HP Operations Orchestration Software

Software Version: 7.51

Release Notes

Document Release Date: August 2009 Software Release Date: August 2009



Legal Notices

Warranty

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

The information contained herein is subject to change without notice.

Restricted Rights Legend

Confidential computer software. Valid license from HP required for possession, use or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

Copyright Notices

© Copyright 2009 Hewlett-Packard Development Company, L.P.

Trademark Notices

All marks mentioned in this document are the property of their respective owners.

Finding or updating documentation on the Web

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.

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://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.

Table of Contents

Warranty	ii
Restricted Rights Legend	ii
Trademark Notices	ii
Finding or updating documentation on the Web	iii
Where to find Help, tutorials, and more	iii
Support	iv
What's new	1
Known issues	4
Known bug fixes	13

What's new

OO 7.51 upgrades the 7.50 repository while retaining its history

In previous OO upgrades, to upgrade the repository you installed the new OO version and then imported the previous version of the repository. In OO versions 7.50 and 7.50.02, this caused the repository's history to be lost, since the processes of exporting or importing a repository did not carry its history with it.

In OO version 7.51, the previous repository is now upgraded for you:

- On a Windows system, if the previous repository was located within the OO home folder structure, the upgrade copies it and places it in the new installation at the same relative location.
 If the previous repository was located outside the OO home folder structure (for example, in C:\temp\repo\), it is not copied, but is upgraded in its current location.
- On a Linux system, in the **config** file, use the following settings to specify whether the previous repository should be copied or updated in place.

```
COPY_PREVIOUS_REPO="<true|false>"
```

If you specify true, then the content repository is copied from the previous location to the new location specified below.

```
COPY_PREVIOUS_REPO_TO_FOLDER="\${iconclude.home}/Central/rcrepo"
```

If you specify false, the Central instance being installed uses the previous location for the repository. The previous installation cannot use the repository because it will be upgraded.

OO Central database run history pruning scripts

Central databases store run histories for every flow run. It is a best practice for OO Central administrators and database administrators who manage the data stored by Central MSSQL, Oracle, or MySQL databases to periodically assess the data stored in those databases and purge old and unneeded run histories.

OO 7.51 provides a set of scripts and documentation for each type of Central database—MSSQL, MySQL, and Oracle. These are packaged in the following three .zip files:

- MSSQL_Run_History_Purge.zip
- Oracle_Run_History_Purge.zip
- MySQL_Run_History_Purge.zip

You can download these files along with the *Readme for Purging OO Run Histories* document from the following site: http://www.hp.com/go/bsaessentialsnetwork.

New Central Current Runs tab

Flow run administration tasks, which you carried out from the **Administration** tab in previous versions of OO, are now performed on a new tab named **Current Runs**.

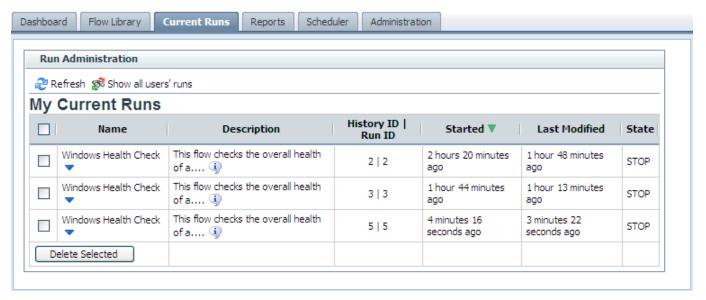


Figure 1 - Run Administration tab

On this tab you can:

- View current runs
- Delete runs
- Reassign runs
- Resume runs
- Inspect run histories

New Administration tab Account subtab

The **Administration** tab now has a new **Account** subtab.

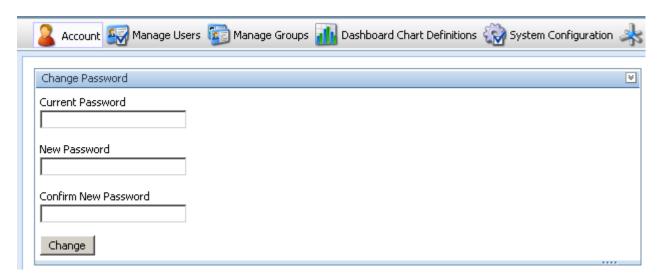


Figure 2 - Account subtab

On this tab you can:

- Change your OO Central password.
- View your group memberships.

