-timertast-01   Task(s):   Purge By Retention Duration: Status: Forecast: Image By Retention Duration: Status: Forecast: Image By Retention Duration: TaskLaunch Step None	Descrip	tion :										
Services : Calendar : System Default stonebranch-timertast-01 Task(s) : Purge By Retention Duration : Status Forecast : Status : Enabled By: ops admin Net Scheduled Dy: ops admin												
Calendar: System Default   istonebranch-limertask-01   Task(s):     Purge By Retention   Duration:     Status   Forecast:   0   Task(s):     Forecast:   0   Task(s):   0   Task(s):     Status   Forecast:   0   Task(s):   0   Time Style:   10:   11:   12:   13:   14:   15:   16:   16:   17:   17:   18:   11:   11:   11:   12:   13:   14:   14:   15:   16:   17:   16:   17:   18: <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>~</td></td<>												~
status : Enabled : Constant - Con			System Default				Time Zone :	Server (LIS/Easter	( <b>n</b> )			
Task(s):   Purge By Retention   Duration:     Status   Forecast:   O   Task Launch Skip   None -   O   Task Launch Skip   Next Scheduled   Simulate:   System Default-     Time Details   Time Style:   Time Interval   Time Style:   Time Style:   Status:   Enable Offset:   Day Details    Day Details  O Daily © Business Days © Specific Day(s) Sunday   Monday   Tuesday   Vednesday   Thursday   Friday   Saturday	Guich	L					Time Zone .	Server (US/Laster	11)			
Purge By Retention Durable Status Forecast: Status Forecast: Status Forecast: Status Forecast: Status Enabled Skip Count: O Task Launch Skip Condition: Simulate: System Default - Time Style: Time Interval Time Style: Time Interval Time Inte		-	stonebranch-timertask-01									
Purge By Relention Duration : Status Status Forecast: Status : Enabled Forecast: Status : Enabled Pops.admin Net Scheduled 2014-07-02 12:01:13-0400 Time: 2014-07-02 12:01:13-0400 Time: 2014-07-02 2014-07-02 12:01:13-0400 Time: 2014-07-02	Tasl	k(s):										
Status Forecast: Status: Enabled Skip Count: 0 Task Launch Skip Condition:None - Simulate:System Default Time Details Time Details Time Style: Time Interval M Time Style: Time Interval M Time												
Status Forecast: Status: Enabled Skip Count: 0 Task Launch Skip Condition:None - Simulate:System Default Time Details Time Details Time Style: Time Interval M Time Style: Time Interval M Time												
Status Forecast: Status: Enabled Skip Count: 0 Task Launch Skip Condition:None - Simulate:System Default Time Details Time Details Time Style: Time Interval M Time Style: Time Interval M Time	Purge By Reter	ntion										
Forecast: Status:   Skip Count: 0   Task Launch Skip -None   Condition: -None   Simulate: - System Default   Time Details   Time Style: Time Interval : 3   Time Zone: Server (US/Eastern)   Wednesday Thursday   Pay Details   Day Details   Day Details   Restrict Times:   O Daily   C Daily   Wednesday   V Thursday   Friday   Studay   Monday   V Tuesday   Wednesday   V Thursday   Friday   Saturday												
Skip Count: 0   Task Launch Skip None   Simulate: - System Default   Time Details Time Details Time Style:   Time Interval     Time Zone: Server (US/Eastern)   Next Scheduled Journal     Time Interval:     Time Interval:     Day Details     Condition:     Call     Call     Simulate:     System Default     Time Interval:   3     Time Interval     Market Scheduled     2014-07-02 12:01:13-0400   Time Interval     2014-07-02 12:01:13-0400   Time Interval:     3     Time Interval:     3     Time Interval:     3     Time Interval:     4     10:15:     10:15:     10:15:     10:15:     10:15:     10:15:     10:15:     10:15:     10:15:     10:15:     10:15:     10:15:     10:15:     10:15:     10:15:     10:15:     10:15:     10:16:     10:17: <t< td=""><td>Status</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	Status											
Task Launch Skip   None   Simulate :	Fored	cast:					Status :	Enabled				
Simulate :												<u> </u>
Simulate :System Default	Task Launch Condi	i Skip	None		~		Next Scheduled	2014-07-02 12:01	13 -0400			
Time Details Time Interval  Time Int	Simu	Ilate :	System Default		*							
Time Style : Time Interval  Time Int		L	ojotom boldak									
Time Zone : Server (US/Eastern)     Restrict Times : Enable Offset :   Day Details   Day Details   O paily O Business Days I Specific Day(s)   Sunday Monday   Wednesday Thursday   Friday   Special   Restrictions	Time Details -											
Image Zone - Server (US)Easterity       Units : Hours         Restrict Times :       Enable Offset :         Day Details	Time S	Style : [	Time Interval 🛛 👻				Time Interval :	3				
Restrict Times : Enable Offset	Time Z	one :	Server (US/Eastern)	~			Time Interval	Hours				
Day Details Day Style : Simple C Daily C Business Days © Specific Day(s) Sunday Monday Ø Tuesday Ø Thursday Friday Saturday Restrictions Restriction :	Postrict Tin											
Day Style : Simple C Daily C Business Days © Specific Day(s) Sunday Monday Ø Tuesday Wednesday Ø Thursday Friday Saturday Restrictions Special Restriction :	Result III	nes.					Lilable Oliset.					
Day Style : Simple C Daily C Business Days © Specific Day(s) Sunday Monday Ø Tuesday Wednesday Ø Thursday Friday Saturday Restrictions Special Restriction :												
C Daily C Business Days © Specific Day(s) Sunday Monday V Tuesday Wednesday V Thursday Friday Saturday Medicated Special Restrictions	Day Details —											
C Daily C Business Days © Specific Day(s) Sunday Monday V Tuesday Wednesday V Thursday Friday Saturday Medicated Special Restrictions	Day Style :	Simp	le	~								
Sunday Monday V Tuesday Wednesday V Thursday Friday Saturday				Specific Dav(	s)							
Restrictions						ureday 🔲	Eridov 🔲 Sotur	day 🔲				
Special Restriction :		June	ay Monday V ruesu	iy weare	suay <u>w</u> mu	inouay E	Thuay 🔄 Gatur	uay 🔄				
Special Restriction :	Restrictions -											
	Sp											
			S =:					<b>.</b>			* ct	

