

HP Operations Orchestration

For Windows and Linux Operating Systems

Software Version: 10.00 (Content Packs)

Release Notes

Document Release Date: June 2013

Software Release Date: June 2013



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Introduction

This document provides an overview of the HP Operations Orchestration 10.00 Content Packs release. It contains important information that is not included in the manuals or in the online help.

What's New

HP Operations Orchestration 10.00 provides a rich set of out of the box operations and flows that enable you to author complex orchestration flows. With the new and improved architecture from Operations Orchestration 10.00, the out of the box Content is delivered as Content Packs.

A Content Pack (CP) is an atomic unit of distributing Content for HP Operations Orchestration. It contains Flows, Operations, Configuration Items and binaries and it can be created in Studio by an author, provided by HP or a third party. Each content pack can depend on other, and it is binary isolated from others. This is different than how it was in previous versions of HP Operations Orchestration.

The Content from previous OO versions (7.x, 9.x), which was both as source control management (SCM) tool and a unique Content Pack, is delivered in HP Operations Orchestration 10.00 in domain level Content Packs such as Base, Virtualization, Cloud etc.

The following Content Packs are delivered with HP Operations Orchestration 10.00:

Name	File Name	Description
Base	oo10-base-cp-1.0.x	Foundation Content for use in every automation scenario. Contains flows and operations for multiple integration technologies such as HTTP, Remote Command Execution, Email etc. All out-of-the-box content packs depend on the Base Content Pack.
Business Applications	oo10-business-applications-cp-1.0.x	Contains content that automates applications that serves business applications such as Microsoft Exchange integration.
Cloud	oo10-cloud-cp-1.0.x	Content that interacts with cloud providers. Contains content that interacts with cloud providers such as HP Cloud, Amazon EC2 or Openstack.
Databases	oo10-databases-cp-1.0.x	Flows and operations that are used in databases automation scenarios. Contains integrations such as Oracle, Microsoft SQL

Name	File Name	Description
HP Solutions	oo10-hp-solutions-cp-1.0.x	HP on HP integrations that can be used to integrate with multiple HP Products such as HP ArcSight, HP Network Automation, HP SiteScope, HP Universal Configuration Management Database
IT Operations	oo10-it-operations-cp-1.0.x	IT management systems Content such as Microsoft System Center Configuration Manager
Middleware	oo10-middleware-cp-1.0.x	Content for automating middleware, for example, application servers and web servers. Integrations such as Citrix XenApp, IBM WebSphere and Oracle WebLogic are located in this content pack.
Operating Systems	oo10-operating-systems-cp-1.0.x	Flows and operations to automate different Operating Systems such as Microsoft Windows, Red Hat or IBM AIX.
Virtualization	oo10-virtualization-cp-1.0.x	Platform Virtualization Content such as VMware vSphere, Citrix XenServer or Microsoft Hyper-V.
Third Party Libraries	oo10-thirdparty-cp-1.0.x	Template Content Pack to be used for deploying third party libraries that, due to legal considerations, are not delivered with the out-of-the-box content.

The following Content Packs contains solutions level flows that solve complex automation scenarios across domains:

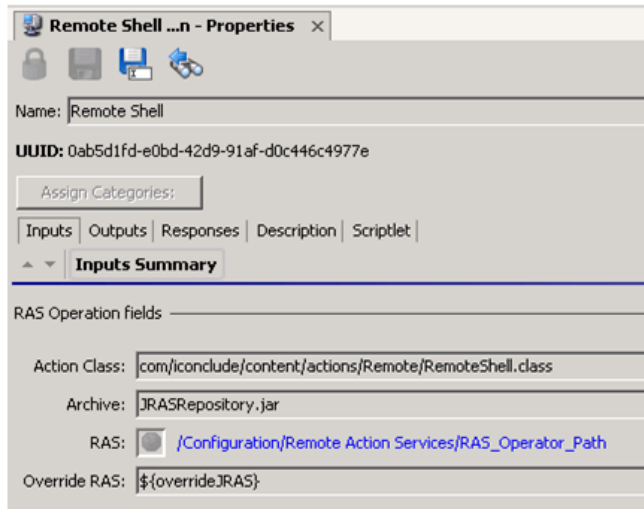
Cloud Orchestration	oo10-cloud-orchestration-cp-1.0.x	Use cases such as importing a VMware Virtual Machine to Amazon EC2.
Utility Orchestration	oo10-utility-orchestration-cp-1.0.x	Flows for orchestrating more complex scenarios than Base.
Infrastructure Orchestration	oo10-infrastructure-orchestration-cp-1.0.x	Provides infrastructure level orchestration use cases that are working across multiple Content Packs.