New HP Operations Manager Severity selection list

The operations in the Library/Integrations/Hewlett-Packard/Operations Manager/ folder that have a **severity** input require one of a small set of values—**Critical**, **Major**, **Minor**, **Warning**, and **Normal**. These values have been placed in a new selection list named **HP Operations Manager Severity**, located in Library/Configuration/Selection Lists/ folder in Studio.

The affected HP Operations Manager operations are:

- Library/Integrations/Hewlett-Packard/Operations Manager/Create Incident
- Library/Integrations/Hewlett-Packard/Operations Manager/Update Incident
- Library/Integrations/Hewlett-Packard/Operations Manager/Enumerate Incidents

For these operations, the **severity** input value allows you to choose the value from the **HP Operations Manager** selection list.

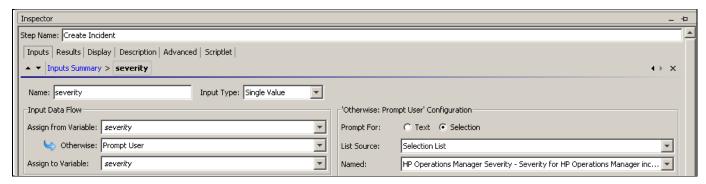


Figure 3 - Create Incident operation severity input

New documents

The following new documents support the Central database pruning feature (see *OO Central database run history pruning scripts* for more information):

- Purging OO Run Histories from MSSQL Databases
- Purging OO Run Histories from MySQL Databases
- Purging OO Run Histories from Oracle Databases
- Readme for Purging OO Run Histories

Now supported

- Microsoft Windows 2008 Server, (Standard, Enterprise, or Datacenter edition) SP 2, 32-bit or 64bit
- Microsoft SQL Server 2008

Known issues

Installation or upgrade issues

Bug 95152: Central upgrade is not complete until the repository is finished upgrading

Upgrading the repository takes a significant amount of time and continues after the Central installation program has otherwise completed the upgrade of Central. You cannot start Central until the upgrade of the repository has completed. You can monitor the progress of the repository upgrade in the Central_wrapper.log file, using a tool that displays Central_wrapper.log as it runs.

Or you can discover whether the repository upgrade has completed by attempting to start Central. You will not be able to start Central until the repository upgrade is complete.

Bug 96625: Central does not start after upgrading to OO 7.51 from a previous version of OO that had additional authentication providers

If you upgrade to OO 7.51 from a previous version of OO that had additional authentication providers (Microsoft AD, LDAP, or Kerberos), Central does not start, and returns an HTTP 503 error. The properties used by the additional authentication providers are not migrated to OO 7.51.

To avoid this problem:

- 1. In the %OO_home%/Central/conf/ folder, open Central.properties with a text editor.
- 2. Locate the additional authentication providers' properties. They should be toward the end of the file, commented out.
- 3. Uncomment these properties and save the file.
- 4. Restart Central.

Central, Studio, and the HP OO Library—Accelerator packs, integrations, operations, and utility operations

Bug 84927: Non-English input numbers in Scheduler are not accepted

The OO 7.51 Scheduler does not accept non-English numbers as input. To avoid this problem, pick the numbers from the Scheduler combo boxes or switch your browser input to English. This does not apply to the other Scheduler inputs.

Bug 88270: HP-UX Information Gathering flows reach Success response when invalid credentials are used as input

The following flows complete with a **Success** response when invalid credentials (username and password) are used as input.

In the Library/Accelerator Packs/Operating Systems/HP-UX/Information Gathering/ folder:

CPU Metrics

- Display File Systems and How Full
- Display Last Boot Time
- Display OS Info
- Network Metrics
- Recent Reboot

In the Library/Accelerator Packs/Operating Systems/HP-UX/Utility/ folder:

- Check For Vital Processes
- Check Load Average
- Check Process by PID
- · Get PID from Process Name

Note: If **ssh** is chosen for the **protocol** input, flow execution reaches a **Failure** response as expected.

HP-UX truncates passwords after eight characters when authenticating using Telnet. This means that if a user password is "password5", the passwords "password", "passwordpassword ", and "passwordbad" are all accepted. This is due to how HP-UX works.

Bug 89533: Windows Remote Command Execution operation cannot execute a batch file without referencing the call command in the Command input

In the **Remote Command Execution** operation, located in the Library/Operations/Operating Systems/Windows Management/ folder, if you enter a batch file name in the **Command** input ("batchfilename.bat") the operation fails. To execute a batch file using the **Remote Command Execution** operation, enter "call batchfilename.bat" in the **Command** input.

Bug 89695: Storage Automation accelerator pack issues

The following are known limitations with the **Storage Automation** accelerator pack:

1. End-to-end host storage provisioning fails on the Windows platform. The affected flow is **Create Logical Volume on Windows Host** which is located in the Library/Accelerator Packs/ Storage Automation/Provisioning/Windows/ folder.