### **Overdue Timers**

If the Controller has been stopped for a significant amount of time (more than two days), upon start-up, and under certain conditions, overdue Triggers could be ignored and disabled. If a Trigger's timer (the Trigger's next scheduled time) is considered "stale/expired," the timer will be ignored and the associated Trigger will be disabled.

If this occurs, there will be log messages similar to the following:

Found overdue timer exceeding restart threshold limit of 2 days. Timer overdue by: 3 Days 1 Hour 57 Minutes 52 Seconds (2016-06-27 14:15:00 -0400) \*\*\*\* Timer is being cancelled \*\*\* TriggerTimerHandlerBean [...]

Disabling Trigger since stale timer was found and the next scheduled time was stale TimeTriggerBean [...]

A "stale/expired" trigger is calculated based on the value of the opswise.overdue.timer.startup.threshold Universal Controller start-up property (default is 2 days). If the default is specified, any enabled Trigger with a next scheduled time older than two days will be considered "stale/expired."

The property can be changed to a larger amount to avoid this behavior, if desired.

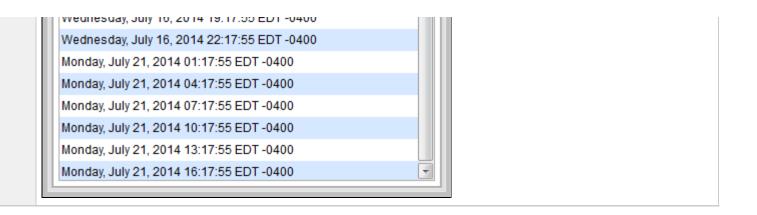
### List Qualifying Times

For Time and Cron triggers, you can display a list of dates and times for when the trigger (if enabled) will be satisfied.

Note This list differs from the Forecasts list, which shows scheduled task instances as opposed to qualifying times.

Step 1	In the trigger Details for a Cron or Time trigger, click the List Qualifying Times button. A List Qualifying Times Input pop-up dialog displays.
	List Qualifying Times Input
	Number of Dates/Times : 30 Start Date : Jul v 8 v 2014 v = Submit
Step 2	In the Number of Dates/Times field, enter the number of dates and times that you want to be listed (default = 30, maximum = 1000).
Step 3	Enter / select a Start Date from when you want the list of Dates and Times to begin.
Step 4	Click the Submit button to display a table of Qualifying Dates and Times.

ualifying Times	
stonebranch-timetrigger-01	
Listing From: Tuesday, July 08, 2014 16:17:55 EDT -0400	9
User/Trigger Timezone: US/Eastern	
Wednesday, July 09, 2014 01:17:55 EDT -0400	-
Wednesday, July 09, 2014 04:17:55 EDT -0400	
Wednesday, July 09, 2014 07:17:55 EDT -0400	
Wednesday, July 09, 2014 10:17:55 EDT -0400	
Wednesday, July 09, 2014 13:17:55 EDT -0400	
Wednesday, July 09, 2014 16:17:55 EDT -0400	
Wednesday, July 09, 2014 19:17:55 EDT -0400	
Wednesday, July 09, 2014 22:17:55 EDT -0400	
Monday, July 14, 2014 01:17:55 EDT -0400	
Monday, July 14, 2014 04:17:55 EDT -0400	
Monday, July 14, 2014 07:17:55 EDT -0400	
Monday, July 14, 2014 10:17:55 EDT -0400	
Monday, July 14, 2014 13:17:55 EDT -0400	
Monday, July 14, 2014 16:17:55 EDT -0400	
Monday, July 14, 2014 19:17:55 EDT -0400	=
Monday, July 14, 2014 22:17:55 EDT -0400	
Wednesday, July 16, 2014 01:17:55 EDT -0400	
Wednesday, July 16, 2014 04:17:55 EDT -0400	
Wednesday, July 16, 2014 07:17:55 EDT -0400	
Wednesday, July 16, 2014 10:17:55 EDT -0400	
Wednesday, July 16, 2014 13:17:55 EDT -0400	
Wednesday, July 16, 2014 16:17:55 EDT -0400	



## Calendars

- 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 used 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 <b>Custom Days</b> page, which is accessed via the Automation Center navigation pane.
	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**.

