stonebranch

Universal Controller 6.4.x

Troubleshooting and Tutorials

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Troubleshooting

Troubleshooting

Troubleshooting information is categorized into two areas:

- Problem Resolution
- Error Messages

Problem Resolution

- Problem Resolution
 - Database
 - InstallationOperations

Problem Resolution

This page provides links to problems, and their solutions, that you might encounter with Universal Controller.

Database

- Error in your SQL syntax
- Maximum open cursors have been exceeded
- Out-of-Range Value during Database Initialization
- JDBC Connections Time Out
- DB2 JDBC License Error

Installation

- Processes Will Not Start Automatically (Debian Linux)
- Error when Starting Controller
- Tomcat Post Limit: STATUS_MAX_POST_SIZE_EXCEEDED
- Special Characters not Displayed Correctly

Operations

- Cannot launch a task
- VBScript stuck in "Running" state
- My Universal Controller License has Expired
- Packet for query is too large
- Invalid login credentials for refreshing target agents
- Invalid Call Error: Invalid call to setDataSource()
- Permanent Generation (PermGen) space removed in Java 8

Error in your SQL syntax

Problem

When you execute an SQL task that includes multiple SQL commands, the following error message (for example) may display:

INSERT INTO opswise_demo (name, value) values ('A', 'F'); INSERT INTO opswise_demo (name, value) values ('B', 'S'); INSERT INTO opswise_demo (name, value) values ('C', 'F');

Solution

Multiple queries, by default, are disabled for MySQL. To enable multiple queries, append the following string to the Connection URL field in the Database Connections resource definition:

?allowMultiQueries=true

The following example is a URL connection string for a MySQL Database Connection resource definition:

jdbc:mysql://localhost:3306/opswise?allowMultiQueries=true

Maximum open cursors have been exceeded

Problem

During large imports on Oracle, you could receive following error message:

ORA-01000: maximum open cursors exceeded

(The cursors are used only during the import; they then are closed.)

Issue the following sql*plus utility command to check the current value for maximum open cursors:

show parameter open_cursors

A listing similar to the following will display:

QL> show parameter open_cursors;		
ecer open_cursors,		
	TYPE	VALUE
rsors	integer	1000

Solution

An open_cursors value of 1000 should be sufficient for all large imports.

You can temporarily set the open_cursors value with the following SQL:

alter system set open_cursors=1000

To make a permanent change, you must set the open_cursors value in the initialization parameters file.

Out-of-Range Value during Database Initialization

Problem

During the database initialization performed on initial start-up, you could receive the following message:

The conversion of a varchar data type to a datetime data type of the value is out of range.

The problem likely is that the database was created in SQL SERVER Management Studio with a user that has other than English as the default language.

Solution

Verify the installed default language and set the language to U.S. English.

To check what default language a server has installed, use the following SQL command:

```
sp_configure 'default language'
```

If the resulting value is not 0, the default language is not U.S. English. Run the following SQL command to find the installed default language setting and date format used:

```
select name ,alias, dateformat
from syslanguages
  where langid =
   (select value from master..sysconfigures
      where comment = 'default language')
```

To set the default language to U.S. English, use the following SQL statements:

sp_configure 'default language', 0
reconfigure with override

For further details, refer to this Microsoft Support page.

JDBC Connections Time Out

Problem

JDBC connections from Linux to MS SQL Server 2008 R2/Windows 2008 R2 time out after 40 seconds causing SQL/Stored Procedure Tasks that take longer than 40 seconds to fail with the following exception:

2014-09-22-14:51:37:034 -0400 ERROR $[{\tt Ops.General.15.EP.SqlHandler.ecd8ab62183f4b9dbf32d3ea4ad0a126.74b824ad1ca84142a40d3ec1f84d4d2b.0]}$ SQLServerException - Connection reset com.microsoft.sqlserver.jdbc.SQLServerException: Connection reset at com.microsoft.sqlserver.jdbc.SQLServerConnection.terminate(SQLServerConnection.java:1667) at com.microsoft.sqlserver.jdbc.SQLServerConnection.terminate(SQLServerConnection.java:1654) at com.microsoft.sqlserver.jdbc.TDSChannel.read(IOBuffer.java:1789) at com.microsoft.sqlserver.jdbc.TDSReader.readPacket(IOBuffer.java:4838) at com.microsoft.sqlserver.jdbc.TDSCommand.startResponse(IOBuffer.java:6150) at com.microsoft.sqlserver.jdbc.SQLServerPreparedStatement.doExecutePreparedStatement(SQLServerPreparedStatement) at $\verb|com.microsoft.sqlserver.jdbc.SQLServerPreparedStatement\$PrepStmtExecCmd.doExecute(SQLServerPreparedStatement\$PrepStmtExecUte(SQLServerPreparedStatement\$PrepStmtExecUte(SqLServerPreparedStatement\$PrepStmtExecUte(SqLServerPreparedStatement\$PrepStmtExecUte(SqLServerPreparedStatement\$PrepStmtExecUte(SqLServerPreparedStatement\$PrepStmtExecUte(SqLServerPreparedStatement\$PrepStmtExecUte(SqLServerPreparedStatement\$PrepStmtExecUte(SqLServerPrepAredStatement\$PrepStmtExecUte(SqLServerPrepAredStatement\$PrepStmtExecUte(SqLServerPrepAredStatement\$PrepStmtExecUte(SqLServerPrepAredStatement\$PrepStmtExecUte(SqLServerPrepAredStatement\$PrepStmtExecUte(SqLServerPrepAredStatementsPrepStmtExecUte(SqLServerPrepAredStatementsPrepStmtExecUte(SqLServerPrepStmtPrepStmtExecUte(SqLServerP$ at com.microsoft.sqlserver.jdbc.TDSCommand.execute(IOBuffer.java:5696) at $\verb|com.microsoft.sqlserver.jdbc.SQLServerConnection.executeCommand(SQLServerConnection.java:1715)|| and a second second$ at com.microsoft.sqlserver.jdbc.SQLServerStatement.executeCommand(SQLServerStatement.java:180) at com.microsoft.sqlserver.jdbc.SQLServerStatement.executeStatement(SQLServerStatement.java:155) at at com.stonebranch.opswise.server.events.SqlEventHandler.storedProc(SqlEventHandler.java:266)

Resolution

To disable TCP Chimney Offload, follow these steps:

Step 1	Use administrative credentials to open a command prompt.
Step 2	At the command prompt, enter the following command: netsh int tcp set global chimney=disabled
Step 3	Press ENTER:.

For additional information, see:

http://support.microsoft.com/kb/951037

DB2 JDBC License Error

Problem

A SQL or Stored Procedure task using a DB2 Database Connection may fail with the following error message:

The IBM Data Server for JDBC and SQLJ license was invalid or was not activated for the DB2 for z/OS subsystem. If you are connecting directly to the data server and using DB2 Connect Unlimited Edition for System z, perform the activation step by running the activation program in the license activation kit. If you are using any other edition of DB2 Connect, obtain the license file, db2jcc_license_cisuz.jar, from the license activation kit, and follow the installation directions to include the license file in the class path.

Solution

The db2jcc_license_cisuz.jar file needs to be included in the classpath for Universal Controller.

Step 1	Copy the db2jcc_license_cisuz.jar file to the following directory:
	Windows [tomcat-install]\webapps\opswise\WEB-INF\lib
	UNIX [tomcat-install]/webapps/opswise/WEB-INF/lib
Step 2	Restart Universal Controller.

Processes Will Not Start Automatically (Debian Linux)

Problem

For Debian Linux environment: Outboard 5.1.0 processes will not start automatically at boot time.

Debian Linux does not provide the **chkconfig** command and therefore cannot work with the runlevels specified in the opsagent, opstransport, opsmsghub scripts provided in /etc/init.d.

This is a known problem; we are working on a solution.

Error when Starting Controller

Problem

Upon starting the Universal Controller, the <code>opswise.log</code> shows ERR:

SQLSTATE: HY000, SQLERR: 1040, ERRMSG: [unixODBC][MySQL][ODBC 5.1 Driver]Too many connections

Solution

You must set additional connections in your database server:

```
MySQL - /etc/my.conf - max_connections=500 (default is either 100 or 150)
```

Tomcat Post Limit - STATUS_MAX_POST_SIZE_EXCEEDED

Problem

The following error message displays:

The server did not receive the data that was sent to it. Please see the documentation for isc.RPCResponse.STATUS_MAX_POST_SIZE_EXCEEDED

Resolution

Remove the post limit by specifying the following attribute on the **<Connector>** element in **conf/server.sml**:

maxPostSize="-1"

Special Characters not Displayed Correctly

Problem

Some special characters not getting displayed correctly in your browser GUI.

Resolution

Tomcat on Windows requires you to define code page UTF-8 as the default code page for war files.

To do this, add the following to the Java options statement just as you did with the memory parameter:

-Dfile.encoding=UTF8

Cannot launch a task

Problem

You cannot launch a task.

The problem may be with your credentials. Check the stderr for the following message:

ops_suexec: Not enough privileges. Check SUID bit and binary owner.

Solution

If the error message is present, issue the following commands as **root** in the \$WMS_HOME / bin directory:

chown root ops_suexec chmod 4755 ops_suexec

VBScript stuck in "Running" state

Problem

By default, Windows uses a GUI-based VBScript interpreter (wscript.exe). With this interpreter, if your script tries to display an error message that requires a user-response (for example, **Click OK**), you will never see the dialog box. The script therefore gets stuck in the "Running" state.

Solution

To avoid this, we recommend you use the console version of the VBScript interpreter (cscript.exe). To do so, specify cscript.exe before the script name in a task definition, as shown in the following example:

"cscript.exe C:\Work\script.vbs".

My Universal Controller License has Expired

Problem

If your Universal Controller license has expired, you will not be able to run any tasks. If you attempt to run a task under an expired license, the Controller will place the task in the Defined state.

When you log in to the Controller, the Universal Automation Center Console will displays a license expiration informational message if your license will expire within a week, and an error message if your license already has expired.

Additionally, if you have configured the Controller for System Notifications, system notifications are sent when the Controller license will expire in seven days and if the license already has expired.

There are two other methods you can use to check on license expiration.

Method 1

Check the System Details widget (view the system-defined Home Dashboard or, on the Reporting navigation pane, click **Widgets**) to see how many days are left on your license.

The **Days:** #/# entry in the **License** field indicates the current day of your current license and the total number of days in the license. If the numbers are identical, your license has expired.

	System Details
License:	[Agents: 67/5000] [Triggers: Unlimited] [Tasks: Unlimited] [Days: 4/365]
Node Id:	qa-opswise6:8080-qa_opswise620b21
Node Mode:	Active
Node Uptime:	2 Days 20 Hours 53 Minutes 0 Seconds
Node Time:	2015-05-18 14:17:43 -0400
Release:	6.2.0.0
Build:	build.21
Build Date:	05-13-2015_0345
Database Type:	MYSQL
Database Name:	qa_opswise620b21
Database URL:	jdbc:mysql://qa-dfdb2.stone.branch/
Database Connections:	In Use: 3, Total: 5
Memory Maximum:	989.88 MB
Memory Used:	140.18 MB (14.16%)
Memory Free:	849.70 MB (85.84%)

Method 2

Check the Controller log file.

If your license has expired, the following two messages should appear in the log at the midnight roll-over:

```
2015-01-07-00:00:006 WARN [Ops.Timer.Forecast_Refresh.0] License Violation: Number of Days has
exceeded # suspending system
2015-01-07-00:00:006 INFO [Ops.Timer.Forecast_Refresh.0] Pausing the server.
```

Additionally, this message should appear in the log if you try to run a task under an expired license:

2015-01-07-09:32:27:728 INFO [Ops.Available.2367.0] System paused, waiting for resume

Solution

Contact Stonebranch Customer Support.

Packet for query is too large

Problem

During operations, the following message may appear in the Universal Controller log:

Packet for query is too large (1084852 > 1048576).

Solution

Change this value on the database server by setting the MySQL max_allowed_packet configuration variable.

For detailed information about this variable, refer to:

- MySQL 5.6.x reference manual
- MySQL 5.7.x reference manual

Error when refreshing target agents

Problem

An error occurs when you click **Refresh Target Agents** on a Promotion Target record and you are using invalid login credentials for the target Universal Controller instance.

The user interface on source machine will show the following error:

```
\tt GET \ \tt http://NN.NNN.NN.NS.8080/opswise/resources/agents/list \ \tt returned \ a \ \tt response \ status \ of \ 401 \ Unauthorized
```

The the Controller log on the source machine will show the following error:

```
ERROR [http-8080-10] com.sun.jersey.api.client.UniformInterfaceException:
GET http:///opswise/resources/agents/list returned a response status of 401 Unauthorized"
```

The target machine will return the following error:

```
ERROR [http--#] *** ERROR *** Login using Basic Authentication failed for:
```

Solution

Update the Promotion Target record with valid login credentials and try the promotion again.

Invalid Call Error

Problem

The following error message displays:

onUncaughtException: Exception caught: Invalid call to setDataSource() passing null.

Resolution

You may need to update the LimitRequestLine property in the Apache httpd.conf file to its default value, 8190.

Permanent Generation (PermGen) space removed in Java 8

Problem

The Permanent Generation (PermGen) space has been completely removed in Java 8.

If you specify the Maximum PermGen Size option (-XX:MaxPermSize=<NNN>) for a Java 8 VM, you may see a warning message similar to the following.

Java HotSpot(TM) 64-Bit Server VM warning: ignoring option MaxPermSize=512m; support was removed in 8.0

Resolution

The PermGen space is superseded by a new space called Metaspace in Java 8.

You can specify the Maximum Metaspace Size with the analogous -XX:MaxMetaspaceSize=<NNN> option; however, the default (no limit) is recommended for most deployments.

Error Messages

Error Messages

This page identifies error messages (in alphabetical order) that you may receive for Universal Controller.

For each error, there is a link to the cause problem, and its solution, in Problem Resolution.

```
\tt GET \ \tt http://NN.NNN.NN.NS.8080/opswise/resources/agents/list \ returned \ a \ response \ status \ of \ 401 \ Unauthorized
```

(in user interface on source machine)

```
ERROR [http-8080-10] com.sun.jersey.api.client.UniformInterfaceException:
GET http:///opswise/resources/agents/list returned a response status of 401 Unauthorized"
```

(in Controller log on source machine)

ERROR [http--#] *** ERROR *** Login using Basic Authentication failed for:

(on Target machine)

See Error when refreshing target agents.

INSERT INTO opswise_demo (name, value) values ('A', 'F');

See Error in your SQL syntax.

Java HotSpot(TM) 64-Bit Server VM warning: ignoring option MaxPermSize=512m; support was removed in 8.0

See Permanent Generation (PermGen) space removed in Java 8

onUncaughtException: Exception caught: Invalid call to setDataSource() passing null.

See Invalid Call Error.

ops_suexec___Not enough privileges. Check SUID bit and binary owner

See Cannot launch a task.

ORA-01000: maximum open cursors exceeded

See Maximum open cursors have been exceeded.

Packet for query is too large (1084852 > 1048576

See Packet for query is too large.

SQLSTATE: HY000, SQLERR. 1040, ERRMSG. unixODBC MySQL ODBC 5.1 Driver Too many connections

See Error when Starting Controller.

The conversion of a varchar data type to a datetime data type resulted in an out-of-range value.

See Out-of-Range Value during Database Initialization.

The IBM Data Server for JDBC and SQLJ license was invalid or was not activated for the DB2 for z/OS subsystem. If you are connecting directly to the data server and using DB2 Connect Unlimited Edition for System z, perform the activation step by running the activation program in the license activation kit. If you are using any other edition of DB2 Connect, obtain the license file, db2jcc_license_cisuz.jar, from the license activation kit, and follow the installation directions to include the license file in the class path.

See DB2 JDBC License Error.

The server did not receive the data that was sent to it. Please see the documentation for isc.RPCResponse.STATUS_MAX_POST_SIZE_EXCEEDED

See Tomcat Post Limit - STATUS_MAX_POST_SIZE_EXCEEDED.

Tutorials

Introduction

The tutorials guide you through features of Universal Controller. They also provide links to more detailed information about each aspect of the Controller.

Once you have completed the tutorials, you should have a basic understanding of how the features work together to automate your environment.

Before you begin, we recommend that you read the Setting up Universal Controller and User Interface sections of this documentation to familiarize yourself with user interface navigation and terminology.

Note During the course of performing these tutorials, you will build up a small database of demonstration records that you will re-use in subsequent exercises. To avoid having to reenter data, do not delete the records.

The navigation pane on the left lists the tutorials in the sequence they should be read; many of them refer to information created in one or more previous tutorials.

The following table lists the tutorials by topic, rather than sequence.

Creating and Manually Launching a Simple Task Creating and Manually Launching a Universal Task Running a Windows Task Launching a Task Automatically Using a Simple Time Trigger Launching a Task Every Monday Except Holidays
Running a Windows Task Launching a Task Automatically Using a Simple Time Trigger
Launching a Task Automatically Using a Simple Time Trigger
Launching a Task Every Monday Except Holidays
Launching a Task Every Two Hours During Workday
Launching Tasks at a Future Time
Launching an Email Task Based on a File Monitor
Launching an Email Task Based on a Task Monitor
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Finding and Inserting Tasks in an Active Workflow
Skipping, Unskipping, and Showing-Hiding Skipped Task Instances
Variables
Using Variables in a Simple Task
Using Variables in a Workflow
Custom Days
Creating Custom Days and Periods
Forecasting
Generating Forecast Data
Virtual Resources
Setting Up a Virtual Resource
User Interface
Creating a Widget
Creating a Dashboard and Selecting Widgets
Business Services
Creating Business Services
Assigning Records to Business Services
Viewing Activity by Business Service
Reports
Creating a Report
Creating a Report Based on Business Services
Scheduling a Report
Security
Creating Users and Assigning Permissions
Creating User Groups and Assigning Permissions
Bundles and Promotion
Creating and Promoting a Bundle
Scheduling the Promotion of a Bundle

Tutorial - Creating and Manually Launching a Task

In this tutorial, you will:

- Create a Timer task.
- Manually launch the task.
 View task instance Details of the task.

Step 1	From the Automation Center navigation pane, select Tasks > Timer Task. The Timer Tasks list displays.
Step 2	Click New. The Timer Task Details displays.
	 In the Task Name field, enter stonebranch-timertask-01.
	In the Time Duration in Seconds field, enter 60.
	Timer Task Details
	Immer Task Variables Actions Virtual Resources Mutually Exclusive Instances Triggers Notes Versions
	Task Name : stonebranch-timertask-01
	Task Description :
	Member of Business Services :
	Resolve Name Immediately :
	Hold on Start : 🔟
	Virtual Resource n Priority : 10 Hold Resources on Failure :
	Timer Details
	Timer Type : Seconds v
	Timer Duration In 60
	Time Options
	Late Start:
	Early Finish :
	User Estimated Day Hour Min Sec Duration : v v v v
	Critical Path Options
	CP Duration : CP Duration Unit : Minutes
	Workflow Execution Options
	Execution None V
	🛜 Save 🕼 Save & New 👔 Save & View 🗱 Close
Step 3	Click Save.
Step 4	On the Timer Tasks list, right-click stonebranch-timertask-01 task to display an Action menu.
Step 5	Click Launch Task.
Step 6	From the Automation Center navigation pane, select Task Instances > Activity. The Activity Monitor displays.
Step 7	Locate the stonebranch-timertask-01 task instance. When the task instance completes, the status changes from Running to Success .

limer Task Instance Det	ails: stonebranch-timertask-01			
			🔚 Update 🗔 Re-run 🎲 Delete	🔄 Refresh 💥 Clos
Timer Task Instance	Virtual Resources Exclusive Requests Notes			
General				
Instance Name :	stonebranch-timertask-01	Reference Id	: 1	
Task:	stonebranch-timertask-01	Invoked By	Manually Launched	
Task Description :				
Member of Business Services :		 Execution User 	ops.admin	
Resolve Name Immediately :			System Default	N
Virtual Resource Priority :	10 ~	Hold Resources or Failure		
- Status				
Status :	Success			
Status Description :				
Operational Memo :				
Trigger Time :		Launch Time	2017-10-05 16:56:01 -0400	
Start Time :	2017-10-05 16:56:01 -0400	End Time	2017-10-05 16:57:01 -0400	
Duration :	1 Minute 0 Seconds			
Run Until Time :	2017-10-05 16:57:01 -0400			
Timer Details				
Timer Type :	Seconds			
Timer Duration In Seconds :	60			

For additional information, see:

Creating Tasks

Tutorial - Creating and Manually Launching a Universal Task

Overview

- Before You Begin
- Create a Universal Template
- Create Universal Template Fields
- Create a Universal Task

Overview

To run a Universal Task, you must:

- Create a Universal Template, for which Universal Controller automatically creates a Universal Task type. This includes:
 - Entering a script that any Universal Task created for that Universal Task type will execute.
 - Creating fields, for which the Controller will both automatically assign variables (to be used in the script) and add to any Universal Task created for that Universal Task type.
- Replace variables in the script with the variables assigned to the user-defined Fields that you created in the Universal Template.
- Create a Universal Task for the Universal Task type based on the Universal Template that you created.
- Enter/select values for the user-defined fields in the Universal Task that match the fields you created in the Universal Template.
- Run the Universal Task.
- Retrieve the task output and verify that the script variables have been resolved to the Universal Task field values.

In this tutorial, you will:

- Create a Universal Template.
- · Define fields for a Universal Task in the Universal Template.
- Create a Universal task.

Before You Begin

When you create a Universal Template, you create fields that will display in the Details of the Universal Task (based on this Universal Template) that you will create. These Universal Template fields are assigned variables to be used in the script. The script should contain these variables in a specific format based on information that you provide when creating the Universal Template.

Create a Universal Template

First, create a Universal Template:

Step 1 From the Administration navigation pane, select Configuration> Universal Templates. The Universal Templates list displays.

Step 2	 Click New. The Universal Template Details displays. In the Name field, enter Oracle EBS. In the Description field, enter Oracle E-Business Suite Tasks. In the Variable Prefix field, enter: oebs. In the Agent Type field, select Linux/Unix. In the Linux/Unix Script field, enter:
	<pre>concsub \${credentialuser ("\${ops_oebs_appscredential}")}/\${_credentialPwd("\${ops_oebs_appscredential}")} \ "\${ops_oebs_respapp}" \${ops_oebs_respname} \${ops_oebs_username} \ WAIT=Y CONCURRENT FND FNDFMRTC \ PROGRAM_NAME= '"\${ops_oebs_progname}</pre>

• In the Agent field, select a Linux/Unix agent on which the Universal Task based on this agent will run.

Universal Template	Fields		
- General			H
Name :	Oracle <u>EBS</u>		
Description :	Oracle E-Business Suite Tasks		
Variable Prefix :	oebs		
lcon :	Browse EBS logo (48x48).png	PNG image (48 x 48 pixels)	
– Universal Template I	Details		
Agent Type :	Linux/Unix 🗸		
	<pre>concsub \${credentialuser ("\${ops_oebs_appscreder "\${ops_oebs_respapp}" \${ops_oebs_respname} \${ops watt=< Concurrent Fun ENDENDENTC \ program_name= '"\${ops_oebs_progname}}</pre>	ntial}")}/\${_credentialPwd("\${ops_oebs_appscredential}")} \ s_oebs_username} \	
Linux/Unix Script :			
- Defaults	qa-cntlr-mysql.stone.branch - qa-cntlr-mysql 💌 🔚	Agent Cluster :	
Agent Variable :		Agent Cluster Variable :	
Credentials :	×	Cluster Broadcast :	
Credentials Variable :			
Runtime Directory :			
		0 6	
Environment	Name	Value	
Variables :		No items to show	
Exit Code Processing :	Success Exitcode Range		
Exit Codes :			
Automatic Output	Standard Output/Error		
Retrieval :		Number of Lines (100	
Start Line :	1	Number of Lines : 100	_
Scan Text :			
🔚 Save 🛛	🕽 Save & New 👔 Save & View 🗱 Close		
, (
			_
ionally, in the	con field, browse for an icon (PNG image,	, 48x48 pixels) to be used instead of the default icon for	or any
ke hased on t	nis Universal Template.		

Step 4 Click Save.

Create Universal Template Fields

Next, create fields in the template:

•		EBS template that you just created.
Ur	niversal Template Details	
		🗒 Update 🎲 Delete 🕃 Refresh 💥 Close
μ	Universal Template	Fields
	- General	
		Oracle EBS
L		Oracle E-Business Suite Tasks
	Variable Prefix :	oebs
	lcon :	Browse No file selected. PNG image (48 x 48 pixels)
L	Universal Template D	etails
	Agent Type :	Linux/Unix concsub \${credentialuser ("\${ops_oebs_appscredential}")}/\${_credentialPwd("\${ops_oebs_appscredential}")} \ "\${ops_oebs_respapp}" \${ops_oebs_respname} \${ops_oebs_username} \ WAIT=Y CONCURRENT FND FNDFMTRT \ PROGRAM_NAME= ''\${ops_oebs_progname}
	Linux/Unix Script :	
	Defaults	
	Agent :	qa-cntlr-mysql.stone.branch - qa-cntlr-mysql 🔍 🔚 Agent Cluster :
	Agent Variable :	Agent Cluster Variable :
	Credentials :	🗸 🔚 Cluster Broadcast :
	Credentials Variable :	
	Runtime Directory :	
I I		0 0
	Environment	Name Value
	Variables :	No items to show.
	Exit Code Processing :	Success Exitcode Range
	Exit Codes :	0
	Automatic Output Retrieval :	Standard Output/Error
	Start Line :	1 Number of Lines : 100
	Scan Text :	
	Update	Delete Refresh K Close
Clic	ck the Fields ta	b to display an empty Fields list.
Un	niversal Template Details	: Oracle
Ľ	Universal Template	Fields
	0 Fields	New 🥏
	Name	Label Type Mapping Add To Default List View Updated By Updated •
l		No items to show.

Step 3	Click New. The Field Details for a new Field displays.					
	 In the Name field, enter appscredential. In the Label field, enter Oracle Application Credential In the Hint field, enter Credential containing the Orac In the Type field, select Text. In the Required field, enter a check mark. 					
	Field Details					
		🔚 Save k New 👔 Save & View 💥 Close				
	Field Choices					
	General					
	Name : appscredential Hint: Credential containing the Oracle Applications username and pass	Label: Oracle Application Credential				
	Add To Default List	word.				
	View :					
	Field Details					
	Type : Text Default Value :	Mapping : Text Field 1				
	Validation Required: I					
	Length :					
	- Ferrel avoit					
	Form Layout	Column Span : 2				
	End Row :					
	🛜 Save 🕼 Save & New 👔 Save & View 🗶 Close					
Step 4	Click Save to save the Field and re-display the Fields list.					
Step 5	Click New and create four more Fields.					
	• Name - respan					
	 Label = Responsibility Application. 					
	• Type = Text .					
	• Name = respname .					
	Type – Text.					
	• Type = Text.					
	• Type = Choice.					
	 Default = active users 					
	Click Save to save each Field.					
	Click New and create four more Fields. Name = respapp. Label = Responsibility Application. Type = Text. Name = respname. Label = Responsibility Name. Type = Text. Name = username. Label = Application User. Type = Text. Name = progname. Label = Program Name. Type = Choice. Default = active users					

Step 6	 When you save the progname field, the Choices tab is enabled so that you can define user-selectable Choices for that Field. An empty Choices list displays under the enabled Choices tab, and an empty Choice Details for a new Choice automatically displays. In the Value field, enter active users. In the Label field, enter Active Users. 					
	Choice Details					
Step 7	 Click Save to save the Choice and then create two more Choices for the progname field: Value = inactive users. Label = Inactive Users. Name = temporary users. Label = Temporary Users. Click Save to save each Field. 					
Step 8	Click the Field tab to re-display the Field Details, click the Close to return to the Fields list, and then click click the Universal Template tab to return to the Universal Template Details.					
Step 9	Check the script to make sure that the variables for the five Fields that you created are in the following format: ops_ <variable prefix="">_<field name="">. For example: ops_oebs_appscredential.</field></variable>					
Step 10	Click Save to save the template.					

Create a Universal Task

You now can create a Universal Task based on Stonebranch Template One.