To fix this problem:

- a. Check out the Create Logical Volume on Windows Host flow.
- b. Open the **Disk Partition Run Script** step.
- c. On the Inputs tab, open the command input.
- d. In the **Constant Value** text box, replace the text in the box with the following text:

```
for /F "skip=20 tokens=4" %%I IN ('%SystemRoot%\system32\diskpart /s script.scr') DO ( echo Y|format %%I: /FS:NTFS /Q )
```

- e. Save the flow and check it in.
- 2. End-to-end Oracle storage provisioning for Windows always provisions storage from the attached storage array. The affected flow is **Create Extended Logical Drive on Host** located in the Library/Accelerator Packs/ Storage Automation/ Provisioning/ Windows/ folder.

The flow ignores any unused disk storage already available on the host.

To fix this problem:

- a. Check out the Create Extended Logical Drive on Host flow.
- b. Open the Create Script to Get Disks with Free Partition step.

- c. On the **Inputs** tab, open the command input.
- d. In the Constant Value text box, replace the text in the box with the following text:

```
echo @echo off>getfd.bat&&echo @set dd=>>getfd.bat&&echo set inuse=no>>getfd.bat&&echo for /F "skip=7 tokens=2,4,5,6,7" %%%%I IN ('diskpart /s script.scr') DO (IF %%%%J EQU %%%%L call :setdrives %%%%I %%%%K %%%%K %%%%L %%%M)>>getfd.bat&&echo echo freedisks=%%dd%%>>getfd.bat&&echo @set errorlevel=0 1>>getfd.bat&&echo GOTO end:>>getfd.bat&&echo
:setdrives>>getfd.bat&&echo set inuse=no>>getfd.bat&&echo for /F "skip=1 tokens=1,2,4,6" %%%%I IN ('wmic diskdrive list SCSI') DO (IF %%%%J EQU %%1 call :setdrives1 %%%%I %%%%% %%%%L)>>getfd.bat&&echo IF %%inuse%%==no set dd=%%dd%%/%%1,%%2,%%3,%%4,%%5>>getfd.bat&&echo :setdrives1>>getfd.bat&&echo for /F "skip=1 tokens=1,2,4,6" %%%%I IN ('wmic diskdrive list SCSI') DO (IF %%%%K EQU %%3 IF %%%%L EQU %%4 call :setdrives2 %%%%J)>>getfd.bat&&echo :setdrives2>>getfd.bat&&echo for /F "skip=8 tokens=2,4,5,6,7" %%%%I IN ('diskpart /s script.scr') DO (IF %%%%I EQU %%1 IF %%%%L EQU 0 set inuse=yes)>>getfd.bat&&echo :end>>getfd.bat&&echo exit 0>>getfd.bat
```

- e. Open the Run Script to Get Disks step.
- f. On the Inputs tab, open the command input.
- g. In the Constant Value text box, replace the text in the box with the following text: call getfd.bat
- h. Save the flow and check it in.
- 3. The **Refresh SE On UCMDB** flow, located in Library/Accelerator Packs/ Storage Automation/Utility/ folder, fails with the following exception:

```
FailureMessage=AxisFault
  faultCode:
{http://schemas.xmlsoap.org/soap/envelope/}Server.userException
  faultSubcode:
  faultString: java.rmi.RemoteException: execute failed for
  storageautomation.jar:com/hp/storage/SE/automation/general/IActionRefreshSEOnUcmdb
.class; nested exception is:
    java.lang.RuntimeException: error instantiating action class:
  storageautomation.jar/com/hp/storage/SE/automation/general/IActionRefreshSEOnUcmdb
.class, reason: java.lang.ExceptionInInitializerError
...
```

To fix this problem:

- a. Close Studio.
- b. Stop the RAS service
- c. Delete the following files in the % OO_Home%/RAS/RAS-7.50/RAS/Java/Default/repository/lib/storageautomation/ folder:

```
jbossall-client.jar
commons-logging.jar
```

d. Copy the following jboss client jars from jboss version 4.0.1 SP1 to the %OO_Home%/RAS/RAS-7.50/RAS/Java/Default/repository/lib/storageautomation/ folder::

```
jboss-client.jar
jboss-common-client.jar
jbossjmx-ant.jar
```

You can download the jars from http://www.jboss.org.

e. Start the RAS service.

Note: If the above workaround is applied, you must manually delete the copied files after you uninstall.