	Dashboards 🖸 Custom Days 💽					
	✓ 5 Custom Days	Custom Filter Nor	ie	🗸 🏷 F	Filter 🔯 <u>G</u> o	o To 🛐 New 🛛 🍣
	Name A	Description	Category	Туре	Updated By	Updated ^
	stonebranch-customday-01	Labor Day	Holiday	Relative Repeating Date	ops.admin	2017-08-15 14:43:22 -0400
	stonebranch-customday-02	Columbus Day	Holiday	Relative Repeating Date	ops.admin	2016-05-24 14:29:09 -0400
	stonebranch-customday-03		Period	List of Dates	ops.admin	2016-05-24 14:29:09 -0400
	stonebranch-customday-04		Day	Single Date	ops.admin	2016-05-24 14:29:09 -0400
	stonebranch-customday-05	1 business week	Period	List of Dates	ops.admin	2016-05-24 14:29:09 -0400
	✓ Custom Day Details	m			🔚 Save 🖣	Save & New 📄 New
	Custom Day Calendars Version					
	Custom Day Calendars Version	Calendars Versions				
	Details					
	Name :					
	Description :					
	Category:      Day      Busin	ess Day 🔿 Holiday 🔿 Period				
	Category:      Day  Busin Type: Single Date	ess Day OHoliday OPeriod				
	Type : Single Date	~				
	Type : Single Date	ess Day O Holiday O Period				
	Type : Single Date	~				
	Type : Single Date Date : 2017 v Sep	v 1 v				
	Type : Single Date Date : 2017 v Sep	v 1 v				
ep 2	Type : Single Date Date : 2017 v Sep	v 1 v	escriptions below a	is a guide.		
tep 2	Type : Single Date Date : 2017 V Sep Save Save & New Enter / select Details for a new • Required fields displa	v Custom Day, using the field de		s a guide.		
tep 2	Type : Single Date Date : 2017 Sep Save Save & New Enter / select Details for a new Required fields displa Default values for field	v Custom Day, using the field do	ically.	s a guide.		
:ep 2	Type : Single Date Date : 2017 Sep Save Save & New Enter / select Details for a new Required fields displa Default values for field To display more of the Details Use the scroll bar. Temporarily hide the	v Custom Day, using the field de y in <b>boldface</b> . ds, if available, display automati fields on the screen, you can e	ically. ither:	J		

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			
	🔗 Save	🕼 Save & New	💥 Close
Custom Day Calendars Versions			
C Details			
Name :			
Description :			
Category:      O Day      O Business Day      O Holiday      O Period			
Type : Single Date			
Date : 2017 v Sep v 1 v 📰			
Custom Day Details          Custom Day       Calendars       Versions         Details       Description :       Description :         Category:       Day       Business Day       Holiday         Date:       2017       Sep > 1       >         Category:       Save & New       Close       Close			

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	f this Custom Day.					
Category	Category of this Custom Day. Options:						
	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 or situation of On Holiday.						
	Period	This Custom Day defines a custom period of days (for example: quarters, fiscal year, or 4-5-4 calendar).					
	Restu     Com You can selec     Date     Restu	Qualifier field for Time Triggers and Composite Trigger Time Components. riction Qualifier field for all triggers (except Manual and Temporary triggers) and all Composite Trigger Components. plex Qualifier field for Task Run Criteria. ct Day, Business Day, and Holiday Custom Days in: Noun field for Time triggers and Composite Trigger Time Components. riction Noun field for all triggers (except Manual and Temporary triggers) and all Composite Trigger Components. plex Noun field for Task Run Criteria.					
Туре	<ul> <li>Relation</li> <li>and i</li> <li>Absorber</li> <li>every</li> </ul>	ber Day. <b>Ie Date</b> - Any one-time date. <b>tive Repeating Date</b> - An annual (repeating) date that changes from year to year. For example, the U.S. Thanksgiving falls on the 4th Thursday of November, s therefore on a different date every year. <b>Dute Repeating Date</b> - An annual (repeating) date that does not change from year to year. For example, the Canadian holiday Canada Day falls on July 1st of year. of Dates - The dates are listed below.					
Date (yyyy-mm-dd)	If Type = Sing	gle Date; specific date for this Custom Day (selected from the drop-down lists or the Calendar tool).					

Dates	If Type = List of Dates; multiple spe	ecific dates for this Custom Day.
	Dates	
		2016-05-13
		2016-05-14
		2016-05-15
		2016-05-16
		2016-05-17
		2016-05-18
		2016-05-19
		2016-05-20
	The icons at the top of the list let yo       Image: Add Dates	isplays a Date Picker dialog that lets you:
		<ul> <li>Add one or more Dates to the list.</li> <li>Clear all Dates from the list.</li> <li>Display a list of selected Dates.</li> </ul>
	Add item	ets you add a single Date to the list.
	Remove selected item	ets you remove one or more selected Dates from the list.
	Remove Past Dates	ets 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, Every. Example: The 4th Thursday of November.
Day Of Week	If Type = Relative Repeating Date;	Day of the week. Example: The 4th Thursday of November.
Month	If Type = Relative Repeating Date of	or Absolute Repeating Date; Month of the year, or All. Example: The fourth Thursday of November.
Day	If Type = Absolute Repeating Date;	