Step 1	Select the Automation Center navigation pane.
Step 2	Right-click inside the navigation pane and, on the Action menu that displays, click Refresh Navigation Tree . An Oracle EBS Tasks Universal Task task type now displays in the Universal Tasks folder.
Step 3	Click Oracle EBS Tasks to display an empty tasks list for this Universal Task type.

Oracle EBS Task Details		👸 Si	ave 🌀 Save & New 👔 Save & View 💥 Close
Oracle EBS Task	Variables Actions Virtual Resources Mutually	Exclusive Instances Triggers	
- General			
Task Name :			
Task Description :			
Member of Business Services :			~
Resolve Name			
Immediately : Hold on Start :			
Virtual Resource		Hold Resources on	
Priority :		Failure :	
Oracle EBS Details			
Agent :	×		× 📰
Agent Variable :		Agent Cluster Variable :	
Credentials :	× .	Cluster Broadcast :	× 📰
Credentials Variable :			
Oracle		Responsibility	
Application Credential :		Application :	
Responsibility Name :		Application User :	
	Active Users		
Runtime Directory :		al	
			0 👄
Environment	Name	Value	
Variables :		No items to show.	
Exit Code	Success Exitcode Range		
Processing : Exit Codes :		1	
Automatic Output	Standard Output/Error		
Retrieval :		Number of Lines	
Start Line : Scan Text :	1	Number of Lines : 100	
Retry Options		1	
Retry Exit Codes :			
Maximum Retries :	0	Retry Indefinitely : 🔲 Suppress	
Retry Interval (Seconds) :	60	Intermediate E Failures :	
- Wait/Delay Options			
Wait To Start :	None 🗸		
Delay On Start :	None		
Workflow Only :	System Default		
Time Options			
Late Start :			
Late Finish : 🔳			
Early Finish :			
User Estimated Duration :	Day Hour Min Sec		
Critical Path Options			
CP Duration :		CP Duration Unit : Minutes	v.
- World	tions		
Workflow Execution O			
Restriction :	······		
F Save	Save & New 👔 Save & View 🗱 Close		
the Task Name	field, enter: Active Users Report.		

Step 7	Enter the following field values:
	 Oracle Application Credential: APPS Responsibility Application: SYSADMIN Responsibility Name: System Administrator Application User: SYSADMIN
Step 8	Click the Save button to save the task.
Step 9	Right-click Active Users Report on the Oracle EBS Task list and, on the Action menu that displays, click Launch Task.

(Details: Active Users Report	📳 Update	Force Finish 👻 🕻	🤋 Re-run 🛛 🙀 Retrieve Output	🚮 Delete 📑 Refresh	Close
Oracle EBS Task Instanc	e Virtual Resources Exclusive Requests	 Outpu 	t 🔍 Notes			
General						- f
Instance Name :	Active Users Report		Reference Id :	1		_
Task :	Active Users Report	1	Invoked By :	Manually Launched		
	Run the Oracle Application Active Users Report					_
Member of Business Services :		~	Execution User :	ops.admin		
Resolve Name Immediately :			Calendar: System	n Default	2	
Virtual Resource		~	Hold Resources on			
Priority : L			Failure			=
- Status						[]
Status :	Success		Exit Code :	0		
Status Description :						
						_
Operational Memo :			Laurah Time -	2010 00 02 14:15:24 0400		_
Trigger Time :	2016 02 22 14-15-24 0400		Launch Time :	2016-08-23 14:15:34 -0400		
	2016-08-23 14:15:34 -0400		F-4 T-	2016 00 22 14-15-25 0400		_
	2016-08-23 14:15:34 -0400			2016-08-23 14:15:35 -0400		
Duration : Process ID :	21680		CPU Time :	110		
FIDCESS ID .	21000					
Oracle EBS Details						
Agent :	qa-cntlr-mysql.stone.branch - qa-cntlr-mysql	*	Agent Cluster :		*	
Agent Variable :			Agent Cluster Variable :			
Credentials :		*	variable .			
Credentials						
Variable : Oracle Application			Responsibility	21/21/21/21		_
Credential :	APPS		Responsibility Application :	SYSADMIN		_
Name :	System Administrator		Application User :	SYSADMIN		_
Program Name :	Active Users	~				
Runtime Directory :						
					0 (∍ _
Environment Variables :	Name		Value			- 11
valiables .			No items to show.			
Exit Code						- 11
Processing :	Success Exitcode Range	*				
Exit Codes :						
Automatic Output Retrieval :	Standard Output/Error	*				
Start Line :	1		Number of Lines :	100		
Scan Text :						
Retry Options Retry Exit Codes :						
Maximum Retries :	0		Retry Indefinitely :			
			Suppress			
Retry Interval (Seconds) :	60		Intermediate Failures :			E
Current Retry	0		r anures .			
Count :						
- Statistics						[]
User Estimated End Time :			Average Estimated End Time :	2016-08-23 14:15:34 -0400		
Shortest Estimated End Time :			Longest Estimated End Time :			
Ena Time : L			⊏na iime :			
🔛 Update 🛛 Fo	rce Finish 🔻 🛛 🔯 Re-run 🛛 🔂 Retrieve Out	tput	Delete	Refresh 🛛 💥 Close		
						*

For additional information, see:

- Universal TemplatesUniversal Tasks

Tutorial - Running a Windows Task

- Creating a Simple Windows Task
- Manually Retrieving Output from a Windows Task
- Attaching Output to an Email Notification

To perform this tutorial, you need a running Universal Agent for Windows.

Creating a Simple Windows Task

Step 1	From the Automation Center navigation pane, select Tasks > Windows Tasks . The Windows Tasks list displays.
Step 2	In the empty Windows task Details below the list:
	 In the Task Name field, enter stonebranch-windowstask-01. In the Agent field, select your Windows agent. In the Command field, enter md c:\tutorial.
Step 3	Click Save.
Step 4	On the Windows Tasks list, right-click stonebranch-windowstask-01 to display an Action menu.
Step 5	Click Launch Task.
Step 7	Check the Activity Monitor for the task instance.

Manually Retrieving Output from a Windows Task

In this Windows task, we will run a DIR command. Normally, you would use the Automatic Output Retrieval field to specify that any output generated by the command be attached to the task instance after the task completes. However, if you did not specify that output be attached, you can manually retrieve it after the task instance has run. In this exercise, we will manually retrieve and display the output.

Step 1	Use the same steps to create another Windows task called stonebranch-windowstask-02 . Do not specify Automatic Output Retrieval, and use the following command:
	dir c:\windows
Step 2	Save and launch the task.
Step 3	Locate and open the task instance on the Activity Monitor.

Step 4	Ν	lote that the Output tab is o	empty. Click Re	etrieve Outp	out. The Retrieve Output window a	opears:	
	Retrieve Output					×	
	Standard Output and Standard Error Output Type : O Standard Output						
			C Standard	Error			
		Start Line :	1				
		Number of Lines :	100				
		Scan Text :					
				Cubmi	Canaal		
				Submit	Cancel		
Step 5	С	Change the number of lines	s to 300 and cli	ck Submit .			
Step 6							
	Windows Task Instance Virtual Resources Exclusive Requests Output Notes						
	Type Attempt Output Output Updated By Updated			Updated By Updated	2		
	Volume in drive C has no label. Volume Serial Number is 74F4-2526		-				
			ctory of c:\window				
		01/17/ 07/13/	/2012 08:04 PM /2009 10:37 PM /2012 07:58 PM	<dir> <dir> <dir></dir></dir></dir>	AppCompat AppPatch		
		07/14/	/2010 05:16 AM /2009 12:52 AM /2009 12:52 AM	<dir></dir>	4 bfsvc.exe Boot Branding	1	E
		07/14/	2009 12:52 AM	<dir> <dir> <dir></dir></dir></dir>	CSC Cursors debug		
		07/14/ 07/14/	/2009 12:52 AM /2009 12:56 AM	<dir> <dir></dir></dir>	diagnostics DigitalLocker		
		10/09/	/2009 12:52 AM /2009 02:11 PM /2012 07:59 PM		Downloaded Program Files 4 DtcInstall.log ehome		
		10/09/ 11/20/	/2009 11:42 AM /2010 05:17 AM /2009 09:14 PM	<dir> 2,616,32</dir>	en-US 0 explorer.exe	_	
		07/14/	2009 09:14 PM 2009 03:54 AM 2009 01:54 PM	<dir> <dir> <dir></dir></dir></dir>	4 fveupdate.exe Globalization Help		
		07/13/ 07/13/	2009 09:14 PM 2009 09:14 PM	497,15 15,36	2 HelpPane.exe 0 hh.exe		
		07/14/	/2012 08:06 PM /2009 12:56 AM /2014 06:27 PM	21,33 <dir> <dir></dir></dir>	7 iis7.log IME inf		
		07/14/ 07/13/	/2009 12:52 AM /2009 10:03 PM	<dir> <dir></dir></dir>	L2Schemas LiveKernelReports		
		07/13/	/2009 02:30 PM /2009 06:58 PM /2012 08:19 PM	<dir> 43,13 <dir></dir></dir>	Logs 1 mib.bin Microsoft.NET		
		10/09/ 07/13/	/2009 01:00 PM /2009 10:04 PM	<dir> <dir></dir></dir>	Minidump ModemLogs		
		07/13/	/2009 05:19 PM /2009 09:14 PM /2009 01:00 PM	179,71	5 msdfmap.ini 2 notepad.exe 8 ntbtlog.txt		
		10/09/ 07/14/	/2009 01:54 PM /2009 12:52 AM	<dir> <dir></dir></dir>	nview Offline Web Pages		
	1 III	10/09/		<dir></dir>	Panther		
		07/14/ 04/15/	/2009 12:52 AM /2013 01:29 PM	<dir> 180,95</dir>	Performance 8 PFR0.log		

Attaching Output to an Email Notification

In this exercise, we will modify the stonebranch-windowstask-02 task with an Email notification that includes the output from the DIR command.

Step 1 Open the **stonebranch-windowstask-02** task.

Step 2	Click the Actions tab.							
Step 3	Click Email Notification and then click the New button.							
Step 4	In the Email Notification Detail Status=Success Email Connection=Yo To=Your email addre Subject=Output Body=See attached. Attach Standard Outp Start Line=1 Number of lines=300	our email connection SS						
	Email Notification Details		-OX					
		開 Update 🎯 Delete 🕼 Refresh 👹						
	Email Notification							
	- Action Criteria							
		Success	~					
	Exit Codes :							
	On Late Start :							
	On Late Finish :							
	On Early Finish :							
	Description :							
	Description.							
	Action Details							
	Email Template :	V 📰 Email Connection : OPSWISE-MAILER V						
	Email Template							
	Variable :							
	Reply-To :		_					
	To :	stonebranch@stonebranch.com						
	Cc:							
	Bcc :							
	Subject :	Output	_					
	Subject.							
		See attached.						
	Body :							
	Report :	💌 🔚 Report Variable : 🔲						
	Attach Standard Output :	V Start Line : 1						
	Allach Standard Supple.							
		Number of Lines : 300						
		Scan Text:						
	Attach Standard Error :							
	Attach File :							
	📳 Update 🎲 🕻	Delete 📧 Refresh 🗱 Close						
Step 5	Click Save.							
otop 5								
Step 6	Launch the stonebranch-win	dowstask-02 task.						

Output Dinbox x	÷ 🛛	
opswise-email@stonebranch.com to me ເ	C 3:19 PM (1 minute ago) ☆	
See attached.		

- Creating TasksWindows Task

Tutorial - Launching a Task Automatically Using a Simple Time Trigger

In this exercise, we will define a time trigger that launches our Timer task every one minute.

Step 1	From the Automation Center navigation	pane, select Triggers > Time Triggers .			
Step 2	Click New.				
Step 3	In the Name field, enter stonebranch-timetrigger-01.				
Step 4	In the Task(s) field, click the Add-Remo	ve Multiple icon.			
Step 5	In the Collection window, locate the Time stonebranch-timertask-01, move it to the	er task created in the Creating and Manually Launching a Task tutorial, he Tasks List window, and click Save .			
	Edit Members				
	Colle	ection Tasks List			
		Timer 👻 🌱 stonebranch-timetrigger-01			
	Task Name 🔦	Type Ti A Task Name A			
	stonebranch-timertask-02	Timer stonebranch-timertask-01			
	stonebranch-timertask-03 stonebranch-timertask-04	Timer			
	stonebranch-timertask-05	Timer			
		Save Cancel			
Step 6	In the Task(s) field, click the lock icon.				
Step 7	In the Time Style field, select Time Inter	rval.			

Step 9	In the Time Interval Units field, select Minutes.							
	Time Trigger Details							
	📰 Save & New 🔓 Save & View	w 💥 Close						
	Time Trigger © Variables © Versions							
	Name : stnebranch-timetrigger-01							
	Description :							
	Member of							
	Business Services :	~						
	Calendar : System Default v 🔚 Time Zone : System (America/New_York)	~						
	stonebranch-timertask-01							
	Task(s):							
	Purge By Retention Duration :							
	Status							
	Forecast:							
	Skip Count: 0							
	Skip Trigger if Active :	-						
	Simulate : - System Default v							
	Time Details							
	Time Style : Time Interval v Time Interval 1 Enable Offset :							
	Time Interval : 1 Enable Offset :							
	P Day Details							
	Day Style : Simple Image: Simple interval Image: Object in the second							
	Restrictions							
	Restrict Times :							
	Special Restriction :							
	🔄 Save & New 👔 Save & View 🗱 Close							
Step 10	Click Save.							
Step 11	By default, triggers are disabled. To enable this trigger:							
	 On the Time Triggers list, right-click stonebranch-timetrigger-01 to display an Action menu. Click Enable to enable the trigger. Note that the Enabled column on the trigger list now displays a great trigger. 	en check-mark for th						
Step 12	From the Automation Center navigation pane, select Activity to display the Activity Monitor. Note that a new i stonebranch-timertask-01 appears every one minute.	nstance of						

Timer Task Instance Deta	ails: stonebranch-timertask-01			
			F Update 🔽 Re-run 🎲 Delete 🔄 Refresh	💥 Clos
Timer Task Instance	Virtual Resources Exclusive Requests Notes			
General				
Instance Name :	stonebranch-timertask-01	Reference Id :	1	
Task :	stonebranch-timertask-01	Invoked By :	Trigger: stnebranch-timetrigger-01	
Task Description :				
Member of Business Services :		 Execution User : 	ops.admin	
Resolve Name Immediately :		Calendar :	System Default	
Virtual Resource Priority :	10 ~	Hold Resources on		
Priority :		Failure :		
- Status				
Status :	Success			
Status Description :				
Operational Memo :				
	2017-10-06 15:18:25 -0400	Lounch Time :	2017-10-06 15:18:25 -0400	
	2017-10-06 15:18:25 -0400		2017-10-06 15:18:25 -0400	
	10 Seconds	End time.	2017-10-00 15.18.35 -0400	
	2017-10-06 15:18:35 -0400			
Timer Details				
Timer Type :				
Timer Duration In Seconds :	10			
- Statistics				
User Estimated		Average Estimated	2017-10-06 15:18:25 -0400	
End Time : Shortest Estimated		End Time : Longest Estimated		
End Time :		End Time :		
Update	🛜 Re-run 👔 Delete 🕼 Refresh 🗱	Close		

- TriggersTime TriggerEnabling and Disabling Triggers

Tutorial - Launching a Task Every Monday Except Holidays

- Introduction
- Create Calendar and Custom Days
- Create a Time Trigger
- Adding a Complex Restriction

Introduction

In this exercise, we will define a trigger that runs the **stonebranch-timertask-01** task (created in the Creating and Manually Launching a Simple Task tutorial) automatically every Monday at 1 p.m., except holidays.

For cases where Monday falls on a holiday, we will define a special restriction in the trigger that instructs the Controller to run the task on the next business day.

We will define the business days and holidays in a calendar.

Create Calendar and Custom Days

Before building the trigger, we will create the calendar:

Step 1	From the Automation Center navigation pane, Others > Calendars to display the Calendars list.
Step 2	Click New to display an empty Calendar Details.
Step 3	Enter stonebranch-calendar-01 in the Name field.
Step 4	In the Description field, enter Defines our company business days and holidays.
Step 5	Do not change the default selections for Business Days (Monday through Friday). Click Save .
	Calendar Details
Step 6	Open stonebranch-calendar-01 and click the Custom Days tab.
Step 7	On the Custom Days list, click the New button. A Custom Day Details for a new Custom Day displays.
Step 8	In the Name field, enter stonebranch-customday-01.
Step 9	In the Description field, enter Labor Day.

	Custom Day Details
	Custom Day Calendars Versions Details Name : stonebranch-customday-01 Description: Labor Day Category: Day Business Day Holiday Period Type: Relative Repeating Date When: 1st Day Of Week: Month: Sep Adjustment: - None Close
Step 11	Click Save to add this Custom Day to the Calendar.
Step 12	On the Custom Days list, click the New button. A Custom Day Details for a new Custom Day displays.
Step 13	In the Name field, enter stonebranch-customday-02.
Step 14	In the Description field, enter The founder's birthday.
Step 15	In the Category field, select Holiday.
Step 16	In the Type field, select Relative Repeating Date . In the three additional fields that appear, make the following selections: When = 2nd Day of Week = Mon Month = Oct
	Custom Day Details
	Custom Day Calendars Versions

Create a Time Trigger

Step 1 From the **Automation Center** navigation pane, select **Triggers > Time Trigger** to display the Time Triggers list.

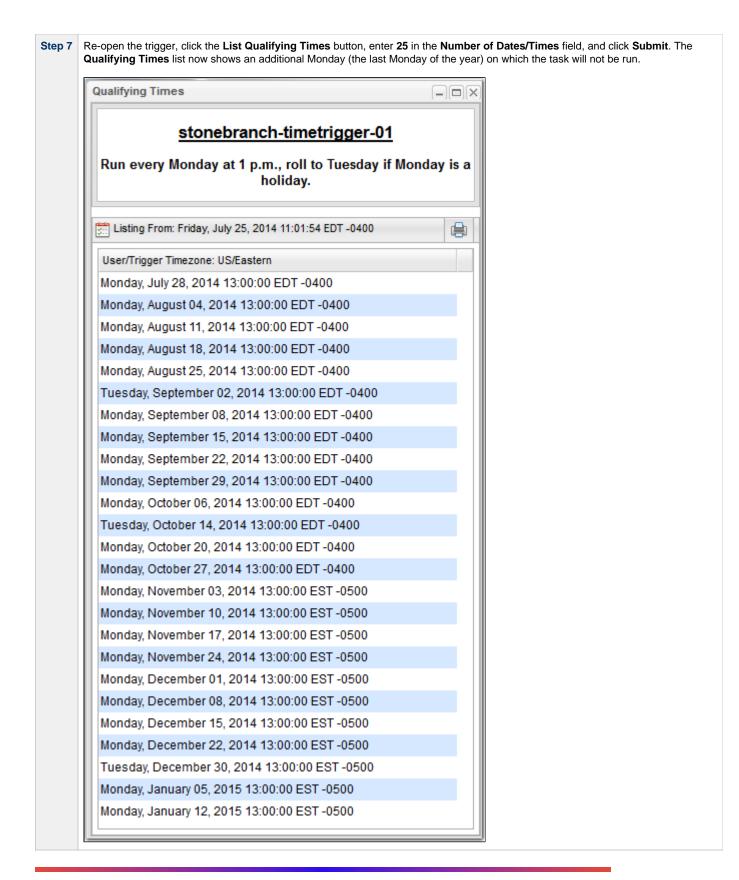
Step 2	Click New to display an empty Time Trigger Details.						
Step 3	In the Name field, enter stonebranch-timetrigger-01.						
Step 4	In the Description field, enter Run every Monday at 1 p.m., roll to Tuesday if Monday is a holiday.						
Step 5	In the Calendar field, select stonebranch-calendar-01.						
Step 6	n the Task(s) field, select stonebranch-timertask-01.						
Step 7	the Time Style field, keep the default, Time.						
Step 8	In the Time field, enter 13:00 (1 p.m. in 24-hour time).						
Step 9	In the Day Style field, keep the default, Simple.						
Step 10	Enable Specific Day(s) field and select Monday.						
Step 11	Enable Special Restriction and select:						
	 On Holiday in the Situation field. Next Business Day in the Action field. 						
Step 12	Click Save.						
	Time Trigger Details						
	🔚 Save 🥼 Save & New 🗎 Save & View 💥 Close						
	Time Trigger Variables Versions						
	General Name : stonebranch-timetrigger-01						
	Description : Run every Monday at 1 p.m., roll to Tuesday if Monday is a holiday.						
	Member of Business Services :						
	Calendar : stonebranch-calendar-01 💌 🔚 Time Zone : US/Eastern 💌						
	stonebranch-timertask-01						
	Purge By Retention Duration :						
	Status						
	Forecast:						
	Skip Count: 0 Skip Trigger if						
	Active : Simulate : - System Default V						
	Time Details						
	Hour Min						
	Day Details						
	Day Style : Simple v O Daily O Business Days Specific Day(s)						
	Sunday V Monday UWednesday Friday Friday Saturday						
	Restrictions						
	Special Restriction : 📝 Action : Next Business Day						
	Simple Restriction : Restriction :						
	Situation : On Holiday						
	🕎 Save & New 👔 Save & View 🗱 Close						
Step 13	Click the List Qualifying Times button to display the *List Qualifying Times Input pop-up dialog.						
Step 14	In the Number of Dates/Times field, enter 15.						

Qualifying Times	
stonebranch-timetrigger-01	
Run every Monday at 1 p.m., roll to Tuesday if Monday holiday.	is a
Listing From: Friday, July 25, 2014 10:42:46 EDT -0400	
User/Trigger Timezone: US/Eastern	
Monday, July 28, 2014 13:00:00 EDT -0400	
Monday, August 04, 2014 13:00:00 EDT -0400	
Monday, August 11, 2014 13:00:00 EDT -0400	
Monday, August 18, 2014 13:00:00 EDT -0400	
Monday, August 25, 2014 13:00:00 EDT -0400	
Tuesday, September 02, 2014 13:00:00 EDT -0400	
Monday, September 08, 2014 13:00:00 EDT -0400	
Monday, September 15, 2014 13:00:00 EDT -0400	
Monday, September 22, 2014 13:00:00 EDT -0400	
Monday, September 29, 2014 13:00:00 EDT -0400	
Monday, October 06, 2014 13:00:00 EDT -0400	
Tuesday, October 14, 2014 13:00:00 EDT -0400	
Monday, October 20, 2014 13:00:00 EDT -0400	
Monday, October 27, 2014 13:00:00 EDT -0400	
Monday, November 03, 2014 13:00:00 EST -0500	

Adding a Complex Restriction

The following steps show you how to add a complex restriction to the **stonebranch-timetrigger-01** trigger. In this case, you will add a restriction that skips the last Monday of the year and instead triggers the task on the following Tuesday, just as it does for Mondays that are holidays.

Step 1	Enable Complex Restriction.
Step 2	In the Restriction Mode field, select Or .
Step 3	In the Restriction Adjective field, select Last.
Step 4	In the Restriction Noun field, select Monday.
Step 5	In the Restriction Qualifier field, select Year.
Step 6	Click Update.



- Triggers
- Time Trigger
- Calendars
- Displaying Trigger Forecast Information

Universal Controller 6.4.x Troubleshooting and Tutorials

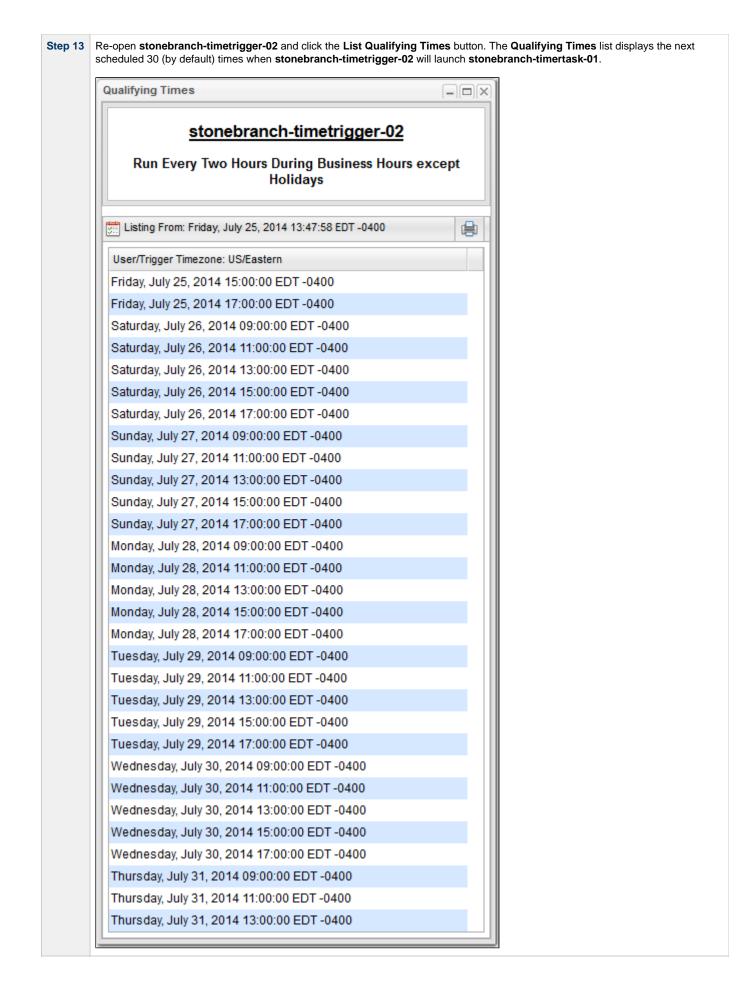
Tutorial - Launching a Task Every Two Hours During Workday

In this exercise, we will define a recurring task that runs every two hours, limited to business hours – Monday through Friday from 9 a.m. to 5 p.m. We will also instruct Universal Controller not to run the task on holidays.

Also, if the task is still running two hours later when it is time to run the next task instance, the Controller will be instructed not to run the next instance.

Step 1	From the Automation Center navigation pane, select Triggers > Time Triggers. The Triggers list displays.
Step 2	Click the New button to display an empty Time Trigger Details.
Step 3	In the Name field, enter stonebranch-timetrigger-02.
Step 4	In the Description field, enter Run Every Two Hours During Business Hours Except Holidays.
Step 5	In the Calendar field, select stonebranch-calendar-01 (created in the Launching a Task Every Monday Except Holidays tutorial).
Step 6	In the Task(s) field, select stonebranch-timertask-01 (created in the Creating and Manually Launching a Simple Task tutorial).
Step 7	Enable the Skip Trigger if Active field. This tells the Controller not to trigger the task if the previous instance of the task is still active.
Step 8	In the Time Style field, select Time Interval and specify the following: Time Interval = 2 Time Interval Units = Hours
Step 9	 Enable the Restrict Times field and specify the following: Enabled Start = 09:00 Enabled End = 17:00
Step 10	 Specify that this trigger should run on weekdays only by selecting either: Day Style = Simple Business Days = Enabled OR Day Style = Complex Date Adjective = Every Date Noun = Business Day Date Qualifier = Year Both methods use the Business Days specified in stonebranch-calendar-01.
Step 11	 Enable the Special Restriction field and specify the following: Situation = On Holiday Action = Do Not Trigger

Time Trigger Details: stonebra		
	🧱 Update 🚳 Enable 🔞 Trigger Now 🛅 List Qualifying Times 🖺 Copy 🎲 Delete 🗟 Refresh 🎽	Close
Time Trigger S Variables	Versions	
General	ebranch-limetrigger-02 Version : 1	
	Every Two Hours During Business Hours except Holidays	-
Member of		
Business Services :		*
	ebranch-calendar-01 v 🔚 Time Zone : System (America/New_York)	~
stone	branch-timertask-01	
Task(s) :		
Purge By Retention Duration :		
Status		[
Forecast: 🕅	Status : Disabled	
Skip Count :	0 Disabled By :	
Skip Trigger if Active :		
Simulate : Sys	stem Default V	
Time Details		
Time Style : Time	Interval 👻	
Time Interval :	2 Enable Offset:	
Time Interval Units :	S V	
Day Details		
Day Style : Simp	le v	
OD	aily Business Days Ospecific Day(s)	
Destrictions		
Restrictions Restrict Times :		
Hour	Min Adjust Interval To Enabled Start:	
Enabled Start : 09 👻		
Enabled End : Hour	Min 00 v	
Special	Action : Do Not Trigger	
Simple		
Restriction :	Complex Restriction :	
Situation : On Holid	ay 👻	



- TriggersTime TriggerCalendars

Tutorial - Launching Tasks at a Future Time

In this exercise, we will create a trigger that will launch multiple tasks at the same time in the future (in two minutes). For this exercise, we will use the SQL tasks created in the Running a Workflow with a Conditional Path tutorial.