4. The Provision Storage to Host - Create Change Ticket and Provision Storage to Host - Update and Approve Change Ticket and Execute flows, located in the Library/ Accelerator Packs/ Storage Automation/ Provisioning/ Storage Provisioning/ folder, fail with the following exceptions:

```
status=ERROR: Failed to parse provisioning XML
String;exception=com.hp.seoo.common.SEOOException: Failed to parse provisioning
XML String
    at
com.hp.seoo.general.XMLParsing.parseProvisioningXMLString(XMLParsing.java:214)
    at
com.hp.storage.SE.automation.general.IActionParseProvisioningDetailsFromXML.execut
eOps(IActionParseProvisioningDetailsFromXML.java:35)
    at
com.hp.storage.SE.automation.general.IActionSEConnection.execute(IActionSEConnection.java:67)
    at
com.iconclude.webservices.ras.classLoadedIaction.execute(JavaExtensionService.java:554)
    at
com.iconclude.webservices.ras.JavaExtensionService.executeFromThisDelegator(JavaExtensionService.java:233)
...
```

To correct these problems, you need to add filters for certain step results.

For the Provision Storage to Host - Create Change Ticket flow, follow these steps:

- a. Check out the Provision Storage to Host Create Change Ticket flow.
- b. Open the Convert Provisioning Details to XML step.
- c. Click the Results tab.
- d. Open the **provisioningXMLString** result.
- e. In the filter properties window, add the **Replace** filter with the following inputs:

```
Find: <?xml version="1.0" encoding="UTF-8"?>
Replace: All
With: <?xml version="1.0" encoding="UTF-8" standalone="no"?>
```

f. Save the flow and check it in.

For the Provision Storage to Host - Update and Approve Change Ticket and Execute flow:

- a. Check out the **Provision Storage to Host Update** and **Approve Change Ticket and Execute** flow.
- b. Open the **ModifyProvisiongXML** step.
- c. Click the Results tab.
- d. Open the **provisioningXML** result.
- e. In the filter properties window, add the **Replace** filter with the following inputs:

```
Find: <?xml version="1.0" encoding="UTF-8"?>
Replace: All
With: <?xml version="1.0" encoding="UTF-8" standalone="no"?>
```

- f. Save the flow and check it in.
- 5. End-to-end provisioning workflows for Windows and HPUX hosts currently work only with Secure Path software.
- 6. REST execution of the **End-to-End VMware Storage Provisioning** flow, located in the Library/Accelerator Packs/ Storage Automation/ Provisioning/VMWare/ folder, prompts for input.

To fix this problem, follow these steps:

- a. Check out the End-to-End VMware Storage Provisioning flow.
- b. On the Inputs tab, add a flow input named vmName with the following values:

Input Type: Single ValueOtherwise: Use Constant

Constant value: < leave blank>

c. Save and check-in the flow.

Bug 89716: Red Hat Start Service flows reach Success response but fail internally for Telnet protocol

When executed using the Telnet protocol, the following flows reach the **Success** response but fail internally when the services they are trying to start are already running:

- Library/Accelerator Packs/Operating Systems/Red Hat/State change/Run Service with Notification
- Library/Accelerator Packs/Operating Systems/Red Hat/State change/Run Service

Because the service is already running, the flow should go to the **Failure** response at the **Run Service** step. Instead, the flow goes to the **Success** response at the **Run Service** step but fails internally, giving the following error report:

```
{returnCode=0;stdErr=;returnResult=Starting crond: cannot start crond: crond is already running. [60G[ [0;31mFAILED [0;39m] ;Result=Starting crond: cannot start crond: crond is already running. [60G[ [0;31mFAILED [0;39m] ;sessionId=iconclude2432099503651565201;stdOut=Starting crond: cannot start crond: crond is already running. [60G[ [0;31mFAILED [0;39m];}
```

Bug 90436: NAS Connect API support for the Remote Command operation allows successful execution even with invalid inputs

The **Remote Command** operation, located in the Library/Operations/Remote Command Execution/folder, executes successfully with valid inputs, but also executes successfully with invalid inputs.

Bug 91691: SSH Shell operation does not return Japanese characters properly

When the **SSH Shell** command, located in the Library/Operations/Remote Command Execution/SSH/ folder, is run on a Japanese computer the results contain incorrect characters.

Bug 92138: When you execute a handoff during a flow, the handoff email is not sent if you have not configured a default mail client

If you start a flow then execute a handoff (by clicking **Options** in the **Run Status** area and then clicking **Hand off**), but have not installed and configured a default mail client, you receive the following message:

Could not perform this operation because the default mail client is not properly installed

Bug 92647: Flows created with the HP Service Manager Update Problem operation fail with valid inputs

If you create a flow that uses the **Update Problem** operation, which is located in the Library/Integrations/Hewlett-Packard/Service Manager/Problem Management/ folder, it fails even if the inputs are valid.