Adjustment	If Type = Relative Repeating Date; Allows you to adjust the Relative Repeating Date by a less or plus number of Days or Business Days.							
	Options:							
	<ul> <li> None</li> <li>Less</li> <li>Plus</li> </ul>							
	Default is None							
	Note     The Adjustment field is not available if the Category is Period.							
Adjustment Amount	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.							
Adjustment Type	If Adjustment = Less or Plus; Allows you to specify the type of day by which to adjust the Relative Repeating Date.							
	Options: • Day • Business Day Default is Day.							
	Note Business Day is not allowed if Category is Holiday or Business Day.							
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.							
	This section identifies the buttons displayed above and below the Custom Day Details that let you perform various actions.							
Buttons								
Buttons Save	Saves a new task record in the Controller database.							
	Saves a new task record in the Controller database.         Saves a new record in the Controller database and redisplays empty Details so that you can create another new record.							

New	Displays empty (except for default values) Details for creating a new record.
Update	Saves updates to the record.
List Qualifying Dates	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).
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	O	pen a C	alen	dar for which y	you want to c	reate a Lo	ocal Custo	m Day.				
Step 2	CI	ick the l	_oca	I Custom Days	s tab to displa	ay a list of	f existing L	ocal Custom Days	s for that	t Calendar.		
		Calendar De	tails: s	tonebranch-calendar	-01							- <b>D</b> X
		Calendar		Local Custom Days	Custom Days	Triggers	Versions					
		1 Local Cus	stom Da	у							New	8
	н	Name	•			Description			Category	Туре	Updated By	Updated
		📰 stone	branch-	localcustomday-01		every Wedne	esday		Day	Relative Repeating Date	ops.admin	2017-08-17
	н											
	н											
	н											
	н											
		4										>

Step 3	Click the <b>New</b> button to display Local Custom Day Details for a new Local Custom Day.						
	Local Custom Day Details						
	Image: Save & New       Save & View       Close         Local Custom Day         Details         Description:         Category:       Day         Business Day       Holiday         Period         Type:       Single Date         Date:       2017         Date:       Save & New         Save & New       Save & View         Close						
Step 4	<ul> <li>Enter / select Details for a new Custom Day, using the field descriptions below as a guide.</li> <li>Required fields display in <b>boldface</b>.</li> <li>Default values for fields, if available, display automatically.</li> <li>To display more of the Details fields on the screen, you can either:</li> </ul>						
	<ul> <li>Use the scroll bar.</li> <li>Temporarily hide the list above the Details.</li> <li>Click the New button above the list to display a pop-up version of the Details.</li> </ul>						
Step 5	Click a Save 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.

al Custom Day Detail	ls: stonebranch-localcustomday-01						
			🔚 Update	🗄 List Qualifying Dates	🇊 Delete	S Refresh	💥 Clos
ocal Custom Day							
Details							
Name :	stonebranch-localcustomday-01						
Description :	every Tuesday						
Category :	●Day ○Business Day ○Holiday (	Period					
Type :	Relative Repeating Date	~					
When :	Every	~					
Day Of Week :	Tue	*					
Month :	ALL	~					
Adjustment :	None	~					
\Bigg Update	List Qualifying Dates 👔 Delete	Refresh	💥 Close				
			••				

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.		
Calendar Read only; Calendar for which this Local Custom Day was created.			
	<ul> <li>Note This field displays only if the Local Custom Day Details is opened:</li> <li>From a reference item.</li> <li>From a report on the Local Custom Day table (ops_local_custom_day).</li> <li>In a tab from the Local Custom Days list.</li> </ul>		
Description	Description of this Custom Day.		

Category	Category of this Custom Day.				
	Options:				
	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 situation of On Holiday.				
Period This Custom Day defines a custom period of days (for example: quarters, fiscal year, or 4-5-4 calendar).					
	You can selec	at a Period Custom Day in:			
	<ul> <li>Date Qualifier field for Time Triggers and Composite Trigger Time Components.</li> <li>Restriction Qualifier field for all triggers (except Manual and Temporary triggers) and all Composite Trigger Components.</li> <li>Complex Qualifier field for Task Run Criteria.</li> </ul>				
	You can select Day, Business Day, and Holiday Custom Days in:				
	<ul> <li>Date Noun field for Time triggers and Composite Trigger Time Components.</li> <li>Restriction Noun field for all triggers (except Manual and Temporary triggers) and all Composite Trigger Components.</li> <li>Complex Noun field for Task Run Criteria.</li> </ul>				
Type of Custom Day.		um Day.			
	Options:				
<ul> <li>Single Date - Any one-time date.</li> <li>Relative Repeating Date - An annual (repeating) date that changes from year to year. For example, the U.S. Thanksgiving falls on the and is therefore on a different date every year.</li> <li>Absolute Repeating Date - An annual (repeating) date that does not change from year to year. For example, the Canadian holiday Car every year.</li> <li>List of Dates - The dates are listed below.</li> </ul>					
Date (yyyy-mm-dd)	y				