(A future date also can be selected, but to see now that the tasks have been launched, keep the current date.)

Create a Temporary Trigger

Step 1	From the Automation Center navigation pane, select Triggers > Temporary Triggers . The Temporary Triggers list displays.
Step 2	 Click the New button to display Temporary Trigger Details for a new trigger and enter/select the following values: Name = Launch Tasks Tasks = stonebranch-timertask-01, stonebranch-timertask-02, and stonebranch-timertask-03 Timer tasks Date = current date Time = 5 minutes from the current time Time Zone = your time zone
Step 3	Click the Save button.
	Temporary Trigger Details
	🗑 Save & New 👔 Save & View 💥 Close
	Temporary Trigger Variables Versions
	Ceneral Ceneral
	Name : Launch Tasks
	Description :
	Member of Survices :
	Calendar : System Default V 🔄 Time Zone : US/Eastern V
	stonebranch-timertask-01
	stonebranch-timertask-02
	Task(s): stonebranch-timertask-03
	Purge By Retention Duration :
	- Status
	Forecast:
	Skip Count: 0
	Skip Trigger if Active :
	Simulate : System Default V
	- Temporary Details
	Date: 2017 v May v 5 v 📰
	Time: Hour Min 15 v
	🔚 Save & New 👔 Save & View 🗶 Close
	🔚 Save & New 👔 Save & View 🗱 Close
Step 4	Right-click Launch Tasks on the Temporary Triggers list and click Enable.
Step 5	Open the Activity Monitor to see that the three Timer tasks are run at the selected time.

For additional information, see:

• Temporary Trigger

Tutorial - Launching an Email Task Based on a File Monitor

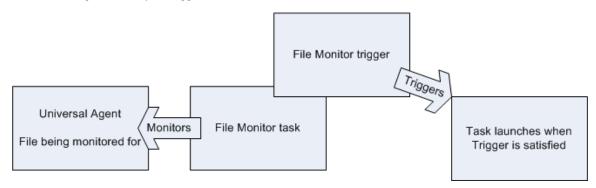
- Introduction
- Create File Monitor Task
- Create an Email Task
- Create File Monitor Trigger
- Test Your File Monitor Set-up

Introduction

In this exercise, we will monitor a machine for a specific file. When the file appears, we will send an email that uses variables to supply information about when and how the email was sent.

In order to set this up, we need the following:

- Universal Agent
- File Monitor task
- File Monitor trigger
- Email task being launched by the trigger.



Prerequisites:

 In order to perform this exercise, you need a Windows, Linux/Unix, or z/OS Agent running on the machine that is being monitored for the file. Create a directory on the machine called controller tutorial. Later on, you will copy a text file to this directory to satisfy the File Monitor trigger.

🔥 Note

If you do not have a running Agent, you can bypass this step by manually satisfying the trigger, as per instructions in the tutorial. However, you do need an Agent defined in the database.

Since we are going to generate an email when the trigger is satisfied, you will need an Email Connection defined.

Create File Monitor Task

The File Monitor task monitors the agent machine for the specified file.

Step 1	From the Automation Center navigation pane, select Tasks > File Monitors. The File Monitors list displays.
Step 2	Click the New button to display an empty File Monitor Details.
Step 3	In the Task Name field, enter stonebranch-filemonitor-01.
Step 4	In the Task Description field, enter Demo File Monitor.
Step 5	In the Agent field, select an Agent.

		sive field. Since we are g	oing to write	e our f	file to the con	troller tutorial (lirectory, we want the	e Contro		
I	In the Stable (seconds) field, enter 5 . This tells the Controller to satisfy the trigger only when the file has not changed in 5 sec									
I										
						🔚 Save 🕼 Save & N	lew 💼 Save & View 💥 Clo			
	File Monitor Vari	iables 🖉 🛛 Actions 🖉 Virtual Resou	rces 🛛 Mutuali	y Exclusiv	ve Instances	File Monitor Triggers Trigge	<u> </u>			
	General									
	Task Name :	stonebranch-filemonitor-01								
	Task Description :	Demo File Monitor								
	Member of Business						v.			
	Services :									
	Resolve Name Immediately :									
	Hold on Start :				Usid Descurrent					
	Virtual Resource Priority :	10	*		Hold Resources on Failure :					
	File Monitor Details									
		qa-sol9 - qa-sol9um		¥ .	Agent Cluster :		× 🔚			
	Agent Variable :				Agent Cluster Variable :					
	Credentials :			¥-	Cluster Broadcast :		×	=		
	Credentials									
	valiable.				Trigger on					
	Monitor Type :		*		Existence :					
	Monitor File(s) : Use Regular									
	Expression :									
	Recursive :				Maximum Files :					
	File Owner : Stable (seconds) :	5								
	Scan Text :	5								
	Wait/Delay Options							1		
	Wait To Start :		*							
	Delay On Start : Workflow Only :	System Default	*							
	Wonalow Only.	Listen Belduit -	Ť							
	Time Options									
	Late Start :									
	Late Finish :	-								
		Day Hour Min Sec								
	Duration :	* * * *								
	Critical Path Options	s						-		
	CP Duration :				CP Duration Unit :	Minutes	~			
	Workflow Execution									
	Execution Restriction	None	*							
	🔚 Save 🛛 📢	Save & New 📑 Save & View						1		

Create an Email Task

Create the task that will run when the File Monitor is satisfied. In this case, we will generate an email, using the Email task:

Step 1 From the Automation Center navigation pane, select Tasks > Email Tasks. The Email Tasks list displays.

Step 2	Click the New button to display an empty Email task Details.
Step 3	In the Task Name field, enter stonebranch-emailtask-01.
Step 4	In the Description field, enter Send Email When File Appears.
Step 5	In the Email Connection field, select your Email Connection.
Step 6	In the To field, enter your email address. This is where the email will be sent.
Step 7	In the Subject field, enter file1.txt arrived.
Step 8	In the body field, enter the following Universal Controller variable and Universal Controller function:
	Triggered by: \${ops_trigger_name} Date: \${_date}

nail Task Details		
	🕎 Save 🌾 Save & New 👔 Save & View 🎉 Clo	se
Email Task 🛛 🔍 Varia	bles O Actions O Virtual Resources O Mutually Exclusive O Instances O Triggers O Notes O Versions	
General		ĥ
	tonebranch-emailtask-01	
lask Description : Member of	Send Email When File Appears	
Business	v	
Services : Resolve Name	m	
Immediately:		
Hold on Start : [Virtual Resource].		
Priority :	60 Failure :	
– Email Details –		
Email Template :	V 🔚 Email Connection : QA-OPSWISE-MAILER V 🔚	
Email Template Variable :		Ξ
Reply-To :		
5	tonebranch@email.com	
To :		
Cc:		
UC.		
Bcc :		
	le 1.bg arrived	
-	<pre>inggered by: \${ops_trigger_name} ate: \${_date}</pre>	
Body:		
Report :	💌 🔚 Report Variable : 🔲	
- Wait/Delay Options - Wait To Start : -	None	
Delay On Start :		
	- System Default V	Ε
Time Options		
Late Start : 📄 Late Finish : 📄		
Early Finish :		
	ay Hour Min Sec	
Duration :		
- Critical Path Options		
CP Duration :	CP Duration Unit : Minutes v	
- Workflow Execution C		
Execution Restriction :	None v	
🔚 Save 🛛 🕼	Save & New 👔 Save & View 🕺 Close	

Create File Monitor Trigger

Create the File Monitor trigger:

Step 1	From the Automation Center* navigation pane, select Triggers > File Triggers. The File Monitor Triggers list displays.
Step 2	Click the New button to display an empty File Monitor Trigger Details.
Step 3	In the Trigger Name field, enter stonebranch-filemonitortrigger-01.
Step 4	In the Description field, enter When File Arrives Send Email.
Step 5	In the Task(s) field, select stonebranch-emailtask-01.)
Step 6	In the File Monitor field, select stonebranch-filemonitor-01.
Step 7	Click the Save button.
	File Monitor Trigger Details
	🦷 Save & New 👔 Save & View 💥 Close
	File Monitor Trigger Variables Versions
	General Name : stonebranch-filemonitortrigger-01
	Description : When File Arrives Send Email
	Member of
	Business Services : Calendar : System Default V III Time Zone : System (America/New_York) V
	Task(s):
	Purge By Retention Duration :
	Status
	Skip Count: 0
	Skip Trigger if Active :
	File Monitor Details
	File Monitor : stonebranch-filemonitor-01
	Restrictions
	Restrict Times :
	Special Restriction :
	🛜 Save & New 👔 Save & View 🔀 Close

Test Your File Monitor Set-up

Test your File Monitor set-up.

Step 1	Enable the File Monitor trigger. This launches the File Monitor task. It will appear in the Activity Monitor with a status of Running.
Step 2	Do one of the following:
	• If you have a running agent, place a text file called file1.txt in the controller tutorial directory on the machine that is being monitored by the File Monitor task. When the file appears, the File Monitor task waits five seconds, as specified, and then satisfies the trigger.
	 If you do not have a running agent but do have an agent connected to your instance, you can manually satisfy the trigger as follows:
	 From the Automation Center navigation pane, select Triggers > File Triggers to display the File Monitor Triggers list.
	 Right-click the stonebranch-file monitortrigger-01 trigger and select Trigger Now.
Step 3	When the trigger is satisfied, the Email is sent. Go to the Activity Monitor and note that the astonebranch-emailtask-01 Email task has been launched.
Step 4	Go to your email account where the email was sent and open the email. Note that the variables were resolved.

- Email Task
 File Monitor Task
 File Trigger
 Variables

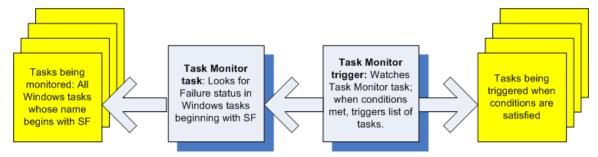
Tutorial - Launching an Email Task Based on a Task Monitor

- Introduction
- Select the Activity Monitor Problem Filter
- Create an Email Template
- Creating an Email Task Using the Email Template
- Creating a Task Monitor Task
- Creating a Task Monitor Trigger
- Running the Task Monitor

Introduction

In this exercise, we will set up a Task Monitor and Task Monitor trigger. The Task Monitor will monitor all tasks for a status that indicates some sort of problem. When the trigger is satisfied, Universal Controller will launch an Email task that notifies a user that there is a problem. We will also create an Email template for use in our Email task and create an Activity Monitor filter that displays only problem tasks.

The following illustration shows the various components used to trigger tasks based on the status of other tasks.

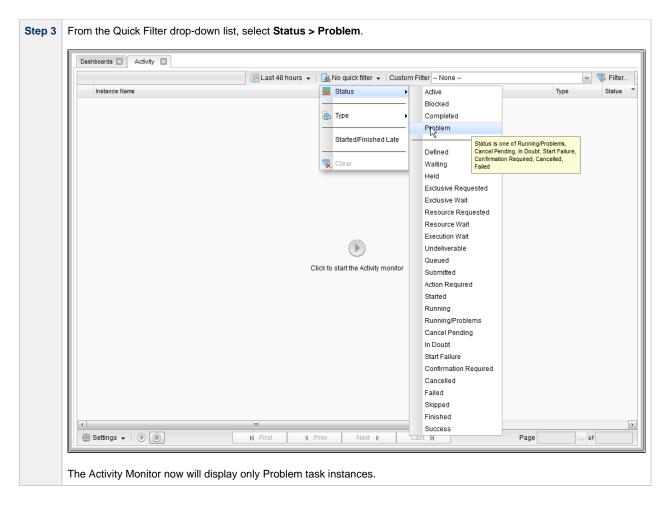


Select the Activity Monitor Problem Filter

The first task we will do is select the Problem filter for the Activity Monitor. When the user receives an email indicating there is a problem, the user can view this Activity Monitor to find out more information.

```
      Step 1
      From the Automation Center navigation pane, select Task Instances > Activity. The Activity Monitor displays.

      Step 2
      Click the Click to start the Activity monitor button. All active task instances display.
```



Create an Email Template

Email Templates allow you to create pre-defined Email task information that you refer to when creating an Email task. This is useful if you have a large number of common parameters on Email tasks but still require separate tasks.

Step 1	From the Agents & Connections navigation pane, select System > Email Templates. The Email Templates list displays.
Step 2	Click the New button to display an empty Email Template Details and enter the following values:
	 Template Name = Notification based on status Email Connection = (a valid email connection) To = (a valid email account) Subject = Task Failure Alert Body = Task failure, see Activity Monitor for Problems

Email Template Details	8						[-
				🔚 Save	🕼 Save & New	💼 Save & View	X C
Email Template	Versions						
Details							
	Template Name :	Notification based on status					
Member of Bu	isiness Services :						
E	mail Connection :	QA-OPSWISE-MAILER					~
	Reply-To :						
	To :	support@stonebranch.com					
	Cc:						
	Bcc :						
	Subject :	Test Failure Alert					
		Task Failure: see Activity Mon	itor for Problems.				
	Body :						

Creating an Email Task Using the Email Template

Step 1	From the Automation Center navigation pane, select Tasks > Email Tasks. The Email Tasks list displays.
Step 2	Click the New button to display an empty Email Task Details and enter the following values:
	 Task Name = Triggered by Task Status Email Template = Notification based on status
	Leave the remaining fields blank, since we want to use the information from the template. (If you fill in any of the duplicate fields, the information from the task overrides the information from the template.)

mail Task Details	
	🦷 Save 🕼 Save & New 👔 Save & View 💥 Close
Email Task Variables Actions Virtue	al Resources 🔴 Mutually Exclusive 🛑 Instances 🔴 Triggers 🛑 Notes 🖗 Versions
General	
Task Name : Triggered by Task Status	
Task Description :	
Member of	
Business Services :	<u>×</u>
Resolve Name	
Immediately : — Hold on Start : _	
Virtual Resource 10	Hold Resources on
Priority :	Failure :
- Email Details	
Email Template : Notification based on status	V 🔚 Email Connection :
Email Template Variable :	E
Reply-To :	
To :	
Cc:	
Bcc :	
Subject :	
Body :	
Report :	💌 📰 Report Variable : 🥅
Wait/Delay Options	
Wait To Start : None Delay On Start : None	
Workflow Only : System Default	
Worknow Only System Delauit	
Time Options	
Late Start :	
Late Finish :	
Early Finish :	~
User Estimated Day Hour Min Se Duration :	ec V
Critical Path Options	
CP Duration :	CP Duration Unit : Minutes
Workflow Execution Options	
	v
Execution Restriction : - None	

Creating a Task Monitor Task

For this Task Monitor, we will monitor the status of all other tasks. If any task has a status that indicates there is some sort of problem, we will generate an email. Once the Task Monitor is launched by the Task Monitor trigger, it remains active, launching an Email every time any of its conditions are met. The Task Monitor task remains active until the Task Monitor trigger is disabled or until a user manually stops it.

Click the Save bu					
	.ton.				
Task Monitor Details				🔛 Save 🔓 Save & New	🔄 🗆 🔀
Task Monitor 🔍 Var	iables Actions Virtual Resources	Mutually Exclusive	Instances Task I	Monitor Triggers Triggers	Notes Versions
General					
Task Name :	Monitors for Problems				
Task Description :					
Member of Business Services					¥
Resolve Name Immediately :					
Hold on Start					
Virtual Resource Priority :	10	¥	Hold Resources on Failure :		
Monitor Details —					
	Running/Problems, Cancel Pending, In Doul	ubt. Start Failure. Confi	irmation Required. Cancelle	d. Failed	v
	General Task(s)	~	······	-,	
Task Name		*			
Task Type To	Workflow Linux/Linux Windows Manual File		r Email 7/08 Timer File Tra	ansfer FTP File Monitor SOL S	Stored Procedure Lini
Monitor : Workflow Name			, Email, 200, Timei, File Ha		
Condition :	None	*			
Time Scope :	None	*			
Wait/Delay Options					
Wait To Start :		~			
Delay On Start :		*			
Workflow Only :	System Default	*			
Time Options					
Late Start :					
Late Finish : [
User Estimated					
Duration :	v v v v				
Critical Path Option					

Creating a Task Monitor Trigger

As the last step in our set-up process, we will create the Task Monitor trigger, which controls when the Task Monitor task is started and stopped.

Step 1 From the Automation Center navigation pane, select **Triggers > Task Monitor Triggers**. The Task Monitor Triggers list displays.

Cli	ck the Save but	tton.	
I	ask Monitor Trigger Det		_
H		📆 Save & New 💼 Save & Vie	w 💢 Close
ŀ		Variables Versions	
L	General Name :	Controls Monitors for Problems	
	Description :		
	Member of Business Services :		~
L		System Default Time Zone : System (America/New_York)	~
L		Triggered by Task Status	
	Task(s) :		
	Purge By Retention Duration :		
L	- Status		
L	Skip Count :		
L	Skip Trigger if Active :		
L	- Task Monitor Details	ş	
L		Monitors for Problems	
L	Restrictions		
	Restrict Times :		

Running the Task Monitor

To test our set-up, we need to run a task to one of the failure statuses that will trigger the email. To do so, we will launch the **Pause for Manual** Manual task created in the Running a Workflow with a Conditional Path tutorial and force it into Failed status.

Step 2	D			1 From the Automation Center navigation pane, select Tasks > Manual Tasks . The Manual Tasks list displays.											
	Right-click the Pause for Manual task and, on the Action menu, select Launch Task .														
	Problems Task Monitor task, which was launched when enabled the Controls Monitor for Problems triggered														
		23 Task Instances	-		Last 48 hours 👻		Custom Filter None			Filter					
		Pause for Manual	Type Manual	Status Action Required	Invoked B Manually L	•	Start Time 2014-09-05 14:09:26	-0400	Updated * 2014-09-05 14:0	19:26 -0400					
		Monitors for Problems	Task Monitor	Running	Trigger: Co	ontrols Monitors for Prot	lems 2014-09-05 14:08:57	-0400	2014-09-05 14:0	18:57 -0400					

Dashboards	Activity	🛛 🛛 Manual Ta	sks 🗵						
24 Task Instan	ces			Last 48 hours 👻	🗸 🛛 🔒 No quic	k filter 👻 Custom F	ilter None		👻 🤝 Filter
Instance	Name	Туре	Status	Invok	ed By	Start Ti	me	End Time	Updated *
Triggere	d by Task Stati	ıs Email	Success	Trigge	er: Controls Monito	rs for Problems 2014-09	9-05 14:19:31 -0400	2014-09-05 14:19:32 -0400	2014-09-05 14:19:32 -0400
Pause fo		Manual	Cancelled		ally Launched			2014-09-05 14:19:31 -0400	
n Monitors	for Problems	Task Monitor	Running	Trigge	er: Controls Monito	rs for Problems 2014-09	9-05 14:08:57 -0400		2014-09-05 14:19:31 -0400
eck the	Email a	ccount wh	ere you sent	the notific	ation.				
Once the user receives the email, the user can quickly check for more information by looking at the Activity Monitor using th Cancelled Task Instances filter and clicking on the Instance Name of the problem task. As shown in the illustration below, a information about the issue is displayed in the Status Description field.									
lanual Task	Instance Det	ails: Pause for	Manual						
						🔚 Update 🛛	Re-run 🛛 🔓 Vi	ew Parent 💣 Delete 🛛	🕏 Refresh 💥 Close
Manual Task	Instance	Virtual Resou	rces 🛛 Exclusive	e Requests	Notes				
- General									
		Pause for Man	Jal			Reference Id :	1		
	Task:	Pause for Man	Jal		12	Invoked By :	Manually Launch	ed	
Task			run at 2014-09-05 1	14:09:26 -0400			, 200.101		
- aon a	Member of			1.00.20 0.000		Europeine Merce	an a starta		
Busines	s Services :				×	Execution User :	ops.admin		
	olve Name mediately :					Calendar : S	System Default		1
	Resource	10			*	Hold Resources on			
	Priority :					Failure :			
Status -									
	Status :	Cancelled							
Status D	escription :	State was cano	elled from ACTION	REQUIRED to (CANCELLED				
	l Start Time ·	2014-09-05 14	09:26 -0400			End Time :	2014-09-05 14:1	2:31 -0400	
	Duration :					2.10 1.110 .			
	Duration								
_ Wait/De	lay Options -								
W	ait To Start :	Seconds			*	Wait Duration In Seconds :	50		
						Delay Duration In	-		
Dela	ay On Start :	Seconds			*	Seconds :))		
Wor	kflow Only :	No			*				
- Time Op	tions —								
1	ate Finish :	1				Late Finish Type :			~
Fin	ished Late :	1				Late Finish Duration :	00 ~ 02 ~	00 V HH:MM:SS	
						Duration			
Critical I	Path Options								
C	P Duration :					CP Duration Unit :	Minutes		~
Statistic						Average Estimates			
Use	r Estimated End Time :					Average Estimated End Time	2014-09-05 14:0	9:26 -0400	
Shortes	t Estimated					Longest Estimated	1		
	End Time :					End Time			
		🔽 Re-run	View Parent	👘 Delete	a Re	fresh 🛛 💥 Clo			
🛛 🔗 Up	date								

- Email Task
 Email Connections
 Email Templates

- Reports
 All Task Instances Table (ops_exec)

Universal Controller 6.4.x Troubleshooting and Tutorials

- Activity Monitor
 Task Monitor Task
 Task Monitor Trigger
 Command Quick Reference
 Cancelling a Task Run

Tutorial - Launching Tasks Using a Cron Trigger

Create a Cron Trigger

Step 1	From the Automation Center navigation pane, select Triggers > Cron Triggers. The Cron Triggers list displays.
Step 2	Click the New button to display Cron Trigger Details for a new trigger and enter/select the following values:
	 Name = Launch Tasks Using Cron Task(s) = stonebranch-timertask-01, stonebranch-timertask-01=2, and stonebranch-timertask-03 Timer tasks Minutes = Number of minutes past the hour you want the tasks to run. For example, if you want the tasks to run at for 3:16, enter 16. Hours = Hour (in 24-hour time) that you want the tasks to run. For example, if you want the tasks to run at for 3:16, enter 15. Universal Controller uses the time zone of the Controller server.
Step 3	Keep the asterisks (*) in the remaining fields and click the Save button.
	Cron Trigger Details
	📳 Save 🕼 Save & New 👔 Save & View 💥 Close
	Cron Trigger Variables Versions
	General
	Name : Launch Tasks Using Cron
	Description :
	Member of Business Services :
	Calendar : System Default V Time Zone : System (America/New_York) V
	stonebranch-timertask-01
	stonebranch-timertask-02
	Task(s): stonebranch-timertask-03
	Purge By Retention Duration :
	T Status
	Forecast:
	Skip Count: 0
	Skip Trigger if Active :
	Simulate : System Default v
	Cron Details
	Minutes: 50 Day Logic: And 💌
	Hours: 16
	Day of Month : *
	Month : *
	Day of Week : *
	Cron Criteria : 50 16 ***
	Restrictions
	Special Restriction :
	🔚 Save & New 👔 Save & View 🗱 Close
Step 4	In the Cron Triggers list, right-click Launch Tasks Using Cron and click Enable .
Step 5	Open the Activity Monitor to see that three Timer tasks are run at the selected time.

For additional information, see:

Cron Trigger

Tutorial - Aborting a Process Launched by a Task

You can use an Abort Actions to instruct Universal Controller to abort a process under certain conditions. For example, you may want to abort a task if it is running too long.

In this tutorial, we will set a Timer task to run for 60 seconds and specify an Abort Action when the task runs 45 seconds.

Step 1 Open th	e Timer1 task created in the Creating a Sin	nple Workflow tutorial and enter / select the followir	ng values:
•	Time in Seconds = 60		
	Late Finish = enabled		
	Late Finish Type = Duration		
•	Late Finish Duration = 00:00:45		
Timer Task Details: Time	r 1		
	Update		💢 Close
Timer Task 🛛 🖉 Vari	iables Cactions Virtual Resources Mutually Exclusive	e Instances Triggers Notes Versions	
General			
Task Name :	Timer 1	Version : 2	
Task Description :			
Business Services :	Operations, Tech Support		~
Resolve Name Immediately :			
Hold on Start :			
Virtual Resource Priority :	10	Hold Resources on Failure :	
Timer Details	Casanda		
Timer Type : Timer Duration In			
Seconds :	60		
Time Options			
Late Start : 📃			
Late Finish : 🔽	Late Finish Type : Duration	Late Finish Day Hour Min Sec Duration : 00 v 00 v 00 v 45 v	
Early Finish : 📃]		
User Estimated Duration :	Day Hour Min Sec		
Critical Path Options	s		
CP Duration :		CP Duration Unit : Minutes	
Workflow Execution	Options		
Restriction	- None - 🗸		
- Statistics			
	2017-05-05 15:23:18 -0400	Lowest Instance	
	2017-05-05 15:23:18 -0400	Average Instance 1 Minute 0 Seconds	
	1 Minute 0 Seconds	Time : 1 Minute 0 Seconds Highest Instance 1 Minute 0 Seconds Time : 1 Minute 0 Seconds	
Duration : Number of		Time : Timinue o seconds	
Instances :	1		
Update	Launch Task 🕞 View Parents 📴 Copy 🎯 De	lete 🕞 Refresh 🛛 💥 Close	

 Step 2
 Click the Actions tab to display the Actions list.

 Step 3
 Click Abort Action to display the Abort Action list.

	Abort Action Details	
		🦷 Save 🎼 Save & New 🚡 Save & View 💥 Close
11	Abort Action	
	Action Criteria	
11	Status :	×
	Exit Codes :	
11	On Late Start : 🕅	
11	On Late Finish : 🔽	
	On Early Finish :	
	Description :	
	Action Details Cancel Process If Active : Halt On Force Finish : Save & New & Save & View Close	e Exit Code :
С	lick the Timer Task tab and then click the Update button.	
R	ight-click Timer1 in the Timers Tasks list and click Launch Task.	
	avigate to the Activity Monitor and verify that after running for 45 s nished.	econds, the task instance status changes from Running to

Finished	due to abort action on Timer 1							
mer Task Instance Det	ails: Timer 1							
			🦷 📴 Update 📪 Re-run 🎲 Delete 👍 Refresh 💥 Close					
Timer Task Instance	Virtual Resources Exclusive Requests Notes							
General								
Instance Name :		Reference Id						
	Timer 1	Invoked By	Manually Launched					
Task Description :								
Member of Business Services :	Operations, Tech Support	Execution User	ops.admin					
Resolve Name Immediately :		Calendar	System Default					
Virtual Resource		Hold Resources on						
Priority :	10 ~	Failure						
- Status								
Status :	Finished							
Status Description :	Finished due to abort action on Timer 1. {Last Status=Running, 0	Cancel Process If Act	tive=false, Halt On Force Finish=false}					
Operational Memo :								
Trigger Time :			2017-10-26 15:43:17 -0400					
	2017-10-26 15:43:17 -0400	End Time	: 2017-10-26 15:44:02 -0400					
	45 Seconds							
Run Until Time :	2017-10-26 15:44:17 -0400							
- Timer Details								
Timer Type :	Seconds							
Timer Duration In Seconds :	60							
Time Options —								
Late Finish :	\swarrow	Late Finish Type	Duration v					
Finished Late :		Late Finish Duration	Day Hour Min Sec					
- Statistics								
User Estimated End Time :		Average Estimated End Time	2017-10-26 15:43:17 -0400					
Shortest Estimated End Time :		Longest Estimated End Time						

• Setting Up Abort Actions

Tutorial - Force Finishing, Force Finish-Cancelling, and Cancelling a Task

In this exercise, we will force finish, force finish/cancel, and cancel tasks within a workflow from three areas:

- Workflow Monitor
- Activity Monitor
- Task Instances list

You can run any of these three commands from any of these three areas. For stand-alone tasks, you can run these commands only from the Activity Monitor and Task Instances list.