Bug 92722: UCMDB Get Topology Map by Query Name with Parameter executes successfully even with invalid input

The filtering capability of the UCMDB operation **Get Topology Map by Query Name with Parameter**, located in the Library/Integrations/Hewlett-Packard/Universal CMDB/ folder, does not work properly for UCMDB 7.0 and UCMDB 8.0. It cannot filter the query result based on the filters set by the user in the **parameterName** input and the query parameters set by the property inputs. The operation returns a result based only on the **queryName** input.

Bug 92912: Run Status message is displayed as NEW even after flow execution

When you execute a flow to completion from Central, the **Run Status** is displayed as **NEW**. It should be displayed as **Finished**.

Run Status:NEW Current Step: Get Stopped Services





Figure 4 - Run Status message displayed as NEW after run has finished

Bug 92914: Searching for special characters in Studio gives Parse Exception message

If you enter a series of special characters such as "\$\%\\$\%^\angle" in the text box of the Studio **Search** pane, you receive a Parse Exception message such as the one shown below.

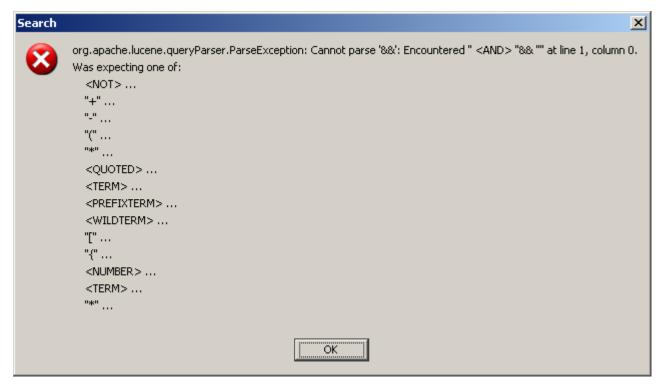


Figure 5 - Parse Exception message

Bug 93729: Search does not detect objects whose names contain underscores (_) unless you enter their entire name

To search for an object name that contains an underscore in Studio or Central, you must enter the entire name in the **Search** pane (in Studio) or the **Search Flow** pane (in Central).

For example, if you create an operation named **arun_test** and another operation named **arun test**, and you search for **arun**, it only returns the operation **arun test**. The search does not find the operation that contains the underscore (**arun_test**).

To have Search locate both operations, you must search for them separately as **arun_test** and then as **arun test** or just **arun**.

Note: This also applies to objects that contain other special characters such as "." (period), ":" (colon), "-" (hyphen), "(" (left parenthesis), ")" (right parenthesis), "{" (left curly bracket), "}" (right bracket), "[" (left bracket), and "]" (right bracket).

Bug 94023: Flows created using the Delete Custom Attribute operation execute successfully with invalid caName input value

If you run a flow that uses the **Delete Custom Attribute** operation, located in the Library/Integrations/Hewlett-Packard/Operations Manager/ folder, the flow executes successfully even if the value assigned to the **caName** input is invalid.

This happens because the HP Operations Manager API does not consider an invalid value in the **caName** input to be an error, as a result neither does the **Delete Custom Attribute** operation.

Bug 94056: NAS Connect API support for Remote Command

The **Remote Command** operation, located in the Library/Operations/Remote Command Execution/folder, executes successfully with valid inputs, but also executes successfully with invalid inputs. Support for the NAS Connect API has been added for the **Remote Command** operation as follows:

- The **Protocols** selection list available now includes the **NASConnectTelnet** value for use with the **protocol** input in the **Remote Command** operation.
- The Remote Command operation now includes the nasDevice input, which allows you to specify the NAS device on which to run the command when using the NASConnectTelnet protocol.

Bug 94309: Flows created using the Service Manager integration Get Change operation fail when the ID of the change ticket has a blank description

Change tickets with blank descriptions cause the **Get Change** operation, located in the Library/Integrations/Hewlett-Packard/Service Manager/Change Management/ folder, to fail with a Null Pointer Exception when the **id** input has the value of a change ticket with a blank description. The operation result successfully retrieves partial ticket information, but the operation still fails. This bug affects HP Service Manager 7.0 and 7.01.