A number of legacy integrations from HP Operations Orchestration 9.x such as BMC (Atrium, Patrol, Remedy), Computer Associates or IBM (Netcool, Tivoli) are now delivered on the Community Contributed Content for Operations Orchestration.

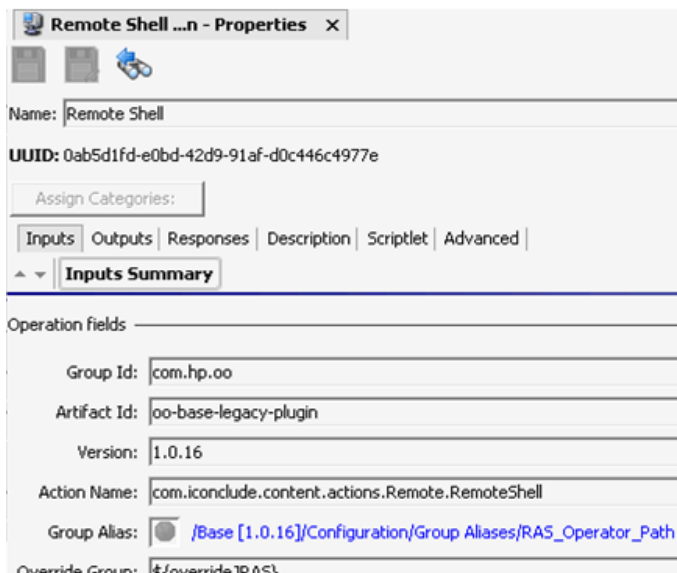
For detailed information about each Content Pack see the corresponding integration guide on HPLN HP Operations Orchestration Content version 10.00. Content from previous versions can be updated to OO 10.00. For more information about updating content, see the OO 10.00 Upgrade Guide.

In OO 10.0 the out-of-the-box Content artifact management is following Apache Maven style and best practices. Apache Maven is a software project management and comprehension tool. Based on the concept of a project object model (POM), Maven can manage a project's build, reporting and documentation from a central piece of information.

If, in previous versions of HP Operations Orchestration the RAS Operations fields of the operations were **Action Class** and **Archive fields**, in version 10.00 the **Operation** fields are **Group Id**, **Artifact Id**, **Version (GAV)** and **Action Name**. Following is an example of the Operation field's differences:



9.x :



10.x:

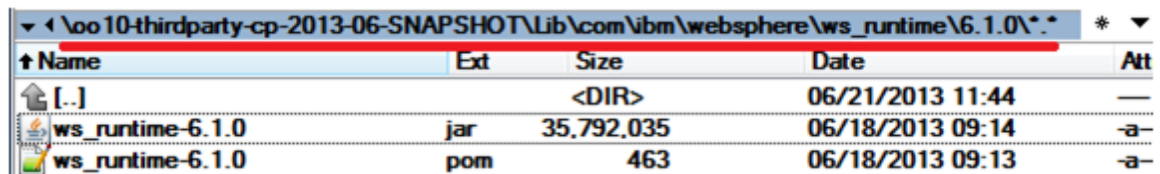
Third Party Content Packs

A template content pack was added in order to be used for libraries that will not be delivered with the out-of-the-box content due to legal considerations. It is called OO Third Party CP (oo10-thirdparty-cp-1.0.x) and serves for the following integrations:

- OO Midleware CP - Library\Operations\Application Servers\WebSphere
- OO Midleware CP - Library\Accelerator Packs\Application Servers\WebSphere
- OO Midleware CP - Library\Operations\Application Servers\BEA WebLogic
- OO Midleware CP - Library\Accelerator Packs\Application Servers\BEA WebLogic
- OO Businesss Applications CP - Library\Operations\Exchange
- OO Businesss Applications CP - Library\Accelerator Packs\Exchange

Initially this content pack is empty and should be populated with the needed libraries (if any) using the following procedure:

1. Extract the **oo10-thirdparty-cp-1.0.x.jar**.
2. Locate the **Third Party Dependencies Table** and get the GAV (Group ID, Artifact ID, version) information for the third party libraries you want to add. You can find the table on HPLN portal either under the OO Third Party Content Pack guide or the corresponding Content Pack guide.
3. Rename the third party library as specified in the table above.
4. Go to the location where you extracted the **oo10-thirdparty-cp-1.0.x.jar** and create the following folder structure: **Lib\<third-party-groupId>\<third-party-artifactId>\<third-party-version>**, for example, for **ws-runtime.jar** the folder structure is : **Lib\com\ibm\websphere\ws_runtime\6.1.0** where groupId=com.ibm.websphere; artifactId=ws_runtime and version=6.1.0
5. Copy the third-party library to the following location.



Name	Ext	Size	Date	Att
[..]	<DIR>		06/21/2013 11:44	—
ws_runtime-6.1.0	jar	35,792,035	06/18/2013 09:14	-a-
ws_runtime-6.1.0	pom	463	06/18/2013 09:13	-a-

6. Create a **.pom** file having the same name as the renamed third-party library, with the following structure :

```
<?xml version="1.0" encoding="UTF-8"?>
<project xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.
apache.org/xsd/maven-4.0.0.xsd" xmlns="http://maven.apache.org/POM/4.0.0" xm
lns:xsi="http://www.w3.org/2001/XMLSchema-instance">
<modelVersion>4.0.0</modelVersion>
<groupId>third-party-groupId</groupId>
<artifactId> third-party-artifactId</artifactId>
<version> third-party-version</version>
```

```
<!-- <packaging>dll</packaging> -->  
</project>
```

For example, for **ws-runtime.jar** the **.pom** file is named **ws_runtime-6.1.0.pom** and contains:

```
<?xml version="1.0" encoding="UTF-8"?>  
<project xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.  
apache.org/xsd/maven-4.0.0.xsd" xmlns="http://maven.apache.org/POM/4.0.0" xm  
lns:xsi="http://www.w3.org/2001/XMLSchema-instance">  
<modelVersion>4.0.0</modelVersion>  
<groupId>com.ibm.websphere</groupId>  
<artifactId>ws_runtime</artifactId>  
<version>6.1.0</version>  
</project>
```

7. If a **.dll** has to be added with the following line needs to be uncommented:

```
<!-- <packaging>dll</packaging> -->
```

8. Finally, repack the **oo10-thirdparty-cp-1.0.x.jar** and deploy it to Central or Studio.

Check HPLN for Updates

- Community Content Packs: <https://hpln.hp.com/node/44/contentfiles>

Latest Documentation

Download the following HP OO Content version 10.00 from the HPLN Operations Orchestration Content version 10.00:

- Release Notes
- Wizard Guides
- Integration HTML
- Localized documentation

Known Issues and Limitations

Known Issues

Base Content Pack

- **Get and Put operations:**

The **Library/Operations/Remote File Transfer/FTP/Get** and **Library/Operations/Remote File Transfer/FTP/Put** operations complete successfully even if given invalid values for the type input.

- **Divider operation:**

When you use the **Library/Utility Operations/Math and Comparison/Simple Evaluators/Divider** operation to divide 0.0 by 0.0, the operation fails with a `BigInteger divide by 0` message.