🔥 Note

You can force finish, force finish/cancel, and cancel any task in Running status, but you only can force finish a task in Waiting status. See Manually Running and Controlling Tasks for a complete list of task statuses for each command.

Step 1	From the Automation Center navigation pane, select Tasks > Workflow Tasks. The Workflow Tasks list displays.									
Step 2		with an Agent-based task, such as a File creating a Simple Workflow tutorial for		task, that can be Force Finished, Force Finish / Cancelled, and creating the Workflow.) $\label{eq:constraint}$						
Step 3	Click Launch Task to run the Workflow.									
Step 4	Force Finish a task from the Workflow Monitor:									
Step 4	 From the A displays, b Open the r Right-click 	utomation Center navigation pane, sele y default, a list of Active Task Instances. unning Workflow and click the View Work a Waiting task and, from the list of Comm	flow bu	Instances > Task Instances to display the Activity Monitor which ton to display its Workflow Monitor. In the pop-up menu, click Force Finish. The status of the task stances waiting for successful completion of this task instance will						
		Commands	-	Clear All Dependencies Clear Predecessors						
		View Predecessors/Successors		Force Finish Force Finish (Halt)						
		Insert Task As Predecessor		Hold						
		Insert Task As Successor	Į	Skip						
		Details	•							
	ß	Properties								

	 Right-click a Simple Workflow task that is in the Runnin status of the task changes from Running to Finished, an this task instance will start. 			
	23 Task Instances			
	Instance Name		Туре	Status
	Danstonebi 🐼 Clear		File Monitor	Running
	FOREVER Force Finish	Force Finish	Timer	Waiting
	ecu-sleep-	Force Finish (Halt)	Timer	Waiting
	stonebranc	Force Finish/Cancel	Workflow	Running
	Hold	Force Finish/Cancel (Halt)	Workflow	Success
	sysmon-dis Roloaco		System Monitor	Success
ep 6 C	ancel a task from the Task Instances list:			
tep 6 C	 From the Automation Center navigation pane, select 1 Right-click a Simple Workflow task in the Running statu changes from Running to Cancelled, and all successor remain in the Waiting status. The status of Simple Work 	s and, on the Action menu, click C task instances waiting for success	ancel. The status of full completion of this	the task
tep 6 C	 From the Automation Center navigation pane, select 7 Right-click a Simple Workflow task in the Running statu changes from Running to Cancelled, and all successor remain in the Waiting status. The status of Simple Work 	s and, on the Action menu, click C task instances waiting for success	ancel. The status of full completion of this	the task
tep 6 C	 From the Automation Center navigation pane, select 1 Right-click a Simple Workflow task in the Running statu changes from Running to Cancelled, and all successor remain in the Waiting status. The status of Simple Work 23 Task Instances Instance Name Danstonebranch-filemonitor-01 	s and, on the Action menu, click C task instances waiting for success	ancel. The status of full completion of this inning/Problems.	the task task will
tep 6 C	 From the Automation Center navigation pane, select 7 Right-click a Simple Workflow task in the Running statu changes from Running to Cancelled, and all successor remain in the Waiting status. The status of Simple Work 23 Task Instances Instance Name Danstonebranch-filemonitor-01 FOREVER 	s and, on the Action menu, click C task instances waiting for success	ancel. The status of full completion of this aning/Problems.	the task task will Status
itep 6 C	 From the Automation Center navigation pane, select 1 Right-click a Simple Workflow task in the Running statu changes from Running to Cancelled, and all successor remain in the Waiting status. The status of Simple Work 23 Task Instances Instance Name Danstonebranch-filemonitor-01 	s and, on the Action menu, click C task instances waiting for success	ancel. The status of a ful completion of this aning/Problems. Type File Monitor	the task task will Status Running

For additional information, see:

- Force Finishing a Task

- Force Finishing a Task
 Cancelling a Task
 Force Finish / Cancelling a Task
 Monitoring Activity from the Activity Monitor
 Monitoring Activity from the Task Instances List
 Monitoring Workflows

Tutorial - Accessing Task Instance Details

Step 1	From the Automation Center navigation pane, select Task Instances > Activity to display the Activity Monitor.											
Step 2	Click the Instance Name of any task instance to display its Task Instance Details. For example:											
	Timer Task Instance Details: Timer 1											
	🦷 Update 🛱 Re-run 🎲 Delete 🔄 Refresh 🂢 Close											
	Timer Task Instance Virtual Resources Exclusive Requests Notes											
	General											
	Instance Name : Timer 1 Task : Timer											
	Task: Timer 1 Invoked By: Manually Launched											
	Member of Operations, Tech Support V Execution User : ops.admin											
	Business Services .											
	Immediately:											
	Virtual Resource 10 Mold Resources on Failure :											
	- Status											
	Status : Finished											
	Status Description : Finished due to abort action on Timer 1. {Last Status=Running, Cancel Process If Active=false, Halt On Force Finish=false}											
	Operational Memo :											
	Trigger Time : 2017-10-26 15:43:17 -0400											
	Start Time : 2017-10-26 15:43:17 -0400 End Time : 2017-10-26 15:44:02 -0400											
	Duration : 45 Seconds											
	Run Until Time : 2017-10-26 15:44:17 -0400											
	Timer Details											
	Timer Type : Seconds											
	Timer Duration In Seconds : 60											
	Late Finish : Late Finish : Late Finish Type : Duration											
	Late Finish Day Hour Min Sec											
	Duration : 00 v 00 v 45 v											
	Statistics											
	User Estimated End Time : 2017-10-26 15:43:17 -0400											
	Shortest Estimated End Time : End Time :											
	🕎 Update 📪 Re-run 👔 Delete 🔄 Refresh 🗱 Close											
	Test between Details and the set finder of the test in the Test Details for this test that we detail to the set this we											
	Task Instance Details contain many fields not displayed in the Task Details for this task that provide information about this run (instance) of the task and all runs of the task, including the first time it was run; the last time it was run; the number of times it											
	and the least, average, and most amount of time it has ever taken to run.	nao ran,										
Step 3	To view all details stored in the All Task Instances table (ops_exec) for this task instance, right-click anywhere in the Task Instance	stance										
otop o	Details to display an Action menu and then click Details > Show Details .											

Dashboards 🛛 Activity 🖾 T	imer Tasks 🖾 Timer 1 🖾
Agent:	
Agent Acquired:	
Agent Acquired Name:	
Agent Cluster Acquired:	
Agent Cluster Acquired Name:	
Agent Name:	
All Dependencies Cleared:	false
Attempt:	1
Average Estimated End Time:	2017-05-05 15:32:03 -0400
Calendar:	77171434c0a801c9016d5b2b5d17ddee
Calendar Name:	System Default
Can Delete:	true
Can Update:	true
Class:	ops_exec_sleep
CP Duration:	
CP Duration (Resolved):	
CP Duration Unit:	Minutes
CPU Time:	0
Created:	2017-05-05 15:31:02 -0400
Created By:	ops.admin
Credentials:	
Credentials Name:	
Credentials Unresolved:	
Credentials Variable:	false
Critical:	false
Current Retry Count:	0
Delay Duration:	00:00:00:00
Delay Duration In Seconds:	
Delay On Start:	None
Duration:	45 Seconds
Duration In Seconds:	45
Early Finish:	false
Early Finish Duration:	00:00:00:00
Early Finish Time:	00:00
Early Finish Type:	Time
End Time:	2017-05-05 15:31:48 -0400
Exclude Backup:	false
Exclusive State:	Initial
Execution User:	ops.admin
Exit Code:	0
Finished Early:	false
Finished Late:	true
Forced Finished:	true
Hold on Start:	false

Hold Reason:	
Hold Resources on Failure:	
Instance Name:	Timer 1
Invoked By:	Manually Launched
IO Other:	
IO Reads:	
IO Writes:	
Is Version:	
Late Finish:	
Late Finish Duration:	
Late Finish Time:	
Late Finish Type:	
Late Start:	
Late Start Duration:	
Late Start Time:	
Late Start Type:	
Launch Time:	2017-05-05 15:31:02 -0400
Longest Estimated End Time:	2017-05-05 15:32:03 -0400
Maximum Retries:	0
Member of Business Services:	Operations, Tech Support
Member of Business Services:	3fa01c7d335a44f0a93c85955c833aac,209686ac5a4f4eaebe488e9a3749ceb
Memory Peak:	0
Memory Used:	0
Next Retry Time:	
Operational Memo:	
Predecessors Satisfied Time:	
Progress:	
Projected End Time:	
Queued Time:	
Reference Id:	2
Resources Consumed:	false
Resources State:	Initial
Retention Time:	
Retry Indefinitely:	
Retry Interval (Seconds):	
Run Called:	
Run Criteria Run Time:	
Run Criteria Trigger Time:	
	2017-05-05 15:32:03 -0400
Security Name:	
Shortest Estimated End Time:	
	2017-05-05 15:31:03 -0400
Started Late:	
State Changed Time:	2017-05-05 15:31:48 -0400
Status:	Finished
Status Description:	Finished due to abort action on Timer 1. {Last Status=Running, Cancel Process If Active=false}

Status History:	2017-05-05 15:31:03 -0400: Running 2017-05-05 15:31:48 -0400: Finished
Suppress Intermediate Failures:	false
Tab Names Containing Data:	
Table Name:	ops_exec_sleep
Task:	6fb0f68152a748f6ab7346647c5f53e5
Task Description:	
Task Name:	Timer 1
Task Priority:	MEDIUM
Time Wait State:	Initial
Timer Day Constraint:	None
Timer Duration:	00:00:00
Timer Duration In Seconds:	60
Timer Time (HH:MM):	00:00
Timer Type:	Seconds
Trigger:	
Trigger Name:	
Trigger Time:	
Туре:	Timer
Universal Template:	
Universal Template Name:	
Updated:	2017-05-05 15:31:48 -0400
Updated By:	ops.system
User Defined Field 1:	
User Defined Field 2:	
User Estimated End Time:	
UUID:	14937490962627849468SYUYMI970CZ
Vertex Id:	
Virtual Resource Priority:	10
Wait Day Constraint:	None
Wait Duration:	00:00:00
Wait Duration In Seconds:	
Wait Time (HH:MM):	00:00
Wait To Start:	None
Wait Until Time:	
Waited for Exclusive:	false
Waited for Resources:	false
Workflow:	
Workflow Definition:	
Workflow Definition Name:	
Workflow Name:	
Workflow Only:	Yes
Workflow Start Time:	

Left column shows each field in the All Task Instances table for this task instance.
Right column shows the current value for each field for this task instance.

Tutorial - Monitoring Task Activity

- Starting and Stopping the Activity Monitor
- Apply Time Constraints and Filters to the Activity Monitor
- Apply Display Settings to the Activity Monitor

In this tutorial, we will monitor task activity from the Activity Monitor.

We will start and stop the Activity Monitor, apply time constraints and filters to the task instances displayed on the Activity Monitor, and apply display settings to the Activity Monitor.

Starting and Stopping the Activity Monitor

By default, the Activity Monitor does not automatically monitor Universal Controller activity when you log in. You must start the Activity Monitor to see task activity.

(You can allow the Activity Monitor to automatically monitor Controller activity when you log in by changing the Activity Monitor Automatically user preference.)

		📰 Last 48 hours 👻 🛛 🔒 No qu	uick filter 👻 Custom Filter – Non	e	👻 🤝 Filter
Instance Name A	Туре	Status Invoked By	Start Time	End Time	Updated
		Click to sta	rt the Activity monitor		
Start	Stop				
\ \	/				

Ster	2

To start the Activity Monitor, either:

1. Click the Click to start the Activity monitor button in the middle of the Activity Monitor.

2. Click the Start Activity monitor button at the bottom of the Activity Monitor.

The Activity Monitor then displays a list of all current activity.

	Task Instances		E La	st 48 hours 👻 🛛 🔛 No quick filter 👻 🛛 C	ustom Filter None		👻 🦁 Fil
	Instance Name	Туре	Status	Invoked By	Start Time	End Time	Updated 👻
273	lecu-wkfl-sleep	Workflow	Success	Manually Launched	2014-09-02 12:57:55 -0400	2014-09-02 12:58:36 -0400	2014-09-02 12
	sleep 10	Timer	Success	Workflow: lecu-wkfl-sleep	2014-09-02 12:58:26 -0400	2014-09-02 12:58:36 -0400	2014-09-02 12
	Sleep 30	Timer	Success	Workflow: !ecu-wkfl-sleep	2014-09-02 12:57:56 -0400	2014-09-02 12:58:26 -0400	2014-09-02 12
	Sleep 0	Timer	Success	Workflow: !ecu-wkfl-sleep	2014-09-02 12:57:56 -0400	2014-09-02 12:57:56 -0400	2014-09-02 12
	Sleep 60	Timer	Skipped	Workflow: lecu-wkfl-sleep		2014-09-02 12:57:55 -0400	2014-09-02 12
	Sleep 60	Timer	Skipped	Workflow: lecu-wkfl-sleep		2014-09-02 12:57:55 -0400	2014-09-02 12
222	Sleep 60	Timer	Skipped	Workflow: !ecu-wkfl-sleep		2014-09-02 12:57:55 -0400	2014-09-02 12
	Sleep 30	Timer	Skipped	Workflow: !ecu-wkfl-sleep		2014-09-02 12:57:55 -0400	2014-09-02 12
	Sleep 30	Timer	Skipped	Workflow: !ecu-wkfl-sleep		2014-09-02 12:57:55 -0400	2014-09-02 12
177	win-exit-code	Windows	Failed	Manually Launched	2014-09-02 12:44:03 -0400	2014-09-02 12:44:03 -0400	2014-09-02 12
	zos-workflow-regression-test	Workflow	Success	Manually Launched	2014-09-02 11:52:47 -0400	2014-09-02 12:10:30 -0400	2014-09-02 12
	zos-workflow-simple-load-test-01	Workflow	Success	Workflow: zos-workflow-regression-test	2014-09-02 11:56:39 -0400	2014-09-02 12:10:30 -0400	2014-09-02 1
	zos-task-load-simple-01	z/OS	Success	Workflow: zos-workflow-simple-load-test-01	2014-09-02 12:10:29 -0400	2014-09-02 12:10:29 -0400	2014-09-02 12
	zos-task-load-simple-01	z/OS	Success	Workflow: zos-workflow-simple-load-test-01	2014-09-02 12:10:25 -0400	2014-09-02 12:10:26 -0400	2014-09-02 1
	zos-task-load-simple-01	z/OS	Success	Workflow: zos-workflow-simple-load-test-01	2014-09-02 12:10:23 -0400	2014-09-02 12:10:23 -0400	2014-09-02 1
-	zos-task-load-simple-01	z/OS	Success	Workflow: zos-workflow-simple-load-test-01	2014-09-02 12:10:20 -0400	2014-09-02 12:10:20 -0400	2014-09-02 1
	zos-workflow-simple-load-test-02	Workflow	Success	Workflow: zos-workflow-regression-test	2014-09-02 11:56:39 -0400	2014-09-02 12:10:19 -0400	2014-09-02 1
573	zos-task-load-simple-02	z/OS	Success	Workflow: zos-workflow-simple-load-test-02	2014-09-02 12:10:17 -0400	2014-09-02 12:10:17 -0400	2014-09-02 1
	zos-task-load-simple-01	z/OS	Success	Workflow: zos-workflow-simple-load-test-01	2014-09-02 12:10:15 -0400	2014-09-02 12:10:15 -0400	2014-09-02 1
	zos-task-load-simple-02	z/OS	Success	Workflow: zos-workflow-simple-load-test-02	2014-09-02 12:10:12 -0400	2014-09-02 12:10:12 -0400	2014-09-02 1
	zos-task-load-simple-01	z/OS	Success	Workflow: zos-workflow-simple-load-test-01	2014-09-02 12:10:11 -0400	2014-09-02 12:10:11 -0400	2014-09-02 1
	zos-workflow-simple-load-test-03	Workflow	Success	Workflow: zos-workflow-regression-test	2014-09-02 11:56:39 -0400	2014-09-02 12:10:13 -0400	2014-09-02 1
	zos-task-load-simple-03	z/OS	Success	Workflow: zos-workflow-simple-load-test-03	2014-09-02 12:10:09 -0400	2014-09-02 12:10:09 -0400	2014-09-02 1
	zos-task-load-simple-02	z/OS	Success	Workflow: zos-workflow-simple-load-test-02	2014-09-02 12:10:07 -0400	2014-09-02 12:10:08 -0400	2014-09-02 12
100	zos-task-load-simple-01	z/OS	Success	Workflow: zos-workflow-simple-load-test-01	2014-09-02 12:10:06 -0400	2014-09-02 12:10:06 -0400	2014-09-02 1

Apply Time Constraints and Filters to the Activity Monitor

(You can select apply any time constraint for any combination of multiple filters for the list of task instances on the the Activity Monitor.)

Step 1	Select a time frame of task activity to display on the Activity Monitor by clicking the Time Constraint button and selecting a time fame from the menu. The default is Last 48 hours , which means that the Activity Monitor will display only task activity that occurred in the last 48 hours.
Step 2	Click the Quick Filter button to display a menu of simple, pre-defined filters that you can apply to the list, such as a specific task type of specific task instance status. You can apply as many Quick Filters as you like to the list.
Step 3	Click the Clear button at the bottom of the Quick Filter menu to remove all Quick Filters from the list.
Step 4	Click the Filter button to select a Custom Filter of complex, user-defined filter that you can apply to the list, such as only task instances that belong to a specific Business Service.

Apply Display Settings to the Activity Monitor

Step 1	Click the Settings button at the bottom of the Activity Monitor to select:	
	 Number of task instances to display on each page of the Activity Monitor. Refresh rate for the dynamic data displayed on the Activity Monitor. 	

Step 2	Click the First, Prev, Next, and Last buttons at the bottom of the Activity Monitor to navigate through multiple pages of activity.	
Step 3	Click the ellipse () button at the bottom of the Activity Monitor to select a specific page of activity to display.]

Tutorial - Creating a Simple Workflow

- Introduction
- Create and Copy Tasks
 Creating a Simple Workflow
- Running the Workflow

Introduction

In this tutorial, we will learn how to copy tasks, create a simple Workflow of Timer tasks, and use the tools available in the Workflow Editor.

Create and Copy Tasks

Create a Timer task and make five copies for use in the Workflow. Use the names Timer1 through Timer6, and assign each task a time of 10 seconds.

From the Automation Center navigation pane, select Tasks > Timer Tasks . The Timer Tasks list displays.						
	In the Timer Task Details below the list, create Timer1 and click $\ensuremath{\textbf{Sa}}$	ve.				
	Change the Task Name from Timer1 to Timer2, right-click the Details to display an Action menu, and click Insert to make a he Timer1 task named Timer2.					
	Timer Task Details: Timer 1					
l	🗒 Update 🗔 L	aunch Task 🛛 👔 View Parents 🛛	D Co	oy 🇊 Delete 📑 Refresh 🎽	Close	
	Timer Task Variables Actions Virtual Resources Mutually Exclusive Insta	inces 🛛 🖲 Triggers 📄 Notes	0	Versions	3	
	General					
	Task Name : Timer 2	Version : 5		Launch Task		
	Task Description :			Launch Task with Variables		
	Member of Business Services :		5	Open In Tab	~	
	Resolve Name Immediately :					
	Hold on Start:			Update		
	Vidual Pasaurea Hold Pe	sources on	_	Update & View		
	Priority: 10	Failure :		Insert Copy		
	Timer Details					
	Timer Type : Seconds		æ	View Bundles		
	Timer Duration In 30		۲	Add To Bundle		
	Seconds : 50		•	Promote		
	Time Options		102	Reset Statistics		
	Late Start:				-	
	Early Finish :		-	Set Execution Restriction		
	User Estimated Day Hour Min Sec		4	Clear Execution Restriction	-	
	Duration :		•	View Parents		
	Critical Path Options			Delete		
	CP Duration : CP Du	ration Unit : Minutes				
	Workflow Execution Options		*	Close		
	Execution		_			
	Restriction : Thomas and the second s			Details	-	
	📳 Update 🛛 📮 Launch Task 🚯 View Parents 🔹 Copy 👔 Delete	🕏 Refresh 🛛 💥 Close		Refresh	1	

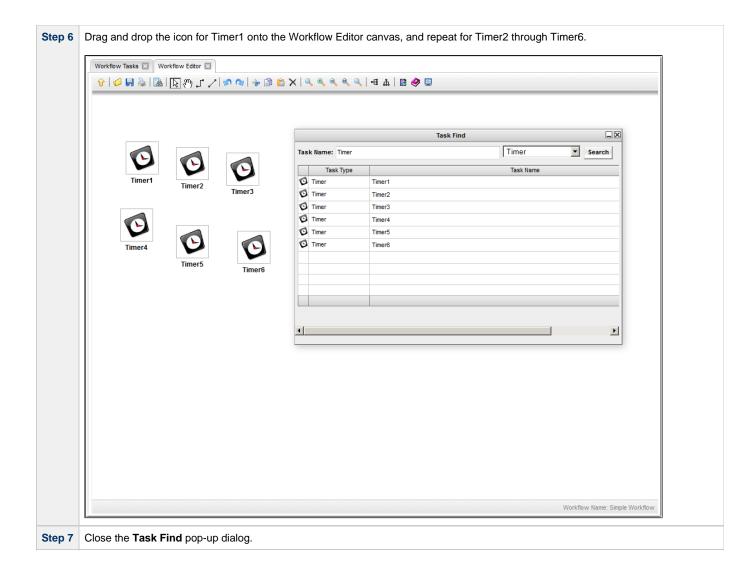
Creating a Simple Workflow

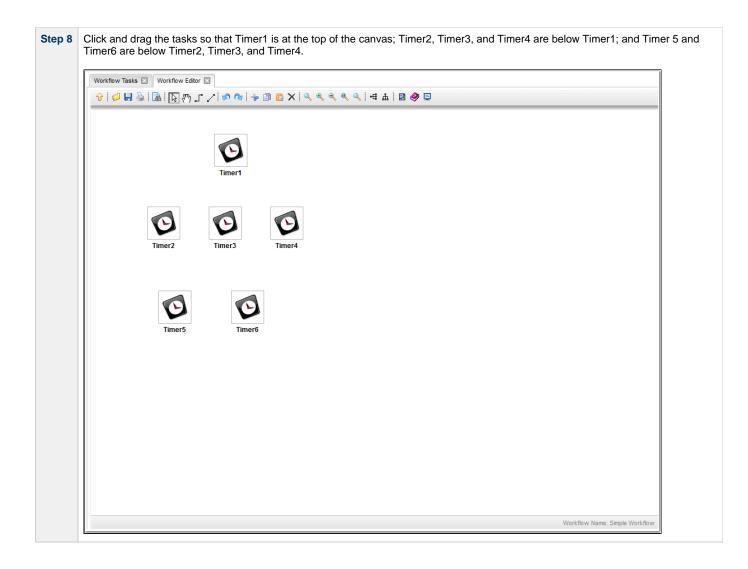
Now that we have six Timer tasks, we are ready to create a simple workflow.

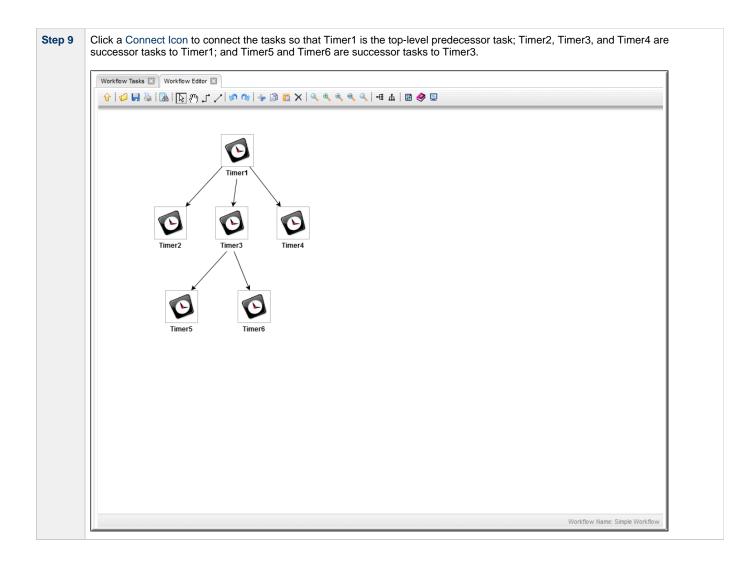
(See Creating and Maintaining Workflows for detailed information on the tools and icons used in this procedure.)

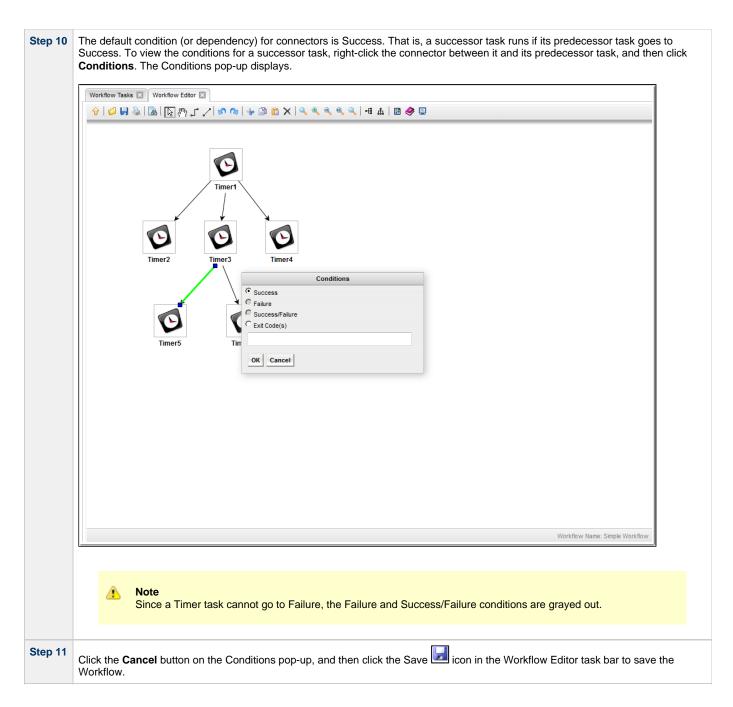
Step 2	In the Workflow Task Details below the list, enter Simple Workflow in the Task Name field and then click the Save button.						
Step 3							
	Administrator 🔻 🔊 📮 🔞						
	Workflow Tasks 🖬 Workflow Editor 🖺						
	Workflow Name: Simple Workflow						
	By default, the Workflow Editor displays in Select mode, which lets you select tasks for the Workflow.						

Task Find			
ask Name:	All Task Types 💌 Search		
Task Type	Task Name		
	•		



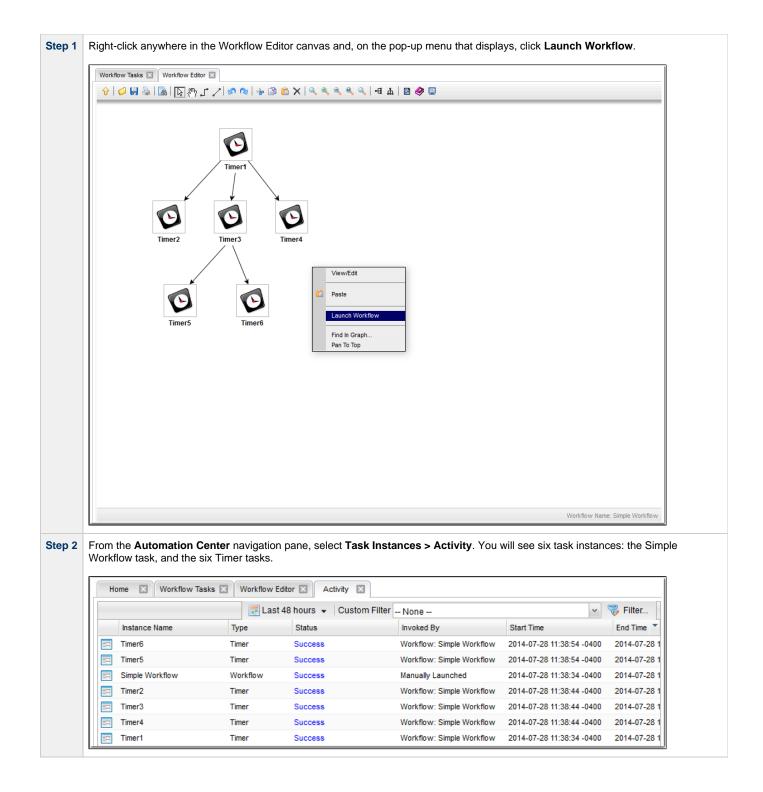






Running the Workflow

Now we will manually launch the Workflow and view it from the Activity Monitor.



