HP Operations Orchestration Software

Software Version: 9.00

HP SiteScope Integration Guide

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On the Web: Finding OO support and documentation

There are two Web sites where you can find support and documentation, including updates to OO Help systems, guides, and tutorials:

- The OO Support site
- BSA Essentials Network

Support

Documentation enhancements are a continual project at Hewlett-Packard Software. You can obtain or update the HP OO documentation set and tutorials at any time from the HP Software Product Manuals Web site. You will need an HP Passport to log in to the Web site.

To obtain HP OO documentation and tutorials

1. Go to the HP Software Product Manuals Web site (*http://support.openview.hp.com/selfsolve/manuals*).
2. Log in with your HP Passport user name and password.

   OR

   If you do not have an HP Passport, click **New users – please register** to create an HP Passport, then return to this page and log in.

   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.

BSA Essentials Network

For support information, including patches, troubleshooting aids, support contract management, product manuals and more, visit the following site: *http://www.hp.com/go/bsaessentialsnetwork*

This is the **BSA Essentials Network** Web page. To sign in:

1. Click **Login Now**.
2. On the **HP Passport sign-in** page, enter your HP Passport user ID and password and then click **Sign-in**.
3. If you do not already have an HP Passport account, do the following:
   a. On the **HP Passport sign-in** page, click **New user registration**.
   b. On the **HP Passport new user registration** page, enter the required information and then click **Continue**.
   c. On the confirmation page that opens, check your information and then click **Register**.
   d. On the **Terms of Service** page, read the Terms of use and legal restrictions, select the **Agree** button, and then click **Submit**.
4. On the **BSA Essentials Network** page, click **Operations Orchestration Community.**

The Operations Orchestration Community page contains links to announcements, discussions, downloads, documentation, help, and support.

Note: Contact your OO contact if you have any difficulties with this process.

In OO: How to find Help, PDFs, and tutorials

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.

Table of Contents

Overview of HP SiteScope integration

This integration enables administrators to build HP Operations Orchestration (OO) flows that are integrated into HP SiteScope and to control OO flows via their SiteScope dashboard.

This document will explain how this integration has been implemented and how to launch flows from within SiteScope. It will also explain the operations that are included for communicating back and forth between OO and SiteScope.

Use cases and scenarios

1. Launch OO flow from within the SiteScope console.

   In this scenario, the integration allows administrators to connect specific events or alarms in SiteScope to the starting of OO flows. This type of integration is a simple Incident Management/Runbook use case that includes the following events:

   - An error is detected by SiteScope and an alarm is raised on the console.
   - An OO flow is launched to remediate the fault.
   - OO automatically acknowledges the event and runs the flow.
   - OO updates/resets the alarm.

2. Operations that allow the automation of SiteScope administrative tasks. This includes tasks such things as automatic SiteScope template deployment. This allows administrators to tie SiteScope administrative functions to provisioning and maintenance.

Versions

Operations Orchestration Version	SiteScope Version
9.0	7.0, 9.00, 9.5, 10.10, 10.11, 11.00

