stonebranch

Universal Controller 6.5.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
 - Installation
 - Operations

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:

SQL> show parameter open_cursors;		
NAME	TYPE	VALUE
open_cursors	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 [Ops.General.15.EP.SqlHandler.ecd8ab62183f4b9dbf32d3ea4ad0a126.74b824ad1ca84142a40d3ec1f84d4d2b.0]
SOLServerException - Connection reset
com.microsoft.sqlserver.jdbc.SOLServerException: 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.java:402)
at com.microsoft.sqlserver.jdbc.SQLServerPreparedStatement\$PrepStmtExecCmd.doExecute(SQLServerPreparedStatement.java:350)
at com.microsoft.sqlserver.jdbc.TDSCommand.execute(IOBuffer.java:5696)
at com.microsoft.sqlserver.jdbc.SQLServerConnection.executeCommand(SQLServerConnection.java:1715)
at com.microsoft.sqlserver.jdbc.SOLServerStatement.executeCommand(SOLServerStatement.java:180)
at com.microsoft.sqlserver.jdbc.SQLServerStatement.executeStatement(SQLServerStatement.java:180)
at com.microsoft.sqlserver.jdbc.SQLServerPreparedStatement.execute(SQLServerPreparedStatement.java:332)
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.xml**:

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	2
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

Universal Controller 6.5.x Troubleshooting and Tutorials

Check the Controller log file.

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

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

GET http://NN.NNN.NN.NS:8080/opswise/resources/agents/list returned a 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.

GET http://NN.NNN.NN.NN.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
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
Launching Tasks Using a Cron Trigger

Aborting a Process Launched by a Task
Force Finishing, Force Finish-Cancelling, and Cancelling a Task
Accessing Task Instance Details
Monitoring Task Activity
Workflows
Creating a Simple Workflow
Running a Workflow with a Conditional Path
Running a Workflow with Multiple Conditional Paths
Running a Workflow with Skipped Criteria
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.

ner Task Details	- - ×
🦷 Save & New 👔 Save & View	· / / / /
Timer Task Variables Actions Virtual Resources Mutually Exclusive Instances Triggers Notes Versions	
- General -	
Task Name : stonebranch-timertask-01	
Task Description :	
Member of Business Services :	~
Resolve Name 📷	
Immediately : Hendrich Hendric	
Virtual Resources on Hold Resources on	
Priority : Failure :	
- Timer Details	
Timer Type : Seconds v	
Timer Duration In Seconds : 60	
- Time Options	
Late Start:	
Late Finish :	
Early Finish : 🕅	
User Estimated Day Hour Min Sec Duration :	
- Critical Path Options	
CP Duration : CP Duration Unit : Minutes *	
- Workflow Execution Options	
Execution Vone V	
🛜 Save 🖉 🕼 Save & New 👔 😭 Save & View 🗱 Close	
🐖 Save 🖉 Kawe & New 👔 😭 Save & View 🗱 Close	
📅 Save 🖉 Kawe & New) 👔 Save & View 🚺 🗱 Close	
xk Save.	
xk Save.	
ck Save . the Timer Tasks list, right-click stonebranch-timertask-01 task to display an Action menu.	

Timer Task Instance Det	ails: stonebranch-timertask-01			
			🔚 Update 📪 Re-run 🎲 Delete 🐚 Refres	sh 渊 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		Execution User	ane admin	
Services :	· · · · · · · · · · · · · · · · · · ·	Execution Oser	, ops.aumin	
Resolve Name Immediately :		Calendar	System Default	
Virtual Resource Priority :		Hold Resources or		
Priority :	l	Failure		
- Status				
Status :	Success]		
Status Description :				
Operational Memo :				
Trigger Time :		Launch Time	2017-10-05 16:56:01 -0400	
	2017-10-05 16:56:01 -0400	1	2017-10-05 16:57:01 -0400	
	1 Minute 0 Seconds]		
	2017-10-05 16:57:01 -0400]		
		1		
Timer Details				
Timer Type :				
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:

```
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}
```

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

	開 Save & New 👔 Save & View 🗱	Class	
		ciose	
iversal Template	Fields		
General		- Âl	
Name :	Oracle EBS		
Description :	Oracle E-Business Suite Tasks		
Variable Prefix :	<u>Qebs</u>		
Icon :	Browse EBS logo (48x48).png PNG image (48 x 48 pixels)		
		Ξ	
Universal Template [etails		
Agent Type :			
	<pre>concsub \${credentialuser ("\${ops_oebs_appscredential}")}/\${_credentialPwd("\${ops_oebs_appscredential}")} \</pre>		
Linux/Unix Script :			
Defaults Agent : Agent Variable : Credentials : Credentials Variable :	qa-cntir-mysql.stone.branch - qa-cntir-mysql 🔹 🔄 Agent Cluster : 🔹 👟 두 Agent Cluster : 🔹 Variable :		
Runtime Directory :			
	Q Q		
En internet	Name Value		
Environment Variables :			
	No items to show.		
Exit Code Processing : Exit Codes :	Success Exitcode Range v 0	Ξ	
Automatic Output Retrieval :	Standard Output/Error		
Start Line :	1 Number of Lines : 100		
Scan Text :			
📻 Save 🛛 🏹	Save & New 👔 Save & View 🔰 🗱 Close	•	l.
nally, in the l	con field, browse for an icon (PNG image, 48x48 pixels) to be used instead of the default icon for	any Un	niversal Tasks base
	on, the file name display next to the Browse button. When you save the Universal Template, the h		

Step 4 Click Save.

Create Universal Template Fields

Next, create fields in the template:

sal Template Details: O)racle EBS		_		
		6] Update 🇊 Delete 👍 Refresh 💥 Cli	ose	
versal Template	Fields				
Seneral				<u> </u>	
Name : Or	acle EBS				
Description : Or	acle E-Business Suite Tasks				
Variable Prefix : oe	bs				
lcon : E	BS Browse No file selected.	PNG image (48 x 48 pixels)			
Iniversal Template Deta	ails				
Agent Type : Lir					
₩¥ WA PR	nncsub \${credentialuser ("\${ops_oebs_apps {ops_oebs_respapp}" \${ops_oebs_respname} IIT=Y CONCURRENT FND FNDFMRTC \ IOGRAM_NAME= '"\${ops_oebs_progname}	<pre>\${ops_oebs_username} \</pre>		E	
)efaults					
Agent : qa	-cntlr-mysql.stone.branch - qa-cntlr-mysql	✓ ☐ Agent Cluster :	× ==		
Agent Variable :]	Agent Cluster Variable :			
Credentials :		Cluster Broadcast :	×		
Credentials					
Variable : Runtime Directory :	a				
Continie Directory .			0 0		
N	ame	Value			
Environment Variables :		No items to show.		=	
		its items to show.			
Exit Code Su	uccess Exitcode Range 🗸 🗸				
Processing : Ou Exit Codes : 0	-				
Automatic Output	andard Output/Error				
Retrieval .		Number of Lines : 100			
Start Line :	1	Number of Lines : 100			
Scan Text :					

Click the Fields ta					
Universal Template Details	Oracle				
Universal Template	Fields				
0 Fields				New 🥏	
Name	Label	Type Mapping Add 1	To Default List View Updated By	Updated •	
		No items to show.			
 In the Nar In the Lab In the Hin In the Typ 	Id Details for a new Field dis ne field, enter appscredenti el field, enter Oracle Applic field, enter Credential cont e field, select Text . uired field, enter a check ma	al. ation Credential. taining the Oracle Applicati	ons username and pa	ssword	
Field Details					
Field © Cho	CES		🦷 Save 🕼 Save & New 🛛	📄 Save & View 💥 Close	
Hint : Add To Default List	appscredential Credential containing the Oracle Applical		R Save C Save & New (1 74 74	
General Name : Hint :	appscredential Credential containing the Oracle Applicat		Dracle Application Credential	1 74 74	
General Name : Hint : Add To Default List View : Field Details Type :	appscredential Credential containing the Oracle Applicat	tions username and password.	Dracle Application Credential	🚡 Save & View 💥 Close	
General Hint: Add To Default List View: Field Details Type : Default Value : Validation Required :	appscredential Credential containing the Oracle Applicat	tions username and password.	Dracle Application Credential	🚡 Save & View 💥 Close	
General Name : Hint : Add To Default List View : Field Details Type : Default Value : Validation Required : Length : Start Row : End Row :	appscredential Credential containing the Oracle Applicat Text	tions username and password. Mapping : 1	Dracle Application Credential	🚡 Save & View 💥 Close	
General Name : Hint : Add To Default List View : Field Details Type : Default Value : Validation Required : Length : Start Row : End Row :	appscredential Credential containing the Oracle Applicat Text	tions username and password. Mapping : Column Span :	Dracle Application Credential	🚡 Save & View 💥 Close	

Step 5	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
	Click Save to save each Field.
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
	📊 Save 🎼 Save & New 👔 Save & View 💥 Close
	Choice
	Details
	Value : active users
	Use Value For Label : Label : Active Users
	Lavel, Active Users
	🔚 Save & New 👔 Save & View 🗱 Close
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.
Step 4	Click New to display Details for a new Oracle EBS Tasks task.

le EBS Task Details						w 👔 Save & Viev	
					2		v 🦱
acle EBS Task 🛛 🔍	Variables • Actions • Virtual Res	ources Mutually E	xclusive Instanc	es O Triggers	Notes	Versions	
General	·						
Task Name :							
Task Description :							
Member of Business Services :							~
Immediately :							
Hold on Start :							
Virtual Resource Priority :	10	~	Hold Resources on Failure :				
Oracle EBS Details							
Agent :		*	Agent Cluster :				¥ []
Agent Variable :			Agent Cluster				
-			Variable :				
Credentials :		¥	Cluster Broadcast :				¥ 10
Credentials Variable :							
Oracle	[Responsibility				
Application Credential :			Application :				
Responsibility Name :			Application User :				
	Active Users	~					
Runtime Directory :	Active Osers						
Runtime Directory .							
						G	
Environment Variables :	Name		Value				
vanables .			No items to show.				
Exit Code Processing :	Success Exitcode Range	*					
Exit Codes :	0						
	Standard Output/Error						
		*					
Start Line :	1		Number of Lines :	100			
Scan Text :							
Retry Options							
Retry Exit Codes :							
Maximum Retries :	0		Retry Indefinitely :				
Retry Interval (Seconds) :	60		Suppress Intermediate				
			Failures :				
Wait/Delay Options	· · ·						
Wait To Start :		*					
-		~					
Workflow Only :	System Default	*					
Time Options							
Late Start : 📃							
Late Finish : 📰 Early Finish : 📰							

	Duration :
	Critical Path Options
	CP Duration : CP Duration Unit : Minutes
	Workflow Execution Options
	Execution None V
	F Save & New Save & View Close
Step 5	In the Task Name field, enter: Active Users Report.
Step 6	Review the Details section fields that you defined in the Oracle EBS Universal Template to make sure that their names, defaults, and requirement settings are correct.
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.
Step 10	Click Activity in the Automation Center navigation pane and open the Active Users Report task instance:

		Update	Force Finish 👻 🔽	🔋 Re-run 🔞 Retrieve Output 🎲 Delete 🛭 🔄 Refi	fresh 🗶
icle EBS Task Instand		 Outpu 			•••
General					
	Active Users Report		Reference Id :	1	
	Active Users Report	20 T	Invoked By :	Manually Launched	
	Run the Oracle Application Active Users Report				
Member of Business Services :		~	Execution User :	ops.admin	
Resolve Name			Onlandary Durtan	Defeut	
mmediately.			Calendar : System		
Virtual Resource Priority :	10 ~		Hold Resources on Failure :		
Status					
Status :	Success		Exit Code :	0	
Status Description :					
Operational Memo :					
Trigger Time :			Launch Time :	2016-08-23 14:15:34 -0400	
Queued Time :	2016-08-23 14:15:34 -0400				
Start Time :	2016-08-23 14:15:34 -0400		End Time :	2016-08-23 14:15:35 -0400	
Duration :			CPU Time :	116	
Process ID :	21680				
oracle EBS Details					
Agent :	qa-cntlr-mysql.stone.branch - qa-cntlr-mysql	*	Agent Cluster :		*
Agent Variable :			Agent Cluster		
			Variable :		
Credentials :		¥ n			
Credentials Variable :					
Oracle Application	APPS		Responsibility	SYSADMIN	
Credential : Responsibility			Application :		
Name :	System Administrator		Application User :	SYSADMIN	
Program Name :	Active Users	~			
Runtime Directory :					
					0 0
Environment	Name		Value		
Variables :			A		
			No items to show.		
Exit Code		1			
Processing :	Success Exitcode Range v				
Exit Codes :	0				
Automatic Output Retrieval :	Standard Output/Error v				
Start Line :	1		Number of Lines :	100	
	1		Author of Lines .	100	
Scan Text :					
ate Option -					
Retry Options					
Retry Options ——— Retry Exit Codes : Maximum Retries :	0		Retry Indefinitely :	_	

	Current Retry 0 Count : 0	
	Statistics User Estimated 2016-08-23 14:15:34 -0400 End Time : Longest Estimated End Time : Longest Estimated	
	Force Finish Refrieve Output	
Step 11	n the Status section of the task instance Details, check the Status and Exit Code fields to verify that the task ran to success. Optionally, retrieve output from the task instance to view letails about the run.	N

- 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	n 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 3	Locate and open the task in	stance on the Activity Monitor.
Step 4	Note that the Output tab is	empty. Click Retrieve Output . The Retrieve Output window appears:
	Retrieve Output	
		Standard Output and Standard Error
	Output Type :	O Standard Output
		O Standard Error
	Start Line :	1
	Number of Lines :	100
	Scan Text :	
		Submit Cancel
Step 5	Change the number of lines	to 300 and click Submit .

Windows Task Insta	ce Details: stonebranch-windowstask-02		
Windows Task Instan	ce Virtual Resources Exclusive Requests Output	Notes	
			æ
Туре	Attempt Output	Updated By Updated	
	Volume in drive C has no label.		<u> </u>
	Volume Serial Number is 74F4-2526		
	Directory of c:\windows		
	01/17/2012 08:04 PM <dir> .</dir>		
	01/17/2012 08:04 PM <dir></dir>		
	07/13/2009 10:37 PM <dir> AppComp</dir>		
	01/17/2012 07:58 PM <dir> AppPate 11/20/2010 05:16 AM 65,024 bfsvc.e</dir>		
	07/14/2009 12:52 AM <dir> Boot</dir>	-	
	07/14/2009 12:52 AM <dir> Brandin</dir>		E
	10/09/2009 02:11 PM <dir> CSC</dir>		
	07/14/2009 12:52 AM <dir> Cursors 12/23/2009 01:41 PM <dir> debug</dir></dir>		
	07/14/2009 12:52 AM <dir> diagnos</dir>	ice	
	07/14/2009 12:56 AM <dir> Digital</dir>		
		ed Program Files	
	10/09/2009 02:11 PM 1,774 DtcInst	11.log	
	01/17/2012 07:59 PM <dir> ehome 10/09/2009 11:42 AM <dir> en-US</dir></dir>		
	11/20/2010 05:17 AM 2,616,320 explore	.exe	
	07/13/2009 09:14 PM 13,824 fveupda		
	07/14/2009 03:54 AM <dir> Globali</dir>	ation	
	10/09/2009 01:54 PM <dir> Help 07/13/2009 09:14 PM 497,152 HelpPan</dir>	eve	
	07/13/2009 09:14 PM 15,360 hh.exe		
	01/17/2012 08:06 PM 21,337 iis7.lo		
	07/14/2009 12:56 AM <dir> IME</dir>		
	01/22/2014 06:27 PM <dir> inf 07/14/2009 12:52 AM <dir> L2Schem</dir></dir>	9	
		elReports	
	10/09/2009 02:30 PM <dir> Logs</dir>		
	07/13/2009 06:58 PM 43,131 mib.bin	- NET	
	01/17/2012 08:19 PM <dir> Microso 10/09/2009 01:00 PM <dir> Minidum</dir></dir>		
	07/13/2009 10:04 PM <dir> ModemLo</dir>		
	06/10/2009 05:19 PM 1,405 msdfmap	ini	
	07/13/2009 09:14 PM 179,712 notepad		
	10/09/2009 01:00 PM 124,998 ntbtlog 10/09/2009 01:54 PM <dir> nview</dir>	txt	
		Neb Pages	
	10/09/2009 11:26 AM <dir> Panther</dir>	-	
	07/14/2009 12:52 AM <dir> Perform</dir>		
	04/15/2013 01:29 PM 180,958 PFRO.lo 07/13/2009 10:37 PM <dir> PLA</dir>		

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 Details, specify the following:

Universal Controller 6.5.x Troubleshooting and Tutorials

- Status=SuccessEmail Connection=Your email connection

- Email Connection=Your email con
 To=Your email address
 Subject=Output
 Body=See attached.
 Attach Standard Output=enabled
 Start Line=1

• Number of lines=300

Email Notification Details		_
	📳 Update 🕼 Delete 🕼 Refresh	💥 Clos
Email Notification		
Action Criteria		
Status :	Success	~
Exit Codes :		
On Late Start :		
On Late Finish :		
On Early Finish :		
Description :		
- Action Details		
Email Template :	Email Connection : OPSWISE-MAILER	¥
Email Template Variable :		
Reply-To :		
To :	stonebranch@stonebranch.com	
Cc:		
Bcc:		
Subject :	Output	
	See attached.	
De tu		
Body :		
Report :	Report Variable : 📃	
Attach Standard Output :		
	Number of Lines : 300	
	Scan Text:	
Attach Standard Error :		
Attach File :		
Update 🧊 I	Delete 🔄 😫 Close	
e.		

Output opswise-email@stonebranch.com	÷ D
to me 👻	🗢 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 T	Triggers > Time Trigge	rs.		
Step 2	Click New.				
Step 3	In the Name field, enter stonebranch-timetrigger-01.				
Step 4	In the Task(s) field, click the Add-Remove Multiple in	con.			
Step 5	In the Collection window, locate the Timer task created Save .	d in the Creating and Ma	anually	/ Launching a Task tutorial, stonebra	nch-timertask-01, move it to the Tasks List window, and click
	Edit Members				
	Collection Task Name * Stonebranch-timertask-02 Stonebranch-timertask-03 Stonebranch-timertask-04 Stonebranch-timertask-05	Timer Yipe Ti A		Tasks List Stonebranch-timetrigger-01 Ak Name ^ ^ ^ nebranch-timertask-01	
		Save Cancel			
Step 6	In the Task(s) field, click the lock icon.				
Step 7	In the Time Style field, select Time Interval.				
Step 8	In the Time Interval field, enter 1.				

The part of the state of t	Time Trigger Details		
<pre>cetary image into the intervent of the intervent of</pre>		🦷 Save & New 👔 Save & View 💥 Close	
<pre>kmail: interaction intera</pre>		/ariables Versions	
<pre>where of the second is a greater is determined in the case of second is a greater is determined in the second is determined in the sec</pre>		e : stnebranch-timetrigger-01	
<pre>where or interview in</pre>	Description :	n:	
<pre>services is the Default is the Default is register (Amarica New_Yorr) </pre>			
<pre>classifier : pseum Octual imprise 31 imprise 2000 inprise imprise 400 imprise 31 imprise 2000 inprise imprise 400 imprise 31 imprise 2000 imprise 30 imprise 30</pre>			
Image:			
Image:		stonebranch-timertask-01	
Duration: Image: Contract in the stringer of the tringer of the tringer list now displays a green check-mark for this tringer.	Task(s) :		
Forecast: Image: Sign: Count:	Purge By Retention Duration :	Dn n:	
Forecast: Image: Im	- Status		
Step Triger #			
Structs: System Default- Imme Interval: Imme Interval: Imme Interval: Imme Interval:<	Skip Count :		
Windste System Default	Skip Trigger if	rif m	
Ime Details Ime interval	/ touve :		
Ime style: Ime Interval: Ime Interval: Day Details Day Details Day Details Ime Interval: Enable Offset: Ime Interval: Enable Offset: Ime Interval: Image: Implementation: Image: Implementation: Image: Implementation: Image: Implementation: Image: Implementati	Simulate :	e : System Default V	
<pre>imme interval imme interv</pre>	Time Details —		
Imme Interval Windles Day Details Day Style: Simple Day Style: Simple Sections Restrictions Special Restriction: Special Restriction: Special Restriction: Imme Fingers are disabled. To enable this trigger: A default, triggers are disabled. To enable this trigger: 1. On the Time Triggers list, right-click stonebranch-timetrigger-01 to display an Action menu. 2. Click Enable to enable the trigger. Note that the Enabled column on the trigger list now displays a green check-mark for this trigger.	Time Style :	e : Time Interval 🗸	
Our Details Day Details Day Syste: Simple Bay Syste: Simple Restrictions Restrictions Special Restriction: Special			
Our Details Day Details Day Syste: Simple Bay Syste: Simple Restrictions Restrictions Special Restriction: Special	Time Interval	al Minutes v	
Day Style: Simple • Daily Business Days Specific Day(s) Restrictions: Special Restriction: Image: Save & New Save &	Units :	5:	
Restrictions Restrictions Special Special Restriction: Restriction: Close Cose			
Restrictions Restrictions Special Restriction: ick Save. rdefault, triggers are disabled. To enable this trigger: 1. On the Time Triggers list, right-click stonebranch-timetrigger-01 to display an Action menu. 2. Click Enable to enable the trigger. Note that the Enabled column on the trigger list now displays a green check-mark for this trigger.	Day Style :	e: Simple v	
Restrict Times : Special Restriction : Save & New Save & View Close ck Save. r default, triggers are disabled. To enable this trigger: 1. On the Time Triggers list, right-click stonebranch-timetrigger-01 to display an Action menu. 2. Click Enable to enable the trigger. Note that the Enabled column on the trigger list now displays a green check-mark for this trigger.		Daily OBusiness Days OSpecific Day(s)	
Special Restriction: Save Save & New Save & View Cose ick Save. v default, triggers are disabled. To enable this trigger: 1. On the Time Triggers list, right-click stonebranch-timetrigger-01 to display an Action menu. 2. Click Enable to enable the trigger. Note that the Enabled column on the trigger list now displays a green check-mark for this trigger.	- Restrictions		
Restriction : Restriction : Save & New Save & View Close ick Save. default, triggers are disabled. To enable this trigger: 1. On the Time Triggers list, right-click stonebranch-timetrigger-01 to display an Action menu. 2. Click Enable to enable the trigger. Note that the Enabled column on the trigger list now displays a green check-mark for this trigger.	Restrict Times :		
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 ick Save. default, triggers are disabled. To enable this trigger: 1. On the Time Triggers list, right-click stonebranch-timetrigger-01 to display an Action menu. 2. Click Enable to enable the trigger. Note that the Enabled column on the trigger list now displays a green check-mark for this trigger. 			
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 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 green check-mark for this trigger. 			
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 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 green check-mark for this trigger. 			
2. Click Enable to enable the trigger. Note that the Enabled column on the trigger list now displays a green check-mark for this trigger.	v default, trigger	ers are disabled. To enable this trigger:	
	1. On the T 2. Click En a	Time Triggers list, right-click stonebranch-timetrigger-01 to display an Action menu. nable to enable the trigger. Note that the Enabled column on the trigger list now displays a green check-mark for this trigger.	
	om the Autom	nation Contar polyingtion pape, colort Activity to diaplay the Activity Maniter Nete that a new instance of standbranch dimensional of	000000000000000000000000000000000000000