For additional information, see:

- Saving, Updating, Deleting, and Copying Records
- Creating Workflows

Tutorial - Running a Workflow with a Conditional Path

- Introduction
 - Prerequisite
- Create a Timer Task
- Create SQL Tasks
- Create a Manual Task
- Create a Workflow
- Run the Workflow to Success
- · Run the Workflow Down the Conditional Path

Introduction

In this exercise, we will create a short workflow of SQL tasks. We will begin with a two-minute Timer task so that we will have enough time to see what the Workflow looks like on the Activity Monitor when we launch it. We will also create a conditional path, as follows:

- The Workflow runs seven days a week and creates a new database table. If that is successful, additional SQL tasks run that insert a value, select a count, and delete a value. Each subsequent task runs if the previous is successful.
- If the first (table creation) task fails, the Workflow goes to a Manual task instead of the regular flow. This is the conditional path. The Manual task creates a pause in the Workflow and sends an Email Notification. A user is expected to check the database and fix the problem that caused the first task to fail. If the Manual task is set to a Complete status, it goes to Success and the Workflow then returns to the remaining SQL tasks. While the Manual task remains in the Action Required status, the successor tasks have a Waiting status.

We will also add an Email Notification and a Note to this Workflow.

Prerequisite

Since we are using SQL tasks in this exercise, you will first need to create a SQL Database Connection.

Create a Timer Task

We will add a Timer task at the beginning of our Workflow so that we will have a chance to view it when Universal Controller loads it into the Activity Monitor.

Step 1 From the Automation Center navigation pane, select Tasks > Timer Tasks. The Timer Tasks list displays.

	Timer Task Details
	🦷 Save 🦓 Save & New 👔 Save & View 💥
	Timer Task Image: Variables Image: Actions Image: Virtual Resources Image: Mutually Exclusive Image: Image: Actions Image: Variables Ima
	General
	Task Name : Two Minute Timer
	Task Description : Member of
	Business Services :
	Resolve Name Immediately :
	Hold on Start:
Ш	Virtual Resource 10 Hold Resources on Failure :
Ш	Timer Details
	Timer Type : Seconds
Ш	Timer Duration In Seconds : 120
Ш	Time Options
	Late Start:
	Late Finish :
	User Estimated Day Hour Min Sec Duration :
Ш	Critical Path Options
Ш	CP Duration : CP Duration Unit: Minutes
	Workflow Execution Options
	Execution None V

Create SQL Tasks

In this exercise, we will create SQL tasks that execute the following SQL commands:

- Create a new table in the database.
- Insert a value into the table.
- Select a count value from the table.
- Delete the value from the table.

Perform the following steps to create the SQL tasks:

Step 1 From the Automation Center navigation pane, select Tasks > SQL Tasks. The SQL Tasks list displays.

	🗮 Save 🕼 Save 🦛 Save 👘	3ave & View 🛛 💥
SQL Task Variables Action	O Virtual Resources O Mutually Exclusive O Instances O Triggers O Notes O Versions	
Task Name : SQL Create Table		
Task Description :		
Member of Business		~
Services :		
Resolve Name Immediately :		
Hold on Start :	Hold Resources on	
Priority : 10	Failure :	
- SQL Details		
Database Connection : QA Mssql Conne	ion V 📻 Credentials :	¥ [1]
Database Connection	Credentials	
Variable :	Variable : 🔤	
Maximum Rows : CREATE TABLE O	Auto Cleanup : swise_tut\$date('yyyyMMdd",5)) (name yarchar(128), value yarchar(128));	
Result Processing : Skip Result Proc	ssing	
Retry Options		
Maximum Retries : 0	Retry Indefinitely : 🕅 Suppress	
(Seconds): 60	Intermediate 📃 Failures :	
- Wait/Delay Options		
Wait To Start : None	×	
Delay On Start : None	<u> </u>	
Workflow Only : System Default	- v	
Time Options		
Late Finish :		
Early Finish : 🔲		
User Estimated Day Hour Duration :	Min Sec	
Critical Path Options		
CP Duration :	CP Duration Unit : Minutes	*
	Save & View K Close	
🔚 Save 🛛 🕞 Save & New		

Step 5	Create a SQL task called SQL Select Count with this value: • SQL Command = SELECT count (*) as count FROM opswise_tut\${_date("yyyyMMdd",5)} WHERE value = 'F';
Step 6	Create a SQL task called SQL Delete with this value: • SQL Command = DELETE FROM opswise_tut\${_date("yyyyMMdd",5)};

Create a Manual Task

A Manual task is used within a Workflow to create a pause in processing, during which the user must perform some task. When the user task is complete, the user sets the Manual task to a completed state and processing continues.

For our Manual task, we are also going to request a warning if the user takes too long to complete it.

F	From the Automation Center navigation pane, select Tasks > Manual Tasks and click New.
I	In the Manual Task Details, enter / select the following values:
	 Task Name = Pause for Manual Task Description = A Manual task run at \${_date()} (a variable that indicates the date and time the Manual task launches Late Finish = enabled Late Finish Type = Duration Late Finish Duration = Hours 00 02 00 (2 minutes)
I	Manual Task Details
	📳 Save 🎼 Save & New 👔 Save & View 💥 Close
	Manual Task 🔍 Variables 🔍 Actions 🔍 Virtual Resources 🔍 Mutually Exclusive 🔍 Instances 🔍 Triggers 🔍 Notes 🔍 Versions
	Task Name : Pause for Manual
	Task Description : A Manual task run at \${_date()}
	Member of
	Business v Services :
	Resolve Name
	Immediately :
	Hold on Start:
	Virtual Resource Priority: 10 VIII Hold Resources on Failure :
	C Wait/Delay Options
	Wait To Start : None v
	Delay On Start : None v
	Workflow Only : System Default v
	_ Time Options
	Late Start:
	Late Finish : V Late Finish Duration v Late Finish Day Hour Min Sec
	Early Finish : 🔟
	User Estimated Day Hour Min Sec Duration: v v v v
	Critical Path Options
	CP Duration : CP Duration Unit : Minutes
	Save Close
Ľ	
(Click the Save button.

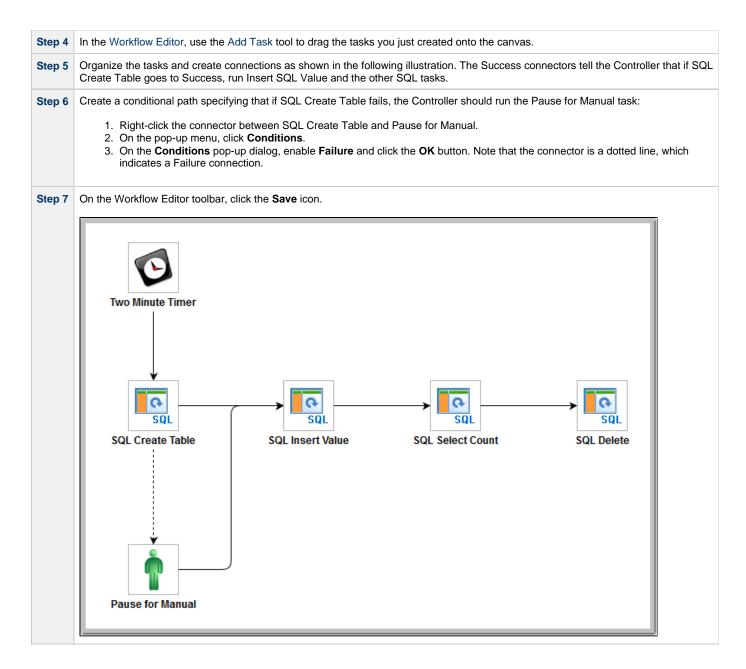
2. E	nter the	e Notes tab and then click New to display Note Details. e following values: Title = Probable database problem Text = Make sure database is running. ve .
Note Details		
		🕎 Save 🕼 Save & New 👔 Save & View 🎇 Close
Note		
	Title : Text :	: Probable database problem Make sure database is running.
📑 Sa	ve	🔓 Save & New 👔 Save & View 🗶 Close

3. Click the I 4. Enter / se • S • E • T • S	Actions tab. ail Notification in the list of Action types. New button to display Email Notification Details for a new Email Notification. lect the following values: tatus = ACTION REQUIRED imail Connection = (the Email Connection you created earlier) io = (your Email address) subject = Issue with Workflow Hody = \${_date} workflow failure; notification triggered by \$\{ops_task_name}
Email Notification Details	
	🔚 Save 🎼 Save & New 👔 Save & View 💥 Close
Email Notification	
Action Criteria —	
Status :	Action Required 🗸
Exit Codes :	
On Late Start :	
On Late Finish :	
On Early Finish :	
Description :	
Action Details	
Email Template :	Email Connection : QA-QRSWISE-MALER
Email Template Variable :	
Reply-To :	
To :	support@stonebranch.com
Cc:	
Bcc :	
Subject :	Issue with Workflow
	<pre>\${_date} workflow failure; notification triggered by \${ops_task_name}</pre>
Body :	
Report :	Report Variable :
📄 Save	Save & New 👔 Save & View 🗶 Close

Create a Workflow

Create a Workflow containing the Timer, SQL, and Manual tasks that you just created.

Step 1	From the Automation Center navigation pane, select Tasks > Workflow Tasks and click New.					
Step 2	In the Workflow Task Details, enter the following value:					
	• Task Name = SQL Workflow					
Step 3	Click the Save button, right-click SQL Workflow on the Workflow Tasks list, and then click Edit Workflow on the Action menu.					



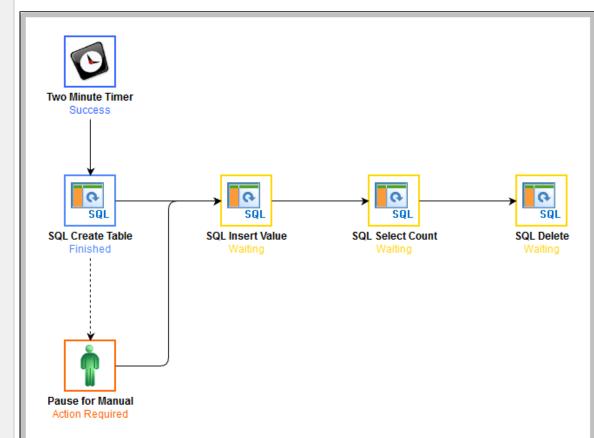
Run the Workflow to Success

We are going to launch our Workflow and view it from two different perspectives: from the Activity Monitor and the Workflow Monitor.

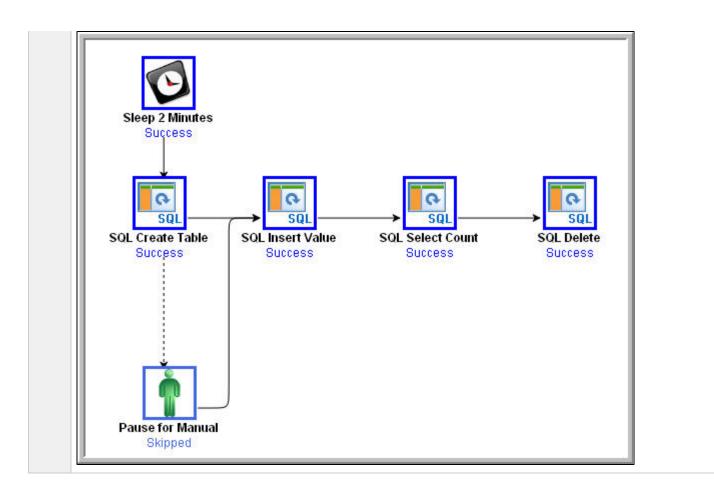
ep 2	2 Display the Activity Monitor. Because the Two Minute Timer task is still running, your display should look similar to t								
	Dashboards 🖾 Activity 🔯 Workflow Tasks 🖾								
	639 Task Instances 📰 Last 48 hours 👻		强 No quick fi	ter 👻 Custom Filter No	ne	👻 🦁 Filter			
	Instance Name	-	Туре	Status	Invoked By	Start Time 🔹			
	SQL Select Count		SQL	Waiting	Workflow: SQL Workflow				
	SQL Create Table		SQL		Workflow: SQL Workflow				
	Pause for Manual		Manual	Waiting	Workflow: SQL Workflow				
	SQL Delete		SQL		Workflow: SQL Workflow				
	SQL Insert Value		SQL	Waiting	Workflow: SQL Workflow				
	Two Minute Timer		Timer	Running	Workflow: SQL Workflow	2014-08-22 15:42:21 -0			
	SQL Workflow		Workflow	Running	Manually Launched	2014-08-22 15:42:20 -0			

Step 3 Right-click SQL Workflow on the Activity Monitor list to display an Action menu and select Workflow Task Commands > View

Workflow. The Workflow Monitor opens and shows progress on the task. The Workflow Monitor updates automatically with each status change.



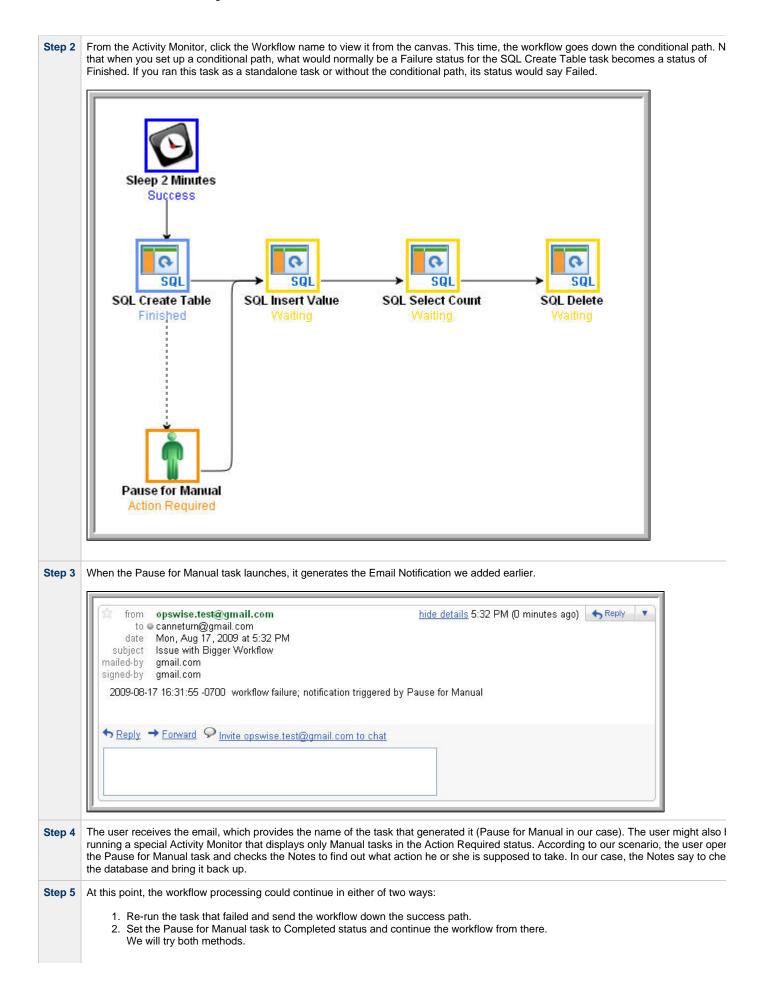
When the Timer task finishes, the SQL tasks execute. All tasks go to Success and the workflow goes to Success. The only task that did not run is the conditional task, Pause for Manual.



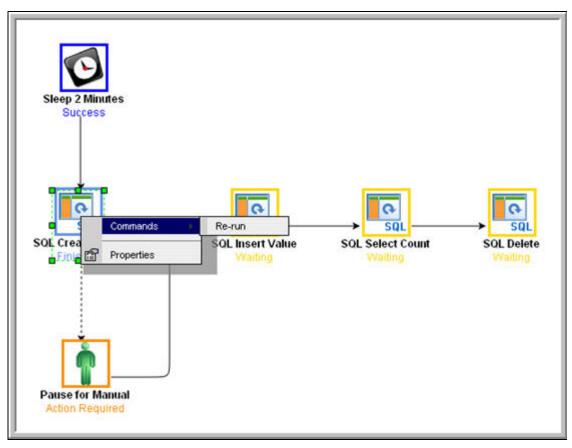
Run the Workflow Down the Conditional Path

Recall that we inserted a date variable into the INSERT TABLE command. Thus, you can run this workflow every day and get a new table name each day, based on the date. For the purposes of our exercise, assuming you are performing it on the same day you did the previous exercise, the SQL Create Table task will fail this time because the table already exists.

Step 1 Return to the Bigger Workflow task and launch it again.



- Re-run the failed task; right-click the task and select Commands > Re-run. In a real processing situation, this is the method you would use because you need to create the table before you can continue.
 - a. Right-click the task that failed and select **Commands > Re-run**.

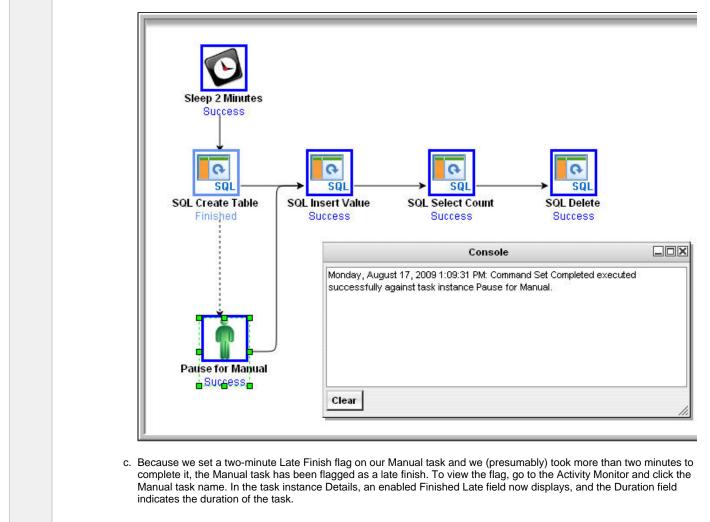


Note that we are still on the same day so the task fails again because the table already exists. In a real processing situation, the task would go to Success and the subsequent tasks would run as expected.

- 4. Set the Manual task to Complete status. For the purposes of our exercise, we will get the workflow going again by setting the Manual task to complete.
 - a. Right-click the Manual task.
 - b. Select Commands > Set Completed.



The Manual task goes to Success and the rest of the workflow runs.



For additional information, see:

- Activity Monitor
- Monitoring Workflows
- Database Connections
- SQL Task
- Manual Task
- Email Notification Actions

Universal Controller 6.4.x Troubleshooting and Tutorials

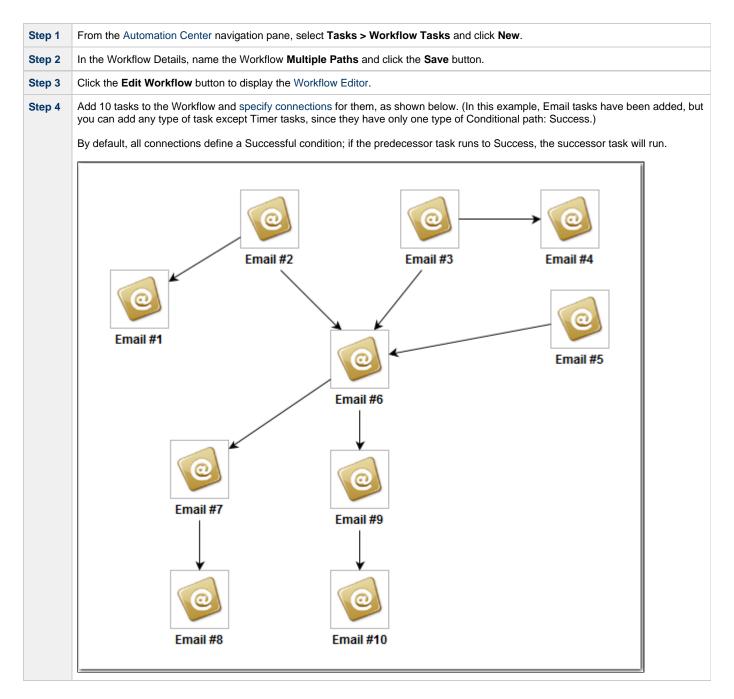
- Creating NotesCreating Conditional PathsAdding Skip/Run Criteria

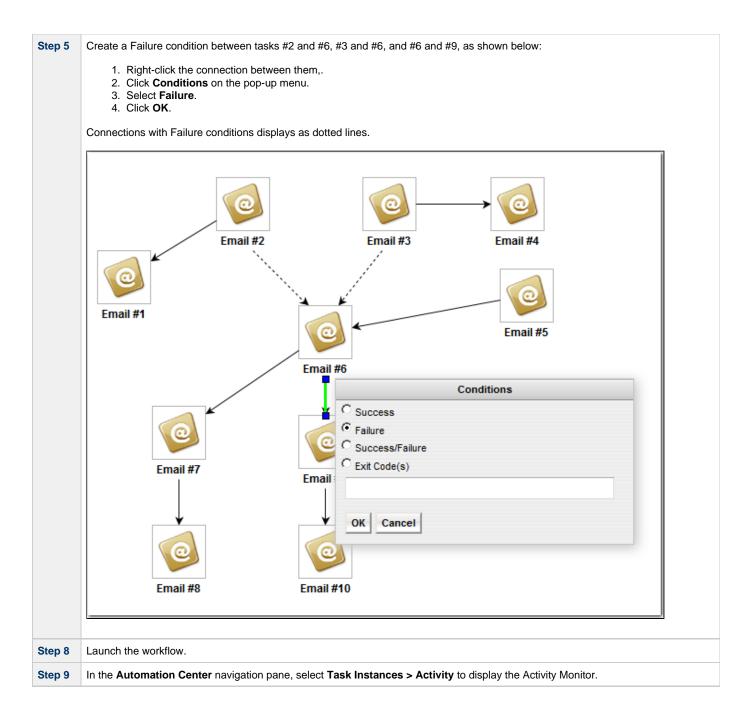
Tutorial - Running a Workflow with Multiple Conditional Paths

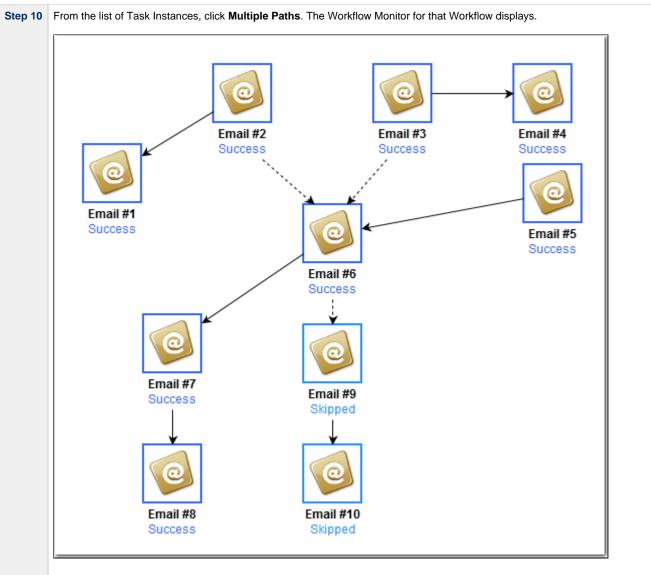
In this tutorial, we will create a Workflow containing tasks with multiple predecessors and multiple successors, and specify different conditional paths for those tasks.

The Workflow will show that:

- A successor task with multiple predecessor tasks needs only one of the predecessor tasks to be Successful in order to run.
- Tasks are skipped if they are in conditional paths not taken.







The Workflow Monitor shows that task #6 ran even though the conditions for two of its predecessor tasks (#2 and #3) specified that it was to run only if those two tasks failed, because the condition for its #5 predecessor task specified that it was to run if #5 ran successfully, which it did.

It also shows that tasks #9 and #10 were Skipped because the Controller took the Success path for task #6 and ran Tasks #7 and #8.

Tutorial - Running a Workflow with Skipped Criteria

- Introduction
- Create the Daily Workflow
- Run the Daily Workflow
- Check the Skipped Workflow's History

Introduction

In this exercise, we will create a daily Workflow that includes a task that we want to skip on Fridays. We will also include a Workflow within a Workflow and later check the skipped status of the skipped Workflow.

Create the Daily Workflow

Step 1	Create a Workflow named Workflow with Skipped and add the following tasks created in the Creating a Simple Workflow tutorial:
	 Four Timer tasks: Timer1, Timer2, Timer3, Timer4. One Workflow task: Simple Workflow.

Step 2	Organize the tasks in the Workflow as shown in the following illustration (using all Success conditions) and click the Save icon.
	Home 🛛 Workflow Tasks 🖾 Workflow Editor 🖂
	ᡠ 💋 🛃 🗟 🗟 िल (ग) 🖍 🔊 🕲 🔸 🗃 💼 🗙 🔍 🔍 🔍 🔍 🔍 📲 ـ₺ 🖻 🧇 🚍
	Timer1 Timer2 Timer3 Timer4
	Workflow Name: Workflow with Skipped, Last Saved: 7/28/2014, 2:23:27 PM
Step 4	Right-click Simple Workflow and, on the pop-up menu, click View/Edit Run Criteria. The Task Run Criteria list for Simple Workflow displays.
Step 5	Click New to display Task Run Criteria Details.
Step 6	In the Type field, select Skip Criteria.
Step 7	Select Specific Day(s).
Step 8	Select the current day (that is, if today is Friday, select Fri).
	(See Task Run Criteria Field Descriptions for more details.)

			🔚 Save 🌀	👌 Save & New 🛛 💼 Save	& View 💥 Close
Task Run Criteria					
Тур	e : Skip Criteria 🗸 🗸				
Tas	k : Simple Workflow	× 🖂	Vertex Id : 6 Simple Workflow	N	~
Business Da	ay:				
Holida	ay: 🔲				
Specific Day(s): 📝	Sunday 📃 🛛 Monday 📝	Tuesday 📄 Wednesday 📄	Thursday 📄 🛛 Friday 📗	Saturday
Custom D:	ay: 🔲				
Comple	ex:				
Variab	le: 🕅				

Run the Daily Workflow

Display the Activity Monitor and note that the sub-workflow (Simple Workflow) and all its sub-tasks have been skipped, as sh the following example. Note also that this did not impact subsequent tasks, which ran as usual.										
	Home Activity Activity	Workflow Tasks	3 🗔 Last 48 hour	ra — 🔛 No quick filter —	Custom Filter None		✓ V Filter			
00	Instance Name	Туре	Status	Invoked By	Start Time	End Time	Updated *			
E	Workflow with Skipped	Workflow	Success	Manually Launched	2014-07-28 15:07:42 -0400	2014-07-28 15:08:23 -0400	2014-07-28 15:08:23 -0400			
	Timer4	Timer	Success	Workflow: Workflow with Skip	oped 2014-07-28 15:08:13 -0400	2014-07-28 15:08:23 -0400	2014-07-28 15:08:23 -0400			
	Timer3	Timer	Success	Workflow: Workflow with Skip	oped 2014-07-28 15:08:02 -0400	2014-07-28 15:08:12 -0400	2014-07-28 15:08:12 -0400			
8	Timer2	Timer	Success	Workflow: Workflow with Skip	oped 2014-07-28 15:07:52 -0400	2014-07-28 15:08:02 -0400	2014-07-28 15:08:02 -0400			
	Timer1	Timer	Success	Workflow: Workflow with Skip	oped 2014-07-28 15:07:42 -0400	2014-07-28 15:07:52 -0400	2014-07-28 15:07:52 -0400			
8	Simple Workflow	Workflow	Skipped	Workflow: Workflow with Skip	oped	2014-07-28 15:07:42 -0400	2014-07-28 15:07:42 -0400			
8	Timer2	Timer	Skipped	Workflow: Simple Workflow		2014-07-28 15:07:42 -0400	2014-07-28 15:07:42 -0400			
8	Timer3	Timer	Skipped	Workflow: Simple Workflow		2014-07-28 15:07:42 -0400	2014-07-28 15:07:42 -0400			
8	Timer1	Timer	Skipped	Workflow: Simple Workflow		2014-07-28 15:07:42 -0400	2014-07-28 15:07:42 -0400			
	Timer5	Timer	Skipped	Workflow: Simple Workflow		2014-07-28 15:07:42 -0400	2014-07-28 15:07:42 -0400			
	Timer6	Timer	Skipped	Workflow: Simple Workflow		2014-07-28 15:07:42 -0400	2014-07-28 15:07:42 -0400			
8	Timer4	Timer	Skipped	Workflow: Simple Workflow		2014-07-28 15:07:42 -0400	2014-07-28 15:07:42 -0400			

Check the Skipped Workflow's History

You can view a task instance Details to find out why it has a status of Skipped. On the Activity Monitor, click the Details icon in the first column for any task instance to display its task instance Details.

