## HP Operations Orchestration Software

Software Version: 7.50

HP Operations Manager Integration Guide

invent

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### To obtain HP OO documentation and tutorials

- 1. Go to the HP Software Product Manuals web site (http://support.openview.hp.com/selfsolve/manuals).
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   OR

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If you need help getting an HP Passport, see your HP OO contact.

- 3. In the Product list box, scroll down to and select Operations Orchestration.
- 4. In the **Product Version** list, click the version of the manuals that you're interested in.
- 5. In the **Operating System** list, click the relevant operating system.
- 6. Click the Search button.
- 7. In the **Results** list, click the link for the file that you want.

## Where to Find Help, Tutorials, and More

The HP Operations Orchestration software (HP OO) documentation set is made up of the following:

Help for Central

Central Help provides information to the following:

- Finding and running flows
- For HP OO administrators, configuring the functioning of HP OO

• Generating and viewing the information available from the outcomes of flow runs The Central Help system is also available as a PDF document in the HP OO home directory, in the \Central\docs subdirectory.

• Help for Studio

Studio Help instructs flow authors at varying levels of programming ability.

The Studio Help system is also available as a PDF document in the HP OO home directory, in the \Studio\docs subdirectory.

• Animated tutorials for Central and Studio

HP OO tutorials can each be completed in less than half an hour and provide basic instruction on the following:

- In Central, finding, running, and viewing information from flows
- In Studio, modifying flows

The tutorials are available in the Central and Studio subdirectories of the HP OO home directory.

• Self-documentation for operations and flows in the Accelerator Packs and ITIL folders Self-documentation is available in the descriptions of the operations and steps that are included in the flows.

## Support

For support information, including patches, troubleshooting aids, support contract management, product manuals and more, visit the following site:

• http://support.openview.hp.com

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## **Overview**

This guide walks you through integrating HP OO with HP Operations Manager (formerly HP OpenView) for Windows. The intended use of this guide is assist you with associating HP Operations Manager Policies with HP OO flows in either an automated or semi-automated manner.

You will learn how to execute a flow automatically when an HP Operations Manager alert is generated.

## **Prerequisites**

The following software should be installed prior to integration:

- HP OpenView 7.5; HP Operations Manager 8.0
- HP OO 7.50 Central, RAS, and Studio
- RSFlowInvoke.exe (installed on the same machine as HP Operations Manager)

You should use RSFlowInvoke.exe to generate an encrypted password for flows executed within HP Operations Manager.

#### To generate an encrypted password

- 1. From where RSFlowInvoke.exe is installed, open a Windows command shell.
- 2. Change the directory to the location of RSFlowInvoke.exe (%OO\_HOME%\Central\tools).
- 3. Run the following command: RSFlowInvoke.exe -cp
- 4. Enter the password for a valid HP OO user.
- 5. Re-enter the password for a valid HP OO user.
- 6. An encrypted password is generated. Copy this password for use with the integration.

# OO Library operations that communicate with Operations Manager

There are a number of OO operations that can be used in flows to communicate with Operations Manager. Documentation for each of these operations is included on the **Description** tab of the operation in OO Studio.

These operations can be found in the \Library\Integrations\Hewlett-Packard\Operations Manager Windows\ folder.

## How to automatically invoke a flow from a Policy

This example illustrates how an OO flow can be invoked automatically by an HP Operations Manager Policy when the Policy is breached.

### To automatically invoke a flow from a Policy

- 1. Create an HP Operations Manager Policy (see "Quick start: how to create a policy" in the HP OpenView Operations Guide).
- 2. From the HP Operations Manager console, navigate to the Policy Manager.
- 3. Right-click the desired Policy, click All Tasks and then click Edit.



### Figure 1 - HP Operations Manager Console and Policy Manager (Automatic Command)

4. This window that opens displays basic information about the Policy and enables modifications to the Policy. Click the **Rules tab**, select the rule you want modify, and then click the **Modify** button.



### Figure 2 - Click the Modify button

The Rule window opens.

5. Click the Action tab, and then click the Automatic command button.



Figure 3 – Rule window and Automatic Command button

The Automatic Command window opens.

6. In the Automatic Command window, in the Command box enter the full path to RSFlowInvoke command including the authentication parameters and full OO Library path (see Appendix A: "RSFlowInvoke.exe usage"). Click OK when finished and return to the Policy Manager.

Automatic command	
Command [trumentation\RGResourceCheck.js""FAILED""*\$MSG_TEXT>"Prowse	
Node <\$MSG_NODE_NAME>	Enter RSFlowInvoke
	command here
Append output of command as annotation to the message	
Acknowledge the message when command is successful	
G. Sand manager immediately	
C service and the service serv	
Wait until local command completes and then:	
Send the message	
C Send the message only if the local command fails	
C Send the message only if the local command is successful	
OK Cancel Help	

Figure 4 - Automatic command Window

7. To deploy the new Policy updates, in the Policy Manager right-click the Policy, click **All Tasks** and then click **Deploy on**.

The **Deploy policies on** window opens.

Figure 5 - Deploy policies on window

- 8. In the **Deploy policies on** window, select the **Select nodes from the tree** option button, do one of the following, and then click **OK**:
  - a. Select the **Nodes** check box in the **Nodes** tree to deploy the Policy on all nodes.
  - b. Select individual nodes to on which to deploy the Policy.