ner Task Instance De	tails: stonebranch-timertask-01			
			🔚 Update 闷 Re-run 🎲 Delete 🔄 Refresh 💥 Close	
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 o Business Services		 Execution User 	ops.admin	
Resolve Nam Immediately	•		System Default	
Virtual Resourc Priority	9 10 ×	Hold Resources on Failure		
- Status				
Status	: Success			
Status Description	:			
Operational Memo				
Trigger Time	2017-10-06 15:18:25 -0400	Launch Time	2017-10-06 15:18:25 -0400	
Start Time	2017-10-06 15:18:25 -0400	End Time	2017-10-06 15:18:35 -0400	
Duration	10 Seconds			
Run Until Time	: 2017-10-06 15:18:35 -0400			
– Timer Details –				
Timer Type				
Timer Duration I Seconds	n 10			
- Statistics				
User Estimate End Time	:	Average Estimated End Time	2017-10-06 15:18:25 -0400	
Shortest Estimate End Time		Longest Estimated 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 .
Step 9	In the Category field, select Holiday.
Step 10	In the Type field, select Relative Repeating Date . In the three additional fields that appear, make the following selections When = 1st Day of Week = Mon Month = Sep
	Custom Day Details
	🖓 Save 🕼 Save & New 👔 Save & View 💥 Close
	Custom Day Calendars Details Name : stonebranch-customday-01 Description : Labor Day Category : Day O Business Day Holiday OPeriod Type : Relative Repeating Date When : 1st Day Of Week: Mon Month: Sep Adjustment: -None - Image: Save & New Save & View X 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
	🔚 Save & New 👔 Save & View 💥 Close
	Custom Day Calendars Versions
	Details
	Name : stonebranch-customday-02
	Description : The founder's birthday
	Category: O Day O Business Day O Period
	Type : Relative Repeating Date
	When: 2nd v
	Day Of Week : Mon 🗸
	Month : Oct 🗸
	Adjustment : None V
	🦷 Save 🕼 Save & New 📄 Save & View 🔀 Close
Step 17	Click Save to add this Custom Day to the Calendar.

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	In the Task(s) field, select stonebranch-timertask-01.
Step 7	In 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.

ick Save .			
lime Trigger Details			
		🧮 Save 🕼 Save & New 👔 Save & View	X Close
Time Trigger Variables Vers	ns		
General Name : stonebranch-til	etrigger-01		
	ay at 1 p.m., roll to Tuesday if Monday is a holiday.		
Member of			~
Business Services : Calendar : stonebranch-ca	endar-01 🗸 🖂	Time Zone : US/Eastern	×
stonebranch-time			
Task(s) :	€ ©		
Purge By Retention Duration :			
- Status			
Forecast:			
Skip Count :			
Skip Trigger if Active :			
Simulate : System Defa	t 🗸		
- Time Details			
Time Style : Time Time : Hour Mi 13 V 00	× ×		
Day Style : Simple	*		
	usiness Days () Specific Day(s)		
	r Wednesday Thursday Friday Saturd	lay	
Restrictions			
Special Restriction : 📝		Action : Next Business Day	
Simple Restriction : 🔽		Restriction :	
Situation : On Holiday	~		

As shown in the list, the task will not run on the two Mondays that you have defined as holidays in the calendar, but instead will run the the following Tuesday.

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	
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.
Step 7	Re-open the trigger, click the List Qualifying Times button, enter 25 in the Number of Dates/Times field, and click Submit. The Qualifying Times list now shows an additional Monday (the last Monday of the year) on which the task will not be run.

ualifying Times	
stonebranch-timetrigger-01	
Run every Monday at 1 p.m., roll to Tuesday if Monda holiday.	y is a
Listing From: Friday, July 25, 2014 11:01:54 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	
Nonday, August 25, 2014 13:00:00 EDT -0400	
Tuesday, September 02, 2014 13:00:00 EDT -0400	
Nonday, 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	
Monday, November 10, 2014 13:00:00 EST -0500	
Monday, November 17, 2014 13:00:00 EST -0500	
Monday, November 24, 2014 13:00:00 EST -0500	
Monday, December 01, 2014 13:00:00 EST -0500	
Monday, December 08, 2014 13:00:00 EST -0500	
Monday, December 15, 2014 13:00:00 EST -0500	
Monday, December 22, 2014 13:00:00 EST -0500	

X

Tuesday, December 30, 2014 13.00.00 EST -0500

Monday, January 05, 2015 13:00:00 EST -0500

Monday, January 12, 2015 13:00:00 EST -0500

- Triggers
 Time Trigger
 Calendars
 Displaying Trigger Forecast Information

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: ston	oranch-timetrigger-02		
Time Trigger Varia		📅 List Qualifying Times 🖺 Copy 🎲 Delete 🔄 Refresh	Close
General Name :	nebranch-timetrigger-02	/ersion : 1	
	n Every Two Hours During Business Hours except Holidays		
Member of			
Business Services :			×
	nebranch-calendar-01 🗸 🔚 Time	e Zone : System (America/New_York)	×
s	nebranch-timertask-01		
Task(s):			
Purge By Retention Duration :			
- Status			
Forecast: [Status : Disabled	
Skip Count :	0 Disat	bled By :	
Skip Trigger if Active :			
	System Default 🗸 🗸		
Time Details	ne Interval		
Time Interval :		Offset:	
Time Interval Units :			
Day Details			
Day Style : S	nple v) Daily () Business Days () Specific Day(s)		
Restrictions Restrict Times :			
Но	Min	_	
Enabled Start : 09	OO Adjust Interval To En	nabled Start : 🛄	
Enabled End : Ho	Min • 00 •		
Restriction :		Action : Do Not Trigger 🗸 🗸	
Simple Restriction :	Complex	Restriction :	
Situation : On H	liday		
🔛 Update 👔	Enable 🛛 🚱 Trigger Now 🐑 List Qualifying Times 🕅 😋 Co	ppy 👔 Delete 🔄 Refresh 🛛 🏅 Close	

ualifying Times	
stonebranch-timetrigger-02	
Run Every Two Hours During Business Hours Holidays	s except
Listing From: Friday, July 25, 2014 13:47:58 EDT -0400	e
User/Trigger Timezone: US/Eastern	
Friday, July 25, 2014 15:00:00 EDT -0400	
Friday, July 25, 2014 17:00:00 EDT -0400	
Saturday, July 26, 2014 09:00:00 EDT -0400	
Saturday, July 26, 2014 11:00:00 EDT -0400	
Saturday, July 26, 2014 13:00:00 EDT -0400	
Saturday, July 26, 2014 15:00:00 EDT -0400	
Saturday, July 26, 2014 17:00:00 EDT -0400	
Sunday, July 27, 2014 09:00:00 EDT -0400	
Sunday, July 27, 2014 11:00:00 EDT -0400	
Sunday, July 27, 2014 13:00:00 EDT -0400	
Sunday, July 27, 2014 15:00:00 EDT -0400	
Sunday, July 27, 2014 17:00:00 EDT -0400	
Monday, July 28, 2014 09:00:00 EDT -0400	
Monday, July 28, 2014 11:00:00 EDT -0400	
Monday, July 28, 2014 13:00:00 EDT -0400	
Monday, July 28, 2014 15:00:00 EDT -0400	
Monday, July 28, 2014 17:00:00 EDT -0400	
Tuesday, July 29, 2014 09:00:00 EDT -0400	
Tuesday, July 29, 2014 11:00:00 EDT -0400	
Tuesday, July 29, 2014 13:00:00 EDT -0400	
Tuesday, July 29, 2014 15:00:00 EDT -0400	
Tuesday, July 29, 2014 17:00:00 EDT -0400	

Medeaaday, July 20, 2044 00:00:00 EDT, 0400

Weunesuay, July 30, 2014 09.00.00 ED1 -0400
Wednesday, July 30, 2014 11:00:00 EDT -0400
Wednesday, July 30, 2014 13:00:00 EDT -0400
Wednesday, July 30, 2014 15:00:00 EDT -0400
Wednesday, July 30, 2014 17:00:00 EDT -0400
Thursday, July 31, 2014 09:00:00 EDT -0400
Thursday, July 31, 2014 11:00:00 EDT -0400
Thursday, July 31, 2014 13:00:00 EDT -0400

- 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

Temporary Trigg	r Details			
		🔚 Save 🕼 Save & New	💼 Save & View	💢 Close
Temporary Trigg	r Variables Versions			
General —				
	Name : Launch Tasks			
Des	iption :			
Me Business S	nber of			~
	endar : System Default v 📰 Time Zone : US/E	astern		~
	stonebranch-timertask-01			
	stonebranch-timertask-02			
1	sk(s): stonebranch-timertask-03			
Purge By R	tention			
D	ration :			
- Status				
	ecast:			
	Count: 0			
Skip T	igger if			
SI	nulate : - System Default v			
- Temporary (etails			
	Date: 2017 v May v 5 v 🖃			
	Time: 09 v Min 15 v			
	11me: 09 v 15 v			
Save	🕼 Save & New 👔 Save & View 🔀 Close			
	unch Tasks on the Temporary Triggers list and click Enable.			

Temporary Trigger

Tutorial - Launching an Email Task Based on a File Monitor

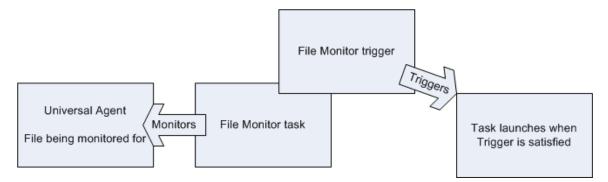
- Introduction
- Create File Monitor Task
- Create an Email Task
- Create File Monitor Trigger
- Test Your File Monitor Set-up

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.
Step 6	In the Monitor Type field, keep the default value, Create. (See File Monitor Task Details Field Descriptions for details about the other file monitor options.)
Step 7	In the Monitor File field, type file1.txt. Since we have not specified any directory, the Controller will search the root directory.
Step 8	Enable the Recursive field. Since we are going to write our file to the controller tutorial directory, we want the Controller to search all sub-directories for the file.
Step 9	In the Stable (seconds) field, enter 5. This tells the Controller to satisfy the trigger only when the file has not changed in 5 seconds.

				🔚 Save 🕼 Save	& New 👔 Save & View	💢 Close	•
ile Monitor 🛛 🔍 Var	iables Actions Virtual Resources	Mutually Exclus	ive Instances	File Monitor Triggers Tri	iggers 🛛 Notes 🔍	Versions	
General							
	stonebranch-filemonitor-01						ш
	Demo File Monitor						ш
Member of Business						~	ш
Services : Resolve Name Immediately :							ш
initio diditoly .							ш
Hold on Start :							ш
Virtual Resource Priority :	10	*	Hold Resources on Failure :				ш
File Monitor Details							ш
	qa-sol9 - qa-sol9um	*	Agent Cluster :			-	ш
Agent Variable :			Agent Cluster				
Credentials :		v 11-	Variable : Cluster Broadcast :				
Credentials			Chaster Breadcast.				
tanabro .			Trigger on				ш
Monitor Type :	Create	*	Trigger on Existence :				ш
Monitor File(s) :							ш
Use Regular Expression :							ш
Recursive :			Maximum Files :				ш
File Owner:							ш
Stable (seconds):	5						ш
Scan Text :							ш
Wait/Delay Options							ш
Wait To Start :		*					ш
Delay On Start :	None	*				1	
Workflow Only :	System Default	~					
Time Options	7						
Late Finish :							
Early Finish :							ш
	Day Hour Min Sec						ш
Duration :	* * * *						Ш
Critical Path Option	s						ш
CP Duration :			CP Duration Unit :	Minutes	*		
Workflow Execution Execution	n Options						
Restriction	None	*					
🔚 Save 🕠	👌 Save & New 👔 Save & View 🛛 🎇 🤇	Close					
							-

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}

	🦷 Save 🕼 Save & New 👔 Save & View
Email Task 🛛 🔍 Va	ables Actions Virtual Resources Mutually Exclusive Anstances A Triggers Notes Versions
General	
Task Name	stonebranch-emailtask-01
Task Description	Send Email When File Appears
Member o	
Business Services	
Resolve Name	
Immediately	
Hold on Start	Lield Resources on
Virtual Resource Priority	10 Failure :
Email Details	
Email Template	V E Email Connection : QA-OPSWISE-MAILER V
Email Template Variable	
Reply-To	
То	stonebranch@email.com
Cc	
Bcc	
Subject	file 1.tgt arrived
	Triggered by: \${ops_trigger_name} Date: \${_date}
Body	
Report	💌 🔚 Report Variable : 🕅
Wait/Delay Options	
Wait To Start	- None V
Delay On Start	
	System Default V
Time Oat	
Time Options	
Late Finish :	
Early Finish : [User Estimated Duration :	Day Hour Min Sec
Critical Path Option	3
CP Duration	CP Duration Unit : Minutes

	Workflow Execution Options Execution Restriction: None Restriction: Save & New Restriction: Close	
Step 9	Click the Save button.	-

Create File Monitor Trigger

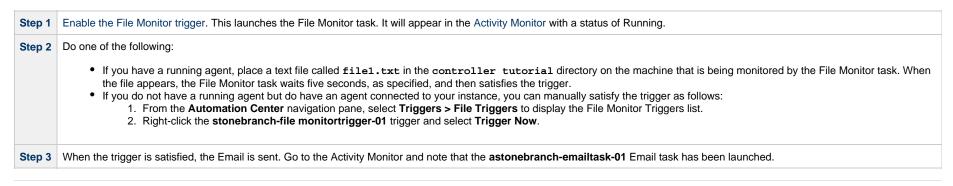
Create the File Monitor trigger:

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.

File Mon	itor Trigger Detai	s								[_
						E	Save	💼 Save & Nev	/ 💼 Save & View	💥 С
File Mo	nitor Trigger 🛛 🔍	Variables 🛛 🖲 Ver	sions							
Ger	ieral			 						
	Name :	stonebranch-filemo	nitortrigger-01							
	Description :	When File Arrives S	end Email							
Bus	Member of iness Services :									`
Duo		System Default		× .	Time Zone :	System (A	merica/Ne	ew_York)		`
	[stonebranch-window	stask-01							
	Task(s) :									
Pur	ge By Retention Duration :									
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- Stat										
	Skip Count :									
	Skip Trigger if Active :									
File	Monitor Details	stonebranch-filemo	aitas 04							
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- Res	trictions			 						
	Restrict Times :									
Spe	cial Restriction :									

Test Your File Monitor Set-up

Test your File Monitor set-up.



Step 4 Go to your email account where the email was sent and open the email. Note that the variables were resolved.

For additional information, see:

- Email TaskFile Monitor Task
- File TriggerVariables

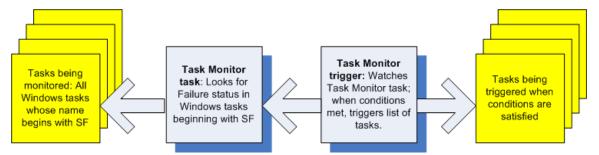
Tutorial - Launching an Email Task Based on a Task Monitor

- 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.

	📰 Last 48 hours 👻	🔉 No quick filter 👻 Custom	Filter None		🗸 🖓 F
Instance Name		E Status	Active	Туре	St
		Type →	Blocked Completed		
		Started/Finished Late	Defined	Status is one of Running/Problems, Cancel Pending, In Doubt, Start Failur	e,
		😽 Clear		Confirmation Required, Cancelled, Failed	
	Clic	(b) to start the Activity monitor	Held Exclusive Reques Exclusive Reques Exclusive Wait Resource Wait Execution Wait Undeliverable Queued Submitted Action Required Started Running Running/Problem Cancel Pending In Doubt Start Failure Confirmation Rec Cancelled Failed Skipped	sted	
			Finished		
💮 Settings 🗸 🕟 📵	N First A Pr	ev Next 🕨 T	Success	Page	of

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.

0		land a standard East of Tananda ta Dataila an tha standard (- United and the second s
Step 2		lay an empty Email Template Details and enter the f	oliowing values:
		Notification based on status	
	 To = (a valid email 	= (a valid email connection) account)	
	 Subject = Task Fai 	ure Alert	
	 Body = Task failure 	, see Activity Monitor for Problems	
Step 3	Click the Save button.		
	Email Template Details		
			開 Save 🕼 Save & New 📄 Save & View 💥 Close
	Email Template Versions		
	Details	Netification boood on status	
	Member of Business Services :	Notification based on status	
		QA-OPSWISE-MAILER	× =
	Reply-To :		
	To :	support@ <u>stonebranch</u> .com	
	Cc:		
	Bcc:		
	Subject :	Test Failure Alert	
		Task Failure: see Activity Monitor for Problems.	
	Body :		
	🛛 🕅 Save 🕼 Save & New	👔 Save & View) 🛛 💥 Close	

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.)
Step 3	Click the Save button.

ail Task Details	🗐 Save 🖟 Save & New 👔 Save & Viev	,
Email Task 🛛 Var		
- General	Triggered by Task Status	
Task Description :		
Member of		
Business		
Services : Resolve Name		
Immediately :		
Hold on Start :		
Virtual Resource Priority :	10 Hold Resources on Failure :	
- Email Details		_
	Notification based on status 🛛 👻 🔚 Email Connection :	۷
Email Template Variable :		
Reply-To :		_
To :		
Cc:		
Bcc :		
2001		
Subject :		
Body :		
body.		
Report :	Report Variable :	
Wait/Daloy Optics		_
- Wait/Delay Options Wait To Start :	- None v	
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- Time Options		_
Late Start :		
Late Finish :		
Early Finish :		
User Estimated Duration :	Day Hour Min Sec	
 Critical Path Option: 		
CP Duration :	CP Duration Unit : Minutes 🗸 🗸	

Workflow Execution Options Execution	v	
📄 🖓 Save 🕼 Save & New 👔	Save & View K Close	

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.

Step 1	From the Automation Center navigation pane, select Tasks > Task Monitors. The Task Monitors list displays.
Step 2	Click the New button to display an empty Task Monitor Details and enter the following values:
	 Task Name = Monitors for Problems Status To Monitor = enable Running/Problems, Cancel Pending, In Doubt, Start Failure, Confirmation Required, Cancelled, and Failed. (For a description of each status, see Displaying Task Instance Status). Monitoring Type = General Task(s) Task Type To Monitor = enable all task types

ask Monitor 🔍 Variables 🖉 Actions 🖉 Virtual Resources 🖉 Mutually Exclusive 🗍 🖲 Instances 🗍 🖲 Task Monitor Triggers 🗍 🖲 Triggers 🗍 🕲 Notes 🗍 🕲 Versions General	
Task Description :	
Member of	
Business Services:	
Immediately :	
Hold on Start:	
Virtual Resource In Hold Resources on Failure :	
Monitor Details	
Status To Monitor : Running/Problems, Cancel Pending, In Doubt, Start Failure, Confirmation Required, Cancelled, Failed	
Monitoring Type : General Task(s)	
Task Name	
Task Type To Workflow, Linux/Unix, Windows, Manual, File Monitor, Task Monitor, Email, z/OS, Timer, File Transfer, FTP File Monitor, SQL, Stored Procedure, Uni	
Workflow Name - Name -	
Time Scope : - None v	
Wait/Delay Options	
Wait To Start : None v	
Delay On Start : None v	
Workflow Only : System Default v	
Time Options	
Late Start:	
Late Finish :	
Early Finish :	
User Estimated Day Hour Min Sec	
Duration :	
Critical Path Options	
CP Duration : CP Duration Unit: Minutes v	
Workflow Execution Options	
Execution - None Volume	
🖳 Save & New 🕅 🛗 Save & View 🗮 Close	

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.