Bug 94349: Schedules fail to execute if the scheduling account name contains the special character ":" (colon)

The colon (:) is a special character used by HTTP headers as a separator. For example, a username and password in an HTTP header must be separated by a colon. So if a username is "test:user" and the password is "password", the HTTP header uses "test:user:password" for user authentication and the schedule fails. The same is true with other authentication methods such as SSO.

The OO 7.51 Scheduler fails if the scheduling account name includes ":". To avoid this problem, do not use the colon character in OO usernames.

Bug 94429: An exception occurs when you log on to Central with a username that contains the special character "=" (equal to) or ";" (semi-colon)

Logging on to Central fails with an exception if the username contains the special character "=" (equal to) or ";" (semi-colon). To avoid this problem, do not use the "=" or ";"character in OO usernames.

Bug 94431: If you install OO Central with a password that contains a space, you cannot log on to Central

Logging on to Central fails with the error message Login failed if the password contains the special character space. To avoid this problem, do not use the space character in OO passwords.

Bug 94803: Math operations in the German localization fail to give exact value for numbers greater than 18 digits

In the German localization, if an input value of one of the math operations, which are located in the Library/Utility Operations/Math and Comparison/Simple Evaluators/ folder, is an integer greater than 18 digits the calculation looses precision. This also occurs for double numbers that have an integer part greater than 13 digits and a fraction part with more than three digits.

Bug 94805: Math and comparison operations fail to treat a string as a string if it has more than 17 characters, starts with numbers, and ends with text characters

If you use a string greater than 17 characters that starts with numbers and ends with text characters in any of the math and comparison operations, which are located in the Library/Utility Operations/Math and Comparison/ folder, the operation may produce incorrect results.

For example, if you enter the input value "1234567890111111111abc", you would expect it to be treated as a string, but the operation truncates the string to "123456789011111111". If you compare the value "1234567890111111111abc" with "1234567890111111111cdd", the result will be incorrect.

Bug 95031: The My Changes/Checkouts pane does not get refreshed when you check-in an object using the Check-In operation

If you create a flow in Studio using the **Check-In** operation, located in the Library/Integrations/Hewlett-Packard/Operations Orchestration/Repository/ folder, the flow and the folder in which it is located are displayed in the **My Changes/Checkouts** pane because they are checked out.

If you debug the flow using the **Debug Flow in Central** button () and it runs to a successful conclusion, this should check in the flow and folder and automatically refresh the **My Changes/Checkouts** pane. The actual result is that the **My Changes/Checkouts** pane is not refreshed automatically and that the flow and folder are still displayed even though they are actually checked in.

Bug 95448: An exception occurs when you use Repoutil.exe to publish or update to a default public repository after switching repositories in Studio

When you use Repoutil.exe to publish or update from a local repository to the default public repository, an exception occurs even if Studio is not connected to the local repository.

If you log on to Studio in the default public repository and use the Repoutil.exe utility to publish or update from a local repository, the process works successfully, and you receive the following message:

There were no differences between source and target.

If you then switch to the default local repository in Studio, then switch back to the default public repository and repeat the Repoutil.exe command, you get the message Exception while performing action. This message tells you that another process has the public repository locked.

This exception occurs even if you switch to any other nondefault local or remote repository after running the Repoutil.exe command the first time.

Note: After you switch back to the default public repository, Studio is no longer connected to the default local repository. This means that Studio does not have a lock on the default local repository.

Bug 96051: The UCMDB operation Get Filtered Object List by Type executes successfully with an invalid logicalOperator input value

The **Get Filtered Object List by Type** operation, located in the Library/Integrations/Hewlett-Packard/Universal CMDB/ folder, reaches a **Success** response even if the **logicalOperator** input value is invalid (the valid values are **AND** and **OR**). If the **logicalOperator** input value is invalid, the value defaults to **OR**.

Known bug fixes

Bug 85265: In OO 7.50, VMWare Virtual Infrastructure Configuration operations with a VM identified by IP, UUID, or hostname fail with a Datacenter not found error

A new input named **vmDatacenter** has been added to the following flows located in the Library/Integrations/VMWare/VMWare Virtual Infrastructure/Configuration/ folder:

- Add NIC to VM
- Configure NIC on VM
- Remove NIC from VM

In any of these operations, if you identify a VM by IP address, UUID, or hostname, you must specify in the **vmDatacenter** input the datacenter in which to look for the VM.

Bug 88485: HP-UX State Change flows fail when specifying nfs.client service

In OO 7.50, the following flows located in the Library/Accelerator Packs/Operating Systems/HP-UX/State Change/ folder failed when you specified the nfs.client service:

- Start Service
- Start Service with Notification

This occurred because the process name for the nfs.client service is nfs4cbd, and the subflow **Check Processes By Command Line** in these flows uses nfs.client as its argument to command input. This causes the **Start Service** and **Start Service with Notification** flows to fail. This has been fixed in OO 7.51.