Architecture

Local Data Center

OO Central Cluster

Orchestration Engine
Web UI Application
Scheduler
Repository

SOAP

RAS Host

SOAP
RSFlowInvoke
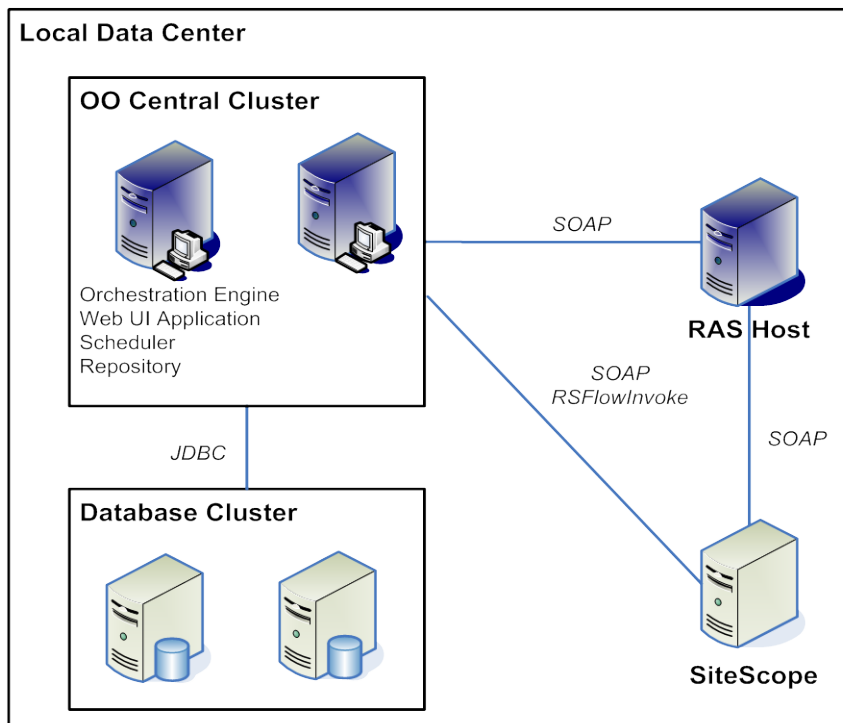
SOAP

JDBC

Database Cluster

SiteScope

Figure 1 - HP SiteScope architecture

HP SiteScope integration operation infrastructure

The HP SiteScope integration includes the following operations in the OO Studio Library/Integrations/Hewlett-Packard/SiteScope/9.x and 10.x and 11.00/ folder.
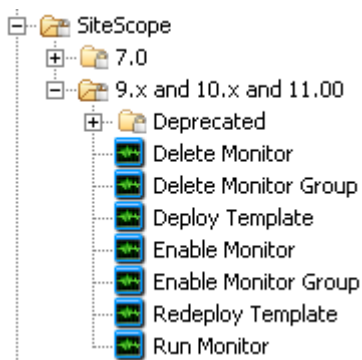

Figure 2 - HP SiteScope operations in the Studio Library

Note: The operations in the Library/Integrations/Hewlett-Packard/SiteScope/9.x and 10.x and 11.00/ folder support HP SiteScope versions 9.00, 9.5, 10.10, 10.11, and 11.00.

Operation specifics

This section describes the HP SiteScope integration's operations, including any operation-specific inputs.

Delete Monitor

The **Delete Monitor** operation deletes a SiteScope monitor.

The operation produces a **Success** response if the monitor is successfully deleted. It produces a **Failure** response if the operation is unable to delete the monitor.

Other results are:

returnResult
The result of the operation.

The inputs for the operation are:

hostname
The DNS name or IP address of the SiteScope host.

port
The port to connect to your SiteScope host on.

protocol
The protocol with which to connect to your SiteScope host. The valid values are **HTTP** and **HTTPS**. HTTPS is not configured by default during SiteScope installation.

username
The username for the SiteScope host.

password
The password for the SiteScope user.

monitorPath
The path of the monitor to delete (for example, Monitors\WSMonitor).

Delete Monitor Group

The **Delete Monitor Group** operation deletes a SiteScope monitor group.

The operation produces a **Success** response if the monitor group is successfully deleted. It produces a **Failure** response if the operation is unable to delete the monitor group.

Other results are:

returnResult
The result of the operation.

The inputs for the operation are:

hostname
The DNS name or IP address of the SiteScope host.

port
The port to connect to your SiteScope host on.

3

protocol

> The protocol with which to connect to your SiteScope host. The valid values are **HTTP** and **HTTPS**. HTTPS is not configured by default during SiteScope installation.

username

> The username for the SiteScope host.

password

> The password for the SiteScope user.

monitorPath

> The path of the monitor group to delete (for example, Monitors\MonitorGroup).

Deploy Template

The **Deploy Template** operation deploys a SiteScope template to a destination path. In HP SiteScope 9.00, although you are not required to follow the best practice of creating monitors in templates within groups, you must do so before you can deploy the template. In future versions of SiteScope, this best practice will be a requirement.

The operation produces a **Success** response if it completes successfully. It produces a **Failure** response if the operation does not complete successfully.

Other results are:

returnResult

> The result of the operation.

The inputs for the operation are:

hostname

> The DNS name or IP address of the SiteScope host.

port

> The port to connect to your SiteScope host on.

protocol

> The protocol with which to connect to your SiteScope host. The valid values are **HTTP** and **HTTPS**. HTTPS is not configured by default during SiteScope installation.

username

> The username for the SiteScope host.

password

> The password for the SiteScope user.

source

> The source path (for example, Group\Subgroup, Group\Template).

destination

> The destination path (for example, Group\Subgroup).

variables

> The template variables (for example, var1=value|var2=value2).

connectToServer

By default, SiteScope attempts to verify the object you are attempting to monitor is running. Set to **false** to enable simulation mode with versions 10.11 and later. The valid values are **true** and **false**; the default is **true**.