		: Triggered by Task Status nitor = Monitors for Problems	
3 (Click the Save but	ton.	
	Task Monitor Trigger Det	ails	_ = ×
		📰 Save & New 👔 Save & Vie	w 💥 Close
	Task Monitor Trigger	Variables Versions	
	General		
	Name :	Controls Monitors for Problems	
	Description :		
	Member of Business Services :		*
	Calendar :	System Default v 🔄 Time Zone : System (America/New_York)	~
		Triggered by Task Status	
	Task(s) :		
	Purge By Retention Duration :		
	Status		
	Skip Count :		
	Skip Trigger if Active :		
	Task Monitor Details]
	Task Monitor :	Monitors for Problems 🛛 👻 🔚	
	Restrictions		
	Restrict Times :		
	Special Restriction :		

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.

p 2	Right-click the Pau	ise for Ma	nual task a	nd, on the Action menu,	select Launch Task.							
∋p3	Display the Activity	/ Monitor.	It will list the	Pause for Manual task	instance, in Action R	Required status, a	nd the Monitors f	or Prob	lems Tas	sk Monitor t	ask, which was laun	ched whe
P	enabled the Contr										,	
	Dashboards 🛛 Activity	Manual Ta	sks 🖾					1				
	23 Task Instances			Last 48 hours 👻 🛛 🔝 No quick filter	Custom Filter None		👻 🦁 Filter					
	Instance Name	Туре	Status	Invoked By	Start Time	End Time	Updated *					
	Pause for Manual	Manual	Action Required	Manually Launched	2014-09-05 14:09:26 -0400		2014-09-05 14:09:26 -0400					
	Right-click on Pau	Task Monitor	Running	Trigger: Controls Monitors for F lay an Action menu of ac	Problems 2014-09-05 14:08:57 -0400		2014-09-05 14:08:57 -0400					
· ·	Right-click on Pau Click Cancel. Pau	Task Monitor	Running nual to disp nual goes to	Trigger: Controls Monitors for F	Problems 2014-09-05 14:08:57 -0400		2014-09-05 14:08:57 -0400]				
	Right-click on Pau Click Cancel. Pau	Task Monitor	Running nual to disp nual goes to	Trigger: Controls Monitors for F lay an Action menu of ac	Problems 2014-09-05 14:08:57 -0400 ttions currently availab an Email task is launch		2014-09-05 14:08:57 -0400 stance. lonitor trigger.]				
·	Right-click on Pau Click Cancel. Pau Dashboards Activity 24 Task Instances	Task Monitor se for Ma se for Ma	Running nual to disp nual goes to sks	Trigger: Controls Monitors for F lay an Action menu of ac o Cancelled status and a Last 48 hours	Problems 2014-09-05 14:08:57 -0400 ttions currently availab an Email task is launch	hed by the Task M	2014-09-05 14:08:57 -0400 stance. lonitor trigger.					
·	Right-click on Pau Click Cancel. Pau	Task Monitor se for Ma se for Ma Manual Ta Type	Running nual to disp nual goes to	Trigger: Controls Monitors for F lay an Action menu of ac o Cancelled status and a Last 48 hours I No quick filter Invoked By	Problems 2014-09-05 14:08:57 -0400 ttions currently availab an Email task is launch Custom Filter None Start Time		2014-09-05 14:08:57 -0400 stance. lonitor trigger.					
tep 4 tep 5	Right-click on Pau Click Cancel. Pau Dashboards Activity 24 Task Instances Instance Name	Task Monitor se for Ma se for Ma Manual Ta Type	Running nual to disp nual goes to sks Status	Trigger: Controls Monitors for F lay an Action menu of ac o Cancelled status and a Last 48 hours I No quick filter Invoked By	Problems 2014-09-05 14:08:57 -0400 ttions currently availab an Email task is launch	hed by the Task M End Time 2014-09-05 14:19:32 -0400	2014-09-05 14:08:57 -0400 stance. lonitor trigger.					

Step 9 Once the user receives the email, the user can quickly check for more information by looking at the Activity Monitor using the Cancelled Task Instances filter and clicking on the Instance Name of the problem task. As shown in the illustration below, additional information about the issue is displayed in the Status Description field.

		🔚 Update	😡 Re-run 🛛 🔓 View Parent 🎲 Delete 🗌	🕏 Refresh 💥 Close
ual Task Instance	Virtual Resources Exclusive Requests ON			
General	11 11			
	Pause for Manual	Reference Id	: 1	
Task:	Pause for Manual	Invoked By	Manually Launched	
Task Description :	A Manual task run at 2014-09-05 14:09:26 -0400			
Member of Business Services :		 Execution User 	: ops.admin	
Resolve Name Immediately :		Calendar	System Default	
Immediately : Virtual Resource		Hold Resources of		
Priority :	10 ~	Failure		
Status				
	Cancelled			
Otatus Dagasiation -	State was cancelled from ACTION REQUIRED to CANCELI	LED		
Status Description :				
Start Time :	2014-09-05 14:09:26 -0400	End Time	: 2014-09-05 14:19:31 -0400	
Duration :				
Wait/Delay Options				
Wait To Start :	Seconds	Wait Duration In	60	
		Seconds : Delay Duration In		
Delay On Start :		Delay Duration In Seconds :	5	
Workflow Only :	No			
Time Options				
Late Finish :	V	Late Finish Type		~
Finished Late :	V	Late Finis Duration	h 00 v 02 v 00 v HH:MM:SS	
Critical Path Option:		00.000		
CP Duration :		CP Duration Unit :	Minutes	*
Statistics				
User Estimated		Average Estimate	d 2014-09-05 14:09:26 -0400	
End Time : Shortest Estimated				
Shortest Estimated End Time :		Longest Estimate End Time		
Update	🔽 Re-run 👔 View Parent 🎲 Delete	🕸 Refresh 🛛 💥 Cl	ose	

For additional information, see:

- Email Task

- Email Task
 Email Connections
 Email Templates
 Reports
 All Task Instances Table (ops_exec)
 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.

k	Keep the asterisks	\mathbf{s} (*) in the remaining fields and click the \mathbf{S}	ave button.			
	Cron Trigger Details					- B ×
I				🔚 Save 🕼 Save & New	💼 Save & View 🚦	
ŀ		ables Versions				
	Description : Member of Business Services : Calendar :	0		m (America/New_York)		×
		System Default 💌				
	Minutes : Hours : Day of Month : Month : Day of Week : Cron Criteria :	16 * * *	Day Logic : And	×		
		Save & New 👔 Save & View 🗶 Close	and click Enable .			
		Monitor to see that three Timer tasks are ru		me.		

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 the Timer1 task created in the Creating a Simple Workflow tutorial and enter / select the following values:

- Time in Seconds = 60
- Late Finish = enabled
- Late Finish Type = Duration
- Late Finish Duration = 00:00:45

	er 1	_			_			1	Indate	🗔 Lau	nch Taek	. 🔂	View P	arante		nv (ta	S Refresh		_][Clo
Timer Task 🛛 🔍 Vari	ishlee	© Ac	tione	 Vir 	tual Reso	urcae		Mutually Ex		- -	stances	_	Triggers	10	Notes	1	Version		A Keiresii	~	
	iduics	O AU	uons	0 11	uai nesu	urces		nutually L	ACIUSIVE		stances	0	myyers		Notes		Version	•			
General	There										Manala				1						
Task Name :		1									Versio	n :		2							
Task Description :																					
Member of Business Services :	Opera	tions, Te	ech Su	port																	×
Resolve Name Immediately :																					
Hold on Start :																					
Virtual Resource Priority :	10							~		Hold Re	sources Failur	on e:									
Timer Details —																					
Timer Type :		ds						*													
Timer Duration In Seconds :	60																				
Time Options																					_
Late Start : 🕅	1																				
						La	te Finis	sh			Late Fi	inish	Day	Но	ur I	Min	Sec				
Late Finish : 🔽]						Тур	sh e : Durat	tion	~	Dura				~ 00			~			
Early Finish : 🔳]																				
User Estimated User Estimated	Day v	Hour	Mi	n s	Sec																
Critical Path Options	s ——																				_
CP Duration :										CP Du	ation Un	it : Mi	inutes						*		
Workflow Execution	Option	s ——																			
Execution Restriction	- Nor	10						*													
Statistics																					
First Time Ran :	2017-	05-05 1	5:23:18	-0400							st Instan Tim										
Last Time Ran :				-0400							je Instan Tim	· · ·									
Last Instance Duration :	1 Minu	ite 0 Se	conds							Highe	st Instan Tim	ce 1	Minute C	Secor	ids						
Number of		1									1111	e									
Instances :																					

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	
	层 Save 🕼 Save & New 👔 Save & View 💥 Close
Abort Action	
- Action Criteria	
Status :	v
Exit Codes :	
On Late Start : 🥅	
On Late Finish : 📝	
On Early Finish : 🕅	
Description :	
Action Details	
Cancel Process If Active :	Override Exit Code :
Halt On Force Finish :	
🕎 Save 🥼 Save & New 🕅 Save & View 🗶 Close	
Click the Timer Task tab and then click the Up	date button.
Right-click Timer1 in the Timers Tasks list and	click Launch Task.

Finished	due to abort action on Timer 1		
imer Task Instance Det	ails: Timer 1		
		🥅 Update 🔯 Re-run 🎲 Delete 🕼 Refresh	💢 Close
Timer Task Instance	Virtual Resources Sclusive Requests Notes		
General			
Instance Name :	Timer 1	Reference Id : 1	
Task:	Timer 1	Invoked By : Manually Launched	
Task Description :			
Member of Business Services :	Operations, Tech Support	Execution User: ops.admin	
Resolve Name		Calendar : System Default	H.
Immediately : Virtual Resource		Hold Resources on	
Priority :		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 :		Launch 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 :		1	
Seconds :]	
Time Options			
Late Finish :	\checkmark	Late Finish Type : Duration 🗸	
Finished Late :	2	Late Finish Day Hour Min Sec Duration : 00 v 00 v 00 v 45 v	
- Statistics			
User Estimated End Time :		Average Estimated 2017-10-26 15:43:17 -0400	
Shortest Estimated		Longest Estimated	
End Time :		End Time :	

For additional information, see:

• 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	Create a Workflow with an Agent-based task, such as a File Monitor task, that can be Force Finished, Force Finish / Cancelled, and Cancelled. (See the Creating a Simple Workflow tutorial for help on creating the Workflow.)
Step 3	Click Launch Task to run the Workflow.

Step 4 Force Finish a task from the Workflow Monitor:

- 1. From the Automation Center navigation pane, select Task Instances > Task Instances to display the Activity Monitor which displays, by default, a list of Active Task Instances.
- 2. Open the running Workflow and click the View Workflow button to display its Workflow Monitor.
- 3. Right-click a Waiting task and, from the list of Commands on the pop-up menu, click Force Finish. The status of the task changes from Waiting to Finished, and all successor task instances waiting for successful completion of this task instance will start.

	View/Edit		
Tim	View/Edit In Tab		
Wai	Commands	•	Clear All Dependencies
		_	Clear Predecessors
	View Predecessors/Successors		Force Finish
		_	Force Finish (Halt)
	Insert Task As Predecessor		Hold
	Insert Task As Successor	Ļ	Skip
	Details	•	

Step 5 Force Finish/Cancel a task from the Activity Monitor:

- 1. Return to the Activity Monitor.
- 2. Right-click a Simple Workflow task that is in the Running status and, on the Action menu, click Force Finish/Cancel. The status of the task changes from Running to Finished, and all successor task instances waiting for successful completion of this task instance will start.

	Instance Name				Туре	Status
==	Danstoneb(Clear	7		File Monitor	Running
	FOREVER	Force Finish	•	Force Finish	Timer	Waiting
	ecu-sleep-	Cancel		Force Finish (Halt)	Timer	Waiting
57	stonebranc		-	Force Finish/Cancel	Workflow	Runnin
53	workflow-r	Hold		Force Finish/Cancel (Halt)	Workflow	Succe
	sysmon-dis	Deleges		r oreer mish/oaneer (rially	System Monitor	Succe

Step 6 Cancel a task from the Task Instances list:

- 1. From the Automation Center navigation pane, select Task Instances > Task Instances to display the Task Instances list.
- 2. Right-click a Simple Workflow task in the Running status and, on the Action menu, click Cancel. The status of the task changes from Running to Cancelled, and all successor task instances waiting for successful completion of this task will remain in the Waiting status. The status of Simple Workflow changes from Running to Running/Problems.

× 2	3 Task Instances		
	Instance Name	Туре	Statu
12	Danstonebranch-filemonitor-01	File Monitor	Runni
57	FOREVER Clear	Timer	
	ecu-sleep-30	Timer	Waiti
	stonebranch-workflo	Workflow	Runn

For additional information, see:

- 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 Notes General Instance Name : Timer 1 Reference Id : 1 Task: Timer 1 Invoked By : Manually Launched Task Description : Member of Operations, Tech Support Execution User : ops.admin Business Services : Resolve Name Calendar : System Default Immediately : Virtual Resource 10 Hold Resources on ~ Priority : Failure : Status Status : Finished Finished due to abort action on Timer 1. {Last Status=Running, Cancel Process If Active=false, Halt On Force Finish=false} Status Description : Operational Memo Trigger Time : Launch 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 60 Seconds: Time Options Late Finish : Late Finish Type : Duration Late Finish Day Min Hour Sec Finished Late : 📝 Duration : 00 v 00 v 00 v 45 Statistics Average Estimated 2017-10-26 15:43:17 -0400 User Estimated End Time : End Time Longest Estimated Shortest Estimated End Time : End Time 💾 Update 🔯 Re-run Delete 🔄 😫 Refresh X Close

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 has run; and the least, average, and most amount of time it has ever taken to run.

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 Details to display an Action menu and then click Details > Show Details .

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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
Delay Duration In Seconds:	
Delay On Start:	
	45 Seconds
Duration In Seconds:	
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:	false
Instance Name:	Timer 1
Invoked By:	Manually Launched
IO Other:	0
IO Reads:	0
IO Writes:	0
Is Version:	false
Late Finish:	true
Late Finish Duration:	00:00:00:45
Late Finish Time:	00:00
Late Finish Type:	Duration
Late Start:	false
Late Start Duration:	00:00:00:00
Late Start Time:	00:00
Late Start Type:	Time
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,209686ac5a4f4eaebe488e9a3749ceb7
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:	false
Retry Interval (Seconds):	60
Run Called:	true
Run Criteria Run Time:	false
Run Criteria Trigger Time:	false
Run Until Time:	2017-05-05 15:32:03 -0400
Security Name:	Timer 1
Shortest Estimated End Time:	2017-05-05 15:32:03 -0400
Start Time:	2017-05-05 15:31:03 -0400
Started Late:	false
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 15:31:02 -0400: Defined 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:	00:00:00:00
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:	00:00:00:00
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.)

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		📰 Last 48 hours 👻 🛛	🖥 No quick filter 👻 🛛 Cu	stom Filter None		🗸 🦁 Filter
Instance Name A	Type Si	atus Invoked By		Start Time	End Time	Updated
		Clic	k to start the Activity mon	itor		
			,			
Start	Stop					
	,					

Dashboards 🗵 Activity 🗵						
646 Task Instances			ist 48 hours 👻 🔛 No quick filter 👻 C	Custom Filter - None		👻 🦁 Filter 🧯
Instance Name	Туре		Invoked By	Start Time	End Time	Updated *
						2014-09-02 12:58:36 -0
						2014-09-02 12:58:36 -0
						2014-09-02 12:58:26 -0
				2014-09-02 12:57:56 -0400		2014-09-02 12:57:56 -0 2014-09-02 12:57:55 -0
						2014-09-02 12:57:55 -0
						2014-09-02 12:57:55 -0
						2014-09-02 12:57:55 -0
						2014-09-02 12:57:55 -0
	Windows	Failed	Manually Launched	2014-09-02 12:44:03 -0400	2014-09-02 12:44:03 -0400	2014-09-02 12:44:03 -0
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 12:10:30 -0
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 12:10:30 -0
zos-task-load-simple-01	z/OS	Success	Workflow: zos-workflow-simple-load-test-01	1 2014-09-02 12:10:29 -0400	2014-09-02 12:10:29 -0400	2014-09-02 12:10:30 -0
zos-task-load-simple-01	z/OS	Success	Workflow: zos-workflow-simple-load-test-01	1 2014-09-02 12:10:25 -0400	2014-09-02 12:10:26 -0400	2014-09-02 12:10:27 -0
zos-task-load-simple-01	z/OS	Success	Workflow: zos-workflow-simple-load-test-01	1 2014-09-02 12:10:23 -0400	2014-09-02 12:10:23 -0400	2014-09-02 12:10:24 -0
zos-task-load-simple-01	z/OS	Success	Workflow: zos-workflow-simple-load-test-01	1 2014-09-02 12:10:20 -0400	2014-09-02 12:10:20 -0400	2014-09-02 12:10:21 -0
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 12:10:19 -0
zos-task-load-simple-02	z/OS	Success	Workflow: zos-workflow-simple-load-test-02	2 2014-09-02 12:10:17 -0400	2014-09-02 12:10:17 -0400	2014-09-02 12:10:19 -0
zos-task-load-simple-01	z/OS	Success			2014-09-02 12:10:15 -0400	2014-09-02 12:10:19 -0
zos-task-load-simple-02	z/OS	Success			2014-09-02 12:10:12 -0400	2014-09-02 12:10:15 -0
						2014-09-02 12:10:14 -0
			,			2014-09-02 12:10:13 -0
zos-task-load-simple-03	z/OS	Success	Workflow: zos-workflow-simple-load-test-02 Workflow: zos-workflow-simple-load-test-02		2014-09-02 12:10:09 -0400 2014-09-02 12:10:08 -0400	2014-09-02 12:10:13 -0 2014-09-02 12:10:11 -0
	-/06					2014-09-02 12.10.11-0
zos-task-load-simple-02	z/OS z/OS	Success	Workflow: zos-workflow-simple-load-test-02		2014-09-02 12:10:06 -0400	2014-09-02 12:10:10 -0
	iecu-wkfl-sleep isleep 10 isleep 30 isleep 30 isleep 60 isleep 60 isleep 30 isleep 30 isleep 60 isleep 30 isleep 30	Iecu-wkfl-sleep Workflow Sleep 10 Timer Sleep 30 Timer Sleep 60 Timer Sleep 50 Timer Sleep 50 Timer Sleep 30 Windows Sos-sak-load-simple-10 2/OS Sleep 30 Sleep 30 Sleep 30 Sleep 30 Sleep 30 Sleep 30 Sleep 30 Sleep 30	Inc. Inc. Inc. Inc. Inc. Workflow Success Image: Silep 10 Timer Success Image: Silep 30 Timer Skipped Image: Silep 30 Timer Success Image: Silep 30 Success Success Image: Silep 30 Success Success Image: Silep 30 Success Image: Silep 30 Succ	Instrume Success Manually Launched Image: Instrume Success Workflow: Iecu-wkfl-sleep Sleep 10 Timer Success Workflow: Iecu-wkfl-sleep Sleep 30 Timer Success Workflow: Iecu-wkfl-sleep Sleep 60 Timer Success Workflow: Iecu-wkfl-sleep Sleep 60 Timer Skipped Workflow: Iecu-wkfl-sleep Sleep 60 Timer Skipped Workflow: Iecu-wkfl-sleep Sleep 60 Timer Skipped Workflow: Iecu-wkfl-sleep Sleep 30 Timer Skipped Workflow: Iecu-wkfl-sleep Sleep 30 Timer Skipped Workflow: Iecu-wkfl-sleep Sleep 30 Timer Skipped Workflow: Iecu-wkfl-sleep Windows Failed Manually Launched Soc-swithiow-regression-test Workflow: Success Workflow: zos-workflow-simple-load-test-0 Zos-workflow-simple-101 z/OS Success Workflow: zos-workflow-simple-load-test-0 Zos-task-load-simple-01 z/OS Success Workflow: zos-workflow-s	Instrume Workflow Success Manually Launched 2014-09-02 12:57:55 -0400 Image: Sleep 10 Timer Success Workflow: lecu-wkfl-sleep 2014-09-02 12:57:56 -0400 Image: Sleep 30 Timer Success Workflow: lecu-wkfl-sleep 2014-09-02 12:57:56 -0400 Image: Sleep 30 Timer Success Workflow: lecu-wkfl-sleep 2014-09-02 12:57:56 -0400 Image: Sleep 60 Timer Sleep 60 Timer Sleep 60 Image: Sleep 60 Timer Slipped Workflow: lecu-wkfl-sleep Image: Sleep 60 Timer Slipped Workflow: lecu-wkfl-sleep Image: Sleep 30 Timer Slipped Workflow: lecu-wkfl-sleep <	Instrume Workflow Success Manually Launched 2014-09-02 12:57:55-0400 2014-09-02 12:58:36-0400 Image: Sleep 30 Timer Success Workflow: lecu-wkfl-sleep 2014-09-02 12:57:56-0400 2014-09-02 12:58:26-0400 Image: Sleep 30 Timer Success Workflow: lecu-wkfl-sleep 2014-09-02 12:57:56-0400 2014-09-02 12:57:56-0400 2014-09-02 12:57:56-0400 Image: Sleep 30 Timer Success Workflow: lecu-wkfl-sleep 2014-09-02 12:57:56-0400 2014-09-02 12:57:56-0400 Image: Sleep 60 Timer Skipped Workflow: lecu-wkfl-sleep 2014-09-02 12:57:55-0400 Image: Sleep 60 Timer Skipped Workflow: lecu-wkfl-sleep 2014-09-02 12:57:55-0400 Image: Sleep 30 Timer Skipped Workflow: lecu-wkfl-sleep 2014-09-02 12:57:55-0400 Image: Sleep 30 Timer Skipped Workflow: lecu-wkfl-sleep 2014-09-02 12:57:55-0400 Image: Sleep 30 Timer Skipped Workflow: lecu-wkfl-sleep 2014-09-02 12:47:30-0400 Image: Sleep 30 Timer Skipped Workflow: lecu-wkfl-sleep 2014-09-02 12:44:03-0400

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

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.
Click the First , Prev , Next , and Last buttons at the bottom of the Activity Monitor to navigate through multiple pages of activity.
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

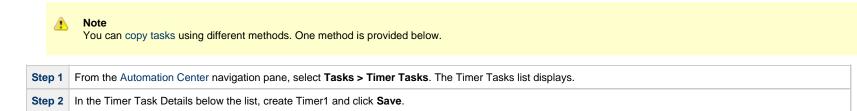
- Introduction
- Create and Copy TasksCreating a Simple Workflow
- Running the Workflow

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.



mer Task Details: Timer 1		
🗒 Update 🗔 Launch Task 👔 View Parents	ts 🗈 Copy 🎲 Delete 🔄 Refresh 💥 Close 🛑	
Timer Task © Variables ● Actions ● Virtual Resources © Mutually Exclusive © Instances © Triggers © No	lotes • Versions s	
- General		
Task Name : Timer 2 Version : 5	5 🗔 Launch Task	
Task Description :	Launch Task with Variables	
Member of	Open In Tab	
Business Services : Resolve Name		
Immediately:	🗒 Update	
Hold on Start : 📃	Dpdate & View	
Virtual Resource 10 Hold Resources on Failure :	ब्रिया । set	
r anaro .	Сору	
Timer Details		
Timer Type : Seconds	i View Bundles	
Timer Duration In Seconds : 30	Add To Bundle	
	🤯 Promote	
Time Options	C Reset Statistics	
Late Start : 🕅		
Late Finish :	A Set Execution Restriction	
Early Finish :	A Clear Execution Restriction	
User Estimated Day Hour Min Sec Duration :		
	View Parents	
Critical Path Options	Delete	
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Workflow Execution Options	X Close	
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🦷 Update 🛛 🗔 Launch Taski 🕋 View Parents 🛛 🖺 Copy 🏾 🎒 Delete 🛛 🛐 Refresh 🛛 💥 Close	Patroph	
	Refresh	

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.)