- **Base64 Decoder operation:**

The **Library/Utility Operations/Base64 Decoder** operation returns success if the data input value contains an invalid non-ASCII string and the value of the `characterSet` input is ASCII or shift-JIS. The operation should fail.

- **Ant Script flow:**

The **Library/Operations/Ant/Ant Script** flows' `timeout` input value is not taken into consideration when returning the results.

00 HP Solutions Content Pack

- **UpdateAssignedTo operation:**

The **Library/Integrations/Hewlett-Packard/Network Node Manager/9.0/Incidents/UpdateAssignedTo** operation fails with a `Cannot interrogate model` exception fault. The operation, should return success and change the `assignTo` value to the one specified as input value.

- **Trigger Deploying Topology To Realized Platform operation:**

The **Library/Integrations/Hewlett-Packard/Continuous Delivery Automation/Topology/Trigger Deploying Topology To Realized Platform** operation goes to success when given invalid values for the `deploymentName` and `deploymentSetId` inputs, but deployment fails with a `NullPointerException` on the CDA side.

- **Find Builds For Realized Topology** operation:

Instead of failing when given a bad value for the `realizedTopologyId` input, the **Library/Integrations/Hewlett-Packard/Continuous Delivery Automation/Topology/Find Builds For Realized Topology** operation goes to success, without returning any results.

- **iLO - Insert Virtual Media** operation fails for valid inputs:

In Studio the operation does not validate correctly the credentials. The message `username or password were incorrect for the iLO processor` appears.

- **HP Onboard Administrator Configure Trusted Host** response and disable action fails:

When you run the **Configure Trusted Host** flow, and you enable trusted host, the response fails even if the action was successful on OA. The disable action does not work properly for this flow.

00 Cloud Content Pack

- **vCloud** error messages:

The **vCloud 5.1.x** and **vCloud 1.5** servers return different error messages than the **vCloud 1.0** server.

- **OpenStack - Get images List** and **Get Image Detail List** fail for valid inputs:

/Library/Integrations/OpenStack/Compute/Images/Get Images List and **Get Image Detail List**, flows fail when are executed with valid inputs.

00 Virtualization Content Pack

- **XenServer- Revert to snapshot** fails for valid inputs:

The flow **Revert to snapshot** from the **Accelerator Packs\Virtualization** folder fails with invalid power state error because it currently retrieves the snapshots as virtual machines and attempts to run the start VM operation on the snapshot.

00 IT Operations Content Pack

- **System Center Orchestrator** authentication failure.

The operations from the **Library/Integrations/Microsoft/System Center Orchestrator** folder fail to run with a local user on a host included in a domain.

For all the built-in operations, the field inputs having an assigned value are transformed in operation inputs.

- VMware vCenter Orchestrator requires support for HTTPS certificate:

VMware vCenter Orchestrator operations support https protocol, however there is currently no way to import the certificates at input. If you use the HTTPS protocol, the operation fails with a message indicating that a valid certificate was not found.

- vCO operations fail for valid inputs in VMware vCenter Orchestrator operations from Manage Workflows fail with SAXException.

All operations from the Manage Workflows folder fail for valid inputs with the following error message:

```
nested exception is: org.xml.sax.SAXException: Invalid element in ch.dunes.vso
.webservice.WorkflowToken - businessState
```

Note: If **Launch Workflow** and **Execute Workflow**, are in the vCO client under workflows, the specified workflow from the inputs executes even though the operation fails in OO.

OO Business Applications Content Pack

- Microsoft Exchange 2010 Move Mailbox Fails for Valid Inputs:

When running the operation with valid inputs, and no previous existing move requests for a mailbox on the Microsoft Exchange Server, the operation fails with the message that it cannot find the user identity for the mailbox which has to be moved.

Changes in Behavior

Built-In Operations

The **Built-In** operations are the operations that in OO 9.x were created from Studio -> **Right Click** a folder name -> **New** -> **Operation**.