Enable Monitor

The **Enable Monitor** operation enables or disables a monitor. Repeatedly enabling or disabling a monitor does not have any side effects (idempotent).

The operation produces a **Success** response if the monitor is successfully enabled or disabled. It produces a **Failure** response if the operation is unable to enable or disable the monitor; you can check **returnResult** for the reason for the failure.

Other results are:

returnResult

The result of the operation.

The inputs for the operation are:

hostname

The DNS name or IP address of the SiteScope host.

port

The port to connect to your SiteScope host on.

protocol

The protocol with which to connect to your SiteScope host. The valid values are **HTTP** and **HTTPS**. HTTPS is not configured by default during SiteScope installation.

username

The username for the SiteScope host.

password

The password for the SiteScope user.

monitorPath

The monitor path (for example, Monitors\WSMonitor).

enable

The valid values to enable the monitor (**yes**, **true**, and **1**) or the valid values to disable the monitor (**no**, **false**, and **0**).

disablePeriod

If disabling the monitor, the time period to disable it (in seconds). Use **0** or leave the input empty to disable the monitor indefinitely.

Enable Monitor Group

The **Enable Monitor** operation enables or disables a monitor group.

The operation produces a **Success** response if the monitor group is successfully enabled or disabled. It produces a **Failure** response if the operation is unable to enable or disable the monitor group; you can check **returnResult** for the reason for the failure.

Other results are:

returnResult

The result of the operation.

The inputs for the operation are:

hostname

The DNS name or IP address of the SiteScope host.

port

The port to connect to your SiteScope host on.

protocol

The protocol with which to connect to your SiteScope host. The valid values are **HTTP** and **HTTPS**. HTTPS is not configured by default during SiteScope installation.

username

The username for the SiteScope host.

password

The password for the SiteScope user.

monitorPath

The monitor group path (for example, Monitors\MonitorGroup).

enable

The valid values to enable the monitor group (**yes**, **true**, and **1**) or the valid values to disable the monitor group (**no**, **false**, and **0**).

disablePeriod

If disabling the monitor group, the time period to disable it (in seconds). Use **0** or leave the input empty to disable the monitor group indefinitely.

Redeploy Template

The **Redeploy Template** operation allows you to update the template variables of previously deployed SiteScope template. Currently, the deployed template must have valid template variable values before it can be updated. The SiteScope SOAP API will fail to update the template variables if they are already invalid. As a workaround, delete the deployed template with the **Delete Monitor Group** operation and deploy the template again.

Note: To use the **Redeploy Template** operation to update values of template variables, the parent group of the deployed template must not contain any objects except the deployed template monitor group.

The operation produces a **Success** response if it completes successfully. It produces a **Failure** response if the operation does not complete successfully.

Other results are:

returnResult

The result of the operation.

The inputs for the operation are:

hostname

The DNS name or IP address of the SiteScope host.

port

The port to connect to your SiteScope host on.

protocol

The protocol with which to connect to your SiteScope host. The valid values are **HTTP** and **HTTPS**. HTTPS is not configured by default during SiteScope installation.

username

The username for the SiteScope host.

password

The password for the SiteScope user.

source

The source path (for example, Group\Subgroup, Group\Template).

destination

The destination path (for example, Group\Subgroup). This should be the parent monitor group of the previously deployed template.

variables

The template variables (for example, var1=value|var2=value2).

Run Monitor

The **Run Monitor** operation runs a SiteScope monitor. Due to a validation bug in SiteScope 9.00, monitors that are run via the SOAP API must meet the following path criteria:

- They must be contained in a parent group with the same name as the monitor. For instance, a monitor named **CPU Monitor ServerName** must have a parent group named **CPU Monitor ServerName**.
- The parent group of the monitor must not be the SiteScope root; it must be in another group.

For example, a monitor named **pingMonitor** must be in a monitor group of the same name (**pingMonitor**). This monitor group must be in another monitor group (**aMonitorGroup):** **aMonitorGroup/pingMonitor/pingMonitor**). To successfully run this example monitor in SiteScope 9.0, specify the path to the parent group of the monitor (**aMonitorGroup/pingMonitor**).