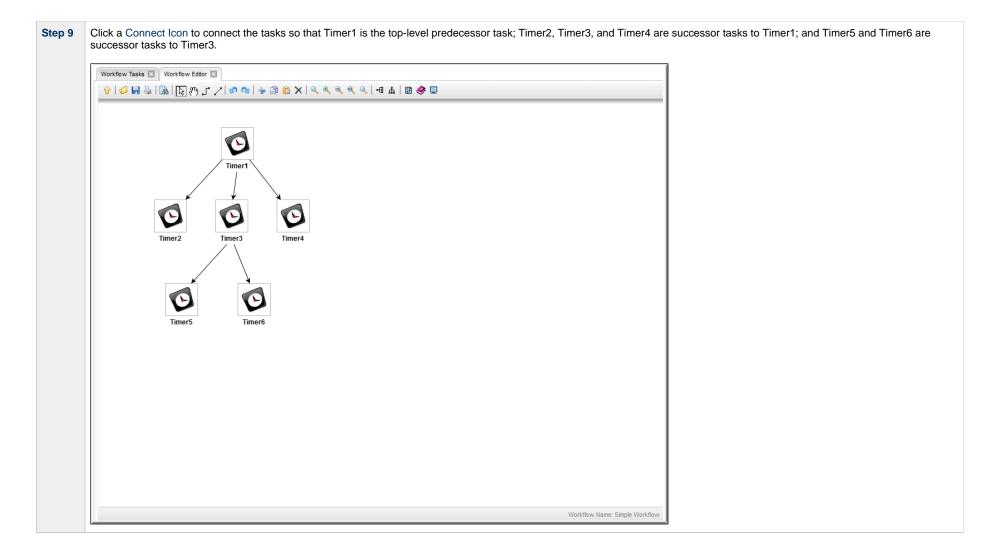
Step 1	From the Automation Center navigation pane, select Tasks > Workflow Tasks. The Workflow Tasks List displays.
Step 2	In the Workflow Task Details below the list, enter Simple Workflow in the Task Name field and then click the Save button.

_		
3	Right-click Simple Workflow in the Workflow Tasks list and click Edit Workflow in	the Actions menu to display the Workflo
l		Administrator 👻 🛜 📮 🕐
	Workflow Tasks 🗵 Workflow Editor 🗵	
I		
l		
L		
l		
l		
L		
L		
		Workflow Name: Simple Workflow
l		
	By default, the Workflow Editor displays in Select mode, which lets you select tasks	s for the Workflow.
	(See Workflow Editor Icons for a description of each icon on the toolbar.)	

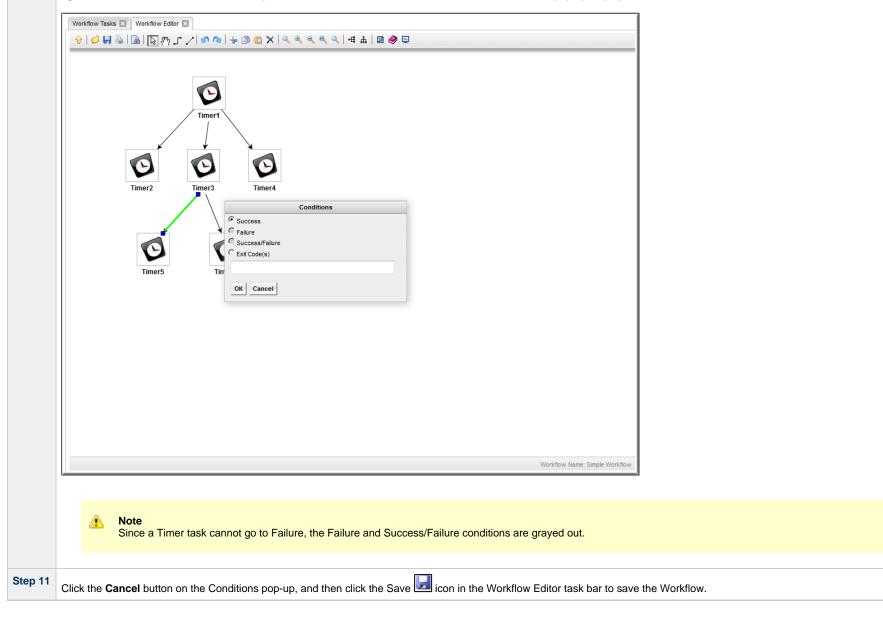
k Name:	All Task Types	Search	
Task Type	Task Name		
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Vorkflow Tasks 🛛 🛛 Workflow Editor		• v • • • • •				
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			Task Find			
	7	Task Name: Timer	lask i liiu	Timer	▼ Search	
				,		
Timer1		Task Type	Timer1	Task Name		
Timer2	Timer3	Timer	Timer1 Timer2			
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		Timer	Timer4			
$\mathbf{\Theta}$]	Timer	Timer5			
Timer4		Timer	Timer6			
		-				
Timer5	Timer6					
		•			Þ	

Step 8	Click and drag the tasks so that Timer1 is at the top of the canvas; Timer2, Timer3, and Timer4 are below Timer1; and Timer 5 and Timer6 are below Timer2, Timer3, and Timer4.
	Workflow Tasks 🔝 Workflow Editor 🗈
	Timer2 Timer3 Timer4
	Timer5 Timer6
	Workflow Name: Simple Workflow

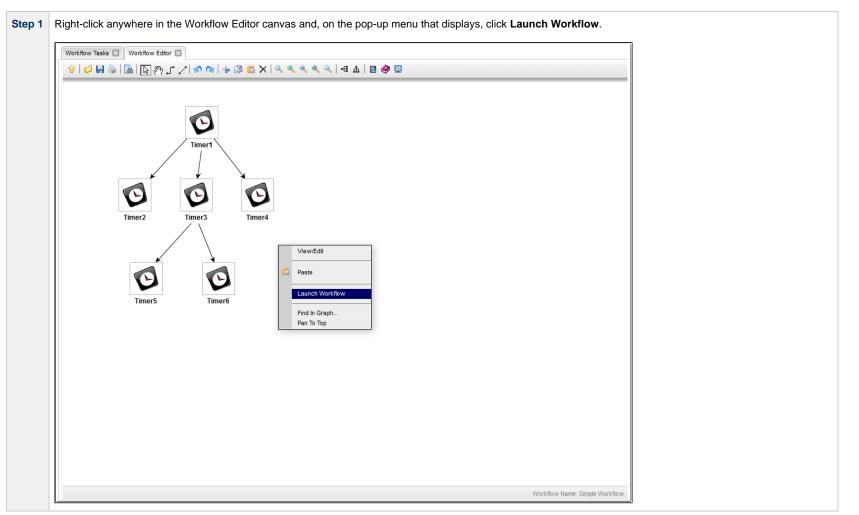


- Step 10 The default condition (or dependency) for connectors is Success. That is, a successor task runs if its predecessor task goes to Success. To view the conditions for a successor task, right-click the connector between it and its predecessor task, and then click Conditions. The Conditions pop-up displays.



Running the Workflow

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



Ho	ome 🛛 Workflow Tasks 🛛	Workflow Edit	or 🛛 Activity 🖾			
		📰 Last 48	hours 👻 Custom Filter	None	¥	😺 Filter
	Instance Name	Туре	Status	Invoked By	Start Time	End Time 🔻
	Timer6	Timer	Success	Workflow: Simple Workflow	2014-07-28 11:38:54 -0400	2014-07-28 1
	Timer5	Timer	Success	Workflow: Simple Workflow	2014-07-28 11:38:54 -0400	2014-07-28 1
	Simple Workflow	Workflow	Success	Manually Launched	2014-07-28 11:38:34 -0400	2014-07-28 1
	Timer2	Timer	Success	Workflow: Simple Workflow	2014-07-28 11:38:44 -0400	2014-07-28 1
	Timer3	Timer	Success	Workflow: Simple Workflow	2014-07-28 11:38:44 -0400	2014-07-28 1
	Timer4	Timer	Success	Workflow: Simple Workflow	2014-07-28 11:38:44 -0400	2014-07-28 1
	Timer1	Timer	Success	Workflow: Simple Workflow	2014-07-28 11:38:34 -0400	2014-07-28 1

For additional information, see:

- Saving, Updating, Deleting, and Copying RecordsCreating 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.

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.
Step 2	Click New to display an empty SQL Task Details and enter / select the following values:
	 Task Name = SQL Create Table Database Connection = (the database connection you created as a [prerequisite #Prerequisite]) SQL Command = CREATE TABLE opswise_tut\${_date("yyyyMMdd",5)} (name varchar(128), value varchar(128));

	🦷 Save 🖷	Save & New 👔 Save & View 🎇 🤇
SQL Task 🛛 🔍 Va	ariables Actions Virtual Resources Mutually Exclusive Instances Triggers Instances Ins	
General		
	: SQL Create Table	
Task Description :		
Member of		
Business Services	3	~
Resolve Name Immediately		
Hold on Start		
Virtual Resource Priority	a 10 Hold Resources on Failure :	
SQL Details		
Database Connection Database	Credentials :	¥
Connection Variable :		
Maximum Rows	: Auto Cleanup : 🕅	
Resul Processina	t Skip Result Processing	
	t Skip Result Processing	
Retry Options		
Retry Options — Maximum Retries	: 0 Retry Indefinitely :	
Retry Options	: 0 Retry Indefinitely :	
Retry Options — Maximum Retries : Retry Interval	: 0 Retry Indefinitely : Suppress 60 Intermediate Failures :	
Retry Options — Maximum Retries : Retry Intervai (Seconds) :	: 0 Retry Indefinitely : Suppress 60 Intermediate Failures :	
Retry Options Maximum Retries Retry Interva (Seconds): Wait/Delay Options	Constraints of the second seco	
Retry Options — Maximum Retries Retry Interval (Seconds): Wait/Delay Options Wait To Start Delay On Start	Constraint of the second secon	
Retry Options — Maximum Retries Retry Interval (Seconds): Wait/Delay Options Wait To Start Delay On Start		
Retry Options Maximum Retries Retry Interval (Seconds) Wait/Delay Options Wait To Start Delay On Start Workflow Only		
Retry Options Maximum Retries Retry Interval (Seconds) Wait/Delay Options Wait To Start Delay On Start Workflow Only Time Options		
Retry Options Maximum Retries Retry Interval (Seconds) Wait/Delay Options Wait To Start Delay On Start Workflow Only Time Options Late Start :	O Retry Indefinitely : Suppress Suppress Intermediate Failures : None ·· System Default	
Retry Options Maximum Retries Retry Interval (Seconds) Wait/Delay Options Wait To Start Delay On Start Workflow Only Time Options Late Start : [] Late Finish : []		
Retry Options — Maximum Retries Retry Interval (Seconds): Wait/Delay Options Wait To Start Delay On Start Workflow Only: Time Options Late Start : Late Start : Early Finish : User Estimated		

Step 3	Click the Save button.
Step 4	Create a SQL task called SQL Insert Value with this value: • SQL Command = INSERT INTO opswise_tut\${_date("yyyyMMdd",5)} (name, value) values ('A', 'F'), ('B', 'S'), ('C', 'F');
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.

Step 1 From the Automation Center navigation pane, select Tasks > Manual Tasks and click New.

Manual Task Details				
			🗒 Save 🎼 Save & New 💼 S	Save & View 🚜 Close
	al Resources Mutually Exclusive	Instances Triggers	Notes Versions	
General				
Task Name : Pause for Manual				
Task Description : A Manual task run at \${_date() Member of	}			
Business Services :				~
Resolve Name				
Immediately :				
Hold on Start :				
Virtual Resource Priority : 10	✓ Hold F	Resources on Failure :		
Weit Date: Oakiana				
Wait/Delay Options Wait To Start : None	.			
Delay On Start : None	~			
Workflow Only : System Default	~			=
				[1]
Time Options				
Late Start : 🥅	Late Finish	Late FinishDay	Hour Min Sec	
Late Finish : 🔽	Late Finish Type : Duration	Duration : 00 v		
Early Finish : 🔲				
User Estimated Day Hour Min S Duration :	ec			
	•			
Critical Path Options				
		Duration Unit : Minutes		

Step 4	Ad	d a Note	e:				
		2. En	 lick the Notes tab and then click New to display Note Details. nter the following values: Title = Probable database problem Text = Make sure database is running. lick Save. 				
	No	ote Details					
				🔚 Save	🔚 Save & New	💼 Save & View	💥 Close
	1	Note					
		– Details –					
			Title : Probable database problem				
			Make sure database is running.				
			Text :				E
	L	Rav Rav	we 🤇 🎼 Save & View 🗮 Klose 🗱 Klose				
Step 5	Ad	d an Em	nail Notification:				

- 1. Click the Actions tab.
- Click Email Notification in the list of Action types.
 Click the New button to display Email Notification Details for a new Email Notification.
 Enter / select the following values:

 Status = ACTION REQUIRED
 - - Email Connection = (the Email Connection you created earlier)
 To = (your Email address)

 - Subject = Issue with Workflow
 Body = \${_date} workflow failure; notification triggered by \$\{ops_task_name} |

Email Notification Action Criteria Action Required Exit Codes: On Late Start: On Late Start: On Late Finish: On Early Finish: Description: Action Details Email Template: Email Template: Reply-To: support@stonebranch.com	
Status: Action Required Exit Codes:	
Status: Action Required Exit Codes:	
On Late Start : On Late Start : On Late Finish : On Early Finish : Description : Action Details Email Template : Variable : Reply-To : To : support@stonebranch.com	
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Email Template Variable: Reply-To : To : To :	
To:	
To :	
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.

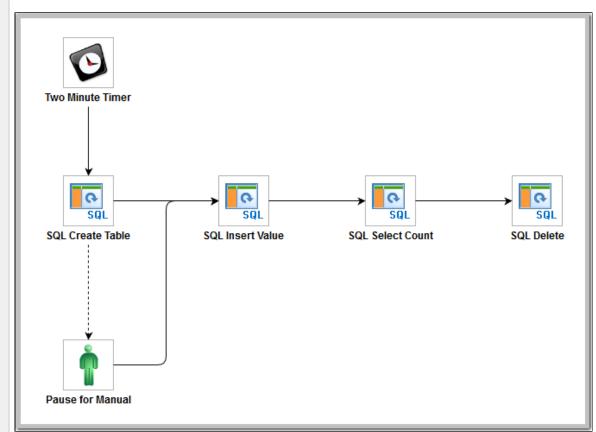
Step 4 In the Workflow Editor, use the Add Task tool to drag the tasks you just created onto the canvas.

Step 5 Organize the tasks and create connections as shown in the following illustration. The Success connectors tell the Controller that if SQL Create Table goes to Success, run Insert SQL Value and the other SQL tasks.

Step 6 Create a conditional path specifying that if SQL Create Table fails, the Controller should run the Pause for Manual task:

- 1. Right-click the connector between SQL Create Table and Pause for Manual.
- 2. On the pop-up menu, click **Conditions**.
- 3. On the **Conditions** pop-up dialog, enable **Failure** and click the **OK** button. Note that the connector is a dotted line, which indicates a Failure connection.

Step 7 On the Workflow Editor toolbar, click the **Save** icon.

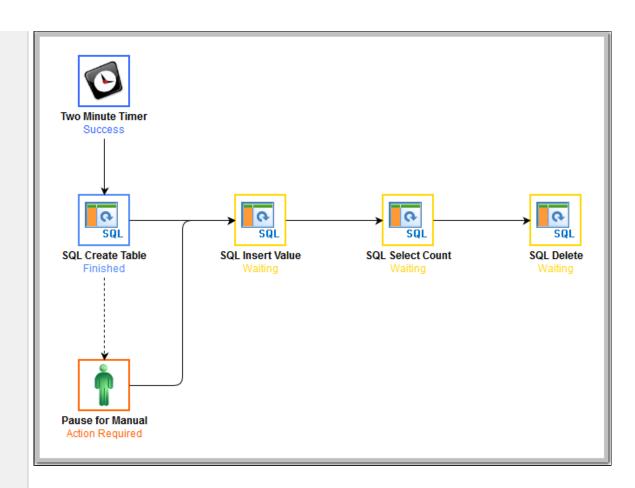


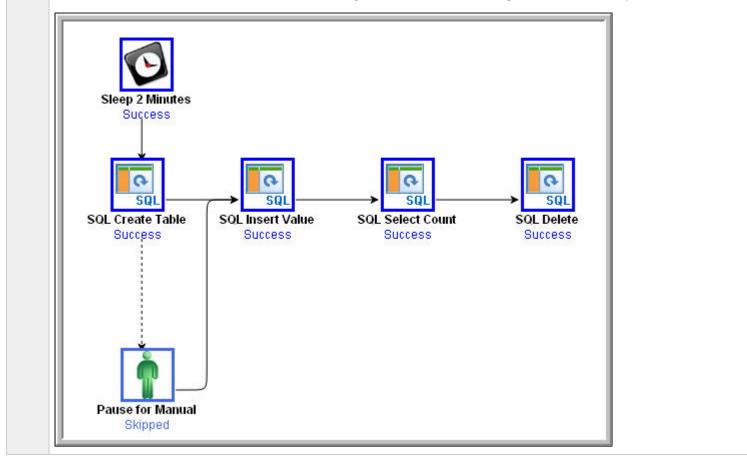
Run the Workflow to Success

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

tep 1	Launch the workflow manual	ly.					
itep 2	Display the Activity Monitor.	Because the Two Minut	e Timer ta	isk is still runnin	g, your display should lo	ok similar to this:	
	Dashboards 🖂 Activity 🖾 Workflow	Table [7]					
	639 Task Instances		🗟 No quick f	ilter 👻 Custom Filter -	- None	V 😵 Filter	
	Instance Name		Туре	Status	Invoked By	Start Time	
	SQL Select Count		SQL	Waiting	Workflow: SQL Workflow		
	SQL Create Table		SQL	Waiting	Workflow: SQL Workflow		
	Pause for Manual		Manual	Waiting	Workflow: SQL Workflow		
	SQL Delete		SQL	Waiting	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.





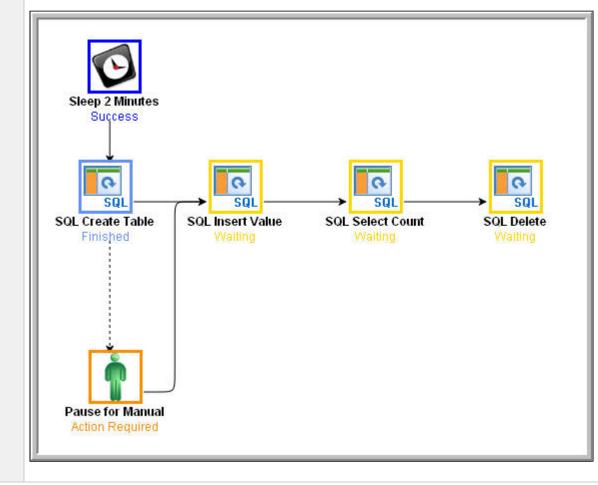
When the Timer task finishes, the SQL tasks execute. All tasks go to Success and the workflow goes to Success. The only task that did not run is the conditional task, Pause for Manual.

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.

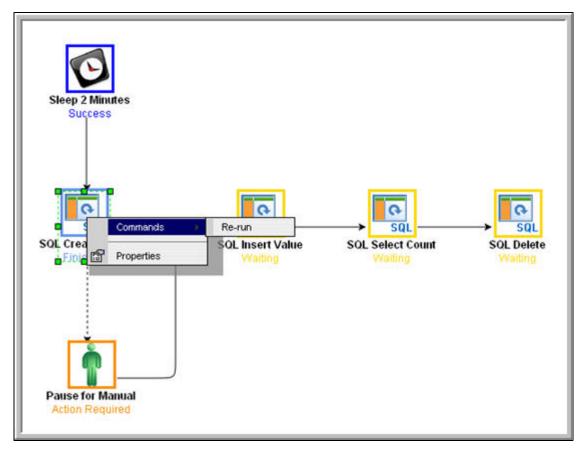
Step 1 Return to the Bigger Workflow task and launch it again.

Step 2 From the Activity Monitor, click the Workflow name to view it from the canvas. This time, the workflow goes down the conditional path. Note that when you set up a conditional path, what would normally be a Failure status for the SQL Create Table task becomes a status of Finished. If you ran this task as a standalone task or without the conditional path, its status would say Failed.



Step 3	When the Pause for Manual task launches, it generates the Email Notification we added earlier.									
	from opswise.test@gmail.com to canneturn@gmail.com date Mon, Aug 17, 2009 at 5:32 PM subject Issue with Bigger Workflow mailed-by gmail.com signed-by gmail.com 2009-08-17 16:31:55 -0700 workflow failure; notification triggered by Pause for Manual									
	★ Reply → Forward ♀ Invite opswise.test@gmail.com to chat									
Step 4	The user receives the email, which provides the name of the task that generated it (Pause for Manual in our case). The user might also be running a special Activity Monitor that displays only Manual tasks in the Action Required status. According to our scenario, the user opens the Pause for Manual task and checks the Notes to find out what action he or she is supposed to take. In our case, the Notes say to check the database and bring it back up.									
Step 5	 At this point, the workflow processing could continue in either of two ways: 1. Re-run the task that failed and send the workflow down the success path. 2. Set the Pause for Manual task to Completed status and continue the workflow from there. We will try both methods. 									