For example:

Workflow Task Instance	Details: Simple Workflow						
		🗒 Update 🏻	🔏 Unskip 🛛 🔓 View	Parent 🛛 🔒 View Work	flow 🇊 Delete	😫 Refresh	💥 Close
Workflow Task Instance	Virtual Resources Exclusive Requests	Step Condition	ns 🔍 Notes				
General							
Instance Name :	Simple Workflow		Reference Id :	3			
Task:	Simple Workflow	12	Invoked By :	Workflow: Workflow with	h Skipped		
Task Description :							
Member of Business Services :		v	Execution User :	ops.admin			
Resolve Name Immediately :			Calendar : S	ystem Default			
Virtual Resource Priority :	10	~	Hold Resources on Failure :				
- Status							
Status :	Skipped						
Status Description :	Skipped due to run/skip criteria.						
Operational Memo :							
Start Time :			End Time :	2014-07-28 15:07:42 -0	0400		
Duration :							
Progress	6/6						
Workflow Details -							
Show/Hide Skipped Tasks :	Show Skipped	*					
Wait/Delay Options							
Wait To Start :	Seconds	*	Wait Duration In Seconds :				
Delay On Start :	Seconds	*	Delay Duration In Seconds :	;			
Workflow Only :	No	*					
- Statistics							
User Estimated End Time			Average Estimated End Time :				
Shortest Estimated End Time			Longest Estimated End Time :				
Update	🔀 Unskip 📄 View Parent 🕅 🚂 View Work	đlow 👔 🕻	elete 📑 Refi	resh 🛛 🗱 Close			

Note that the Status Description field indicates that Simple Workflow was skipped due to run/skip criteria.

- Activity displayMonitoring WorkflowsAdding Skip/Run Criteria

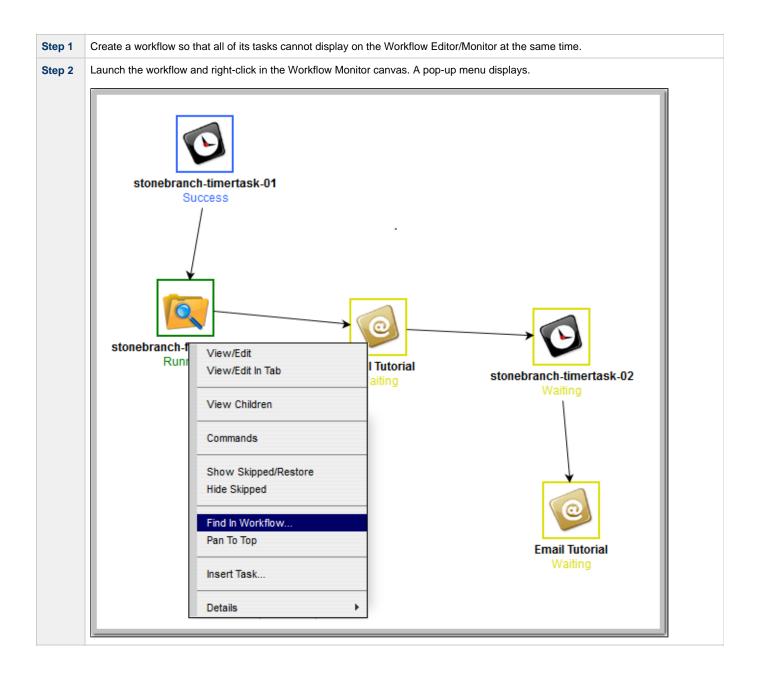
Tutorial - Finding and Inserting Tasks in an Active Workflow

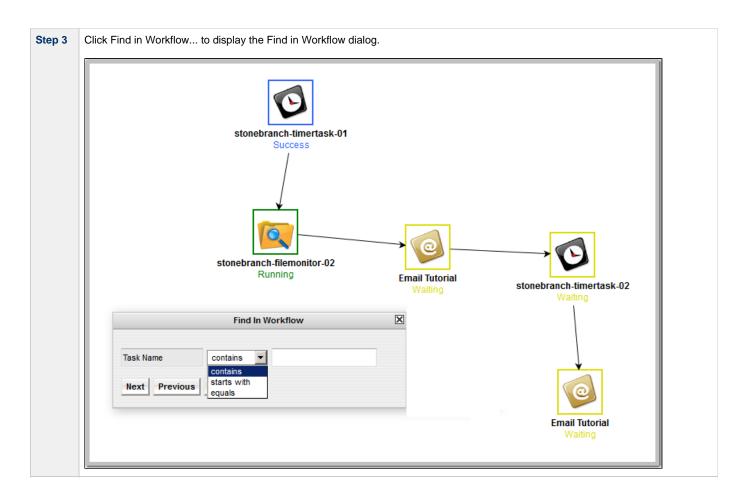
In this exercise, we will run a workflow and:

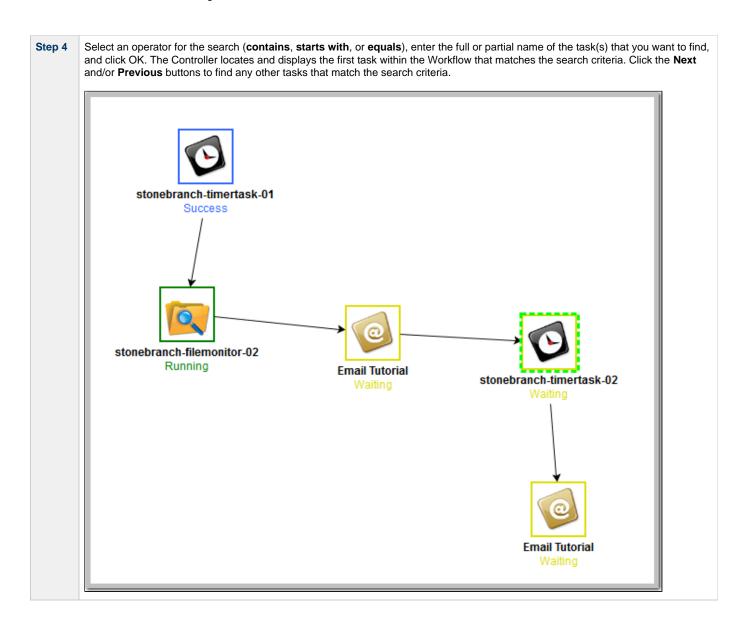
- Find a specific task within the workflow. (You also can find a task in a workflow that has not yet been launched or one that has run and completed.)
- Insert a task as a predecessor to another task in the workflow.
- Insert a task as a successor to another task in the workflow.

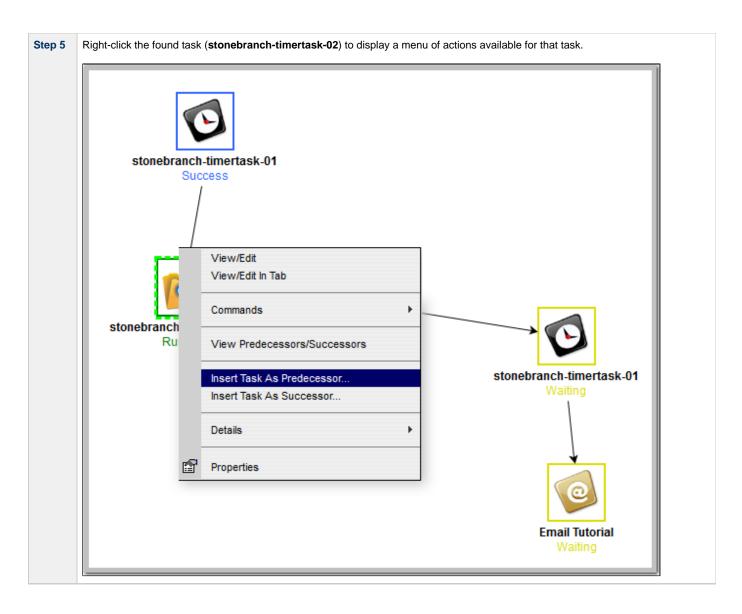
🔥 Note

You may find it easier to run a workflow three different times, once for each step in this exercise.

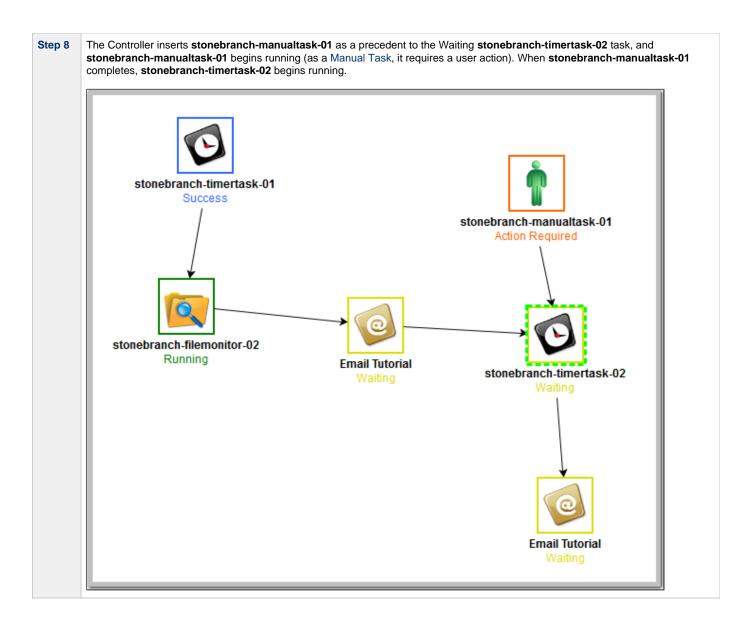


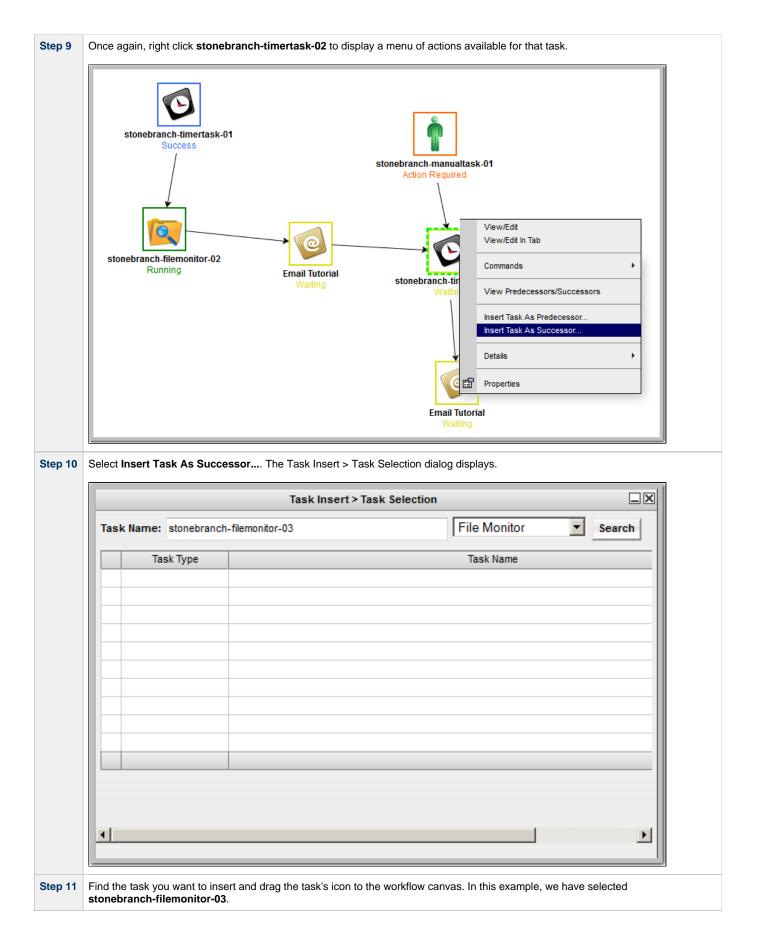


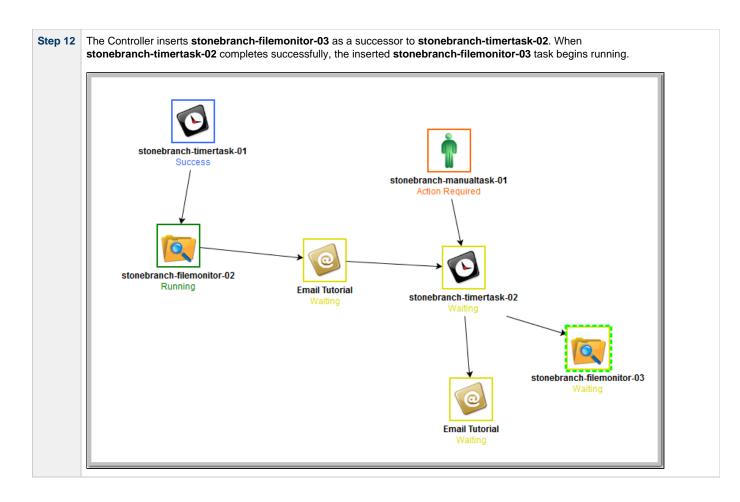




Manual Search
Task Name







- Finding a Task in a Workflow
- Inserting a Task in a Workflow
- Searching for and Adding Tasks

Tutorial - Skipping, Unskipping, and Showing-Hiding Skipped Task Instances

You can skip (and unskip) individual task instances and task instances within a workflow that have been launched but have not yet started to run. For skipped tasks within a workflow, you can choose to show or hide those tasks in the Workflow Monitor.

You also can skip a task instance so that all dependent task instances of that task instance automatically are skipped as well.

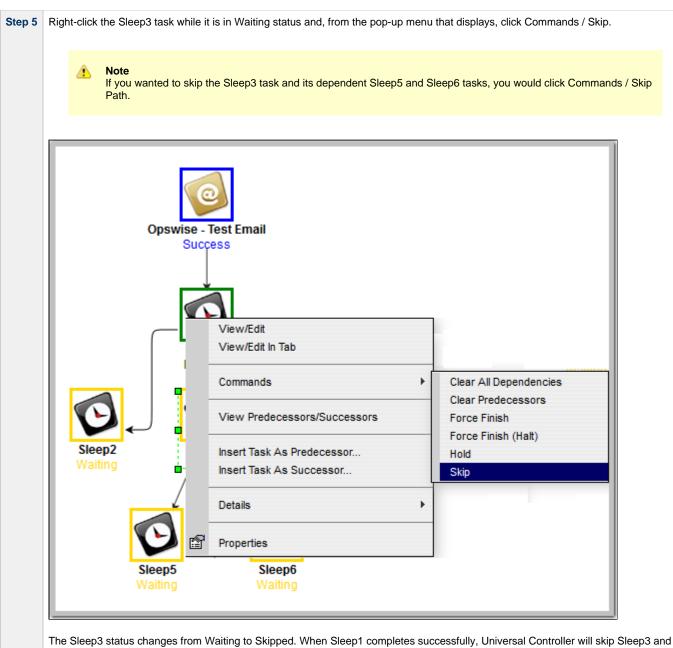
Although there are several methods for skipping, unskipping, and showing/hiding skipped task instances, in this exercise we will:

- Skip a task instance in a workflow.
- Unskip a previously skipped task instance in a workflow.
- Show and hide a skipped task instance in a workflow.

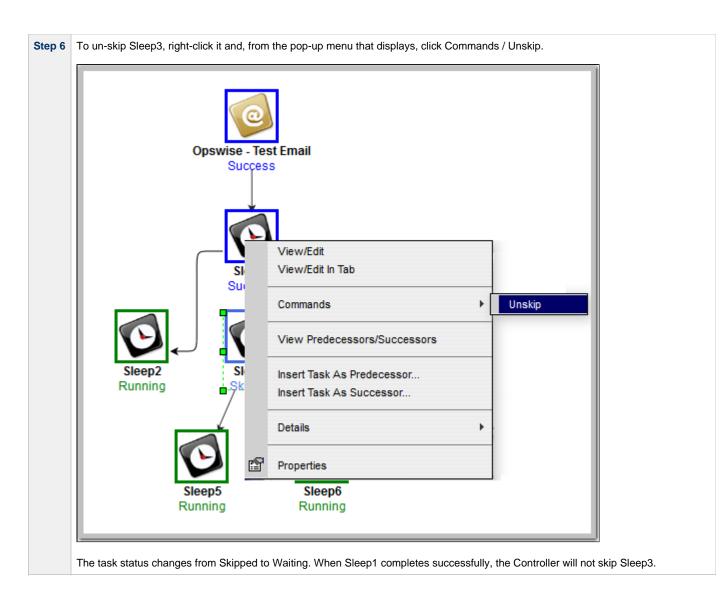
🔥 Note

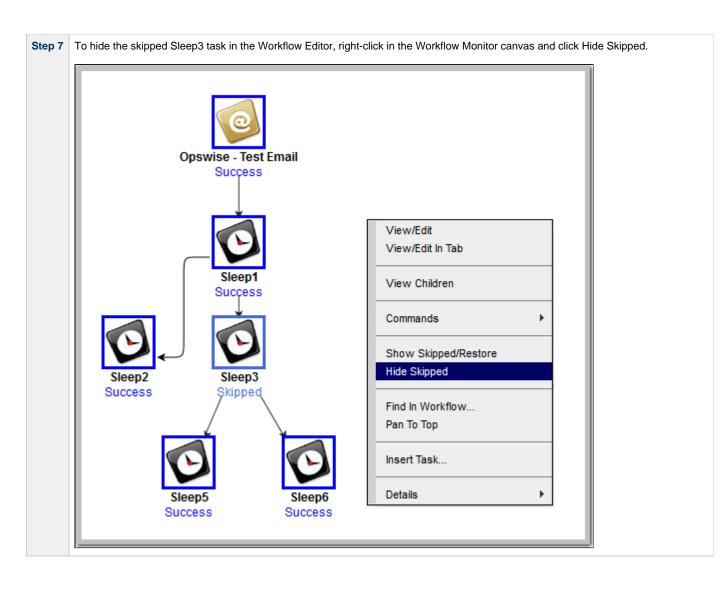
There also are methods for skipping a task and showing/hiding a skipped task before it becomes a task instance (that is, before it or the workflow in which it resides has been launched). See the links at the bottom of this page.

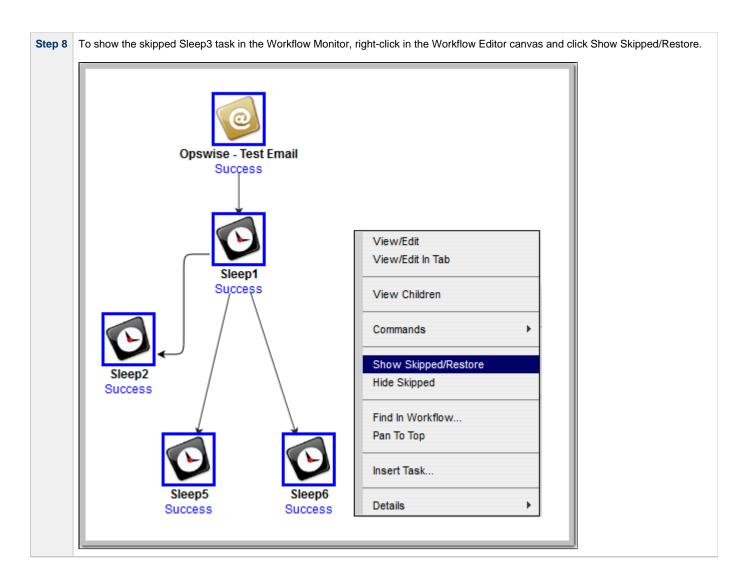
Step 1	From the Automation Center navigation pane, select Tasks > Workflow Tasks . The Workflow Tasks list displays a list of all workflow tasks.
Step 2	Right-click Simple Workflow (created in the Creating a Simple Workflow tutorial), and on the Action menu, click Launch Task.
Step 3	On the Activity Monitor, select Active Workflow Task Instances from the drop-down list.
Step 4	Click Simple Workflow. The Workflow Monitor displays for this running workflow.



start running Sleep5 and Sleep6.







- Skipping a Task
- Unskipping a Task
- Showing or Hiding Skipped Tasks
- Adding Skip/Run Criteria for Specific Tasks

Tutorial - Using Variables in a Simple Task

- Introduction
- Resolving Variable Using Value from Global Variable Table
- Resolving Variable Using Value from Task
- Resolving Variable Using Value from Trigger

Introduction



In the Launching an Email Task Based on a File Monitor tutorial, a built-in variable called $f(ps_trigger_name)$ and a system variable called f(date) were included to pass information into an Email message. Those variables were resolved using system information when the email task instance was created.

In this exercise, we will create a new user-defined variable, use it in a task, and run the task both manually and via a trigger to illustrate how such variables are resolved.

Resolving Variable Using Value from Global Variable Table

Step 1	Create a Variable with the following values: Name = Tutorial Value = Global
Step 2	Click the Save button.
	Variable Details
	📅 Save 🦓 Save & New 👔 Save & View 🎉 Close
	Variable Versions
	Details
	Global
	Value :
	Description :
	Member of Business Services :
	🔚 Save & New 👔 Save & View 🗱 Close
Step 3	Create an Email task with the following values:
	Task Name = Email Tutorial
	Email Connection = your Email connection
	 To = your Email address Subject = Variable demo
	 Body=\${Tutorial}

Email Task Details: Em	il Tutorial
	📳 Update 🥃 Launch Task 👔 View Parents 🛅 Copy 🍘 Delete 🔄 Refresh 🎽
Email Task 🔍 🔍	ariables © Actions © Virtual Resources © Mutually Exclusive © Instances © Triggers © Notes © Versions
General	
	: Email Tutorial Version : 1
Task Description	
Member	of
Busines	
Resolve Nam	e 📻
Immediatel	
Hold on Star Virtual Resource	
Priorit	e Hold Resources on Failure :
– Email Details –	
Email Template	: CA-OPSWISE-MAILER
Email Templa	
Variable	
Reply-To	
Т	dan.moran@stonebranch.com
C	
Bo	
Subjec	t: Variable Demo
	\${Tutorial}
Bod	
Repor	t: 🔽 Report Variable : 🕅
Wait/Delay Option Wait To Star	
Delay On Star	
Workflow On	System Default *
Time Options —	
Late Start :	
Late Finish :	
Early Finish :	
User Estimated	Day Hour Min Sec
Duration :	v v v
	ns
Critical Path Optic	
Critical Path Optio	
Critical Path Optic	
CP Duration	n Options
CP Duration Workflow Execution	00 None
CP Duration	00 None
CP Duration Workflow Execution Execution Restriction	00 None

Resolving Variable Using Value from Task

Step 1 Open the Email Tutorial task and click the Variables tab.

Step 2	Click the New button to display Variable Details for a new Variable and enter the following values: Name = Tutorial Value = Task
Step 3	Click the Save button.
Step 4	In the Email Tutorial Details, click the Update button and then click the Launch Task button.
Step 5	You should receive an email with Task in the body of the email.

Resolving Variable Using Value from Trigger

 Step 1
 Create a Time trigger with the following values:

 • Trigger Name = Variable Demo

 • Tasks = Email Tutorial

 • Time = (Five minutes from the present time.)

Click	he Save button.
Tim	rigger Details 🛛 📄 🖓 Save & New 👔 Save & View 💥 Clo
	Trigger S Variables S Versions
	eneral
	Name : Variable Demo
	Description :
	Member of siness Services :
	Calendar : System Default v 📰 Time Zone : System (America/New_York) v
	Email Tutorial
	Task(s):
	Urge By Retention Duration :
	atus
	Skip Count: 0
·	Skip Trigger if
	Adave .
	Simulate : System Default v
l II r	me Details
	Time Style : Time
	Time: Hour Min 15 V 00 V
Г	ay Details
	Day Style : Simple Daily O Business Days O Specific Day(s)
	estrictions
	ecial Restriction :
	📅 Save 🖉 🎼 Save & New 🕅 🔚 Save & View 🕢 🗱 Close
Ľ	
Re-o	en the Variable Demo trigger and click the Variables tab.
Clicł	he New button to display Variable Details for a new Variable and enter the following values: Name = Tutorial Value = Trigger
Clic	he Save button.
Vari	e Details
	🦷 Save & New 👔 Save & View 💥 Clo
	riable
Шr	tails
	Name : Tutorial
	Trigger
	Value :
	Description :
	📆 Save 🖉 🕼 Save & New 👔 🔝 Save & View 💦 🗱 Close
In th	trigger Details, click the Update button and then the Enable button.
You	nould receive an email with Trigger in the body of the email.
iuu	Bourd receive an email when migger in the body of the email.

• User-Defined Variables

Tutorial - Using Variables in a Workflow

Note You need a working Database Connection for this tutorial.

For tasks executing within a Workflow, the order of precedence for resolving user-defined variables differs.

As the following procedure demonstrates, the variable definition in the task takes precedence, then Universal Controller looks within the Workflow or parent Workflow(s), with the global variable coming last.

Step 1	Create a SQL task called SQL with Variable with the following SQL command:
	CREATE TABLE \${tutorial}\${_date("yyyyMMdd",5) } (name varchar(128), value varchar(128));
Step 2	Click the Save button and then re-open the task.
Step 3	Click the Variables tab and create a Variable with the following values:
	 Name = tutorial *Value+ = task
Step 4	Click the Save button and in the task Details, click the Update button.
Step 4	Create a Workflow called Variable Workflow.
Step 5	Add the SQL With Variable task to the Workflow and save it.
Step 6	Launch Variable Workflow. and open the SQL With Variable task instance on the Activity Monitor. Note that the SQL command resembles the following, with the value from the task variable.
	CREATE TABLE task20090913 (name varchar(128), value varchar(128));
Step 7	Open the task and delete the task variable.
Step 8	Go back to Variable Workflow and add the following variable:
	tutorial/workflow
Step 9	Open the task instance. The SQL command used the variable from the workflow because the task no longer had a variable.
	CREATE TABLE workflow20090913 (name varchar(128), value varchar(128));

For additional information, see:

• User-Defined Variables

Universal Controller 6.4.x Troubleshooting and Tutorials

Tutorial - Creating Custom Days and Periods

- Introduction
- Create a Custom Day
- Create a Custom Period
- Assigning Custom Day and Custom Period to a Calendar
- Creating a Local Custom Day for a Calendar
- Selecting a Custom Calendar for a Trigger

Introduction

In this tutorial, we will create a Custom Day and period for a Calendar, and assign that Calendar to a Trigger.

Create a Custom Day

In this procedure, we will create a Custom Day, which can be applied to any Calendar.

Step 1	From the Automation Center navigation pane, select Other > Custom Days. The Custom Days list displays.
Step 2	Click the New button to display Custom Day Details for a new Custom Day and enter/select the following values: Name = Thanksgiving Holiday is enabled Type = Relative Repeating Date When = 4th Day of Week = Thu Month = Nov
Step 3	Click the Save button.
	Name: Thanksgiving Description:

Create a Custom Period

In this procedure, we will create a custom period of days, which can be applied to any calendar.

Step 1	Click the New button on the Custom Days list and to display Custom Day Details for a new Custom Day and enter/select the fivalues: • Name = 4th Quarter • Period is enabled. • Type = List of Dates • Dates = 2017-10-01 and 2017-12-31.	following
Step 2	Click the Save button.	

Assigning Custom Day and Custom Period to a Calendar

In this procedure, we will assign the custom day and custom period to a new Calendar.