Dates	If Type = List of Dates; multiple specific dates for this Custom Day.		
	Dates		
	2016-05-13		
	2016-05-14		
	2016-05-15		
	2016-05-16		
	2016-05-17		
	2016-05-18		
	2016-05-19		
	2016-05-20		
	The icons at the top of the list let you perform the following tasks:		
	Add Dates       Displays a Date Picker dialog that lets you:         • Add one or more Dates to the list.		
	<ul> <li>Clear all Dates from the list.</li> <li>Display a list of selected Dates.</li> </ul>		
	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, Every. Example: The 4th Thursday of November.		
Day Of Week	If Type = Relative Repeating Date; Day of the week. Example: The 4th Thursday of November.		
Month	If Type = Relative Repeating Date or Absolute Repeating Date; Month of the year, or All. Example: The fourth Thursday of November.		
Day	If Type = Absolute Repeating Date; Day of the month (1 through 31). Example: December 25.		

Adjustment	If Type = Relative Repeating Date; Allows you to adjust the Relative Repeating Date by a less or plus number of Days or Business Days.					
	Options: • None					
	<ul> <li>Less</li> <li>Plus</li> </ul>					
	Default is None					
	Note     The Adjustment field is not available if the Category is Period.					
Adjustment Amount	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.					
Adjustment Type	If Adjustment = Less or Plus; Allows you to specify the type of day by which to adjust the Relative Repeating Date.					
	Options:					
	• Day					
	Business Day					
	Default is Day.					
	Note Business Day is not allowed if Category is Holiday or Business Day.					
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 By Updated						
Updated	Name of the user that last updated this record.					
Updated	Name of the user that last updated this record.         Date and time that this record was last updated.					
Updated Created By	Name of the user that last updated this record.         Date and time that this record was last updated.         Name of the user that created this record.					
Updated Created By Created	Name of the user that last updated this record.         Date and time that this record was last updated.         Name of the user that created this record.         Date and time that this record was created.					
Updated Created By Created Buttons	Name of the user that last updated this record.         Date and time that this record was last updated.         Name of the user that created this record.         Date and time that this record was created.         This section identifies the buttons displayed above and below the Custom Day Details that let you perform various actions.					

New	Displays empty (except for default values) Details for creating a new record.		
Update	Saves updates to the record.		
List Qualifying Dates	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).		
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.

Universal Controller 6.4.x Triggers and Calendars

ualifying Dates		
stone	branch-customda	av-01
	Fridays	
Calendar: stoneb	ranch-calendar-01	
	Qualifying Dates	
	Thu, Mar 16, 2017	
	Thu, Mar 23, 2017	
	Thu, Mar 30, 2017	
	Thu, Apr 6, 2017	
	Thu, Apr 13, 2017	
	Thu, Apr 20, 2017	
	Thu, Apr 27, 2017	
	Thu, May 4, 2017	
	Thu, May 11, 2017	
	Thu, May 18, 2017	
	Thu, May 25, 2017	
	Thu, Jun 1, 2017	
	Thu, Jun 8, 2017	
	Thu, Jun 15, 2017	
	Thu, Jun 22, 2017	
	Thu, Jun 29, 2017	
	Thu, Jul 6, 2017	
	Thu, Jul 13, 2017	
	Thu, Jul 20, 2017	
	Thu, Jul 27, 2017	
	Thu, Aug 3, 2017	
	Thu, Aug 10, 2017	
	Thu, Aug 17, 2017	
	Thu, Aug 24, 2017 Thu, Aug 31, 2017	
	Thu, Sep 7, 2017	
	110, 36p7, 2017	

	Thu, Sep 14, 2017 Thu, Sep 21, 2017 Thu, Sep 28, 2017 Thu, Oct 5, 2017
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 <b>Submit</b> 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.

lifying Periods	][			
stonebranch-customday-01				
Fridays				
Qualifying Periods				
Start Date	End Date			
Fri, Mar 10, 2017	Thu, Mar 16, 2017			
Fri, Mar 17, 2017	Thu, Mar 23, 2017			
Fri, Mar 24, 2017	Thu, Mar 30, 2017			
Fri, Mar 31, 2017	Thu, Apr 6, 2017			
Fri, Apr 7, 2017	Thu, Apr 13, 2017			
Fri, Apr 14, 2017	Thu, Apr 20, 2017			
Fri, Apr 21, 2017	Thu, Apr 27, 2017			
Fri, Apr 28, 2017	Thu, May 4, 2017			
Fri, May 5, 2017	Thu, May 11, 2017			
Fri, May 12, 2017	Thu, May 18, 2017			
Fri, May 19, 2017	Thu, May 25, 2017			
Fri, May 26, 2017	Thu, Jun 1, 2017			
Fri, Jun 2, 2017	Thu, Jun 8, 2017			
Fri, Jun 9, 2017	Thu, Jun 15, 2017			
Fri, Jun 16, 2017	Thu, Jun 22, 2017			
Fri, Jun 23, 2017	Thu, Jun 29, 2017			
Fri, Jun 30, 2017	Thu, Jul 6, 2017			
Fri, Jul 7, 2017	Thu, Jul 13, 2017			
Fri, Jul 14, 2017	Thu, Jul 20, 2017			
Fri, Jul 21, 2017	Thu, Jul 27, 2017			
Fri, Jul 28, 2017	Thu, Aug 3, 2017			
Fri, Aug 4, 2017	Thu, Aug 10, 2017			
Fri, Aug 11, 2017	Thu, Aug 17, 2017			
Fri, Aug 18, 2017	Thu, Aug 24, 2017			
Fri, Aug 25, 2017	Thu, Aug 31, 2017			
Fri, Sep 1, 2017	Thu, Sep 7, 2017			
Eri Con 9, 2017	Thu Sec 14 2017			