- 3. 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.



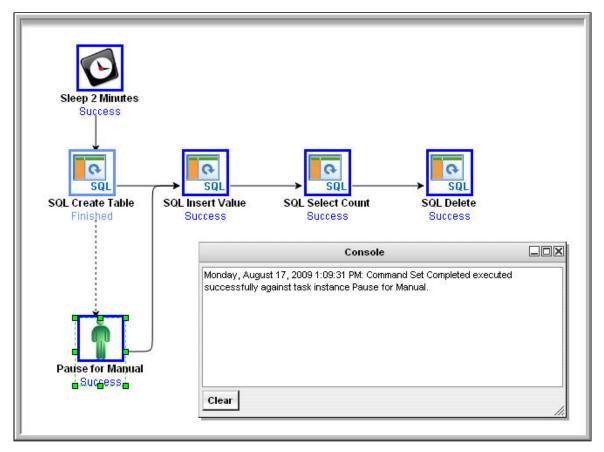
Note that we are still on the same day so the task fails again because the table already exists. In a real processing situation, the task would go to Success and the subsequent tasks would run as expected.

- 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.



c. Because we set a two-minute Late Finish flag on our Manual task and we (presumably) took more than two minutes to complete it, the Manual task has been flagged as a late finish. To view the flag, go to the Activity Monitor and click the Manual task name. In the task instance Details, an enabled Finished Late field now displays, and the Duration field indicates the duration of the task.

For additional information, see:

- Activity Monitor
- Monitoring Workflows
 Database Connections
- SQL Task
- Manual Task
- Email Notification Actions
- Creating Notes
- Creating Conditional Paths
- Adding Skip/Run Criteria

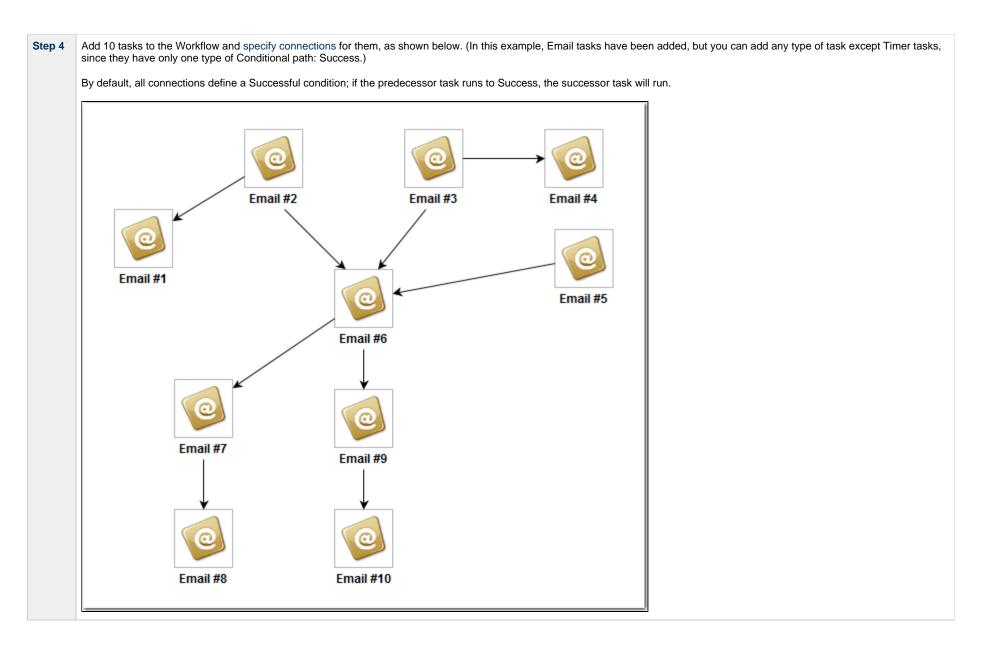
Tutorial - Running a Workflow with Multiple Conditional Paths

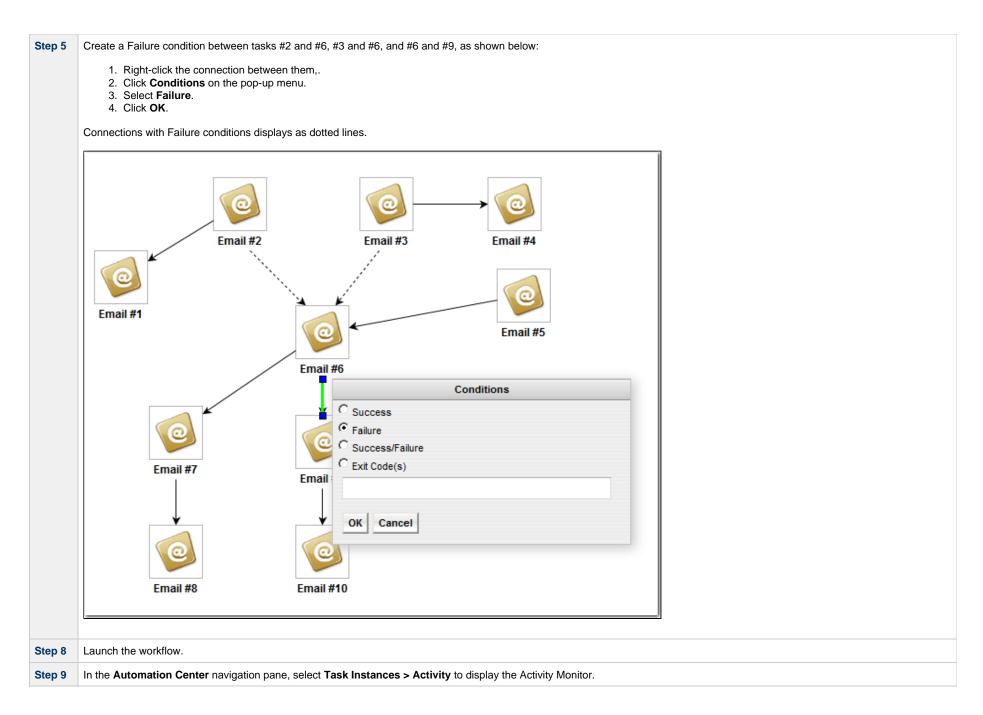
In this tutorial, we will create a Workflow containing tasks with multiple predecessors and multiple successors, and specify different conditional paths for those tasks.

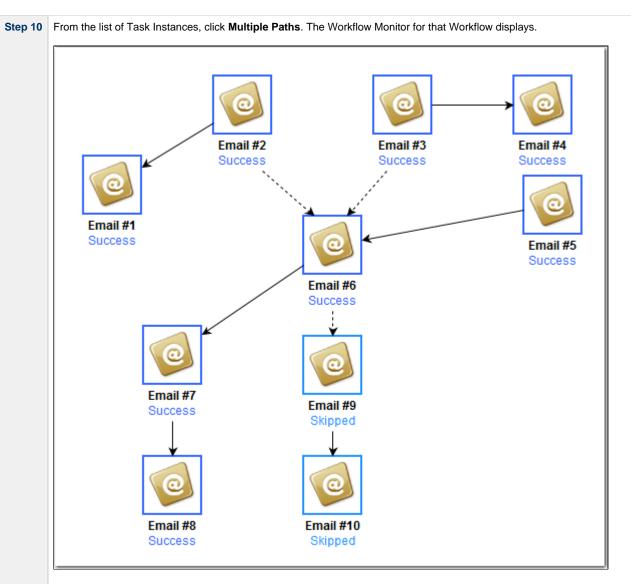
The Workflow will show that:

- 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.

Step 1	From the Automation Center navigation pane, select Tasks > Workflow Tasks and click New.					
Step 2	In the Workflow Details, name the Workflow Multiple Paths and click the Save button.					
Step 3	Click the Edit Workflow button to display the Workflow Editor.					







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 WorkflowRun the Daily Workflow
- Check the Skipped Workflow's History

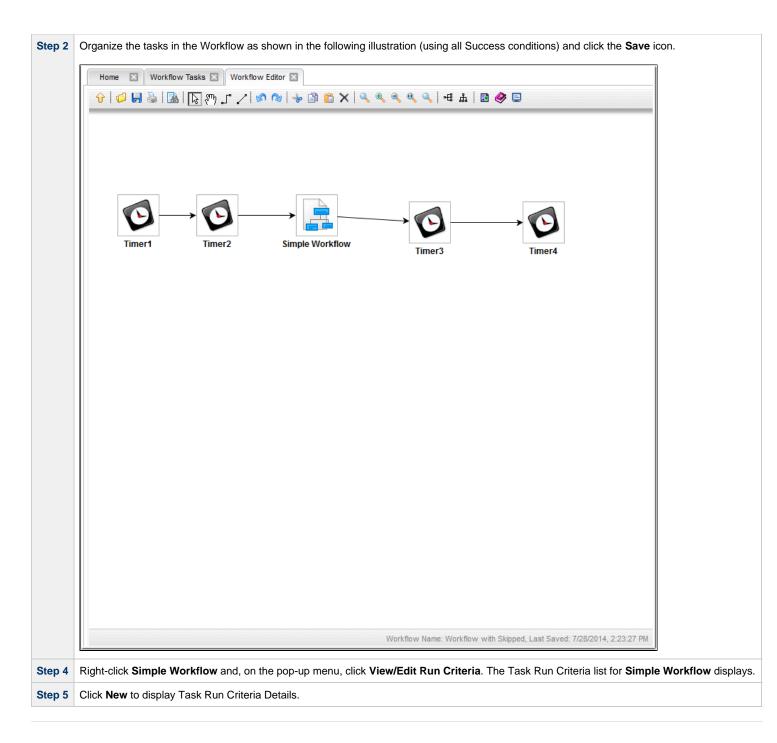
Introduction

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 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.)
01	
Step 9	Click Save.
	Task Run Criteria Details
	🔚 Save 🌾 Save & New 👔 Save & View 💥 Close
	Task Run Criteria
	Type: Skip Criteria
	Task : Simple Workflow Vertex Id : 6 Simple Workflow V
	Business Day :
	Holiday:
	Specific Day(s): 🗹 Sunday 🦳 Monday 🖉 Tuesday 🦳 Wednesday 🦳 Thursday 🦳 Friday 📃 Saturday
	Custom Day : 🔟
	Complex:
	Variable : 🔲
	🔚 Save & New 🔓 Save & View 🗱 Close

Run the Daily Workflow

o 2	Display the Activity Monitor and note that the sub-workflow (Simple Workflow) and all its sub-tasks have been skipped, as shown in the following example. Note also that this did not											
	impact subsequent tasks, which ran as usual.											
	Home 🛛 Activity 🔝 Workflow Tasks 🖾											
	668 Task Instances		_	hours 👻 🛛 🚠 No quick filter	rs 🗸 🔝 No quick filter 🗸 Custom Filter None							
	Instance Name	Туре	Status	Invoked By	Start Time	End Time	Updated *					
	B 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	Skipped 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	Skipped 2014-07-28 15:08:02 -0400	2014-07-28 15:08:12 -0400	2014-07-28 15:08:12 -0400					
	Timer2	Timer	Success	Workflow: Workflow with	Skipped 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	Skipped 2014-07-28 15:07:42 -0400	2014-07-28 15:07:52 -0400	2014-07-28 15:07:52 -0400					
	Simple Workflow	Workflow	Skipped	Workflow: Workflow with	Skipped	2014-07-28 15:07:42 -0400	2014-07-28 15:07:42 -0400					
	Timer2	Timer	Skipped	Workflow: Simple Workflo	v	2014-07-28 15:07:42 -0400	2014-07-28 15:07:42 -0400					
	E Timer3	Timer	Skipped	Workflow: Simple Workflo	v	2014-07-28 15:07:42 -0400	2014-07-28 15:07:42 -0400					
	Timer1	Timer	Skipped	Workflow: Simple Workflo	v	2014-07-28 15:07:42 -0400	2014-07-28 15:07:42 -0400					
	Timer5	Timer	Skipped	Workflow: Simple Workflo	N	2014-07-28 15:07:42 -0400	2014-07-28 15:07:42 -0400					
	Timer6	Timer	Skipped	Workflow: Simple Workflo	v	2014-07-28 15:07:42 -0400	2014-07-28 15:07:42 -0400					
	Timer4	Timer	Skipped	Workflow: Simple Workflo	N	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:

inter northoralloc	Details: Simple Workflow	💷 Lindate	🖉 Linskin 🕒 View	v Parent 🛛 🚊 View Workflow 🕼 Delete	Refreeb	
/orkflow Task Instance	Virtual Resources Exclusive Requests	 Step Condition 			A Kellesii	
		 Step Condition 				
General			1	-		
	Simple Workflow		Reference Id :			
Task:	Simple Workflow	13	Invoked By :	Workflow: Workflow with Skipped		
Task Description :						
Member of Business Services :		Y	Execution User :	ops.admin		
Resolve Name Immediately :				System Default		81 71
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 -0400		
Duration :						
Progress :	6/6					
Workflow Details —						
Show/Hide Skipped Tasks :	Show Skipped	~				
Wait/Delay Options						
Wait To Start :	Seconds	*	Wait Duration In Seconds :	60		
Delay On Start :	Seconds	· • •	Delay Duration In Seconds :	5		
Workflow Only :	No	*				
Statistics						
User Estimated End Time :			Average Estimated End Time :			
Shortest Estimated End Time :			Longest Estimated End Time :			
开 Update	🄀 Unskip 🛛 🔓 View Parent 🖳 View Wo	rkflow 👔 f	Delete 📑 Ref	fresh 🔀 Close		

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

For additional information, see:

- Activity displayMonitoring WorkflowsAdding Skip/Run Criteria

Tutorial - Finding and Inserting Tasks in an Active Workflow

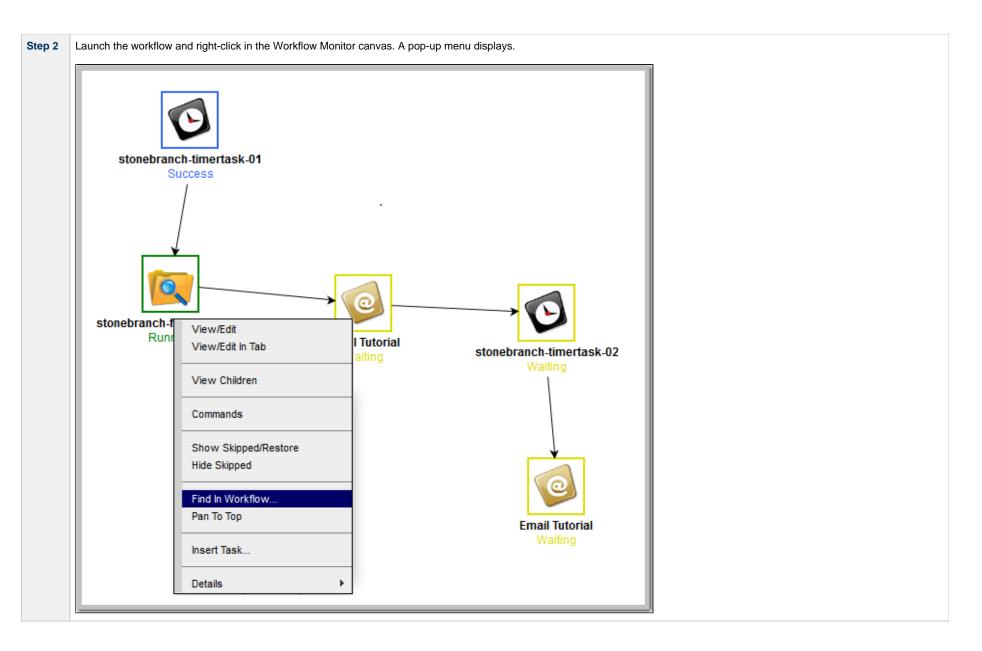
In this exercise, we will run a workflow and:

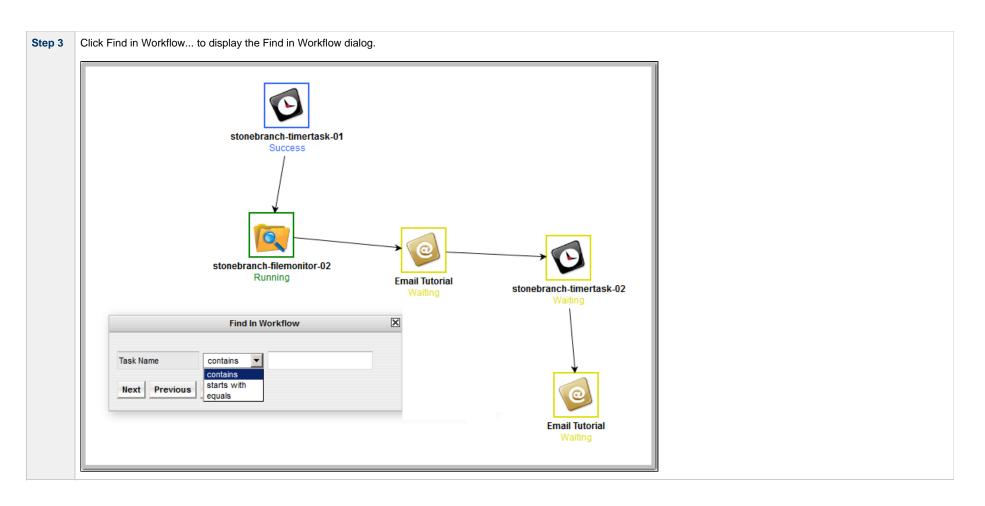
- Find a specific task within the workflow. (You also can find a task in a workflow that has not yet been launched or one that has run and completed.)
- Insert a task as a predecessor to another task in the workflow.
 Insert a task as a successor to another task in the workflow.

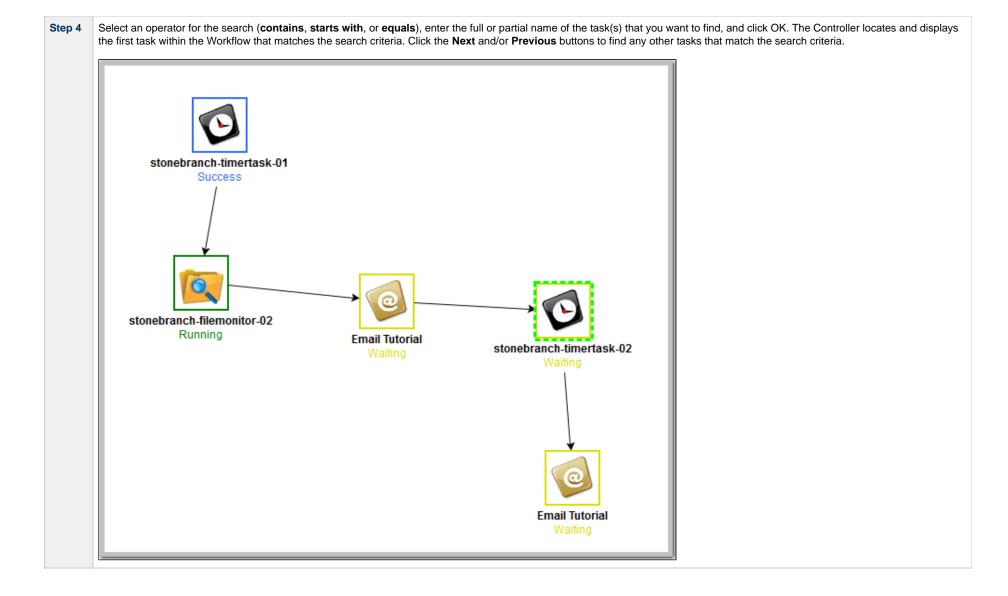
Note Æ

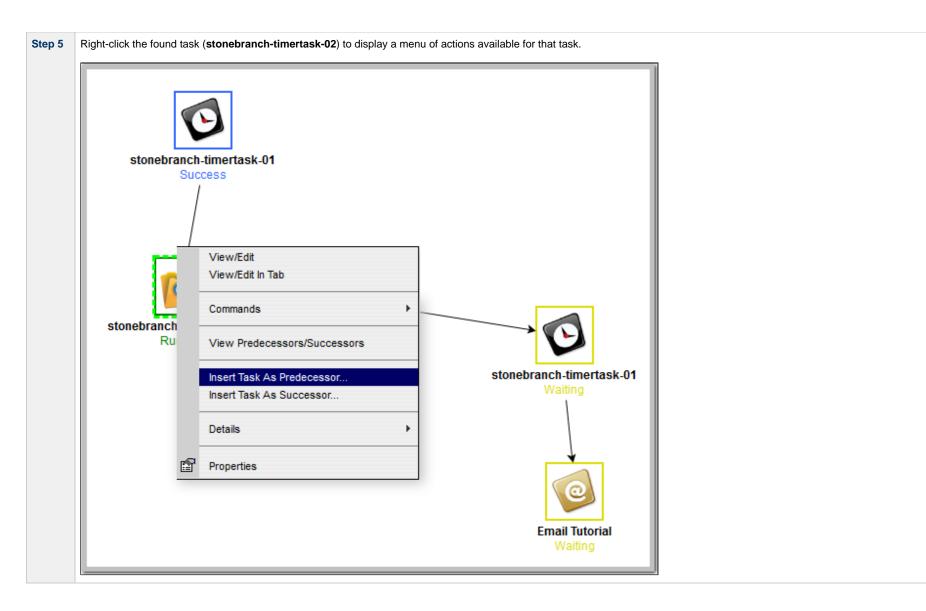
You may find it easier to run a workflow three different times, once for each step in this exercise.