Close

p7 7 In the Calendar Details, click the Update button.	20 Click the Edit button to display an Edit Members pop-up	p dialog of all Custom Days.
P 6 Select Thanksgiving and 4th Quarter, and then click the Save button. Those two Custom Days now appear on the Custom Days for Custom Calendar #1.	Edit Members	
P 6 Select Thanksgiving and 4th Quarter, and then click the Save button. Those two Custom Days now appear on the Custom Days for Custom Calendar #1.		Custom Day List
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Note You also can assign a Custom Day to a Calendar by clicking the Calendars tab in the Custom Day Details.

Creating a Local Custom Day for a Calendar

In this procedure, we will create a local custom day for an existing Calendar.

Δ

Step 1	Open Custom Calendar #1 that you created in the previous procedure.
	Calendar Details: Custom Calendar #1
	🕅 Update 🧮 Calendar Preview 🕒 Copy 🎲 Delete 🐚 Refresh 💥 Close
	Calendar Calcustom Days Custom Days Versions
	Details
	Description :
	Member of Business Services :
	Business Days : 📄 Sunday 📝 Monday 📝 Tuesday 📝 Wednesday 📝 Thursday 📝 Friday 📄 Saturday
	🕎 Update 📄 Calendar Preview 🗈 Copy 🎲 Delete 🔄 Refresh 🗱 Close
0	
Step 2	Click the Local Custom Days tab to display an empty Local Custom Days list.
Step 3	Click the New button to display Local Custom Details for a new Local Custom Day, and enter the following values:
	• Name = Local Custom Day #1
Step 4	Click the Save button.
	Local Custom Day Details
	Local Custom Day
	Name : Local Custom Day #1
	Description :
	Category: Day OBusiness Day OHoliday OPeriod
	Type: Single Date
	🧮 Save & New 🖹 Save & View 🗱 Close
	Local Custom Days #1 now appears on the Local Custom Days list.
	Calendar Details: Custom Calendar #1
	Calendar 🔍 Local Custom Days 🔍 Custom Days 🔍 Triggers 🔍 Versions
	1 Local Custom Day New 🤌
	Name Description Category Type Updated By Updated
	Local Custom Day #1 Day Single Date ops.admin 2017-10-30 11:05:50 -0400
	4
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Selecting a Custom Calendar for a Trigger

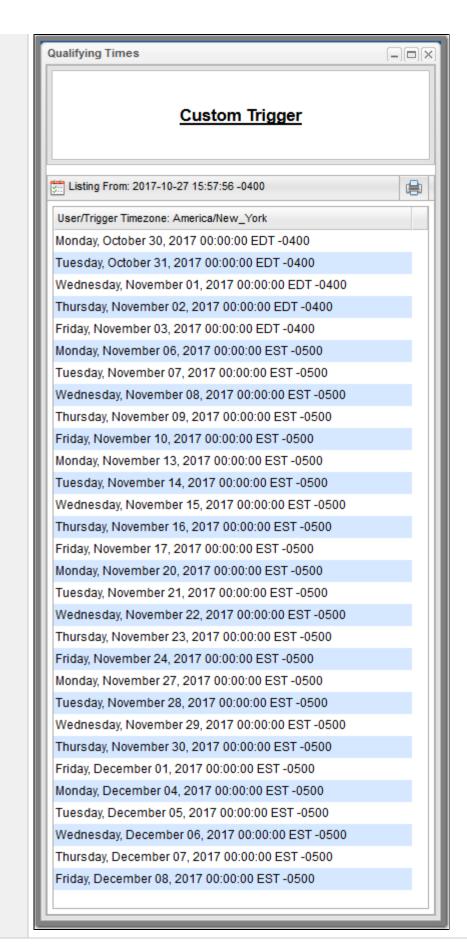
In this procedure, we will assign the custom calendar to a trigger.

Step 1 From the Automation Center navigation pane, click Triggers > Time Triggers. The Time Triggers list displays.

Time Trigger Variables Variables General	m Trigger m Calendar #1 m Cale	General Z Name: Custom Trigger Description: Image: System (AmericaNew_York) Status: Calendar #1 - constonedner.b-windowstask.01 Image: System (AmericaNew_York) - constast Im	General Name : Custom Trigger Description : Member of Business Services : Calendar : Custom Calendar #1 Conestonebranch-windowstask-01 Conestonebranch-windowstask-01	
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Custom Trigger	
Listing From: 2017-10-27 15:54:31 -0400	¢.
User/Trigger Timezone: America/New_York	
Thursday, November 23, 2017 00:00:00 EST -0500	
Thursday, November 22, 2018 00:00:00 EST -0500	
Thursday, November 28, 2019 00:00:00 EST -0500	
Thursday, November 26, 2020 00:00:00 EST -0500	
Thursday, November 25, 2021 00:00:00 EST -0500	
Thursday, November 24, 2022 00:00:00 EST -0500	
Thursday, November 23, 2023 00:00:00 EST -0500	
Thursday, November 28, 2024 00:00:00 EST -0500	
Thursday, November 27, 2025 00:00:00 EST -0500	
Thursday, November 26, 2026 00:00:00 EST -0500	
Thursday, November 25, 2027 00:00:00 EST -0500	
Thursday, November 23, 2028 00:00:00 EST -0500	
Thursday, November 22, 2029 00:00:00 EST -0500	
Thursday, November 28, 2030 00:00:00 EST -0500	
Thursday, November 27, 2031 00:00:00 EST -0500	
Thursday, November 25, 2032 00:00:00 EST -0500	
Thursday, November 24, 2033 00:00:00 EST -0500	
Thursday, November 23, 2034 00:00:00 EST -0500	
Thursday, November 22, 2035 00:00:00 EST -0500	
Thursday, November 27, 2036 00:00:00 EST -0500	
Thursday, November 26, 2037 00:00:00 EST -0500	
Thursday, November 25, 2038 00:00:00 EST -0500	
Thursday, November 24, 2039 00:00:00 EST -0500	
Thursday, November 22, 2040 00:00:00 EST -0500	
Thursday, November 28, 2041 00:00:00 EST -0500	
Thursday, November 27, 2042 00:00:00 EST -0500	
Thursday, November 26, 2043 00:00:00 EST -0500	
Thursday, November 24, 2044 00:00:00 EST -0500	
Thursday, November 23, 2045 00:00:00 EST -0500	
Thursday, November 22, 2046 00:00:00 EST -0500	

Step 5	
	 Date Noun = Business Day. Date Qualifier = 4th Quarter (a Custom Day period created for Custom Calendar #1)
ep 6	Click the Update button.
ep 7	Re-open Custom Trigger and click the List Qualifying Times button to see that the trigger will run the task every business day during the custom period, October 1 to December 31.



- TriggersCreating CalendarsCreating Custom Days

Tutorial - Generating Forecast Data

In this exercise, we will:

- Add a workflow and its tasks to the Forecast calendar.
- Run the workflow and display its forecast information.
 Update a task in the workflow and then re-run the workflow.
- Recalculate the forecast information for the workflow.

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	ime Trigger Details	📳 Save & New 👔 Save & View	
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	Member of		
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	Calendar :	System Default v E Time Zone : System (America/New_York)	~
		Simple Workflow	
	Task(s):		
	Purge By Retention Duration :		
	- Status		
	Forecast:	V	
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Member of Business Services :			~ Run Eva	Criteria luation : Run		

Step 5 From the Automation Center navigation pane, select Triggers > Forecasts. The Forecasts list identifies Simple Workflow and every task in Simple Workflow, as well as their Launch Times and End Times, for every day in the forecast period when Simple Workflow will be launched by Simple Workflow Trigger. Home 🗵 Forecasts 🗵
 31 Forecasts
 Custom Filter
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 Simple Workflow Trigger
 Timer1
 Timer
 Simple Workflow
 2014-08-05 00:00:00 -0400
 2014-08-05 00:00:10 -0400
 Run
 ops.admin No No ops.admin Simple Workflow Trigger Simple Workflow Workflow 2014-08-05 00:00:00 -0400 2014-08-05 00:00:00 -0400 Run No ops.admin
 Simple Workflow Trigger
 Timer6
 Timer
 Simple Workflow
 2014-08-05 00:00:00 -0400
 2014-08-05 00:00:00 -0400
 Run
 No ops.admin Simple Workflow Trigger Timer4 Timer Simple Workflow 2014-08-05 00:00:10 -0400 2014-08-05 00:00:21 -0400 Run No ops.admin Simple Workflow Trigger Timer2 Timer <u>Simple Workflow</u> 2014-08-05 00:00:10 -0400 2014-08-05 00:00:21 -0400 Run No ops.admin Simple Workflow Trigger Timer3
 Timer
 Simple Workflow
 2014-08-05 00:00:10 -0400
 2014-08-05 00:00:21 -0400
 Run

 Timer
 Simple Workflow
 2014-08-05 00:00:20 -0400
 2014-08-05 00:00:31 -0400
 Run
 No ops.admin Simple Workflow Trigger Timer5 No ops.admin Simple Workflow Trigger Timer6 Timer Simple Workflow 2014-08-06 00:00:00 -0400 2014-08-06 00:00:00 -0400 Run No ops.admin Ŧ 1 a: a ✓ Forecast Details Step 6 Re-display the Time Triggers list, right-click Simple Workflow Trigger, and then click Trigger Now to launch Simple Workflow. Step 7 When Simple Workflow has completed, re-display the Time Triggers list, right-click Simple Workflow Trigger, and then click Recalculate Forecast. Note Æ You also can recalculate the forecast by right-clicking Simple Workflow on the Workflow Tasks list and then clicking Recalculate Forecast. Re-display the Forecast Calendar and click any Simple Workflow link in the Forecast Calendar to display a Forecast Details pop-up, Step 8 which now contains estimated Launch Time and End Time information based on the Workflow run just completed. Forecast Details X Close Forecast © Child Forecast Details -Task : Simple Workflow 13 17 Trigger : Simple Workflow Trigger Task Type : Workflow Launch Time : 2014-08-11 00:00:00 -0400 Workflow : 15 End Time : 2014-08-11 00:02:21 -0400 Run Criteria Evaluation : Run Member of Business Services : Simulation : 💢 Close

limer Task Details: Timer 2						
	📳 Update	🗔 Launch Task	iew Parents	🗈 Copy 🎲 Delet	e 👍 Refresh	💥 Close
Timer Task SVariables Actions Virtual Resources	Mutually Exclusive	Instances	Triggers	Notes OVersions	3	
- General						
Task Name : Timer 2		Version	: 1			
Task Description :						
Member of Business Services :						~
Resolve Name Immediately :						
Hold on Start:						
Virtual Resource 10 Priority :	~	Hold Resources or Failure	n :			
Timer Details						
Timer Type : Seconds	*					
Timer Duration In Seconds : 50						
Time Options						
Late Start : 🥅						
Late Finish : 👿	ate Finish Type : Duration	✓ Late Fin Duration	ish Day Hor on∶00 v 00	v 00 v 45 v	/	
Early Finish :						
User Estimated Day Hour Min Sec Duration :						
Critical Path Options						
CP Duration :		CP Duration Unit	: Minutes		*	
Workflow Execution Options						
Execution	*					
📙 Update 🛛 🗔 Launch Task 🚯 View Parents	Copy 👔 Del	ete 📑 Refi	resh 🛛 💥 Cl	ose		
e-run Simple Workflow.						
/hen Simple Workflow has completed, re-cal /orkflow End Time (the time it took to run the						
				nds has been a		

- Creating and Maintaining Workflows
 Triggers
 Displaying Trigger Forecast Information

Tutorial - Setting Up a Virtual Resource

In this exercise, we will set up an imaginary resource and three imaginary tasks.

In this scenario, two of our tasks are resource-intensive, and they run on the same machine. Therefore, if one is already running when the other is launched, we want the second task to wait until the first is finished before running. However, our third task is not so resource-intensive, so we will allow this one to run at the same time as either of the other two.

To simplify the exercise, we will use Timer tasks.

Step 1	From the Automation Center navigation pane, click Other > Virtual Resources. The Virtual Resources list displays.
Step 2	Click the New button to display an empty Virtual Resource Details and enter the following values: Resource Name = Resource A Resource Limit = 5
Step 3	Click the Save button.
	Virtual Resource Details Virtual Resource Tasks Currently in Use By Outstanding Requests Versions Details Resource Name: Resource A Resource Type: Renewable Resource Type: Renewable Resource Description Member of Business Services: Save & New Save & New Close Conservice Conservice Conservice Conservice Conservice Conservice

Step 4	Update the Timer1, Timer2, and Timer3 tasks that you created in the Creating a Simple Workflow tutorial.
	For Timer1:
	 Change Time in Seconds to 60. Click the Virtual Resources tab to display the Virtual Resources list for Timer1: a. Click the Edit button, add Resource A to the Virtual Resources list, and click Save. b. Click the Details icon for Resource A to display its Task Virtual Resource Details.
	Task Virtual Resource Details
	🗒 Update 🎲 Delete 🐚 Refresh 💥 Clos
	Task Virtual Resource
	Task: Timer1
	Virtual Resource : Resource A
	Amount : 1
	🕅 Update 🕼 Delete 🕞 Refresh 💥 Close
	c. Change the Amount (number of resource units required from the virtual resource) from 1 to 4 and click the Update but
	For Timer2:
	 Change Time in Seconds to 30. Add Resource A and change the Amount to 4.
	For Timer3:
	 Change Time in Seconds to 20. Add Resource A and keep the Amount at 1.
Step 5	Open Resource A and click the Tasks tab to see that Timer1, Timer2, and Timer3 are listed.

aal Resource Details: Resource A rtual Resource 📔 🔍 Tasks 📔 🔍 Currently In Use By 📔 💿 Outstanding Requests 🗍 💿 Versions					
Task Virtual Resources				Edit	1 2
Task	Amount	Updated By	Updated		
Timer1	4	ops.admin			
Timer3	1	ops.admin			
Timer2	4	ops.admin			

	from the current time.	called Trigge	er A, and select T	ask1, Task2, and Tas	sk 3 in the Task(s) field	l, and enter a Tim	e three minutes
Step 7	Click the Save button,	right-click Trig	gger A on the Tri	ggers list, and click E	nable.		
Step 8	00				mer3. When Timer1 or in Resource Wait stat		the other will run
	Home 🛛 Activity 🖾		📰 Last 48 hours 👻 🗌	🚡 No quick filter 👻 Custom Fi	ilter None	v 😼	Filter
	Home Activity I	Туре	■ Last 48 hours ▼ [Status	No quick filter	ilter None Start Time	End Time	Filter
		Type Timer				•	
	Instance Name		Status	Invoked By	Start Time	End Time	Updat 👻

Step 9 In the Virtual Resource Details, click the Currently In Use By tab and observe which tasks are running on this virtual resource. Note that this display does not automatically refresh.

For additional information, see:

Virtual Resources

Tutorial - Creating a Widget

There are three types of Widgets, all of which can be placed on one or more Dashboards:

- System
- Activity
- Report

In this exercise, we will create an Activity Widget that identifies any failed task instances in the past week.

(You cannot create, modify, or delete a System Widget; they are provided by the Controller.)

Step 1 From the Reporting navigation pane, select Widgets. The Widgets list displays. Step 2 Click the New button and then click Activity Widget. An Activity Widget Details pop-up displays. Step 3 Enter / select the following values: • Name = Failed ٠ Refresh Rate (Seconds) = 900 | 15 minutes ٠ Status(es) = Failed Time Constraint = Last week ٠ Composite Color = Red Activity Widget Details 🔚 Save 🔚 Save & New 📑 Save & View 💥 Close Activity Widget General Name : Failed Description Refresh Rate (Seconds): 900 | 15 minutes \sim Details Status(es): Failed ٧ Time Contraint : Last week v Composite Color : #FF0000 6 No items to show 0 R Composite Status(es) 0 × 🔚 Save 🕞 Save & New 📄 Save & View 💥 Close Step 4 Click the Save button. This Widget can now be added to any Dashboard and can be selected for any Composite Widget.

For additional information, see:

• Widgets

Tutorial - Creating a Dashboard and Adding Widgets

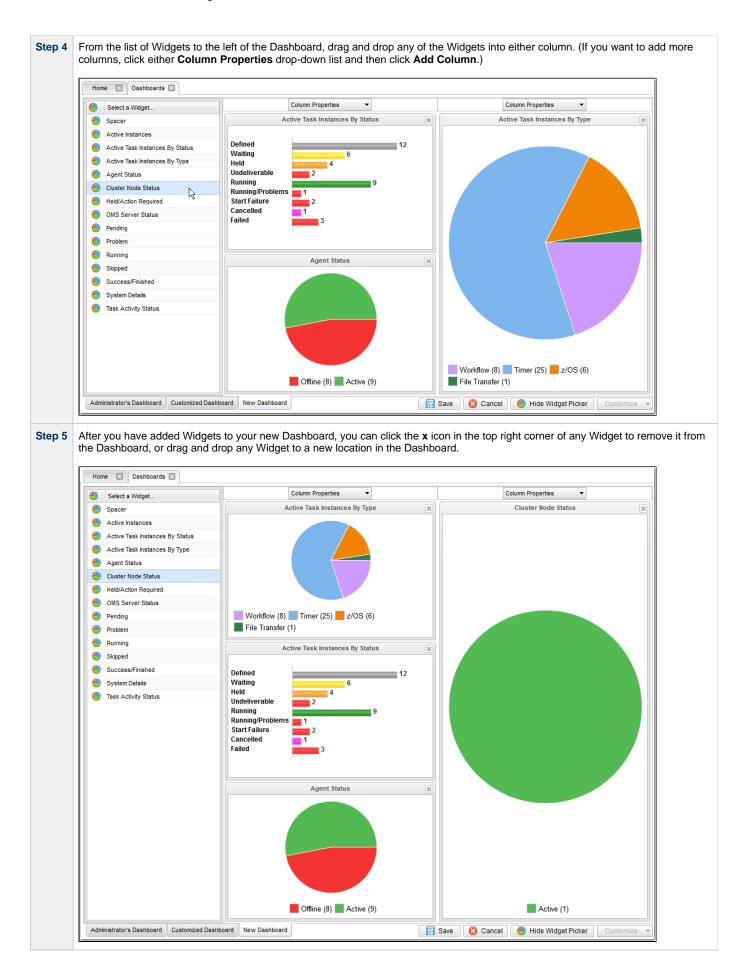
Creating a Dashboard and Adding Widgets

Universal Controller provides a default Dashboard containing multiple Widgets that displays as the Home Dashboard when you log in to Universal Controller.

You can create your own Dashboards containing any available Widgets.

In this exercise, we are going to create a Dashboard and select Widgets for the Dashboard.





Step 6 Click the Save button to add the Dashboard.

For additional information, see:

- Home Dashboard
- Dashboards
- Widgets

Tutorial - Creating Business Services

Business Services are used to group records into business functions.

In this exercise, we will create two hypothetical Business Services: Tech Support and Operations.

Step 1	From the Administration navigation pane, select Security > Business Services. The Business Services list displays.
Step 2	Click the New button to display an empty Business Service Details.
Step 3	Enter the following values:
	 Name = Tech Support Description = This is the Tech Support business service.
Step 4	Click the Save button.
	Business Service Details Image: Save & New image: Save & New image: Save & View image: Close Business Service Versions Details Details Details Description : This is the Tech Support business service. Image: Save & New image: Save & New image: Save & View image:
Step 5	Repeat steps 2 to 4 for a Business Service called Operations .

For additional information, see:

Business Services

Tutorial - Assigning Records to Business Services

In this exercise, we will assign the Timer and Simple Workflow tasks created in the Creating a Simple Workflow tutorial to the Operations Business Service, and the SQL task and Bigger Workflow tasks created in the Running a Workflow with a Conditional Path tutorial) to the Tech Support Business Service.

See the Creating Business Services tutorial to see how these Business Services were created.

Step 1	Open the Timer task called Timer1, which you created in the Creating a Simple Workflow tutorial.
Step 2	From the Member of Business Services drop-down list, select Tech Support and Operations.
	Timer Task Details: Timer 1
	Image: Timer Task Variables Actions Virtual Resources Mutually Exclusive Instances Triggers Notes Versions
	Timer task variables Actions Virtual Resources Actions Virtual Resources Actions
	Task Name : Timer 1 Version : 4
	Task Description :
	Member of Operations, Tech Support v Business Services : A A A A A A A A A A A A A A A A A A
	Immediately: a a Immediately: Accounting Hold on Start: b
	Virtual Resource C Priority : IT MikeD_BusServices
	Timer Details
	User Estimated Day Hour Min Sec Duration : v v v
	Critical Path Options
	CP Duration : CP Duration Unit : Minutes
	🕎 Update 📮 Launch Task 🏤 View Parents 🗈 Copy 🎲 Delete 🚯 Refresh 🗱 Close
Step 3	Click the Update button.
Step 4	Repeat steps 1 to 3 for the Timer2 and Timer3 tasks and the Simple Workflow Workflow, all of which you also created in the Creating a Simple Workflow tutorial.

For additional information, see:

Business Services

Tutorial - Viewing Activity by Business Service

Introduction

Introduction

In this exercise, we will launch the Simple Workflow Workflow (created in the Creating a Simple Workflow tutorial and, on the Activity Monitor, display only tasks assigned to the

Operations Business Service (see Assigning Records to Business Services|Tutorial - Assigning Records to Business Services] tutorial.

tep 2	Home Reports	Business Ser		e Simple Workflow a			
	668 Task Instances		Tast 48	hours 👻 🛛 🕋 No quick filter 👻	Custom Filter None		👻 🦁 Filter.
	Instance Name	Туре	Status	Invoked By	Start Time	End Time	Updated
	Timer6	Timer	Success	Workflow: Simple Workflow	2014-08-11 14:53:25 -0400	2014-08-11 14:55:25 -0400	2014-08-11 14:55:25 -0400
	Timer5	Timer	Success	Workflow: Simple Workflow	2014-08-11 14:53:25 -0400	2014-08-11 14:53:35 -0400	2014-08-11 14:53:35 -0400
	E Timer4	Timer	Success	Workflow: Simple Workflow	2014-08-11 14:53:14 -0400	2014-08-11 14:53:24 -0400	2014-08-11 14:53:25 -0400
	Timer3	Timer	Success	Workflow: Simple Workflow	2014-08-11 14:53:14 -0400	2014-08-11 14:53:25 -0400	2014-08-11 14:53:25 -0400
	Timer2	Timer	Success	Workflow: Simple Workflow	2014-08-11 14:53:14 -0400	2014-08-11 14:54:04 -0400	2014-08-11 14:54:05 -0400
	Timer1	Timer	Success	Workflow: Simple Workflow	2014-08-11 14:53:04 -0400	2014-08-11 14:53:14 -0400	2014-08-11 14:53:14 -0400
	Simple Workflow	Workflow	Success	Manually Launched	2014-08-11 14:53:04 -0400	2014-08-11 14:55:25 -0400	2014-08-11 14:55:25 -0400
itep 3	Apply the following	•					
itep 3	 Member of contains Operation 	of Business Is	Services	assigned to Operatio	ns Business Ser	vice.	
tep 3	Member of contains Operation The Activity Monito	of Business Is	Services lays only tasks		n s Business Ser	vice.	
tep 3	Member of contains Operation The Activity Monitor	of Business s or now disp	Services lays only tasks	<u> </u>	ns Business Ser		v 🔯 Filter.
tep 3	Member of contains Operation The Activity Monite Home Reports	of Business s or now disp	Services lays only tasks	<u> </u>			v 😽 Filter. Updated
tep 3	Member of contains Operation The Activity Monite Home Reports 668 Task Instances	of Business Is For now disp Business Ser	Services lays only tasks vices Activity Activity	hours • 🚵 No quick filter •	Custom Filter Unsave	d2	
tep 3	Member of contains Operation The Activity Monito Home Reports 668 Task Instances Instance Name	of Business s or now disp Business Ser	Services lays only tasks vices Activity Last 48 Status	hours • 🐊 No quick filter • Invoked By Workflow: Simple Workflow	Custom Filter Unsave Start Time	d 2 End Time	Updated
tep 3	Member of contains Operation The Activity Monitor Home Reports 668 Task Instances Instance Name Timer3	of Business s or now disp Business Ser Type Timer	Services lays only tasks vices Activity E ELast 48 Status Success	hours - 🚵 No quick filter - Invoked By Workflow: Simple Workflow Workflow: Simple Workflow	Custom Filter Unsave Start Time 2014-08-11 14:53:14 -0400	d 2 End Time 2014-08-11 14:53:25 -0400	Updated 2014-08-11 14:53:25 -0400

Tutorial - Creating a Report

In this exercise, we will create a report for Widgets.

Step 1	From the Report	ing navigation pane, select R	eports. The	Reports list of	displays.			
Step 2	In the empty Rep	port Details below the list, ente	er / select th	ne following va	alues:			
	 Title = A Table = Field(s) 	All Widgets Widgets (ops_widget) = (pre-selected fields display	when you o	click Edit Fiel	ds)			
Step 3	Click the Save b	utton.						
	Report Details							
					🔚 Save	🕼 Save & New	📄 Save & View	💥 Close
	Report							
	General —							
		All Widgets			Visible	e To : Me		~
	Description : Type :	List 🗸						
		Widgets (ops_widget)			•			
	List Fields ar	nd Ordering						
		-						
		Field Title		Field Title		Order		
		Name Widget Type				No order		
		Description						
	Field(s) :	Updated By	Sort By :					
		Updated						
		Edit Fields					Ec	lit Sort
	Scheduled O	ptions						
	P[Orientatio			PDF S	Size : Sys	stem Default	~	
	Filter							
	Match All	O Match Any		Advanced				
	Save	🕞 Save & New 📄 Save & V	/iew 🗶	Close				
	L							

Da	shboards 🛛 Reports 🖾 All Wi	dgets report 🖾			
14	Widgets				
	Name	Widget Type	Description	Updated By	Updated
87	Skipped	Activity	Activity - Skipped	ops.admin	2014-07-17 11:57:26 -0
877	Problem	Activity	Activity - Problem	ops.admin	2014-08-12 15:54:55 -0
87	Success/Finished	Activity	Activity - Success/Finished	ops.admin	2014-08-07 17:13:39 -0
823	Task Activity Status	Activity	Task Activity by status	ops.admin	2014-08-18 23:28:05 -0
87	Failed	Activity		ops.admin	2014-08-11 13:43:50 -0
33	Agent Status	System	Pie chart for agent statuses.	ops.system	2014-06-24 20:00:00 -0
87	Held/Action Required	Activity	Activity - Held/Action Required	ops.admin	2014-07-17 11:41:46 -0
82	Cluster Node Status	System	Pie chart for cluster node statuses.	ops.system	2014-06-24 20:00:00 -
37	OMS Server Status	System	Pie chart for OMS server statuses.	ops.system	2014-06-24 20:00:00 -0
87	System Details	System	Displays a number of system details including version, database, and memory information	. ops.system	2014-06-24 20:00:00 -0
33	Pending	Activity	Activity - Pending	ops.admin	2014-07-17 11:56:46 -0
87	Running	Activity	Activity - Running	ops.admin	2014-07-17 11:38:20 -0
82	Active Task Instances By Status	System	Bar chart for active task instances grouped by task instance status.	ops.system	2014-06-24 20:00:00 -0
55	Active Task Instances By Type	System	Bar chart for active task instances grouped by task instance type.	ops.system	2014-06-24 20:00:00 -0

Report Details: All Widgets Report Ceneral Title : All Widgets Visible To: Me Poscription: Type: List Tele Name Widgets (ops_widget) Field Tale Order Name Widget Type Description Field(s): Updated By Updated By Soft By: Edit Fields Widget Type <							
Image: Constraint of the image: Con	Report Details: A	Il Widgets					
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General Title : All Widgets Description : Type : List Table : Widgets (ops_widget) List Fields and Ordering Field Title Order Name Weget Type Description Field(s): Updated Sort By : Edit Fields Edit Fields Edit Fields Edit Fields Edit Fields Edit Fields Edit Sort Scheduled Options PDF Orientation : System Default - Image PDF Signer Match Any Advanced, Image Weget Type Image Match Any Image Match Any Image Match Any Image Match Any Image Match Match Any </th <th>Report</th> <th></th> <th></th> <th></th> <th></th> <th>, L</th> <th>••••</th>	Report					, L	••••
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Type: List Table: Widgets (ops_widget) List Fields and Ordering Field Title Name Widget Type Description Field(s): Updated By Updated Updated Soft By: Edit Fields Edit Fields Edit Soft Filter Image: Widget Type Image: PDF Size: System Default - v PDF Size: Stem Default - v PDF Size: Stem Default - v PUT Stem Default - v <					VISIBLE TO : ME		
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PDF Size : System Default v Filter Match All O Match Any <u>Advanced.</u> Widget Type v equals v Activity C Run Delete Stresh Close							
Orientation : - System Derault V Filter Match All O Match Any Advanced Widget Type Vequals Activity Cose Save As Run Delete Refresh Close Close Cose Cose							
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🕎 Update 🔛 Save As 👔 Run 👔 Delete 📑 Refresh 💥 Close		уре	✓ equa	IS	✓ Activity		
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	[imm]	📄 🕅 Save As 👔 Run			Refresh 🛛 💥 Clo	ose	
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6 Click the Update button, and then click the Run button to display the report under a new tab.		e button, and then click the Ru	In button to	display the rep	ion under a new la		
6 Click the Update button, and then click the Run button to display the report under a new tab.		e button, and then click the Ru	In button to	display the rep	ont under a new ta		
6 Click the Update button, and then click the Run button to display the report under a new tab.	Click the Updat		In button to	display the rep			
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Reports

Tutorial - Creating a Report Based on Business Services

In this exercise, we will create two Activity reports so that users from our hypothetical Operations and Tech Support departments (see the Creating Business Services tutorials) can view activity related to their organizations.