Fri, Sep 15, 2017         Thu, Sep 21, 2017           Fri, Sep 22, 2017         Thu, Sep 28, 2017
Fri, Sep 22, 2017 Thu, Sep 28, 2017
Fri, Sep 29, 2017 Thu, Oct 5, 2017

## Assigning a Custom Day to a Calendar

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

- Assign a Custom Day to an Existing Calendar
   Create a Calendar and Assign the Custom Day to It

### Assign a Custom Day to an Existing Calendar

Step 1	D	Display the Custom Day Details of the Custom Day that you want to assign to a Calendar.				
Step 2	Click the <b>Calendars</b> tab. A list of any Calendars to which the Custom Day is assigned displays.					
		Custom Day Details: stonebranch-custo	omday-01			
		Custom Day Calendars Ve	fersions			2
		Calendar	Description	Updated By	Updated	-1
		stonebranch-calendar-02		stonebranch-user-01	2014-07-08 09:20:32 -0400	
		stonebranch-calendar-01		stonebranch-user-02	2014-07-08 09:20:32 -0400	

Step 3					
	Edit Members				
	Collection	Calendars List			
	9	stonebranch-customday-01			
	Name A	Name A			
	stonebranch-calendar-03 s	stonebranch-calendar-01			
	stonebranch-calendar-04 s	stonebranch-calendar-02			
	stonebranch-calendar-05				
	+ (+ )> (4 Save	Cancel			
	<ul> <li>The Collection window lists Calendars to which the Custo</li> <li>The Calendars List lists Calendars to which the Custom</li> </ul>	Day is assigned.			
Step 4	To filter the Calendars listed in the Collection window, enter characters in the text field above the <b>Name</b> 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	n the Collection window to the Calendars List window:			
	<ol> <li>To move a single Calendar, double-click it or click it once and then click the &gt; arrow.</li> <li>To move multiple Calendars, Ctrl-click them and then click the &gt; arrow.</li> <li>To move all Calendars, click the &gt;&gt; arrow.</li> </ol>				
	To unassign the Custom Day to a Calendar, move the Calendar from	rom the Calendars List windows to the Collection window:			
	<ol> <li>To move a single Calendar, double-click it or click it once</li> <li>To move multiple Calendars, Ctrl-click them and then click</li> <li>To move all Calendars, click the &lt;&lt; arrow.</li> </ol>				
Step 6	Click Save.				
-					

## Create a Calendar and Assign the Custom Day to It

Step 1	Display the Custom Day Deta	ails of the Custom Day that you want to assign to a new Caler	ndar.		
Step 2	Click the <b>Calendars</b> tab. The Calendars list displays a list of any Calendars to which the Custom Day already is assigned.				
	Custom Day Details: stonebranch-customday-01				
	Custom Day   Calendars  Vers	sions			
	Calendar Edit	Description Updated By		2 Updated	
	stonebranch-calendar-02	stonebranch		2014-07-08 09:20:32 -0400	
	stonebranch-calendar-01	stonebranch	h-user-02	2014-07-08 09:20:32 -0400	
<b>a</b> , <b>a</b>					_
Step 3	Click the <b>New</b> button. A Cale	endar Details pop-up for a new Calendar displays.			
Step 3	Click the <b>New</b> button. A Cale	endar Details pop-up for a new Calendar displays.			1
Step 3		endar Details pop-up for a new Calendar displays.	F Save	□X © Save & New ¥ Close	
Step 3	Calendar Details		F Save		
Step 3	Calendar Details		Fr Save		
Step 3	Calendar Details Calendar Calendar Calendar Calendar Calendar Calendar Calendar		T Save		
Step 3	Calendar Details Calendar Calendar Calendar Calendar Name:		C Save		
Step 3	Calendar Details Calendar Cale		R Save		
Step 3	Calendar Details Calendar Cale	Custom Days     Triggers     Versions	Tree Save		
Step 3	Calendar Details Calendar Cale	● Custom Days ● Triggers ● Versions ■ Sunday ♥ Monday ♥ Tuesday ♥ Wednesday ♥ Thursday ♥ Friday ■ Saturday	R Save		
Step 3	Calendar Details Calendar Cale	● Custom Days ● Triggers ● Versions ■ Sunday ♥ Monday ♥ Tuesday ♥ Wednesday ♥ Thursday ♥ Friday ■ Saturday	C Save		
Step 3	Calendar Details Calendar Cale	● Custom Days ● Triggers ● Versions ■ Sunday ♥ Monday ♥ Tuesday ♥ Wednesday ♥ Thursday ♥ Friday ■ Saturday	R Save		
Step 3 Step 4	Calendar Details Calendar Cale	● Custom Days ● Triggers ● Versions ■ Sunday ♥ Monday ♥ Tuesday ♥ Wednesday ♥ Thursday ♥ Friday ■ Saturday	E Save		