Create a workflow so that all of its tasks cannot display on the Workflow Editor/Monitor at the same time. Step 1

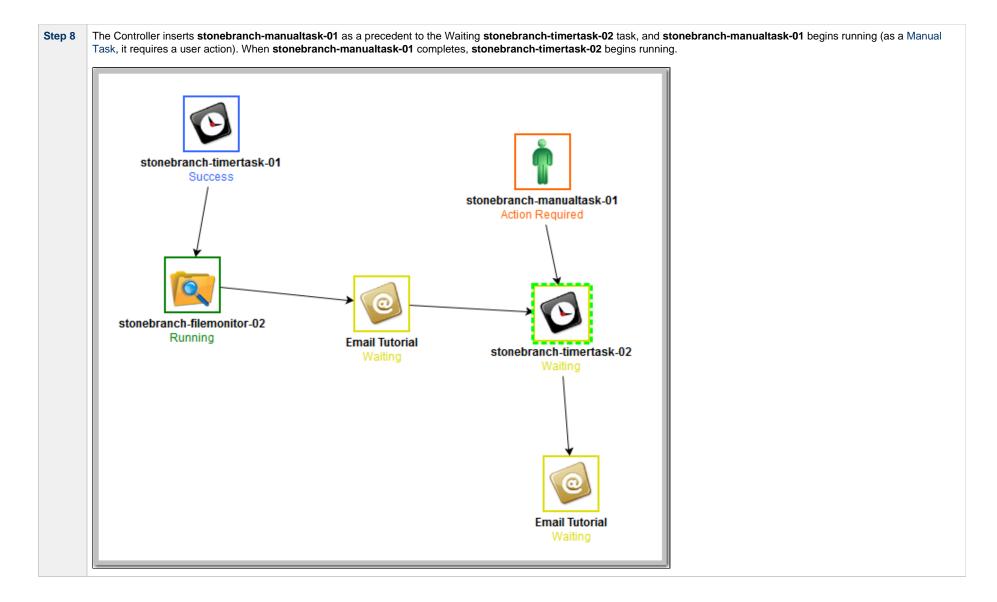


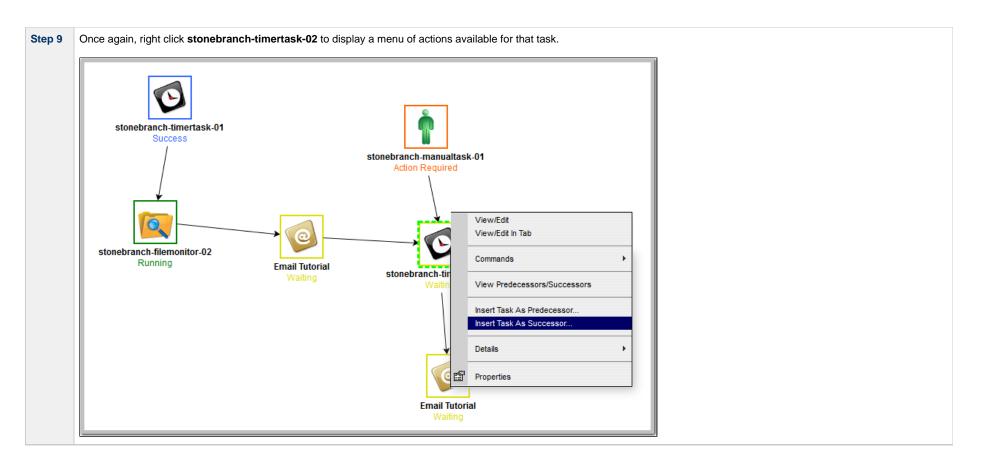




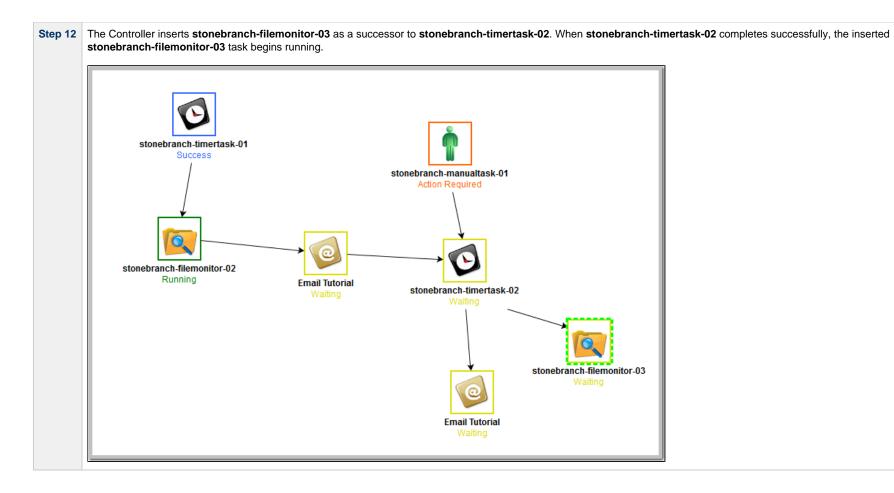


Task Insert > Task Selection								
Fask Name: stonebranch-manualtask-01			Manual		Search			
Tas	sk Type			Task Name				
						_		
						_		
(1			
					-			





		Task Insert > Tas	Task Selection						
sk Name: stone	onebranch-filemonitor-03		File Monitor		Search				
Task Type	•			Task Name					
					1	Þ			



- Finding a Task in a WorkflowInserting 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.

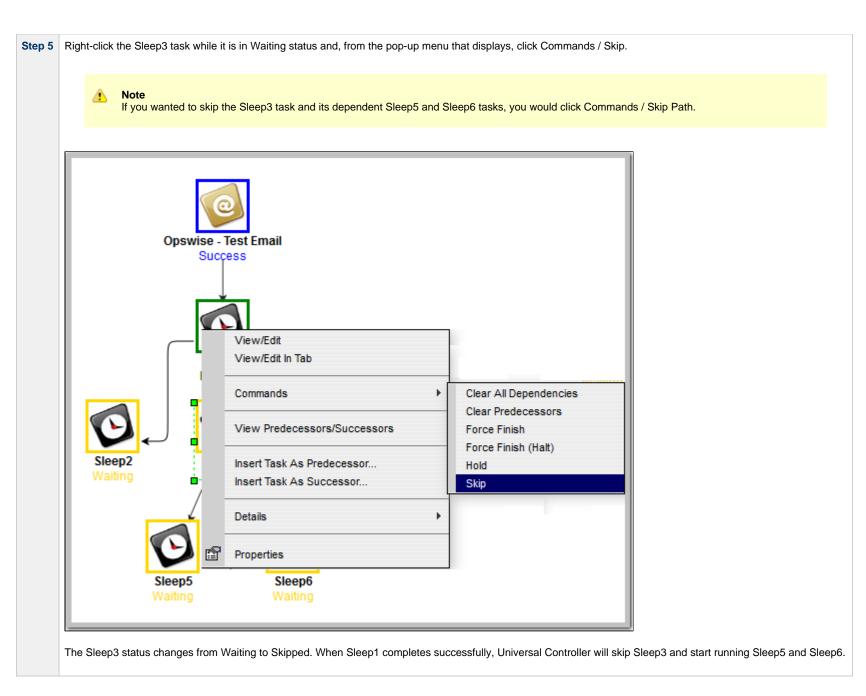
Although there are several methods for skipping, unskipping, and showing/hiding skipped task instances, in this exercise we will:

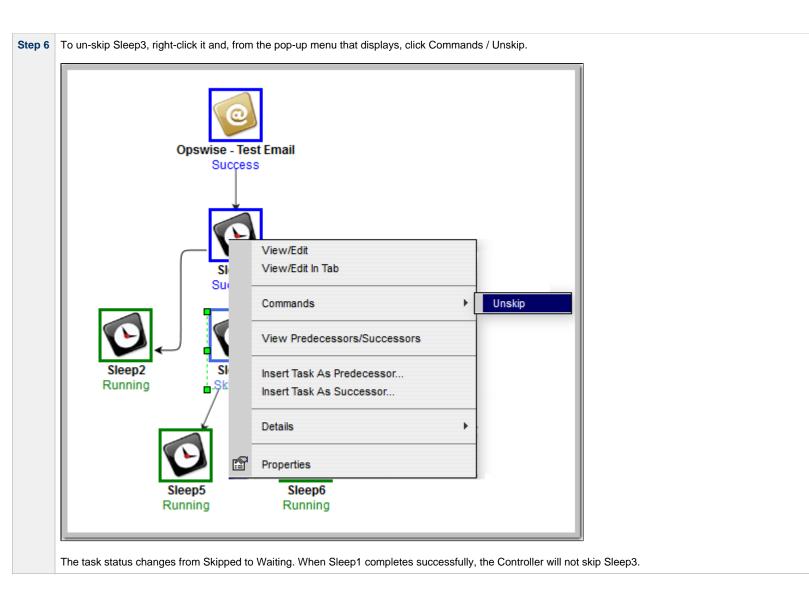
- Skip a task instance in a workflow.
- Unskip a previously skipped task instance in a workflow.
- Show and hide a skipped task instance in a workflow.

Note

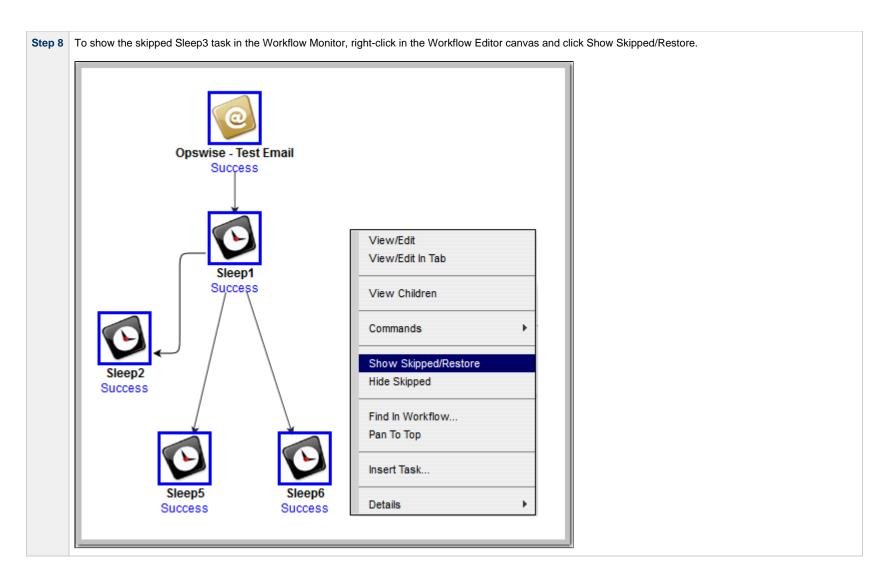
There also are methods for skipping a task and showing/hiding a skipped task before it becomes a task instance (that is, before it or the workflow in which it resides has been launched). See the links at the bottom of this page.

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.





Step 7	To hide the skipped Sleep3 task in the Wor Opswise - Test En Success		t-click in the Workflow Monitor can	nvas and click Hide Skipped.
			View/Edit View/Edit In Tab	
	Sleep1 Success		View Children	
			Commands	•
			Show Skipped/Restore Hide Skipped	
	Sleep2 Sleep3 Success Skipped		Find In Workflow	
		¥	Pan To Top	
	C	C	Insert Task	
	Sleep5 Success	Sleep6 Success	Details	•



- 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

Note You need an Email Connection to perform this exercise.

In the Launching an Email Task Based on a File Monitor tutorial, a built-in variable called \${ops_trigger_name} and a system variable called \${_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

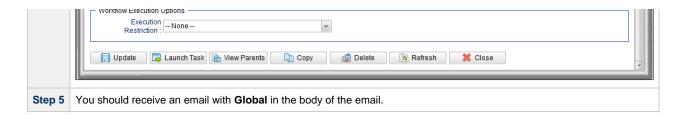
 Step 1
 Create a Variable with the following values:

 • Name = Tutorial

 • Value = Global

Step 2	Click the Save button.
	Variable Details
	🔚 Save 🕼 Save & New 🗎 Save & View 💥 Close
	Variable Versions
	Details
	Name : Tutorial
	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}
Step 4	Click the Save button, re-open the task, and click the Launch Task button.

		🔚 Update 🛛 🗔 Launch Task	👔 View Parents 📋 Copy 🏥 🗎	Delete 🔄 Refresh 💥 🤇
Email Task 🛛 🔍 Var	iables Actions Virtual Resou		The second secon	rsions
General		П. П. П.		
	Email Tutorial	Version :	1	
Task Description :				
Member of				
Business				~
: Services Resolve Name Immediately				
Hold on Start :				
Virtual Resource Priority :	10	Hold Resources on Failure :		
Email Details				
Email Template :		👻 🥅 Email Connection :	QA-OPSWISE-MAILER	× 📰
Email Template Variable :				
Reply-To :				
To :	dan.moran@stonebranch.com			
Cc :				
Bcc :				
Outriant	Veriable Dama			
Subject.	Variable Demo			
	\${Tutorial}			
Body :				
200,				
Report :		✓ E Report Variable :		
Wait/Delay Options Wait To Start :	None	v		
Delay On Start :				
		×		
workflow Only :	System Default	*		
Time Options				
Late Start :	1			
Late Finish : 📗	1			
Early Finish : 📗]			
User Estimated Duration :	Day Hour Min Sec			
Critical Path Option	s			



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.
	Variable Details
	🕅 Save 🎼 Save & New 👔 Save & View 🂢 Close
	Variable
	Details
	Name : Tutorial
	Task
	Value :
	Description :
	Save & New 👔 Save & View 🗶 Close
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

ep 2	Click the Save but	ton.
	Time Trigger Details	
		🧮 Save & New 👔 Save & View 💥 Close
	Time Trigger Varia	ables Versions
	General Name :	Variable Demo
	Description :	
	Member of	v
	Business Services :	System Default V Time Zone : System (America/New_York) V
		Email Tutorial
		a
	Task(s):	
	Purge By Retention Duration :	
	Status	
	Forecast : Skip Count :	0
	Skip Trigger if	
	Active .	
	Simulate .	- System Default v
	Time Details	
	Time Style :	
	Time :	Hour Min 15 v 00 v
	Day Details Day Style :	Pimple
	Day Style .	Simple
	Restrictions —	
	Special Restriction :	
	Save 🕞	Save & New 👔 Save & View 🕺 Close

Step 4	 Click the New button to display Variable Details for a new Variable and enter the following values: Name = Tutorial Value = Trigger
Step 5	Click the Save button.
	Variable Details
	🦷 Save & New 👔 Save & View 💥 Close
	Variable
	Details
	Name : Tutorial
	Trigger
	Value :
	Description :
	🗑 Save 🕼 Save & New 👔 Save & View 🗱 Close
Step 6	In the trigger Details, click the Update button and then the Enable button.
Step 7	You should receive an email with Trigger in the body of the email.

User-Defined Variables

Δ

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	Step 8 Go back to Variable Workflow and add the following variable:			
		tutorial/workflow		
Step 9	Ope	en 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));		

User-Defined Variables

Tutorial - Creating Custom Days and Periods

- Introduction
- Create a Custom DayCreate 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

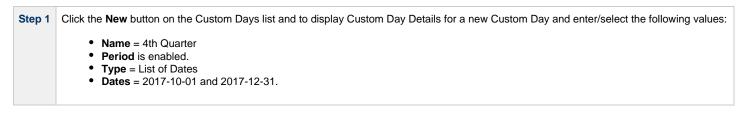
In this procedure, we will create a Custom Day, which can be applied to any Calendar.

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

Custom Day Details		- 🧮 Save 🕼 Save & New 👔 Save & View 💥 CI
Custom Day Cal	endars Versions	🔚 Save 🚛 Save & New 📑 Save & View 👗 Ci
Details		
	Thanksgiving	
Description :		
	⊖Day ⊖Business Day	
	Relative Repeating Date	
When :	4th 🗸	
Day Of Week :	Thu	
Month :	Nov	
Adjustment :	None V	
Save	Save & New 👔 Save & View 🏾 🎉 Close	

Create a Custom Period

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



ustom Day Details		
		🔚 Save 🦙 Save & New 👔 Save & View 💥 Close
Custom Day Cal	endars Versions	
- Details		
Name :	4th Quarter	
Description :		
Category :	⊖Day ⊖Business Day ⊖Holiday	
Type :	List of Dates	
	Dates A	
Dates :	2017-10-01	
	2017-12-31	
🔚 Save 🛛 🌾	👌 Save & New 🛛 💼 Save & View 🛛 💥 Close	

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.

Step 1	From the Automation Center navigation pane, select Other > Calendars. The Calendars list displays.
Step 2	Click the New button to display Calendar Details for a new Calendar and enter/select the following values:
	• Name = Custom Calendar #1
Step 3	Click the Save button.
	Calendar Details
	I 🔚 Save & New 🚡 Save & View 💥 Close
	Calendar Calcustom Days Custom Days Triggers Versions
	Details
	Name : Custom Calendar #1
	Description :
	Member of Business Services :
	Business Days : 🔄 Sunday 📝 Monday 📝 Tuesday 📝 Thursday 📝 Friday 📄 Saturday
	🛜 Save & New 👔 Save & View 🗱 Close
Step 4	Re-open Custom Calendar #1 and click the Custom Days tab. The Custom Days list for this Calendar displays.

Edit Members				[_	
Collection			Custom Day List		
	9		Custom Calendar #	1	
Name 🔷	*	Name 🔺			▲ ·
stonebranch-customday-01		4th Quaretr			
stonebranch-customday-02		Thanksgiving			
stonebranch-customday-03					
stonebranch-customday-04					
stonebranch-customday-05					
	4				
	Save	Cancel			
	Save	Cancer			
Select Thanksgiving and 4th Quarter	er, and then click the Sa	ve button. Those	two Custom Days r	now appear on the	e Custom Days list for Custom C
Calendar Details: Custom Calendar #1					
Calendar 💿 Local Custom Days 💿 Custom D	ays 🛛 Triggers 🔍 Versions				
2 Calendar Custom Days			Nev	v Edit	8
Custom Day	Description		Category Updated By	Updated	
Thanksgiving			Holiday ops.admin	2017-05-25 16:21:29 -040	00
E 4th Quaretr			Period ops.admin	2017-10-27 15:39:31 -040	

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.

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 Custom Days Versions						
	Details						
	Name: Custom Calendar #1 Version : 3						
	Description :						
	Member of Business Services : Sunday V Monday V Tuesday V Wednesday V Friday Saturday						
	🕅 Update 📄 Calendar Preview 🗈 Copy 🏟 Delete 🕞 Refresh 🗱 Close						
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						

Local Custom Day Details					
			🔚 Save 🕻	📄 Save & New 🛛 👔	Save & View 🛛 💥
Local Custom Day					
Details					
Name : Local	Custom Day #1				
Description :					
Category : 💿 Da	ay 🔿 Business Day 🔿 Holiday 🔿 Period				
Type : Single	Date v				
Date : 2017	✓ Oct ✓ 30 ✓ Ξ				
Finite Save					
Local Custom Days	#1 now appears on the Local Custor	n Days list.			
	#1 now appears on the Local Custor	n Days list.			
Local Custom Days	#1 now appears on the Local Custor				
Local Custom Days a	#1 now appears on the Local Custor				New
Calendar Details: Custom Cale Calendar Details: Custom Cale Calendar • Local Cust 1 Local Custom Day Name	#1 now appears on the Local Custor		Туре	Updated By	New Updated
Calendar Details: Custom Cale Calendar Details: Custom Cale Calendar • Local Cust 1 Local Custom Day	#1 now appears on the Local Custor adar #1 om Days • Custom Days • Triggers • Version	s	Type Single Date	Updated By ops.admin	
Calendar Details: Custom Cale Calendar Details: Custom Cale Calendar • Local Cust 1 Local Custom Day Name	#1 now appears on the Local Custor adar #1 om Days • Custom Days • Triggers • Version	s Category			Updated

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.
Step 2	Click the New button to display Time Trigger Details for a new Time Trigger and enter/select the following values:
	 Name = Custom Trigger Calendar = Custom Calendar #1 Task(s) = (any task) Day Style = Complex Date Noun = Thanksgiving (a Custom Day created for Custom Calendar #1)

Trigger Details				
		🦷 Save 🕼 Save & New 📑 Save & Vie	w 💥 Close	
e Trigger 🛛 🔍	riables Versions			
eneral				
	: Custom Trigger			
Description				
Member of				
Busines Services			~	
Calendar	: Custom Calendar #1 🛛 🗸 📰 Time Zo	ne : System (America/New_York)	~	
	- clonestonebranch-windowstask-01			
Task(s)	:			
urae By Retentio				
urge By Retentio Duration				
tatus				
Forecast	· 🖻			
Skip Count				
Skip Trigger	f m			
	·		=	
Simulate	: System Default V			
ime Details				
Time Style	: Time 🗸			
Time	Hour Min 00 v 00 v			
ay Details				
Day Style	Complex v			
Date Adjective	Every v			
Date Noun	: Thanksgiving 🗸			
Date Qualifier				
Date Adjustment				
estrictions				
Specia Restriction				
🔚 Save	🗟 Save & New 👔 👔 Save & View 🛛 🗱 Close			

Step 4 Re-open Custom Trigger and click the List Qualifying Times button to see that the trigger will run the task every year on Thanksgiving.