All built-in operations are now content pack operations and have been distributed to the relevant content packs.

For all the built-in operations, the field inputs having an assigned value are transformed in operation inputs..

Inputs of type credentials in OO 10.x have a different implementation from 9x. In 9.x the credentials type inputs can be passed as an object having a user name and a password. In 10.x identity input is split into **identityUsername** and **identityPassword**.

In Studio version 10.x, when you select **File>New>Operation**, you can create any operation from the installed content packs. This displays a list of Group Artifact Version (GAV) and is similar to the functionality of **create operations from RAS** in 9.x, which displayed a list of jars.

During the upgrade process, the existing instances of built-in operations were upgraded to operations as described in the following:

Command Line

The operation is found in the Base Content Pack. Group Artifact Version and Action Name: `com.hp.oo:oo-base-plugin:<version>:commandLineOp`

Content impacted by this change (not supported in OO 10.x and therefore excluded from Base Content Pack):

- Library/Utility Operations/Deprecated/Command Line Builder

Flow Run Summary Report

Group Artifact Version and Action Name: `com.hp.oo:oo-base-plugin:<version>:com.hp.oo.content.actions.newClass`

Due to the concept changes in 10.00 this built-in operation could not be migrated identically. However there is a replacement operation that you can use instead of the old **Flow Run Summary Report**.

For details see the OO HP Solutions Content Pack Guide. The new operation is located in the **oo10-hp-solutions-cp** content pack at the following path:

Library/Integrations/Hewlett-Packard/Operations Orchestration/10.x/Flow Run Summary Report

HTTP

The operation is located in the in the Base Content Pack under **Library/Utility Operations/Deprecated/http** folder, having the Group Artifact Version and Action Name as follows:`com.hp.oo:oo-base-plugin:<version>:httpOp`

Perl Script

The operation is found in the Base Content Pack at the following Path: **Library/Operations/Perl/**

Shell Operation

The operation is located in the Base Content Pack at the following path: **Library/Operations/Operating Systems/Linux/Red Hat/Deprecated/Process Operations/Get Process List.xml**.

Scriptlet

The operation is located in the Base Content Pack at **/Utility Operations/Flow Variable Manipulation/Do Nothing.xml**. The Action Name is **noOp**.

Telnet

This is located in the Base Content Pack under **Library/Operations/Remote Command Execution/Telnet/Telnet Command.xml** and has the Action Name: **telnetOp**.

Date and Time Format

The 0:0:0 is not a valid hour format in HP OO version 10.00. For example, the date Jun 28, 2013 0:0:0 AM is not valid as it does not conform to the format: "MMM d, yyyy h:mm:ss a" where h is for hour in am/pm (1-12).

Workaround: 12 instead of 0, for example: "Jun 28, 2013 12:00:00 AM"

RAS Operations

The RAS Operations fields on the **Inputs** tab of an operation has changed to **Operation** fields. In 10.x each operation points to a specific Group Id, Artifact Id, Version and Action Name.

9.x

The screenshot shows the configuration for the 'Retrieve ArcSight Information' operation in version 9.x. The 'Inputs' tab is selected, and the 'Inputs Summary' section is expanded. The 'RAS Operation fields' section contains the following information:

Name:	Retrieve ArcSight Information			
UUID:	01b0715c-ecbd-4ae1-a967-67a394f3ec2c			
Assign Categories:				
Inputs	Outputs	Responses	Description	Scriptlet
^ v Inputs Summary				
RAS Operation fields				
Action Class:	com/hp/oo/content/actions/hparcsight/operations/ExecuteArcSightOperation.class			
Archive:	HPArcSight.jar			
RAS:	/Configuration/Remote Action Services/RAS_Operator_Path			
Override RAS:	\${overrideJRAS}			

10.x

The screenshot shows the configuration for the 'Retrieve ArcSight Information' operation in version 10.x. The 'Inputs' tab is selected, and the 'Inputs Summary' section is expanded. The 'Operation fields' section contains the following information:

Name:	Retrieve ArcSight Information				
UUID:	01b0715c-ecbd-4ae1-a967-67a394f3ec2c				
Assign Categories:					
Inputs	Outputs	Responses	Description	Scriptlet	Advanced
^ v Inputs Summary					
Operation fields					
Group Id:	com.hp.oo				
Artifact Id:	oo-arcsight-legacy-plugin				
Version:	2013-06-SNAPSHOT				
Action Name:	com.hp.oo.content.actions.hparcsight.operations.ExecuteArcSightOperation				
Group Alias:	/Base [2013-06-SNAPSHOT]/Configuration/Group Aliases/RAS_Operator_Path				
Override Group:	\${overrideJRAS}				

Remote Command, Ping and Traceroute Operations Do Not Support WMI

Remote Command, Ping and Traceroute operations do not support WMI and are updated to flows.

The following operations do not support the **Windows Management Instrumentation (WMI)** protocol:

- Library/Operations/Remote Command Execution/Remote Command
- Library/Operations/Network/Ping
- Library/Operations/Network/Traceroute

As a workaround, use the **Remote Command Execution** flow instead of the **Remote Command** operation. Both are placed in the same folder. During content upgrade, all flows using the **Remote Command** operation were updated to use the **Remote Command Execution** flow.

During content upgrade, all flows using the **Ping/Traceroute** operations are updated to use the correspondent flows.

The Identity Input

In OO 10.00, storing system accounts values into a variable is not supported, a number of deprecated flows and operations from under **Library/Operations/Operating Systems** folder are affected by this change.

Legacy Plugins

Legacy plugins are the OO 9.x operations that run on Studio or Central without any connection to the RAS. During upgrade, the legacy plugins changed.

The following content was not changed during upgrade and is no longer supported in OO 10.00:

- Library/Utility Operations/Deprecated/XML Attribute Filter

Multi-instance Steps

Multi-instance steps are changed: OO 9.x flows using the OO 9.x way of working with multi instances are no longer supported in OO 10.00.

- **Library/How Do I flows/How do I:** Use a multi-instance step from **Library/Operations/Remote File Transfer/SFTP/Samples/SFTP Get Directory Multi Thread**.

Sleep Script

The Sleep scriptlet is not supported in OO 10.00. Only Rhino scriptlet is supported.

A number of operation scriptlets were reimplemented to use Rhino script:

Library/Operations/Operating Systems/Windows/Remote Execution Command

Library/Operations/Operating Systems/Windows/Trace Route

Library/Operations/Operating Systems/Windows/Ping

Library/Utility Operations/Flow Variable Manipulation/Clear Flow Variable

Library/Utility Operations/Flow Variable Manipulation/Clear Global Flow Variable

Library/Utility Operations/Flow Variable Manipulation/Set Flow Variable

Variable Initialization

In OO 10.00, if a `varName` variable has an empty value, the variable's value is replaced with "".

In OO 9.x, when being accessed through `${varName}`, the value is replaced with the "`${varName}`" string.

Due to this change, the following operations have a different behaviour in OO 10.00:

- Library/Utility Operations/Flow Variable Manipulation/Flow Variable Resolver
- Library/Utility Operations/Samples/Resolve Context Values to String

Configuration Dependent

The db pooling mechanism used by the operations in the **Library/Databases/JDBC** behaves differently than in 9.x.

- In 9.x: The database pooling mechanism uses the file:
`\RAS\Java\Default\webapp\conf\databasePooling.properties`.
- In 10.x: A new input was added, **databasePoolingProperties**, that allows the user to specify the database pooling properties.

There are operations and flows that have an input (`privateKeyFile` or `keyFile`) which depends on the `ICONCLUDE_HOME` system variable. The `privateKeyFile` / `keyFile` input can only be used with absolute path. All the flows and operations from the **Operations** folder, using the `privateKeyFile` input, are impacted.