# **Creating Calendars**

- Creating a Calendar
  - Calendars List Columns
- Calendar Details

- 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		er navigation pane, select Othe		s list displays.	
		etails for a new Calendar displa	ys.		
	Dashboards 🖾 Calendars 🗵				٦
	✓ 5 Calendars	Custom Filter	None	🗸 🦁 Filter 🔯 <u>G</u> o To 🛛 😨 New 🛛 🍣	ē.
	Name A		Description	Updated By Updated	-
	stonebranch-calendar-01		Defines our company business days and holidays	ops.admin 2016-05-24 14:29:09 -0400	1
	stonebranch-calendar-02			ops.admin 2017-03-16 13:23:41 -0400	
	stonebranch-calendar-03			ops.admin 2016-05-24 14:29:09 -0400	
	stonebranch-calendar-04			ops.admin 2017-06-28 10:32:03 -0400	
	stonebranch-calendar-05			ops.admin 2016-05-24 14:29:09 -0400	
	✓ Calendar Details			📰 Save 🐚 Save & New 📃 New	
	Calendar Calcustom Days	Custom Days Triggers Versions			4
		Custom bays C miggers C versions			1
	Details				
	Name				
	Description				
	Member of Business Services	:		~	
	Business Days	: 🔲 Sunday 📝 Monday 📝 Tuesday 📝 Wed	nesday 📝 Thursday 📝 Friday 📄 Saturday		
	🔚 Save 🧲 🧟 Save & New	New			
	A Note				
		t, the default system calendar,	defines the work week.		
	-	· · ·			
Step 2	Entor / soloct Dotails for a	now Colondar using the field d	oscriptions bolow as a guide		
Step 2	Litter / select Details for a	new Calendar, using the field d	escriptions below as a guide.		
	<ul> <li>Required fields dis</li> </ul>	play in <b>boldface</b>			
		fields, if available, display autor	matically		
	I o display more of the Det	ails fields on the screen, you ca	in eitner:		
	<ul> <li>Use the scroll bar.</li> </ul>				
		he list above the Details.			
	<ul> <li>Click the New but</li> </ul>	on above the list to display a po	op-up version of the Details.		

Step 3 Click a Save button. The Calendar 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).

#### **Calendars List Columns**

A

The following Field Picker pop-up dialog identifies the Calendars list columns that are:

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

Field Picker						
Drag and drop or use a	rrows to move fields. Drag reorder to change	field order				
Available Fields			Visible Fields	3		
Name 📤	Sample Value	<b>₹</b>	Field Title	Sample Value	9	
	Monday, Tuesday,		Form	<b>1</b>		
Business Days	Wednesday,		Name	BIG CALENDAR DELETE ME LATER		
	Thursday, Friday		Description	testing		T
Created	2014-06-06 14:04:19 -0400	<b>→</b>	Updated By	ops.admin		•
Created By	ops.admin	+	Updated	2015-02-03 13:50:08 -0500		•
Member of Business S	ervices					-
UUD	99809cb31dcc4e85aec458434b5f					
Version	6					
				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.

Calendar D	etails: stonebranch-calendar	-01								_)©)×
					🔚 Update	Calendar Preview	🗋 Сору	🇊 Delete	S Refresh	💥 Close
Calenda	ar 🔋 Local Custom Days	Custom Days	Triggers	Versions						
- Detail:	s									
Calenda Detail:	Name :	stonebranch-caler	idar-01			Version :	1			
	Description :									
Me	Member of Business Services :						~			
	Business Days : 🕼 Sunday 🦳 Monday 💭 Tuesday 🕼 Wednesday 🕼 Thursday 🕼 Friday 🕼 Saturday									
U	Business Days       Suinday       Inescay       Inescay<									

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 alphanumerics. 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.
Description	User-defined; description for the calendar.
Business Days	User-defined; allows the user to select which days of the week constitute business days for this calendar.
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 redisplays 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	Lists all global custom days associated with this calendar.					
	Note The Custom Days tab displays in Calendar Details only if the Custom Day Global Permitted Universal Controller system property is set to true.					
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:

- Assign an Existing Custom Day to a Calendar
   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 caler	idar to which you want to assig	jn 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.					ır.	
	Calendar Details: stonebranch-calendar-01						
	Calendar	Triggers     Versions			)		
	2 Calendar Custom Days			New	Edit	2	
	Custom Day A	Description	Category Up	pdated By Up	dated	-	
	stonebranch-customday-01	Labor Day	Holiday op		16-05-24 14:29:09 -0400	. 11	
	stonebranch-customday-02	Columbus Day	Holiday op	os.admin 201	16-05-24 14:29:09 -0400	- 11	
						- 11	
						- 11	
						- 11	
						- 11	
	1						J