Qualifying Times	_ D ×
Custom Trigger	
Listing From: 2017-10-27 15:54:31 -0400	e
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	
	1

	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	In the Custom Trigger Details, change the following values:
	Date Noun = Business Day.
	 Date Qualifier = 4th Quarter (a Custom Day period created for Custom Calendar #1)
Step 6	Click the Update button.
	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.

ualifying Times	
Custom Trigger	
Listing From: 2017-10-27 15:57:56 -0400	9
User/Trigger Timezone: America/New_York	
Monday, October 30, 2017 00:00:00 EDT -0400	
Tuesday, October 31, 2017 00:00:00 EDT -0400	
Wednesday, November 01, 2017 00:00:00 EDT -0400	
Thursday, November 02, 2017 00:00:00 EDT -0400	
Friday, November 03, 2017 00:00:00 EDT -0400	
Monday, November 06, 2017 00:00:00 EST -0500	
Tuesday, November 07, 2017 00:00:00 EST -0500	
Wednesday, November 08, 2017 00:00:00 EST -0500	
Thursday, November 09, 2017 00:00:00 EST -0500	
Friday, November 10, 2017 00:00:00 EST -0500	
Monday, November 13, 2017 00:00:00 EST -0500	
Tuesday, November 14, 2017 00:00:00 EST -0500	
Wednesday, November 15, 2017 00:00:00 EST -0500	
Thursday, November 16, 2017 00:00:00 EST -0500	
Friday, November 17, 2017 00:00:00 EST -0500	
Monday, November 20, 2017 00:00:00 EST -0500	
Tuesday, November 21, 2017 00:00:00 EST -0500	
Wednesday, November 22, 2017 00:00:00 EST -0500	
Thursday, November 23, 2017 00:00:00 EST -0500	
Friday, November 24, 2017 00:00:00 EST -0500	
Monday, November 27, 2017 00:00:00 EST -0500	
Tuesday, November 28, 2017 00:00:00 EST -0500	

wednesday, November 29, 2017 00:00:00 EST -0500 Thursday, November 30, 2017 00:00:00 EST -0500 Friday, December 01, 2017 00:00:00 EST -0500 Monday, December 04, 2017 00:00:00 EST -0500 Tuesday, December 05, 2017 00:00:00 EST -0500 Wednesday, December 06, 2017 00:00:00 EST -0500 Thursday, December 07, 2017 00:00:00 EST -0500 Friday, December 08, 2017 00:00:00 EST -0500

For additional information, see:

- TriggersCreating Calendars
- Creating Custom Days

Tutorial - Generating Forecast Data

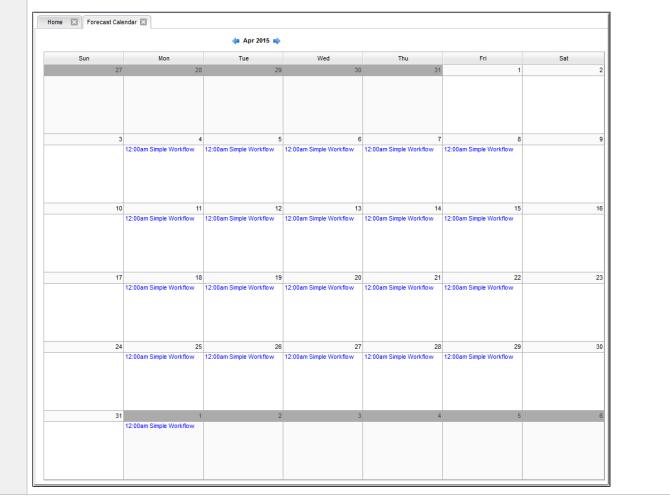
In this exercise, we will:

- 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.

Name = Simple Workflow Trigger. Task(s) = Simple Workflow Forecast = enabled Business Days = enabled
Time Trigger Details
Time Trigger Variables Versions
General
Name : Simple Workflow Trigger
Description :
Member of Business Services :
Calendar: System Default V 🔄 Time Zone : System (America/New_York) V
Simple Workflow
Task(s):
Purge By Retention
Duration :
Status
Forecast: Skip Count: 0
Skip Trigger if
Active : Simulate : - System Default V
Time Details
Time Style : Time Hour Min
Day Details
Day Style : Simple v
O Daily Business Days Specific Day(s)
Special Restriction :
🔚 Save & New 👔 Save & View 🗱 Close

Step 3

From the Automation Center navigation pane, select **Triggers > Forecast Calendar**. The Forecast Calendar identifies Simple Workflow on the days in the forecast period, for the current month, when it will be launched by Simple Workflow Trigger. (By default, tasks within a Workflow are not displayed.)



Click any Simple Workflow link in the Forecast Calendar to display a Forecast Details pop-up. Note that the Launch Time and End Time are identical; since the workflow has never been Step 4 run, there is no data to support estimated times. Forecast Details X Close Child Forecast Enrecast - Details · Task: Simple Workflow Trigger : Simple Workflow Trigger Launch Time : 2014-08-18 00:00:00 -0400 Task Type : Workflow 53 End Time : 2014-08-18 00:00:00 -0400 Workflow Run Criteria Run Member of Business Services : Evaluation : Simulation : X Close 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 Step 5 Times and End Times, for every day in the forecast period when Simple Workflow will be launched by Simple Workflow Trigger. Home 🖂 Forecasts 🖂 👻 🦁 Filter... 🛛 🍣 ✓ 31 Forecasts Custom Filter -- None --Trigger Task Task Type Workflow Launch Time A End Time Run Criteria Evaluation Updated By E Simple Workflow Trigger Simple Workflow Workflow 2014-08-04 00:00:00 -0400 2014-08-04 00:00:00 -0400 Run No ops.admin E Simple Workflow Trigger Timer1 Timer Simple Workflow 2014-08-04 00:00:00 -0400 2014-08-04 00:00:10 -0400 Run No ops.admin Simple Workflow Trigger Timer6 Timer Simple Workflow 2014-08-04 00:00:00 -0400 2014-08-04 00:00:00 -0400 Run No ops.admin
 Simple Workflow Trigger
 Timer
 Simple Workflow
 2014-08-04 00:00:10 -0400
 2014-08-04 00:00:21 -0400
 Run
 No
 ops.admin

 Simple Workflow Trigger
 Timer3
 Timer
 Simple Workflow
 2014-08-04
 0:00:10
 -0400
 2014-08-04
 0:00:21
 -0400
 Run
 No ops.admin Timer <u>Simple Workflow</u> 2014-08-04 00:00:10 -0400 2014-08-04 00:00:21 -0400 Run No ops.admin Simple Workflow Trigger Timer4
 Simple Workflow Trigger
 Timer
 Simple Workflow
 2014-08-04 00:00:20 -0400
 2014-08-04 00:00:31 -0400
 Run
 No
 ops.admin

 Simple Workflow Trigger
 Timer1
 Timer
 Simple Workflow
 2014-08-05 00:00:00 -0400
 2014-08-05 00:00:10 -0400
 Run
 No
 ops.admin
 E 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
 Timer
 Simple Workflow
 2014-06-05 00:00:10-0400
 2014-06-05 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
 No ops.admin
 Simple Workflow Trigger
 Timer5
 Timer
 Simple Workflow
 2014-08-05 00:00:20 -0400
 2014-08-05 00:00:31 -0400
 Run
 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 . . . > Enrecast Details Re-display the Time Triggers list, right-click Simple Workflow Trigger, and then click Trigger Now to launch Simple Workflow. Step 6 When Simple Workflow has completed, re-display the Time Triggers list, right-click Simple Workflow Trigger, and then click Recalculate Forecast. Step 7 Note You also can recalculate the forecast by right-clicking Simple Workflow on the Workflow Tasks list and then clicking Recalculate Forecast.

orecast Details				
			💥 Close	
Forecast Child Forecast				
Details				
Task : Simple Workflow	Trigger	r : Simple Workflow Trigger	1	
Task Type : Workflow	Launch Time	2014-08-11 00:00:00 -0400		
Workflow :	End Time	2014-08-11 00:02:21 -0400		
Member of	Run Criteri	ia Run		
Business Services : Simulation :	Evaluation]:		

Fimer Task Details: Time	2					
		📳 Update 🗔	Launch Task 👔 View Pa	arents 🛅 Copy 🎲 Delet	e 🔄 Refresh 💥	Close
Timer Task 🛛 🔍 Vari	bles Actions Virtual Re	sources 🔋 Mutually Exclusive	Instances Triggers	Notes Versions	•	
General						
Task Name :	Timer 2		Version :	1		
Task Description :						
Member of Business Services :						~
Resolve Name Immediately :						
Hold on Start :						
Virtual Resource Priority :	10	₩ Hol	Id Resources on Failure :			
- Timer Details						
Timer Type :		·¥-				
Timer Duration In Seconds :	50					
Time Options						
Late Start : 📃						
Late Finish : 🔽		Late Finish Type : Duration	✓ Late Finish Day Duration : 00 ✓	Hour Min Sec 00 v 00 v 45 v	•	
Early Finish : 📃						
User Estimated Duration :	ay Hour Min Sec]				
Critical Path Options						
CP Duration :		C	P Duration Unit : Minutes		*	
Workflow Execution Execution						
Restriction :	None	~				
🦷 Update 🔀	Launch Task 🕞 View Parents	Copy 👔 Delete	S Refresh	X Close		
e-run Simple W	rkflow.					
		e-calculate its Forecast imple Workflow is now		d time for the Timer	1 task affected	d the

- Creating and Maintaining Workflows
 Triggers
 Displaying Trigger Forecast Information

Universal Controller 6.5.x Troubleshooting and Tutorials

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 Limit: 5 Resource Imit: 5 Resourc

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: Click the Edit button, add Resource A to the Virtual Resources list, and click Save. Click the Details icon for Resource A to display its Task Virtual Resource Details.
	Task Virtual Resource Details
	🔚 Update 🎲 Delete 😫 Refresh 🎇 Close
	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 button.
	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.

irtual Resource Details: Resource A						
Virtual Resource Stasks Currently In Use By	Outstanding Requests	Versions				
3 Task Virtual Resources					Edit	2
Task			Amount	Updated By	Updated	
Timer1			4	ops.admin		
Timer3			1	ops.admin		
Timer2			4	ops.admin		

Step 7	Click the Save buttor	n, right-click Tri	igger A on the Tri	ggers list, and click E	nable.			
Step 8	When the trigger is s or Timer 2 is waiting			will run, along with Ti	mer3. When Timer1 or	Timer 2 finishes, t	the othe	ill run run. Display the Activity Monitor and note that Tim
	Home 🛛 Activity 🖾			_				
				À No quick filter → │ Custom Fi		· · · · ·	Filter	
	Home Activity Activity	Туре	☐ Last 48 hours ▼ [À No quick filter ♀ Custom Fi Invoked By	ilter None Start Time	End Time	Filter	
		Type Timer				· · · · ·		
	Instance Name		Status	Invoked By	Start Time	End Time	Updat 👻	

Virtual Resources

Tutorial - Creating a Widget

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

- System
- ActivityReport

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 • Refresh Rate (Seconds) = 900 15 minutes • Status(es) = Failed • Time Constraint = Last week • Composite Color = Red
	Activity Widget Details
	🔚 Save & New 👔 Save & View 💥 Close
	Activity Widget
	General
	Name : Failed
	Description :
	Refresh Rate (Seconds): 900 15 minutes
	Status(es): Failed V Time Contraint: Last week V
	Composite Status(es):
	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.

Widgets

Tutorial - Creating a Dashboard and Adding Widgets

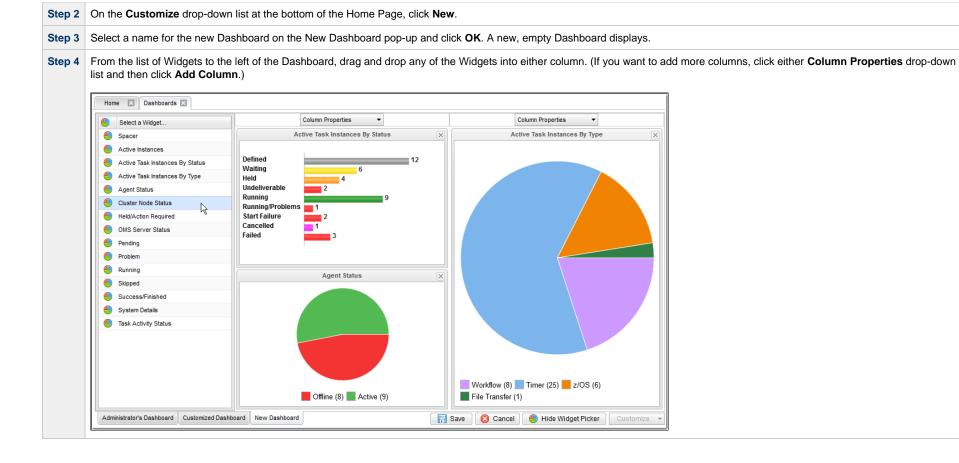
Creating a Dashboard and Adding Widgets

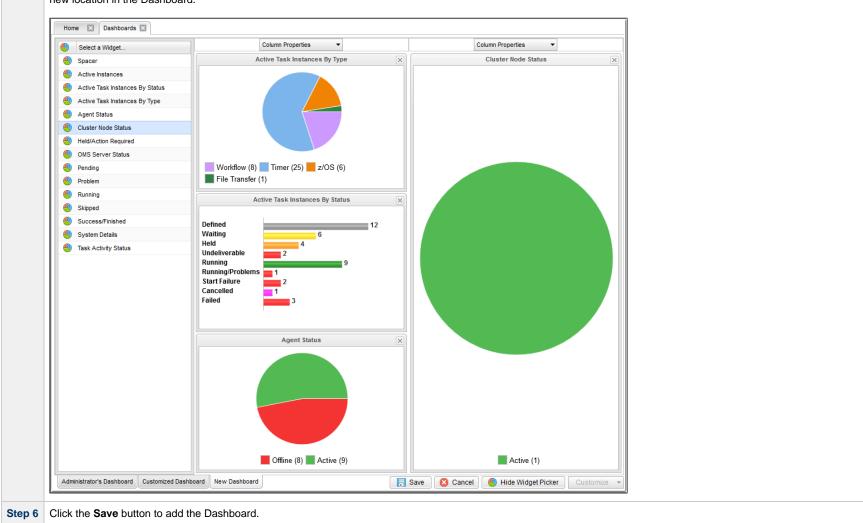
Universal Controller provides a default Dashboard containing multiple Widgets that displays as the Home Dashboard when you log in to Universal Controller.

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 5 After you have added Widgets to your new Dashboard, you can click the x icon in the top right corner of any Widget to remove it from the Dashboard, or drag and drop any Widget to a new location in 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 in Save & View & Close Business Service • Versions Details Details Details Description : This is the Tech Support business service. Image: Save & New in Save & View & Close Image: Save & New in Save & View in Save &
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 Step 2	Open the Timer task called Timer1, which you created in the Creating a Simple Workflow tutorial. From the Member of Business Services drop-down list, select Tech Support and Operations.
	Treee Task Details: Timer 1 Teree Task Details: Timer 4 Tere Task Details: Timer 4 Tere Task Details: Version: Version:
Step 3 Step 4	Click the Update button. 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.

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.

	Home 🗵 Reports (Business Ser	vices 🛛 Activity 🖾				
6	668 Task Instances		Tast 48 hours	🖌 🗌 🔝 No quick filter 🖌	Custom Filter None		🗸 🤝 Filter.
	Instance Name 👻	Туре	Status	Invoked By	Start Time	End Time	Updated
1	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
	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
3 Ap	ply the following Member o contains Operations 	f Business					
	 Member o contains Operations 	f Business s		gned to Operatio	n s Business Ser	vice.	
	 Member o contains Operations 	f Business s	Services ays only tasks assig	gned to Operatio	n s Business Ser	vice.	
Th	Member o contains Operations e Activity Monito	f Business s or now displ	Services ays only tasks assig		n s Business Ser		v 😽 Filter
Th	Member o contains Operations e Activity Monito Home Reports	f Business s or now displ	Services ays only tasks assig				V V Filter
Th	Member o contains Operations Activity Monito Home Reports	f Business s or now displ	Services ays only tasks assig vices Activity C Last 48 hours	 I ■ No quick filter ↓ Invoked By 	Custom Filter Unsave	d 2	
Th	Member or contains Operations e Activity Monitor Home Reports [S68 Task Instances Instance Name *	f Business s or now displ Business Ser	Services ays only tasks assig vices Activity C Cast 48 hours Status	 I No quick filter Invoked By Workflow: Simple Workflow 	Custom Filter Unsave Start Time	d 2 End Time	Updated
Th	Member o contains Operations Activity Monito Home Reports Reports Instance Name Timer3	f Business S or now displ Business Ser Type Timer	Services ays only tasks assig vices Activity East 48 hours Status Success	Iwo quick filter 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 Reporting navigation pane, select Reports . The Reports list displays.
Step 2	In the empty Report Details below the list, enter / select the following values:
	 Title = All Widgets Table = Widgets (ops_widget) Field(s) = (pre-selected fields display when you click Edit Fields)

Report Details					
				📆 Save 🛛 🕞 Save & New 🛛	📄 Save & View 💥
Report					
General —					
Title :	All Widgets			Visible To : Me	
Description :					
Type :	List 👻				
Table :	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				Edit So
- Scheduled O	ptions				
	DF System Default 🗸		PDF Siz	e : System Default 🗸 🗸	1
Orientatio				-	
Filter					
Match All	O Match Any		Advanced		
	- ,				

Das	shboards 🗵 🛛 Reports 🖾 🗛 🛛 🗛	idgets report 🔣			
14	Widgets				
	Name	Widget Type	Description	Updated By	Updated
57	Skipped	Activity	Activity - Skipped	ops.admin	2014-07-17 11:57:26 -04
17	Problem	Activity	Activity - Problem	ops.admin	2014-08-12 15:54:55 -04
277	Success/Finished	Activity	Activity - Success/Finished	ops.admin	2014-08-07 17:13:39 -04
	Task Activity Status	Activity	Task Activity by status	ops.admin	2014-08-18 23:28:05 -0
17	Failed	Activity		ops.admin	2014-08-11 13:43:50 -04
277	Agent Status	System	Pie chart for agent statuses.	ops.system	2014-06-24 20:00:00 -04
	Held/Action Required	Activity	Activity - Held/Action Required	ops.admin	2014-07-17 11:41:46 -04
277	Cluster Node Status	System	Pie chart for cluster node statuses.	ops.system	2014-06-24 20:00:00 -04
377	OMS Server Status	System	Pie chart for OMS server statuses.	ops.system	2014-06-24 20:00:00 -04
577	System Details	System	Displays a number of system details including version, database, and memory information	. ops.system	2014-06-24 20:00:00 -04
57	Pending	Activity	Activity - Pending	ops.admin	2014-07-17 11:56:46 -04
	Running	Activity	Activity - Running	ops.admin	2014-07-17 11:38:20 -0
17	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 -04
100	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 -04

Report Ceneral Title : All Widgets Visible To : Me Description : Type : List Table : Widgets (ops_widget) Visible To : Me Visible To : Me Pield Tabe Field (s) : Updated By Updated By Updated By Updated By Updated By Updated By Edit Fields Edit Fields PDF Size : - System Default - v	Report Details: A	ll Widgets				-
General Title : All Widgets Visible To : Me Description : Type : List Image: Construct of the second				Update 🔚 Sa	ave As 📶 Run 巓 Delete 🛛	🕏 Refresh C
Title: All Widgets Visible To: Me Description:	Report					
Description : Type : List Table : Widgets (ops_widget) List Fields and Ordering Field Title Name Widget Type Description Field(s) : Updated By Updated By Updated Edit Fields Edit Sort By : PDF System Defaulter w	General —					
Type : List Table : Widgets (ops_widget) List Fields and Ordering Field Title Order Name No order Vidget Type Description Description Sort By : Updated Sort By : Edit Fields Edit Sort Scheduled Options PDFStatem Default PDFStatem Default	Title	: All Widgets			Visible To : Me	
Table : Widgets (ops_widget) List Fields and Ordering Field Title Name Widget Type Description Field(s): Updated By Updated Edit Fields Edit Fields Edit Fields	Description	:				
List Fields and Ordering Field Title Order No order No order Description Sort By : Updated Sort By : Edit Fields Edit Sort	Туре	: List	*			
Field Title Order Name Widget Type Description No order Field(s): Updated By Updated Sort By: Edit Fields Edit Sort	Table	: Widgets (ops_widget)		•		
Field Title Order Name Widget Type Description No order Field(s): Updated By Updated Sort By: Edit Fields Edit Sort						
Name No order Widget Type Description Description Sort By: Updated Sort By: Edit Fields Edit Sort Scheduled Options PDF PDF System Default PDF System Default	List Fields a	and Ordering				
Name No order Widget Type Description Description Sort By: Updated Sort By: Edit Fields Edit Sort Scheduled Options PDF PDF System Default PDF System Default		Field Title		Field Title	Order	
Widget Type Description Description Updated By Updated Sort By : Edit Fields Edit Sort Scheduled Options Edit Sort PDF System Default PDF System Default				Field I file	Order	
Field(s): Updated By Sort By: Updated Edit Fields Edit Fields Edit Sort PDF					No order	
Field(s): Updated By Updated Sort By: Edit Fields Edit Sort						
Edit Fields Edit Sort	Field(s)		Sort By :			
Edit Fields Edit Sort						
Scheduled Options PDFSystem Defaulty PDF Size :System Defaulty						
Scheduled Options PDFSystem Defaulty PDF Size :System Defaulty						
Scheduled Options PDFSystem Defaulty PDF Size :System Defaulty						
PDF System Defaulty		Edit Fiel	ds			Edit Sort
PDF System Defaulty						
	- Scheduled	Options				
				PDF Siz	ze : System Default 💌	
	Match /	II. O Match Any	Advanced			
Hatch All O Match Any	C match /					
Match All O Match Any Advanced	G Widget	ype	✓ equa	ls	 Activity 	

Da	shboards 🖾 Reports 🖾 All Widgets report 🖾				
81	Vidgets				
	Name	Widget Type	Description	Updated By	Updated
	Skipped	Activity	Activity - Skipped	ellen.ulrich	2014-07-17 11:57:26 -040
	Problem	Activity	Activity - Problem	ops.admin	2014-08-12 15:54:55 -040
	Success/Finished	Activity	Activity - Success/Finished	ops.admin	2014-08-07 17:13:39 -040
	Task Activity Status	Activity	Task Activity by status	ellen.ulrich	2014-08-18 23:28:05 -040
	Failed	Activity		ops.admin	2014-08-11 13:43:50 -040
	Held/Action Required	Activity	Activity - Held/Action Required	ellen.ulrich	2014-07-17 11:41:46 -040
	Pending	Activity	Activity - Pending	ellen.ulrich	2014-07-17 11:56:46 -040
100	Running	Activity	Activity - Running	ellen.ulrich	2014-07-17 11:38:20 -040