Bug 88683: Red Hat Delete File flow reaches Success with invalid path input when using Telnet protocol

In OO 7.50, when using the Telnet protocol the **Delete File** flow, located in the Library/Operations/Operating Systems/Linux/Red Hat/Disk and File Operations/ folder, reached the **Success** response when an invalid file name was entered in the **path** input.

Because the file name was invalid, the flow should have gone to the **Failure** response. Instead, the flow went to the **Success** response but failed internally, giving an error report like this one:

```
'{returnCode=0;stdErr=;returnResult=rm: cannot lstat `/root/b.txt': No such file or directory ;Result=rm: cannot lstat `/root/b.txt': No such file or directory ;sessionId=iconclude-5959874682577630572;stdOut=rm: cannot lstat `/root/b.txt': No such file or directory;}'
```

This has been fixed in OO 7.51.

Bug 88768: Red Hat Kill Process with Retry and Check Process by PID flows reach Success with invalid PID (process to kill) input but fail internally

In OO 7.50, the **Kill Process with Retry** and **Check Process by PID** flows, located in the Library/Accelerator Packs/Operating Systems/Red Hat/Utility/ folder, reached the **Success** response when the **PID** input value was invalid but failed internally with an error message like the following:

```
"{returnCode=0;stdErr=;returnResult=-bash: kill: (234567) - No such process;Result=-bash: kill: (234567) - No such process;sessionId=iconclude1624793938258725529;stdOut=-bash: kill: (234567) - No such process;}"
```

In OO 7.51, the **Kill Process with Retry** and **Check Process by PID** flows have been modified to fix this problem.

Bug 88846: Control characters are not supported when using local protocol

Using the local protocol can cause a command containing control characters ("&&" or "|") to fail.

The Unix Accelerator Pack commands in the following folders allow users to select **local** as the protocol, but do not actually support being run locally:

- Library/Accelerator Packs/Operating Systems/Red-Hat/
- Library/Accelerator Packs/Operating Systems/Solaris/
- Library/Accelerator Packs/Operating Systems/SUSE Linux/

The **Remote Command** operation in the Library/Operations/Remote Command Execution/ folder does not support the control characters "&&" or "||" when run against a local protocol. This is fixed in OO 7.51.

Bug 89173: The PowerShell flow Get Event Log reaches Success response but fails internally

The **Get Event Log** flow, located in the Library/Accelerator Packs/Operating Systems/Windows/PowerShell/Events/ folder, reaches the **Success** response but returns a blank result. The output of the flow looks like the following:

```
{returnCode=0;returnResult=;Result=0;sessionId=fc997b5c-b9f2-4a42-beb5-dd175ec75ba9;}
```

The flow returns a blank result if the **source** input is left static and not given a valid value.

This has been fixed in OO 7.51 by changing the **source** input to a user prompt.

Bug 89183: The DIG operation fails when the class or type input is assigned null value

The **DIG** operation, located in the Library/Operations/Network/DNS/ folder, fails when the **class** or **type** input is assigned a null value using the **Prompt User** input variable. This has been fixed in OO 7.51.

Bug 89658: Linux installer fails when ORACLE RAC is configured

The OO Linux installer fails when OO is configured to use Oracle RAC (Real Application Clusters). In OO 7.51, the test_db_connection script (from the configure.sh file) has been modified to fix this problem.

Bug 90526: Multi-byte data which comes back from SSH operations is corrupt

The SSH operations located in Library/Operations/Remote Command Execution/SSH/ folder and new Secure Shell operations created by right-clicking an unlocked folder, selecting **New** then **Operations** then **Secure Shell**, return corrupt characters. This has been fixed in OO 7.51.

Bug 92844: Flows created with VMware Server operations become invalid

If a flow uses a VMware operation that contains an **environmentParameters** input (these operations are located in the Library/Integrations/VMware/VMware Server/ folder), the flow results in a validation error and you will see the following error message:

Constant input value failed validation. You have not assigned specific value to environmentParameters.

The following operations in the Library/Integrations/VMware/VMware Server/ folder contain the **environmentParameters** input:

- Get Virtual Machine Display Name
- Get Virtual Machine IP Address
- Get Virtual Machine Memory
- Get Virtual Machine Operating System Name
- Get Virtual Machine State
- Host Enumerate Virtual Machines
- Host Register Virtual Machine
- Host Unregister Virtual Machine
- Reset Virtual Machine
- Start Virtual Machine
- Stop Virtual Machine
- Suspend Virtual Machine
- VMware Command

To prevent the validation error

- 1. Open any of the operations listed above and click its Inputs tab.
- 2. Click the arrow button at the end of the environmentParameters row to open the input editor.