Step 1 Step 2 Step 3	Click the New but Enter / select the • Title - B • Table =	ing navigation pane, select R utton to display empty Report following values: susiness Services Business Services (ops_genu = (pre-selected fields that dis	Details. eric_group)				
Step 4	Click the Save b	utton.						
	Report Details							
					🔚 Save 🔓 Sav	ve & New 🛛 💼 Save & View	/ 💥 Clos	e
	Report							
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		Business Services (ops_generic_g	roup)	•	1			
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Dashboards 🖾 Reports 🖾 Business Services report	3			
5 Business Services				
Name	Description	Updated By	Updated	•
stonebranchbusinessservice 02		ops.admin	2014-06-13 15:19:47	7 -0400
stonebranchbusinessservice 03		ops.admin	2014-06-13 15:19:51	-0400
stonebranchbusinessservice 05		ops.admin	2014-06-13 15:20:00	0 -0400
stonebranchbusinessservice 01		ops.admin	2014-06-13 15:19:37	7 -0400
stonebranchbusinessservice 04		ops.admin	2014-06-13 15:19:56	6 -0400

Reports

Tutorial - Scheduling a Report

In this exercise, we will schedule a report by triggering an Email Task that specifies the report.

To simplify this exercise, we will manually trigger the Email task. However, you can schedule a report using several methods.

Step 1	Create a Report with the following values: • Title = Scheduled Activity Report • Visible to = Me
	 Type = List Table = All Task Instances (ops_exec) Field(s) = Instance Name, Type, Status In Scheduling Options, select any PDF Orientation and PDF Size.
Step 2	From the Automation Center navigation pane, select Email Tasks. The Email Tasks list displays.

mail Task Details	
	🔝 Save & New 👔 Save & View 💥 Cl
Email Task 🔍 Var	iables I Actions Virtual Resources I Mutually Exclusive I Instances I Triggers I Notes I Versions
- General	Schedule a Report
Task Description :	
Member of	
Business Services :	×
Resolve Name Immediately :	
Hold on Start :	
Virtual Resource Priority :	10 Hold Resources on Failure :
Email Details	
Email Template :	V 🔄 Email Connection : QA-OPSWISE-MAILER V 🔄
Email Template Variable :	
Reply-To :	
To :	support@stonebranch.com
Cc:	
Bcc :	
Subject :	Activity Report
Body :	
Report :	Scheduled Activity Report 🖉 📰 Report Variable : 🔲
Wait/Delay Options	
Wait To Start :	
Delay On Start : Workflow Only :	None v System Default v
worknow only .	
Time Options	a
Late Start :	
Early Finish :	
User Estimated Duration :	Day Hour Min Sec
Critical Path Option	3
CP Duration :	
Workflow Execution Execution	
Restriction	- None ····
🛒 Save	🕽 Save & New 👔 Save & View 🛛 🗱 Close

	 Tasks(s) = Schedule a Report 		
	Manual Trigger Details		
		📆 Save 🎼 Sa	ave & New 👔 Save & View 💥 Close
	Manual Trigger Variables Versions		
	General		
	Name : Scheduled Report Trigger		
	Description :		
	Member of Business Services :		~
	Calendar : System Default		
	Schedule a Report		
	Task(s) :		
	Purge By Retention Duration :		
	🦷 Save 🕼 Save & New 👔 Save & View 🗶 Clo	DSe	
_			
	Click the Save button.		
	Click the Save button. In the Time Triggers list, right-click the Schedule	Report Trigger to display an Action menu.	
	In the Time Triggers list, right-click the Schedule		
	In the Time Triggers list, right-click the Schedule Click Trigger Now and then, on the Trigger N o	ow pop-up dialog, click Submit.	
	In the Time Triggers list, right-click the Schedule	ow pop-up dialog, click Submit.	
	In the Time Triggers list, right-click the Schedule Click Trigger Now and then, on the Trigger No Open the email sent to the recipient selected in S	ow pop-up dialog, click Submit. Step 3 and double-click the attached Schedu	led Activity Report.pdf to se
	In the Time Triggers list, right-click the Schedule Click Trigger Now and then, on the Trigger No Open the email sent to the recipient selected in S	ow pop-up dialog, click Submit.	led Activity Report.pdf to se
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	In the Time Triggers list, right-click the Schedule Click Trigger Now and then, on the Trigger No Open the email sent to the recipient selected in S Instance Name workflow-regression-one-of-each-tasks sap-task-simple-variable	ow pop-up dialog, click Submit. Step 3 and double-click the attached Schedu Scheduled Activity Report Uorkflow SAP	Iled Activity Report.pdf to se (17 Task Instances) Status Success Success
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Reports

Tutorial - Creating Users and Assigning Roles and Permissions

- Introduction
- Create New Users
- Assign Permissions to Groups of Users

Introduction

In this exercise, we will create some users related to the Operations and Tech Support departments created in the Creating Business Services tutorial.

We also will assign access and management rights via user roles and Universal Controller permissions:

- Roles are pre-defined groups of permissions that control access to users, reports (filters), gauges, bundles, and promotions.
- Permissions control who can add, change, delete and control Controller tasks, task instances, triggers, Agents, calendars, and credentials.

Create New Users

In this exercise, we will create a new user and assign different permissions to it.

Step 1	From the Administration navigation pane, click Security > U	sers. The User	r list displays.	
Step 2	Click the New button to display empty User Details for a new • User Id = user1 • First Name = User • Last Name = One • Password = 123	vuser and ente	er / select the following values:	
	User Details: User One			
	×		🗒 Update 🕼 Delete 🔄 Refresh	
	User User Roles Member of Groups Permissions			
	r Details			
	User Id : user1	Time Zone -	System (US/Eastern)	*
	Password :	Title :		×
	First Name : User	Department :		
	Middle Name :	Manager :		× ==
	Last Name : One	Business Phone :		
	Email :	Mobile Phone :		
	Password Requires	Web Browser	System Default	
	Reset:	Access : Command Line		
	Locked Out :	Access :	System Delaut V	
	Active : 🔽	Web Service Access :	System Default V	
	Update Delete S Refresh Close			
Step 3	Click the Save button, log out of the Controller and then log	n as user1.		
Step 4	Click on several areas of the user interface. Since user1 has number of lists and records, and cannot create, modify, or de			only a limited
Step 5	Log out of the Controller and log in as ops.admin.			
Step 6	Open the user1 record and click the User Roles tab.			
Step 7	Click Edit.			

EQ	it Members			
	Collection			Roles List
	Collection	•		
	Name [▲]	× 1		groupa
	ops_agent_cluster_admin	A		
	ops_bundle_admin			ops_admin
	ops_dba			
	ops_email_admin			
	ops_filter_global		-	
	ops_filter_group		+	
	ops_imex	=	►	
	ops_multi_update			
	ops_promotion_admin		•	
	ops_report_admin			
	ops_report_global			
	ops_report_group			
	ops_report_publish			
	ops_report_schedule			
	ops_report_widget_create			
		-		
		Sour		Cancel
		Save		Cancel
9 Clic	k the User tab and then click the Update b	outton.		
10 Log	out and log back in as user1 to verify that	user1 has th	ne sar	ne permissions as ops.admin.
-	out and log back in as ops.admin, open th			
	· · · · · · · · · · · · · · · · · · ·		,	······································
	• Type = Task		Perm	
	 Create = enabled Read = enabled Update = enabled Commands = Launch Unassigned to Business Service = 			
	 Create = enabled Read = enabled Update = enabled Commands = Launch Unassigned to Business Service = Member of Business Services = Termination 			
	 Create = enabled Read = enabled Update = enabled Commands = Launch Unassigned to Business Service = 			
	 Create = enabled Read = enabled Update = enabled Commands = Launch Unassigned to Business Service = Member of Business Services = Termission Details 			
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	 Create = enabled Read = enabled Update = enabled Commands = Launch Unassigned to Business Service = Member of Business Services = Teator 			ے۔ ایس ایک کی ہے۔ Save & New کے Save & View K Close
	 Create = enabled Read = enabled Update = enabled Commands = Launch Unassigned to Business Services = Tea Member of Business Services = Tea 			
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	 Create = enabled Read = enabled Update = enabled Commands = Launch Unassigned to Business Service = Member of Business Services = Ter 			ے۔ ایس ایک کی ہے۔ Save & New کے Save & View K Close
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	 Create = enabled Read = enabled Update = enabled Commands = Launch Unassigned to Business Service = Member of Business Services = Ter 	ch Support		Save & New Save & View ★ Close View ★ Close Unassigned to Business Service :
	 Create = enabled Read = enabled Update = enabled Commands = Launch Unassigned to Business Service = Member of Business Services = Ten Permission Details Permission Details Type: Task Create: Ø Read: Ø Update: Ø Delete: Commands: Launch Name: * Member of Business Service or Unassigned: Service service Service or Unassigned: Tech Support Service: Tech Support Save Save & New is Save 	e & View		Save & New Save & View ★ Close View ★ Close Unassigned to Business Service :
13 Clic	 Create = enabled Read = enabled Update = enabled Commands = Launch Unassigned to Business Service = Member of Business Services = Ter 	e & View		Save & New Save & View ★ Close View ★ Close Unassigned to Business Service :

Assign Permissions to Groups of Users

In this exercise we will assign our last user to a group, then assign permissions to the group instead of to the user.

Step 1	Open the user1 record .
Step 2	Click the Member of Groups tab to display a list of groups that user1 belongs to.
Step 3	Click the New button to display Group Details for a new group.
Step 4	In the Name field, enter Group1, and then click the Save button. The Member of Groups list now shoes Group1.
Step 5	Open Group1 and click the Permissions tab to display the list (currently empty) of permissions for Group1.
Step 6	Click the New button and on the Permissions Details, enter / select the following values: Type = Task Instance Read, Update, Delete = enabled Commands = All Business Services = Operations Unassigned to Business Service = disabled These permissions provides all users in the Group1 full permissions on all activity (task instances) related to the Operations Business Service. Any users you assign to Group1 will inherit these permissions. Permission Details
	Permission
	Details Type: Task Instance Read: ✓ Read: ✓ Update: ✓ Delete: ✓ Commands: ALL Name: * Member of Any Business Service or Unassigned to Unassigned to Business Service : Member of Business Services: Operations ✓ Save & New E Save & View
Step 7	Click Save, log out, and then log in as user1 to check the permissions.

For additional information, see:

• Users and Groups

Tutorial - Creating User Groups and Assigning Permissions

In this exercise, we will create users and user groups, then assign permissions to the groups instead of directly to the users.

Step 1	Create the following three users:
	• stonebranch-user-01
	 stonebranch-user-02 stonebranch-user-03
	• stonebranch-user-05
Step 2	Select Users > Groups and create a group called stonebranch-group-01.
	1. Click the Permissions tab
	 2. Click the New button and add the following permission: Type = Task Instance
	 Read = enabled
	Member of Any Business Service or Unassigned = enabled
	 Click the Group Members tab and click Edit. Add stonebranch-user-01 to the group.
Step 3	Create a group called stonebranch-group-02 .
	1. Add the following two permissions:
	 Type = Task Instance Read = enabled
	Update = enabled
	• Commands = None
	 Business Services = stonebranchbusinessservice 01 Unassigned to Business Service = disabled
	and
	 Type = Task Instance Dead - analysis
	 Read = enabled Update = enabled
	Commands = All
	 Business Services = stonebranchbusinessservice 02 Unassigned to Business Service = disabled
	Group Details: stonebranch-group-02
	Group Group Roles Group Members Child Groups Permissions
	2 Permissions
	Type Operations Commands Name Unassigned to Business Service Business Services Updated By Updated Task instance Read Undate All * No stonebranchbusinessservice 02 nos admin 2014-08-07 16:12:04-0400
	Task Instance Read, Update ALL * No stonebranchbusinessservice 02 ops.admin 2014-08-07 16:12:04 -0400

Step 4	Create a group called stonebranch-group-03 .
	 Add the following two permissions: Type = Trigger Create = enabled Read = enabled Update = enabled Delete = enabled Commands = None Member of Any Business Service or Unassigned = enabled and
	 Type = Task Create = enabled Read = enabled Update = enabled Delete = enabled Commands = None Member of Any Business Service or Unassigned = enabled
	Group Details: stonebranch-group-03
	Group Group Roles Group Members Child Groups Permissions
	2 Opswise Permissions
	Type Operations Commands Name Unassigned to Business Service Business Services Updated By Updated Image: Task Create, Read, Update, Delete * Yes * ops.admin 2014-08-07 16:18:42 -0400
	Trigger Create, Read, Update, Delete * Yes * ops.admin 2014-08-07 16:18:32 -0400
	2. Add stonebranch-user-03 to the group.
Step 5	Log in as each user and note that each is limited to those functions assigned to the user's group.

• Users and Groups

Tutorial - Creating and Promoting a Bundle

In this exercise, we will create a bundle (group) of Controller records and promote (copy) them from a source machine (a Controller cluster node) to a target machine.

Specifically, we will:

- Create a Bundle.
- Add records to a Bundle.
- Create a promotion target record for the bundle promotion.
- Map Agents on the source machine to Agents on the target machine.
- Promote the bundle to the target.

Create a Bundle

In this procedure, we will create a Bundle record to which other records can be added.

Step 1	From the Bundles & Promotion navigation pane, select Bundles . The Bundles list displays.
Step 2	Click the New button to display Bundle Details for a new Bundle.
	Enter a Bundle Name.
	Bundle Details
	Bundle Triggers Tasks Calendars Custom Days Variables Business Services Credentials Agent Clusters Virtual R
	Details
	Bundle Name :
	Description :
	Default Promotion Target :
	Exclude on Existence :
	Follow References :
	Promote Bundle Definition :
	Promote By Business Service Membership
	Promote Members of Business
	Services :
	Visible To : Edit
	🦷 Save & New 👔 Save & View 🗱 Close
Step 3	Click the Save button to create (and close) the Bundle record, which now appears on the Bundle list. You now can add records to the Bundle.

Add Records to the Bundle

In this procedure, we will add records to the Bundle record that you just created.

Step 1 Open the Bundle record you just created.

Bundle Details: Demo Bundle #1			
	T T		
Bundle Triggers Tasks Calendars	Custom Days Variables	Business Services Credentials Age	ent Clusters 💿 Virtual R 🔸 🔻
0 Triggers			Edit 🍭
Name		Type Description Added By	Updated
ck the Edit button to display a list of all Tr	rigger records.		
		Trigger List	
	Ŷ	Trigger List Demo Bundle #1	
Edit Members Collection Name [▲]	₹ Nan	Demo Bundle #1	
Edit Members Collection Name ^ stonebranch-applicationmonitortrigger-01	8	Demo Bundle #1	
Edit Members Collection Name stonebranch-applicationmonitortrigger-01 stonebranch-applicationmonitortrigger-02	₹ Nan	Demo Bundle #1	
Edit Members Collection Name stonebranch-applicationmonitortrigger-01 stonebranch-applicationmonitortrigger-02 stonebranch-applicationmonitortrigger-03	Nan	Demo Bundle #1	
Edit Members Collection Name Stonebranch-applicationmonitortrigger-01 stonebranch-applicationmonitortrigger-02 stonebranch-applicationmonitortrigger-03 stonebranch-applicationmonitortrigger-04		Demo Bundle #1	
Edit Members Collection Name stonebranch-applicationmonitortrigger-01 stonebranch-applicationmonitortrigger-02 stonebranch-applicationmonitortrigger-03		Demo Bundle #1	
Edit Members Collection Name stonebranch-applicationmonitortrigger-01 stonebranch-applicationmonitortrigger-02 stonebranch-applicationmonitortrigger-03 stonebranch-applicationmonitortrigger-04 stonebranch-applicationmonitortrigger-05 stonebranch-compositetrigger-01		Demo Bundle #1	
Edit Members Collection Name stonebranch-applicationmonitortrigger-01 stonebranch-applicationmonitortrigger-02 stonebranch-applicationmonitortrigger-03 stonebranch-applicationmonitortrigger-04 stonebranch-applicationmonitortrigger-05		Demo Bundle #1	
Edit Members Collection Name Stonebranch-applicationmonitortrigger-02 stonebranch-applicationmonitortrigger-03 stonebranch-applicationmonitortrigger-04 stonebranch-applicationmonitortrigger-05 stonebranch-compositetrigger-01 stonebranch-compositetrigger-02		Demo Bundle #1	
Edit Members Collection Name Collection Name Stonebranch-applicationmonitortrigger-01 stonebranch-applicationmonitortrigger-02 stonebranch-applicationmonitortrigger-03 stonebranch-applicationmonitortrigger-04 stonebranch-applicationmonitortrigger-05 stonebranch-compositetrigger-01 stonebranch-compositetrigger-02 stonebranch-compositetrigger-03		Demo Bundle #1	
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Bundle Triggers Tasks Calendars Custom Days Variables Business Services Credentials Agent Clusters Virtual R Image: Control of the control o	undle Details: Demo Bundle #1			
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	stonebranch-taskmonitortrigger-02	Task Monitor	ops.admin	2015-09-29 16:50:51 -0400

Create a Promotion Target Record for the Bundle

In this procedure, we will create a record identifying the target machine (a Controller cluster node) to which you will promote the Bundle.

Step 1	From the Bundles & Promotion navigation pane, select Promotion Targets. The Promotion Targets list displays.
Step 2	Click the New button to display Promotion Target Details for a new promotion target.
Step 3	Enter a name and the URI for the promotion target.
	Note By default, the URI of the cluster node that you are logged into displays. You must change this to the URI of a target cluster node, using the default URI format.
	Promotion Target Details Image: Save & New is Save & View is Close Promotion Target Linux/Unix Agent Mappings z/OS Agent Mappings Details Image: Stonebranch-promotiontarget-01 Description : Image: Stonebranch123/universal User : ops.admin Image: Save & New is Save & View is Close Image: Save & New is Save & View is Close
Step 4	Click the Save button. You now must map Agents on your source machine to Agents on the target machine.

Map Source Machine Agents to Target Machine Agents

In this procedure, we will map Agents on your source machine to Agents on the selected target machine.

	Dashboards 🔝 Promotion Targets 🖾				
	✓ 5 Promotion Targets	Custom Filter		👻 🤯 Filter	🔽 Go To 🛃 New 성
	Name A Use	r URI	Description	Updated By	Updated
	stonebranch-promotiontarget-01	http://localhost:8080/opswise		ops.admin	2014-06-13 15:37:58 -0400
	stonebranch-promotiontarget-02	http://localhost:8080/opswise		ops.admin	2014-06-13 15:38:04 -0400
	stonebranch-promotiontarget-03	http://localhost:8080/opswise		ops.admin	2014-06-13 15:38:07 -0400
	stonebranch-promotiontarget-04	http://localhost:8080/opswise		ops.admin	2014-06-13 15:38:12 -0400
	stonebranch-promotiontarget-05	http://localhost:8080/opswise		ops.admin	2014-06-13 15:38:17 -0400
	Promotion Target Details			🛒 Sav	ve 🕼 Save & New 🛅 N
	Promotion Target Linux/Unix Agent Mappin Details	gs 🛛 Windows Agent Mappings 🔍 e z/OS Agent Mappi	ngs		
	Name :				
	Description :				
	URI:				
	User:				
	Password :				
	🗐 Save 🛛 🕞 Save & New	New			
14					
2 R	Pight-click the Promotion Targe	t record that you just created to disp	lay an Action me	nu	
2 1	Agrit-click the Fromotion rarge	i record inal you just created to disp	Jav all Action me		
			,		
3 C	Click Refresh Target Agents to	o display a Refresh Target Agents p			
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C	Refresh Target Agents Promotion Tar Override User/Passw U	get : stonebranch-promotiontarg ord : 🔽 ser :	op-up dialog.		
	Refresh Target Agents Promotion Tar Override User/Passw U	get : stonebranch-promotiontarg ord : 🔽 ser : ord :	op-up dialog.		
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4 E	Refresh Target Agents Promotion Tar Override User/Passwo User Passwo	get : stonebranch-promotiontarg ord : ser : ord : Submit	op-up dialog. get-01	ded) and click s	Submit.
4 E	Refresh Target Agents Promotion Tar Override User/Passwo User Passwo	get : stonebranch-promotiontarg ord : ser : ord : Submit redentials for the target machine (if ord and click an Agent Mappings tat	op-up dialog. get-01	ded) and click s	Submit.
4 E	Refresh Target Agents Promotion Tar Override User/Passwo User/Passwo Passwo Enter the User and Password or Open the Promotion Target reco	get : stonebranch-promotiontarg ord : ser : ord : Submit redentials for the target machine (if ord and click an Agent Mappings tat	op-up dialog. get-01	ded) and click s	Submit.
4 E	Refresh Target Agents Promotion Tar Override User/Passwo	get : stonebranch-promotiontarg ord : ser : ord : Submit redentials for the target machine (if prd and click an Agent Mappings tat	op-up dialog. get-01 they are not provi	ded) and click s	Submit.
4 E	Refresh Target Agents Promotion Tar Override User/Passwo User/Passwo Passwo Enter the User and Password co Dpen the Promotion Target reco Promotion Target Details: stonebranch-promotion Y Promotion Target • Linux/Unix Agent Mappin	get : stonebranch-promotiontarg ord : ser : ord : Submit redentials for the target machine (if prd and click an Agent Mappings tat	op-up dialog. get-01 they are not provi	ded) and click s	Submit.
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4 E	Refresh Target Agents Promotion Tar Override User/Passwo User/Passwo Passwo Enter the User and Password co Dpen the Promotion Target record Promotion Target Details: stonebranch-promotion Promotion Target Linux/Unix Agent Mappings	get : stonebranch-promotiontarg ord : ser : ord : Submit redentials for the target machine (if prd and click an Agent Mappings tat	op-up dialog. get-01 they are not provi p for which there a	ded) and click stare Agents liste	Submit.
4 E	Refresh Target Agents Promotion Tar Override User/Passwo User/Passwo Passwo Passwo Enter the User and Password co Dpen the Promotion Target reco Promotion Target Details: stonebranch-promotion Promotion Target • Linux/Unix Agent Mappings Target Agent	get : stonebranch-promotiontarg ord : ser : ord : Submit redentials for the target machine (if prd and click an Agent Mappings tat	op-up dialog. get-01 they are not provi p for which there a	ded) and click stare Agents liste	Submit.
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4 E	Refresh Target Agents Promotion Tar Override User/Passwo User/Passwo Passwo Passwo Enter the User and Password co Dpen the Promotion Target reco Promotion Target Details: stonebranch-promotion Promotion Target • Linux/Unix Agent Mappings Target Agent	get : stonebranch-promotiontarg ord : ser : ord : Submit redentials for the target machine (if prd and click an Agent Mappings tat	op-up dialog. get-01 they are not provi p for which there a	ded) and click stare Agents liste	Submit.
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Promote the Bundle

In this procedure, we will promote the Bundle that you created to the selected Promotion Target machine.

Step 1	On the Bundles list, right-click the Bundle to Bundle pop-up dialog.	be promoted and click Promote Bundle on the Action menu to displ	ay a Promote
	Promote Bundle		
	Promotion Target :	stonebranch-promotiontarget-01	~
	Override User/Password :		
	User:	ops.admin	
	Password :	•••••	
	Allow Universal Template Changes :		
	Schedule :	Submit Cancel	
Step 2		r logs in to the target machine specified in the URI field of the Promoti machine Controller. Based on the specified Agent mapping, the target	

Bundles and Promotion

Tutorial - Scheduling the Promotion of a Bundle

In this exercise, we will select a date and time for the automatic promotion of the Bundle that was created in the Creating and Promoting a Bundle tutorial.

Schedule a Bundle Promotion

In this procedure, we will schedule the promotion of a Bundle to a target machine.

ł	Right-click the Bundle to be scheduled for p pop-up dialog.	romotion and click Promote Bundle on the Action menu to display a Promote Bund
	Promote Bundle	
	Promotion Target :	stonebranch-promotiontarget-01
	Override User/Password :	
	User :	ops.admin
	Password :	••••••
	Allow Universal Template Changes :	
	Schedule :	
	T	
	l	Submit Cancel
1		
3 (Click the Schedule field check box to displa	ay additional fields for specifying a promotion schedule.
3 (Click the Schedule field check box to displa	ay additional fields for specifying a promotion schedule.
03 (Promote Bundle	
	Promote Bundle Promotion Target :	stonebranch-promotiontarget-01
	Promote Bundle Promotion Target : Override User/Password :	stonebranch-promotiontarget-01
	Promote Bundle Promotion Target : Override User/Password : User :	stonebranch-promotiontarget-01
	Promote Bundle Promotion Target : Override User/Password : User : Password :	stonebranch-promotiontarget-01
03	Promote Bundle Promotion Target : Override User/Password : User : Password : Allow Universal Template Changes :	stonebranch-promotiontarget-01 ops.admin ••••••••
03	Promote Bundle Promotion Target : Override User/Password : User : Password : Allow Universal Template Changes : Schedule :	stonebranch-promotiontarget-01
	Promote Bundle Promotion Target : Override User/Password : User : Password : Allow Universal Template Changes : Schedule : Date :	stonebranch-promotiontarget-01
p3 (Promote Bundle Promotion Target : Override User/Password : User : Password : Allow Universal Template Changes : Schedule :	stonebranch-promotiontarget-01
p3 (Promote Bundle Promotion Target : Override User/Password : User : Password : Allow Universal Template Changes : Schedule : Date :	stonebranch-promotiontarget-01 stonebranch-promotiontarget-01 sops.admin cops.admin 2017 v May v 30 v Hour Min 11 v 00 v
	Promote Bundle Promotion Target : Override User/Password : User : Password : Allow Universal Template Changes : Schedule : Date : Time :	$ = \times $ stonebranch-promotiontarget-01 $ \circ $ ops.admin $ \circ $ 2017 \vee May \vee 30 $\vee $ Hour Min 11 \vee 00 \vee
03 (Promote Bundle Promotion Target : Override User/Password : User : Password : Allow Universal Template Changes : Schedule : Date : Time :	stonebranch-promotiontarget-01 stonebranch-promotiontarget-01 sops.admin cops.admin Local Additional Addit
)3 (Promote Bundle Promotion Target : Override User/Password : User : Password : Allow Universal Template Changes : Schedule : Date : Time :	stonebranch-promotiontarget-01 stonebranch-promotiontarget-01 sops.admin cops.admin Local Additional Addit

Dashboards 🛛 Promotion Schedules 🖾		
V 2 Promotion Schedules	Custom Filter No	
Bundle Promotion Target	Status Status Description	Scheduled Time Use Snapshot A
	rrget-01 Cancelled Scheduled promotion cancelled by user "ops.admin".	2015-05-23 00:00:00 -0400 Yes
stonebranch-bundle-02 stonebranch-promotionta	Inder-oz Scheduled	2015-05-24 00:00:00 -0400 No
Y Promotion Schedule Details		
Promotion Schedule Details		

• Bundles and Promotion