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	From the Reporting navigation pane, select Reports . The Reports list displays.
Step 2	Click the New button to display empty Report Details.
Step 3	Enter / select the following values:
	 Title - Business Services Table = Business Services (ops_generic_group) Field(s) = (pre-selected fields that display when you click the Edit Fields button)

Report Details					
				📄 Save 🛛 🕞 Save & N	lew 📄 Save & View
Report					
General —					
Title :	Business Services			Visible To : Me	
Description :					
Type :	List				
Table :	Business Services (ops_generic	_group)	•		
— List Fields a	nd Ordering —				
	Field Title		Field Title	Order	
	Name				
	Description			No order	
	Updated By				
Field(s):	Updated	Sort By :			
	Edit Fields				Edit
		9			
- Scheduled C					
Pl Orientatio	DF System Default 👻		PDF Siz	ze : System Default	~
Filter					
Match Al	I 🔿 Match Any		Advanced		
0					

Dashboards 🛛 Reports 🖾 Business Services report 🖾							
5 Business Services							
Name	Description	Updated By	Updated				
stonebranchbusinessservice 02		ops.admin	2014-06-13 15:19:47 -0400				
stonebranchbusinessservice 03		ops.admin	2014-06-13 15:19:51 -0400				
stonebranchbusinessservice 05		ops.admin	2014-06-13 15:20:00 -0400				
stonebranchbusinessservice 01		ops.admin	2014-06-13 15:19:37 -0400				
stonebranchbusinessservice 04		ops.admin	2014-06-13 15:19:56 -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.
Step 3	Click the New button and enter / select the following values in the empty Email Tasks Details:
	• Task Name = Schedule a Report
	• Email Connection = (Select a valid email connection for your environment.)
	• To = (Enter the email address where you want to send the email.)
	 Subject = Activity Report Report = Scheduled Activity Report

	🧮 Save 🕼 Save & New 👔 Save &	View 💥
Email Task 🛛 🔍 Var	iables 🔴 Actions 🖉 Virtual Resources 🖉 Mutually Exclusive 🖉 Instances 🖉 Triggers 🖉 Notes 🖉 Versions	
General		
Task Name :	Schedule a Report	
Task Description :		
Member of		
Business Services :		~
Resolve Name Immediately:		
Hold on Start :		
Virtual Resource Priority :	10 V Hold Resources on Failure :	
Email Details		
Email Template :	Email Connection : QA-OPSWISE-MAILER	¥
Email Template Variable :		
Reply-To :		
To :	support@stonebranch.com	
Cc:		
Bcc :		
Subject :	Activity Report	
Body :		
Report:	Scheduled Activity Report Variable :	
Wait/Delay Options Wait To Start :		
Delay On Start :		
vvorktiow Only :	- System Default v	
Time Options		
Late Start :]	
Late Finish : 📗		
Early Finish :		
	Day Hour Min Sec	
Critical Path Option		
CP Duration :		¥ -

	Workflow Execution Options	
Step 4	Click the Save button.	
Step 5	From the Automation Center navigation pane, select Manual Triggers. The Manual Triggers list displays.	
Step 6	Click the New button and enter / select the following values in the empty Manual Trigger Details: • Name = Scheduled Report Trigger • Tasks(s) = Schedule a Report	
	Manual Trigger Details	
	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 : Purge By Retention Duration : Save & New Save & View Close	
Step 7	Click the Save button.	
Step 8	In the Time Triggers list, right-click the Schedule Report Trigger to display an Action menu.	
Step 9	Click Trigger Now and then, on the Trigger Now pop-up dialog, click Submit.	

Step	

10 Open the email sent to the recipient selected in Step 3 and double-click the attached Scheduled Activity Report.pdf to see the report.

	Scheduled Activity Report	(17 Task Instances	
Instance Name	Туре	Status	
workflow-regression-one-of-each-tasks	Workflow	Success	
sap-task-simple-variable	SAP	Success	
Taskmon-workflow-simple	Task Monitor	Success	
sql-task-mysql-sproc1	Stored Procedure	Success	
email-task-builtin-variables	Email	Success	
udm-task-simple-variable	File Transfer	Success	
Pause for Manual	Manual	Success	
ftp-filemon-simple-variable	FTP File Monitor	Success	
nix-filemon-simple-variable	File Monitor	Success	
Linux check for vsFTP #QUERY#	Application Control	Finished	
win-task-launch-simple-variables	Windows	Success	
nix-task-launch-simple-variables	Linux/Unix	Success	
sysmon-diskspace-simple-variable	System Monitor	Success	
Sleep Variable	Timer	Success	
sql-task-mysql-select-all	SQL	Success	
ndesa-task-simple-variables	Universal Command	Success	
Scheduled Activity Report	Email	Running	

For additional information, see:

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 > Users. The User list displays.

Step 2	Click the New button to display empty User Details for a new user and enter / select the following values: User Id = user1 First Name = User Last Name = One Password = 123 User Details: User One User Total Sector S
	Details User Id: User Id: Sestent: First Name: User Business Phone: Email: Mobile Phone: Password Regires System Default - Active: Veb Browser System Default - Active: Veb Sencie System Default - Active: Veb Sencie System Default - Active: Command Line System Default - Access: System Default -
Step 3	Click the Save button, log out of the Controller and then log in as user1.
Step 4	Click on several areas of the user interface. Since user1 has not been assigned any permissions, user1 can view only a limited number of lists and records, and cannot create, modify, or delete any records.
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.

Collection			Roles List		
	9		groupa		
Name [▲]		Name A		A	
ops_agent_cluster_admin	×	ops_admin			
ops_bundle_admin					
ops_dba					
ops_email_admin					
ops_filter_global	→				
ops_filter_group	+				
ops_imex	= +				
ops_multi_update					
ops_promotion_admin		1			
ops_report_admin					
ops_report_global					
ops_report_group					
ops_report_publish					
ops_report_schedule					
ops_report_widget_create	-				
	Save	Cancel			

Step 12 Click the Permissions tab, click the New button, and in the Permissions Details select the following values: • Type = Task • Type = Task • Create = enabled • Update = enabled • Update = enabled • Update = enabled • Domandia = Launch • Update = enabled • Update = nabled • Update = enabled • Member of Business Services = Tech Support • Werner of Business Services = Tech Support • Unastignet Business Service : Unastignet Business Service : Unastignet Business : Service		
 Create = enabled Read = enabled Update = enabled Unassigned to Business Service = disabled Unassigned to Business Services = Tech Support Immeries and the service = the ser	Step 12	Click the Permissions tab, click the New button, and in the Permissions Details select the following values:
 Read = enabled Update = enabled Unassigned to Business Service = disabled Wember of Business Service = Tech Support First Details First Details First Details Step 13 Click Save, log out of the Controller, and log in as user1. Step 14 User I now will be able to see the tasks assigned to the Tech Support group, and launch those tasks. However, user1 cannot see them on the Activity Monitor because user1 was not		
 Update = enabled Commands = Launch Unassigned to Business Service = disabled Member of Business Services = Tech Support Firmation Details Uptimities Details Uptimities Details Uptimities Details Step 13 Click Save, log out of the Controller, and log in as user1. Step 14 user1 now will be able to see the tasks assigned to the Tech Support group, and launch those tasks. However, user1 cannot see them on the Activity Monitor because user1 was not		
 Commands = Launch Unassigned to Business Service = disabled Wember of Business Services = Tech Support 		
 • Member of Business Services = Tech Support • Member of Business Services = Tech Support • Wember distances • Service : I is the support of Business is in the support of Business		
Step 13 Click Save, log out of the Controller, and log in as user1. Step 14 User1 now will be able to see the tasks assigned to the Tech Support group, and launch those tasks. However, user1 cannot see them on the Activity Monitor because user1 was not		
Step 13 Click Save, log out of the Controller, and log in as user1. Step 14 user1 now will be able to see the tasks assigned to the Tech Support group, and launch those tasks. However, user1 cannot see them on the Activity Monitor because user1 was not		 Member of Business Services = Tech Support
Step 13 Click Save, log out of the Controller, and log in as user1. Step 14 user1 now will be able to see the tasks assigned to the Tech Support group, and launch those tasks. However, user1 cannot see them on the Activity Monitor because user1 was not		Permission Details
Step 13 Click Save, log out of the Controller, and log in as user1. Step 14 user1 now will be able to see the tasks assigned to the Tech Support group, and launch those tasks. However, user1 cannot see them on the Activity Monitor because user1 was not		
Step 13 Click Save, log out of the Controller, and log in as user1. Step 14 user1 now will be able to see the tasks assigned to the Tech Support group, and launch those tasks. However, user1 cannot see them on the Activity Monitor because user1 was not		Permission
Step 13 Click Save, log out of the Controller, and log in as user1. Step 14 user1 now will be able to see the tasks assigned to the Tech Support group, and launch those tasks. However, user1 cannot see them on the Activity Monitor because user1 was not		Details
Step 13 Click Save, log out of the Controller, and log in as user1. Step 14 user1 now will be able to see the tasks assigned to the Tech Support group, and launch those tasks. However, user1 cannot see them on the Activity Monitor because user1 was not		Type: Task v
Step 13 Click Save, log out of the Controller, and log in as user1. Step 14 user1 now will be able to see the tasks assigned to the Tech Support group, and launch those tasks. However, user1 cannot see them on the Activity Monitor because user1 was not		Create : 🔽
Step 13 Click Save, log out of the Controller, and log in as user1. Step 14 user1 now will be able to see the tasks assigned to the Tech Support group, and launch those tasks. However, user1 cannot see them on the Activity Monitor because user1 was not		
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Step 13 Click Save, log out of the Controller, and log in as user1. Step 14 user1 now will be able to see the tasks assigned to the Tech Support group, and launch those tasks. However, user1 cannot see them on the Activity Monitor because user1 was not		
Step 13 Click Save, log out of the Controller, and log in as user1. Step 14 user1 now will be able to see the tasks assigned to the Tech Support group, and launch those tasks. However, user1 cannot see them on the Activity Monitor because user1 was not		Service or Unassigned : Service :
Step 13 Click Save, log out of the Controller, and log in as user1. Step 14 user1 now will be able to see the tasks assigned to the Tech Support group, and launch those tasks. However, user1 cannot see them on the Activity Monitor because user1 was not		Member of Business Services : Tech Support
Step 13 Click Save, log out of the Controller, and log in as user1. Step 14 user1 now will be able to see the tasks assigned to the Tech Support group, and launch those tasks. However, user1 cannot see them on the Activity Monitor because user1 was not		🔚 Save & New 👔 Save & View 🗱 Close
Step 14 user1 now will be able to see the tasks assigned to the Tech Support group, and launch those tasks. However, user1 cannot see them on the Activity Monitor because user1 was not		
Step 14 user1 now will be able to see the tasks assigned to the Tech Support group, and launch those tasks. However, user1 cannot see them on the Activity Monitor because user1 was not		
Step 14 user1 now will be able to see the tasks assigned to the Tech Support group, and launch those tasks. However, user1 cannot see them on the Activity Monitor because user1 was not		
Step 14 user1 now will be able to see the tasks assigned to the Tech Support group, and launch those tasks. However, user1 cannot see them on the Activity Monitor because user1 was not	Stop 12	Click Save log out of the Controller, and log in as userf
	Step 13	
	Step 14	

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.

	🔚 Save 🕼 Save & View 💥 Close
Permission	
Details	
	Task Instance v
Read :	
Update :	
Delete :	
Commands :	ALL
Name :	2
Member of Any Business Service or Unassigned :	Unassigned to Business Service :
Member of Business Services :	Operations 💌
🔚 Save 🕞 S	ave & New 👔 Save & View 🗱 Close

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
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 Mambar of Any Pupinger Service or Uncertained - enabled
	 Member of Any Business Service or Unassigned = enabled Click the Group Members tab and click Edit.
	4. Add stonebranch-user-01 to the group.

Create a group called stonebranch-group-02 .
 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 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 New
Type Operations Commands Name Unassigned to Business Service Business Services Updated By Updated
Task Instance Read, Update ALL * No stonebranchbusinesservice 02 ops.admin 2014-08-07 16:12:04 -0400
Task Instance Read, Update * No stonebranchbusinessservice 01 ops.admin 2014-08-07 16:08:14 -0400

	Create a group called stonebranch-group-03 . 1. 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 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 New 2										
	2 Opswise Permissions New Ne										

For additional information, see:

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
	🔚 Save 🕼 Save & View 🎉 Close
	Bundle © Triggers © Tasks © Calendars © Custom Days © Variables © Business Services © Credentials © Agent Clusters © Virtual R < > -
	DetailsBundle Name :
	Description :
	Default Promotion
	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.

_													
tep 1	Ор	en the E	undle recor	rd you jus	st created.								
ep 2	Cli	ck the T i	iggers tab	to display	y an empty	Triggers list.							
	В	undle Details	: Demo Bundle #1	1									
	17	Bundle	Triggers	Tasks	Calendars	Custom Days	Variables	Business Services	Credentials	Agent C	Clusters	Virtual R	• •
	1 F	0 Triggers								11		Edit	1 2
								_				Luit	
		Name						Туре	Description	Added By	Updated		
							No items to show.						

Edit Members	
Collection	Trigger List
	Demo Bundle #1
Name A	Name A
stonebranch-applicationmonitortrigger-01	
stonebranch-applicationmonitortrigger-02	None
stonebranch-applicationmonitortrigger-03	
stonebranch-applicationmonitortrigger-04	
stonebranch-applicationmonitortrigger-05	
stonebranch-compositetrigger-01	
stonebranch-compositetrigger-02	
stonebranch-compositetrigger-03	
stonebranch-compositetrigger-04	
stonebranch-compositetrigger-05	
stonebranch-crontrigger-01	
stonebranch-crontrigger-02	
stonebranch-crontrigger-03	
stonebranch-crontrigger-04	
stonebranch-crontrigger-05	
stonebranch-filemonitortrigger-01	-
elect the Trigger records that you want to add	d to the Bundle and click the Save button. Those records then display in the Triggers list under the Triggers tab.
Bundle Details: Demo Bundle #1	
	Custom Days Variables Business Services Credentials Agent Clusters Virtual R + +
Bundle Triggers Tasks Calendars C	Edit
Bundle Triggers Triggers Calendars Cale	
	Type Description Added By Updated
5 Triggers	Type Description Added By Updated Task Monitor ops.admin 2015-09-29 16:50:51 -0400
5 Triggers Name Stonebranch-taskmonitortrigger-01 Stonebranch-taskmonitortrigger-03	Task Monitor ops.admin 2015-09-29 16:50:51 -0400 Task Monitor ops.admin 2015-09-29 16:50:51 -0400
5 Triggers Name Stonebranch-taskmonitortrigger-01 Stonebranch-taskmonitortrigger-03 Stonebranch-taskmonitortrigger-05	Task Monitor ops.admin 2015-09-29 16:50:51 -0400 Task Monitor ops.admin 2015-09-29 16:50:51 -0400 Task Monitor ops.admin 2015-09-29 16:50:51 -0400
5 Triggers Name stonebranch-taskmonitortrigger-01 stonebranch-taskmonitortrigger-03	Task Monitor ops.admin 2015-09-29 16:50:51 -0400 Task Monitor ops.admin 2015-09-29 16:50:51 -0400

Step 5	Repeat Steps 2-4 for any other record types you want to add to the Bundle.	
Step 6	Click the Bundle tab, the Update button, and the Close button. You now must create a record identifying the target (Controller cluster node) to which the Bundle will be promoted.	

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									
	Details Name : stonebranch-promotiontarget-01									
	URI: http://stonebranch123/universal									
	User: ops.admin Password:									
	📰 Save & New 👔 Save & View 🗱 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
	Name User	URI Descri	ption 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		🔚 Save 🔓 Save & New 🛅 I
	Promotion Target C Linux/Unix Agent Mapping	gs Windows Agent Mappings 2/OS Agent Mappings	
	Details		
	Name :		
	Description :		
	URI :		
	User :		
	Password :		
	📄 Save 🕼 Save & New	C New	
2 F	Right-click the Promotion Target	t record that you just created to display an	Action menu.
-		t record that you just created to display an o display a Refresh Target Agents pop-up	
-			
-	Click Refresh Target Agents to Refresh Target Agents		dialog.
-	Click Refresh Target Agents to Refresh Target Agents	get : stonebranch-promotiontarget-01	dialog.
-	Click Refresh Target Agents to Refresh Target Agents Promotion Targ Override User/Passwo	e display a Refresh Target Agents pop-up	dialog.
-	Click Refresh Target Agents to Refresh Target Agents Promotion Targ Override User/Passwo	get : stonebranch-promotiontarget-01	dialog.
-	Click Refresh Target Agents to Refresh Target Agents Promotion Targ Override User/Passwo	o display a Refresh Target Agents pop-up get : stonebranch-promotiontarget-01 ord : 📝 ser :	dialog.
-	Click Refresh Target Agents to Refresh Target Agents Promotion Targ Override User/Passwo	o display a Refresh Target Agents pop-up get : stonebranch-promotiontarget-01 ord : 📝 ser :	dialog.
-	Click Refresh Target Agents to Refresh Target Agents Promotion Targ Override User/Passwo	o display a Refresh Target Agents pop-up get : stonebranch-promotiontarget-01 ord : 📝 ser :	dialog.
-	Click Refresh Target Agents to Refresh Target Agents Promotion Targ Override User/Passwo	o display a Refresh Target Agents pop-up get : stonebranch-promotiontarget-01 ord : 📝 ser :	dialog.
-	Click Refresh Target Agents to Refresh Target Agents Promotion Targ Override User/Passwo	o display a Refresh Target Agents pop-up get : stonebranch-promotiontarget-01 ord : 📝 ser :	dialog.

	Promotion Target Detail	s: stonebranch-promotiontarget-01	- • ×			
	Promotion Target	Linux/Unix Agent Mappings S Windows Agent Mappings Z/OS Agent Mappings				
	0 Linux/Unix Agent Mapp	n and a second se	2			
	Target Agent Source Agent					
	stonebranch-linuxunixagent-03					
Step 6	0	con next to a Target Agent name to display Agent Mapping Details for that Target Agent.				
Step 6	Click the Details i	ng Details	- Close			
Step 6	0	ng Details	C A A 7			
Step 6	Linux/Unix Agent Mappi	ng Details	C A A 7			
Step 6	Linux/Unix Agent Mappi Linux/Unix Agent Mappi Promotion Target :	ng Details Image: Stand S	C A A 7			
Step 6	Linux/Unix Agent Mappi Linux/Unix Agent Mappi Promotion Target : Target Agent :	ng Details	1 A A 7			
Step 6	Linux/Unix Agent Mappi Linux/Unix Agent Mappi Promotion Target : Target Agent :	ng Details Image: Stand S	Close			
Step 6	Linux/Unix Agent Mappi Linux/Unix Agent Mappi Promotion Target : Target Agent :	ng Details	Close			
Step 6	Linux/Unix Agent Mappi Linux/Unix Agent Mappi Promotion Target : Target Agent : Type :	ng Details				
Step 6	Linux/Unix Agent Mappi Linux/Unix Agent Mappi Promotion Target : Target Agent : Type :	ng Details	Close			

Linux/Unix Agent Mapping Details							
	📳 Update	🕼 Delete	S Refresh	💢 Close			
Linux/Unix Agent Map	9						
Promotion Targe	stonebranch-linuxunix-01			13			
Target Agent : stonebranch-linuxunixagent-01							
Туре	Type: Linux/Unix						
No items to show.							
Source Agen				a			
识 Update	Delete Sclose			¥.			
Select the source	machine Agent(s) that you want mapped to the selected target machine Ager	nt. and th	nen click (Save.			

Promote the Bundle

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

Promote Bundle		
Promotion Target :	stonebranch-promotiontarget-01	·
Override User/Password :		
User:	ops.admin	
Password :	•••••	
Allow Universal Template Changes :		
Schedule :		
	Submit Cancel	

For additional information, see:

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.

Step 1 Step 2		ane, select Bundles . The Bundles list displays. omotion and click Promote Bundle on the Action menu	to display a Promote Bundle pop-up dialog.
	Promote Bundle		
	Promotion Target :	stonebranch-promotiontarget-01	
	Override User/Password :	V	
	User:	ops.admin	
	Password :	•••••	
	Allow Universal Template Changes :		
	Schedule :		
	2		
		Submit Cancel	

Step 3	Click the Schedule field check box to display	y additional fields for specifying a promotion schedule.	
	Promote Bundle		×
	Promotion Target :	stonebranch-promotiontarget-01 v]
	Override User/Password :		
	User:	ops.admin	
	Password :	•••••	
	Allow Universal Template Changes :		
	Schedule :		
	Date :	2017 💌 May 💌 30 💌 📰	
	Time :	Hour Min 11 v 00 v	
	Create Snapshot :		
	System Notification :	Operation Failure	
		Submit Cancel	
Step 4	Select a Date and Time for the promotion.		

Bundle ^ Promotion Target Status Status	2 Promotion Schedules					Custom Filter None V	🦁 Filter 🍣	
S <u>stonebranch-bundle-02</u> <u>stonebranch-promotiontarget-02</u> Scheduled No			Promotion Target	Status	Status Description			
stonsbranch-bundle-02 stonsbranch-promotiontarget-02 Scheduled No No Promotion Schedule Details	-	stonebranch-bundle-01	stonebranch-promotiontarget-01	Cancelled	Scheduled promotion cancelled by user "ops.admin".		2015-05-23 00:00:00 -0400	Yes
* Promotion Schedule Details	Ξ	stonebranch-bundle-02	stonebranch-promotiontarget-02	Scheduled			2015-05-24 00:00:00 -0400	No
	/ P	romotion Schedule Detail	s					

For additional information, see:

Bundles and Promotion