The operation produces a **Success** response if it completes successfully. It produces a **Failure** response if the operation does not complete successfully.

Other results are:

returnResult

The result of the monitor run.

The inputs for the operation are:

hostname

The DNS name or IP address of the SiteScope host.

port

The port to connect to your SiteScope host on.

protocol

The protocol with which to connect to your SiteScope host. The valid values are **HTTP** and **HTTPS**. HTTPS is not configured by default during SiteScope installation.

username

> The username for the SiteScope host.

password

> The password for the SiteScope user.

monitorPath

> The monitor path (for example, Monitors\WSMonitor).

Troubleshooting

General troubleshooting procedures

SiteScope may have errors in its logs that indicate that it could not find a resource bundle. This does not adversely affect the functional operation and can be safely ignored. Any other error that occurs is numbered or listed as an unknown error. Please report any unknown errors not shown below to OO Support.

55713 "SiteScope has encountered a general exception while trying to run monitor named "…"

This error typically occurs when trying to run a monitor that does not meet the criteria listed in the **Run Monitor** operation description Please check that the monitor you are trying to run meets these criteria. This error can also occur if you entered an invalid SiteScope path.

"Unknown Error: Failed to Audit the new created entity: {0} in audit log exception."

This error can occur when you attempt to deploy or redeploy a template that fails to meet the criteria mentioned in the **Deploy Template** operation description.

Launching flows

You can interact with HP Operations Orchestration (OO) by using the REST-based services shown below:

- `https://ooserver:port/PAS/services/http/list`

  Retrieves a list of flows from OO.

- `https://ooserver:port/PAS/services/http/execute/<Library Path>`

  Used to execute a flow by name (waits for the flow to finish before returning).

- `https://ooserver:port/PAS/services/http/execute/<Flow UUID>`

  Used to execute a flow by UUID (waits for the flow to finish before returning).

- `https://ooserver:port/PAS/services/http/execute_async/<Library Path>`

  Used to execute a flow by name (returns immediately after the flow is launched).

- `https://ooserver:port/PAS/services/http/execute_async/<Flow UUID>`

    Used to execute a flow by UUID (returns immediately after the flow is launched).

You can launch flows from within SiteScope by hooking an alert action to run a server-side script (bat, vbs, or UNIX shell script). Then you can create a batch file that invokes RSFlowInvoke.exe or JRSFlowInvoke.jar to launch a flow in response to an alert. Because alerts do not necessarily need acknowledgements in SiteScope, it is acceptable for the alert to be remedied automatically. You can setup an alert using the **New Alert** wizard.

To force an update of monitors and/or acknowledge alerts, you can use the **Redeploy Template** operation to refresh monitors and reset the status of all alarms in the template.

Security

By default, SiteScope does not assign a password to the administrator user and does not have SSL enabled. You can assign an administrator password and enable SSL on the SiteScope admin console. The SOAP API in SiteScope 10.10 and earlier versions does not authenticate. SiteScope 10.11 and later will authenticate and require a valid SiteScope username and password for OO SiteScope operation inputs. If SSL is not enabled, the usernames and passwords will be transferred as clear text over the network.

Tools

Following are OO tools that you can use with SiteScope:

- RSFlowInvoke.exe and JRSFlowInvoke.jar

    RSFlowInvoke (RSFlowInvoke.exe or the Java version, JRSFlowInvoke.jar) is a command-line utility that substitutes for a Web-browser call in starting a flow. Substituting a command-line for a Web-browser call enables you to start a flow without using Central (although the Central service must be running). RSFlowInvoke (or JRSFlowInvoke) is useful when you want to start a flow from an external system, such as a monitoring application, that can use a command line to start a flow.

- Web Services Wizard

    The Web Services Wizard (wswizard.exe) creates OO operations based on the API in the Web Service Definition Language (WSDL) of the Web service that you identify in the wizard. Thus you can use the Web Services Wizard to create operations from your monitoring tool's API.

    When you run the Web Services Wizard, you provide it with the WSDL for a given Web service. The WSDL string you provide as a pointer can be a file's location and name or a URL.

These tools are available in the %ICONCLUDE_home\Studio\tools\ folder.