The Policy has now been updated and deployed. The next time an alert is triggered, the Automatic Command for the Policy will automatically invoke the OO flow using RSFlowInvoke.exe.

## How to "Operator Initiate" an OO flow from a Policy

This example illustrates how when an HP Operations Manager Policy is breached, an alert is issued so that the operator can initiate an OO flow.

### To operator-initiate a flow from a Policy

- 1. Create an HP Operations Manager Policy (see "Quick start: how to create a policy" in the HP Operations Manager Operations Guide).
- 2. From the HP Operations Manager console, navigate to the Policy Manager.

3. Right-click the desired Policy, click **All Tasks** and then click **Edit**.



Figure 6 - HP Operations Manager Console and Policy Manager (Operator Initiated)

4. This window that opens displays basic information about the Policy and enables modifications to the Policy. Click the **Rules tab**, select the rule you want modify, and then click the **Modify** button.

WINOSSPI-MSCS_ResourceMessage	s [10.0] (Windows Event Log)		
<u>Eile View H</u> elp			
🗠 Save and 💾 Save 💡			
Source Rules Options			
Seq. 🛆 Description	Rule Type		New
1 Resource Failed	If matched, do actio		Modify
	Click the Me	odify button	Delete Copy Move up Move down To No. Msg Defaults Matching test
I Rule summary			
IF Condition (Source: ClusSvc; Type: Inform of this rule is true THEN: Do Actions: Send Message to Active Msg. Browser Start <u>Automatic command</u> (cscript //nolc "<\$MSG_TEXT>") Stop evaluation ELSE evaluate next rule	ation, Warning, Error; Event ID: 1069 (Severity: Minor) ogo "%OvAgentDir%\bin\instrumentati	) on\RGResourceCheck.js'' ''FAILED''	
Ready			

Figure 7 – Click the Modify button

The Rule window opens.

5. Click the Action tab, and then click the **Operator-initiated command** button.



Figure 8 – Rule window and Operator-initiated command button

6. In the **Operator-initiated Command** window, in the **Command** box enter the full path to RSFlowInvoke command including the authentication parameters and full OO Library path (see

Appendix A: "RSFlowInvoke.exe usage"). Click **OK** when finished and return to the Policy Manager.

Operator-initiated command		×	
Co <u>m</u> mand		Browse	
Node <\$MSG_NODE_N	AME> 💌		Enter the RSFlowInvoke
Message relationship			command here
Append output of command as annotation	n to the message		
$\square$ Acknowledge the message when the co	mmand is successful		
	OK Cancel	Help	

### Figure 6 - Operator-initiated command window

7. To deploy the new Policy updates, in the Policy Manager right-click the Policy, click **All Tasks** and then click **Deploy on**.

The **Deploy policies on** window opens.

🧱 Deploy policies on 🗙
Deployment Nodes
Select all nodes on which the current version of the policy is deployed
Select all nodes on which any version of the policy is deployed
Select nodes from the tree
Managed nodes:
Nodes FARKGroup HP Defined Groups Node Sample Test Group Welcome to OMW Welcome to Studio ADITE (Management Server)
Deployment Options
deploy policy only if version is newer
ignore policy owner
Policy status after deployment C enable C disable C keep existing
OK Cancel

Figure 7 - Deploy policies on window

8. In the **Deploy policies on** window, select the **Select nodes from the tree** option button, do one of the following, and then click **OK**:

- a. Select the **Nodes** check box in the **Nodes** tree to deploy the Policy on all nodes.
- b. Select individual nodes to on which to deploy the Policy.

The Policy has now been updated and deployed. The next time an alert is triggered, the Automatic Command for the Policy will automatically invoke the OO flow using RSFlowInvoke.exe. The next time the Policy is breached, an alert will display in the **Active Message Window**.

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Operatorio manager i becacia	Seventy	Dupicates	S U I A O N Reo	end 2X	Service 1	aude .	Application	Object	Text
Nodes     Nodes     Operaties Defined G	Critical		X - X - 104	422006 10:22:52 AM		BEPO_BASE_1	IIS Petch	83	125 is currently not runnin
B Unknown     Windows     Windows	-		1.0			10	40	(#0	
•	lor	1.0	1.0	100		19.	10	10	
	0	BBERD_	BASE_11 (Management Server	(Operations Agent	5	rvices & Plocess	#E		
	0	\$BERO_	BASE_11 (Management Server	Operations Agent	5	rvices & Piocess	91		
DjoroWeiner, Operationes Marc	P	BBERD_	BASE_11 (Management Server	(Operations Agent	Si	evices & Process		line	

Figure 8 - Active alert (Operator-initiated)

9. Right-click the alert, click **Commands** then **Start** and then **Operator Initiated**. This invokes the OO flow using RSFlowInvoke.exe.

## Appendix A: RSFlowInvoke.exe usage

### **Syntax**

RSFlowInvoke.exe -u <username> -ep <encrypted password> OR -p <password> "https://<HP 00 server:port>/PAS/services/rest/run/<full library path for 00 flow>"

### **Example**

```
"C:\Program Files\Hewlett-Packard\Operations
Orchestration\Central\tools\RSFlowInvoke.exe" -u rsadmin -ep
jYa+lSbnEiM9fiUpksY8iw== "https://localhost:8443/PAS/services/rest/run/Library/OVO
Driven Repairs/Repair Tomcat With Remedy"
```