	Edit Members		
	Collection		Custom Day List
		7	stonebranch-calendar-01
	Name 🔺	•	Name A
н.	stonebranch-customday-03		stonebranch-customday-01
н.	stonebranch-customday-04		stonebranch-customday-02
н.	stonebranch-customday-05		
	Save		Cancel
	<ul> <li>The Collection window lists Custom Days that a</li> <li>The Custom Days List lists Custom Days that a</li> </ul>	are not a are assig	assigned to this calendar. igned to this calendar.
	The Custom Days List lists Custom Days that	are assig	assigned to this calendar. igned to this calendar. characters in the text field above the <b>Name</b> column. Only Custom Days containing that sequence of characters wi
in	The Custom Days List lists Custom Days that     filter the Custom Days listed in the Collection window	are assi enter c	signed to this calendar. characters in the text field above the <b>Name</b> column. Only Custom Days containing that sequence of characters wi
in	The <b>Custom Days List</b> lists Custom Days that a filter the Custom Days listed in the Collection window the list.	enter c enter c e <b>Colle</b> click it c	signed to this calendar. characters in the text field above the <b>Name</b> column. Only Custom Days containing that sequence of characters wi ection window to the <b>Custom Days List</b> window: conce and then click the > arrow.
in To	<ul> <li>The Custom Days List lists Custom Days that a filter the Custom Days listed in the Collection window the list.</li> <li>assign a Custom Day to the calendar, move it from the 1. To move a single Custom Day, double-click it or 2. To move multiple Custom Days, Ctrl-click them</li> </ul>	enter c enter c e <b>Colle</b> click it c and ther the <b>Cu</b>	signed to this calendar. characters in the text field above the <b>Name</b> column. Only Custom Days containing that sequence of characters wi <b>ection</b> window to the <b>Custom Days List</b> window: conce and then click the > arrow. en click the > arrow. <b>ustom Days List</b> windows to the <b>Collection</b> window:

## Create a Custom Day and Assign It to a Calendar

Step 1 Step 2	Display the Calendar Details of the of Click the <b>Custom Days</b> tab. The Cu	<b>·</b>	0 0	•	ed to this Calendar.
	Calendar Details: stonebranch-calendar-01	Days 🕒 Triggers 📔 🔍 Versions			
	2 Calendar Custom Days			New	Edit 🖉
	Custom Day A	Description	Category	Updated By	Updated 🔺
	stonebranch-customday-01	Labor Day	Holiday	ops.admin	2016-05-24 14:29:09 -0400
Step 3	Click the <b>New</b> button. A Custom Day	/ Details pop-up for a new global	Custom Day display	S.	
				🔚 Save	e 🕼 Save & New 💥 Close
	Custom Day Calendars Versions				
	Details				
	Name :				
	Description :				
	Category:  Day O Business Day	O Holiday O Period			
	Type : Single Date Date : 2017 v Sep v 1	v 			
	🕅 Save 🥻 Save & New 🗱 Clo	Se			
Step 4	Enter / select Details for a new Custo	om Day (see Custom Day Details	s Field Descriptions).		
Step 5	Click Save to create the Custom Day	y, assign it to the Calendar, and	add it to the list of all	Custom D	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).

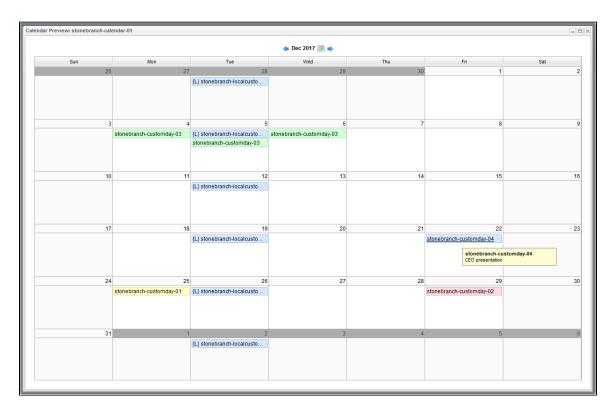
# Creating a Local Custom Day for a Calendar

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.



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 calendars(s) you want to copy (see Filtering).

<ol> <li>Right-click the Calendar Name to display an Action menu.</li> <li>Click Copy. A Copy Calendar pop-up dialog displays.</li> </ol>								
	Copy Calendar							
	Enter a new name for the Calendar and click Submit. Name : Copy Of stonebranch-calendar-01 Member of Business Services : Submit Cancel Enter a new name for the calendar and, optionally, select any Business Services that you want the calendar assigned to. Click Submit to create a copy of the calendar.							
Copy N 1. 2. 3.	Aultiple Calendars         Ctrl-Click the calendars you want to copy.         Right-click any of the selected calendars to display an Action menu.         Click Copy.         On the Confirmation pop-up that displays, click OK. The copied calendars are added to the list, with Copy of added as a prefix to the Name for each calendar. If a cale that Copy of name already exists, a numerical suffix is added to the calendar name.							

## Copying a Calendar from the Calendar Details

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

Step 2	Either:  Click the <b>Copy</b> button.  Right-click the Details to display the Action menu, and then click <b>Copy</b> .  A Copy Calendar pop-up dialog displays.
	Copy Calendar  Copy Calendar  Enter a new name for the Calendar and click Submit.  Name : Copy Of stonebranch-calendar-01  Member of Business Services :
	Submit Cancel
Step 3	Enter a new name for the calendar and, optionally, select any Business Services that you want the calendar assigned to.
Step 4	Click <b>Submit</b> to create a copy of the calendar.

## **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.