3. In the Input Data Flow section, click the down arrow in the Assign from Variable box (which has <not assigned> as its default) and select environmentParameters.

Bug 92845: Flows created with deprecated VMware Server operations result in validation errors

If a flow uses a deprecated VMware operation containing an **environmentParameters** input (these operations are located in the Library/Integrations/VMware/VMware Server/Deprecated/ folder), the flow results in a validation error and you will see the following error message:

Constant input value failed validation. You have not assigned specific value to environmentParameters.

The following operations in the Library/Integrations/VMware/VMware Server/Deprecated/ folder contain the **environmentParameters** input:

- Get Virtual Machine Display Name
- · Get Virtual Machine IP Address
- Get Virtual Machine Memory
- Get Virtual Machine Operating System Name
- Get Virtual Machine State
- Host Enumerate Virtual Machines
- Host Register Virtual Machine
- Host Unregister Virtual Machine
- Reset Virtual Machine
- Start Virtual Machine
- Stop Virtual Machine
- Suspend Virtual Machine
- VmwareCmd

To prevent the validation error

- 1. Open any of the operations listed above and click its **Inputs** tab.
- 2. Click the arrow button at the end of the environmentParameters row to open the input editor.
- 3. In the Input Data Flow section, click the down arrow in the Assign from Variable box (which has <not assigned> as its default) and select environmentParameters.

Bug 92846: How Do I flows now work on Linux-based Central

In OO 7.50, the How Do I flows did not work in a Central installed on a Linux machine. The flows have been changed to use non-operating system specific operations.

Bug 94758: RAS session may be deleted if a flow starts with a .NET RAS operation and then later uses a Java RAS operation

If a flow uses a RAS session and the first operation in the flow is a .NET RAS operation, the session may be deleted. The flow also may fail if a Java RAS operation is used later in the flow.

This is fixed in 7.51 as the Java session management code now matches the C# session management code.

Fixes and enhancements from OO Patch 7.50.01

OO Patch 7.50.01, released in April 2009, fixed the following problems:

- Inconsistencies and data loss occur in a user's workspace after certain multi-author operations. (Defects 89998, 89384, 88973, 87966, 88588, 88780, 89142, 89869)
- If a flow has been checked out and modified, it cannot be resumed if Central crashes while it is running. (Defect 89264)
- Studio does not receive proper notification when a node in a cluster goes down, preventing another node in the cluster from recovering any pending transactions. (Defect 9839)
- Paginated reports for flows with parallel steps have missing pages. (Defect 89032)
- The **Line Count** filter produces different results than it did in earlier versions of OO. (Defect 89324)
- Users assigned to the PROMOTER and other non-authoring groups are able to create and modify objects. (Defect 89377)
- The Linux repoutil.sh does not handle spaces in arguments. (Defect 89762)
- When running a flow that contains the Generate Run URL operation from the Studio Remote debugger, the flow throws an exception with the error message "runService is not defined". (Defect 90290)
- Multi-byte data returned by JRAS SSH operations is corrupt. (Defect 90526)
- The Central **repoutil.exe** utility fails to export flows. (Defect 90777)
- Resuming headless flows with parallel children from Web UI fails. (Defect 91026)

The patch also includes the following enhancements:

- Support has been added for the Advanced Encryption Standard (AES) cipher in SSH operations.
 (Defect 90221)
- Memory usage improvements related to repository transactions. (Defects 88988, 88737, 89505)
- Web service search API is not returning the name field in WSFlow structure. (Defect 89919)
- Support has been added for Oracle 10g R2 Standard edition in addition to Oracle 10g R2 Enterprise edition.

Fixes from OO Version 7.50.02

OO Version 7.50.02, released in June 2009, fixed the following problems:

Bug 91114: Multi-byte data that comes back from an SSH operation is corrupt

In OO 7.50, SSH and NRAS SSH operations do not display multi-byte characters correctly. This has been fixed in OO 7.50.02.

Bug 91789: The OO 7.50 Web Service Wizard (wswizard.exe) sends the SOAPAction header twice when it generates an operation

In OO 7.50, operations generated by wswizard.exe and operations in the Library/Operations/HTTP Client/ folder sent using a custom SOAP header, such as header_<headerName>, were sending the SOAPAction header twice. This has been fixed in OO 7.50.02.