
HP Operations Orchestration

For Windows and Linux operating systems

Release Notes

Software version: Patch 9.03.0001

This document provides an overview of the changes made to HP Operations Orchestration (OO) for the 9.03 version. It contains important information not included in the manuals or in online help.

IMPORTANT NOTICE:

If you have installed version **9.03**, HP recommends that you uninstall this version, and install version **9.03.0001**. Go to **Help > About**. If the build version is: **201201241119** patch: 9.03, then uninstall the version.

Refer to the Uninstalling OO 9.03 section, described later on in the release notes.

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Documentation Updates

The title page of these release notes contains the following identifying information:

- Version number, which indicates the software version.
- Publish date, which changes each time the document is updated.

To check for recent updates or to verify that you are using the most recent edition of a document, go to:

<http://h20230.www2.hp.com/selfsolve/manuals>

This site requires that you register for an HP Passport and sign-in. To register for an HP Passport ID, go to:

<http://h20229.www2.hp.com/passport-registration.html>

Or click the **“New users - please register”** link on the HP Passport login page.

You will also receive updated or new editions if you subscribe to the appropriate product support service. Contact your HP sales representative for details.

NOTE: To view files in PDF format (*.pdf), Adobe Acrobat Reader must be installed on your system. To download Adobe Acrobat Reader, go to the following Web site:

<http://www.adobe.com/>

In These Release Notes

These Release Notes are intended for customers, HP Operations Orchestration (OO) Systems Engineers (SEs), and Customer Engineers (CEs) who have installed or are deploying OO patch 9.03.0001. The patch addresses issues found after the release of OO 9.02.0002.

What's New

Modifications to the Support Matrix

HP OO 9.03 supports the following:

- Internet Explorer 9.0
- Firefox 9.01
- Ability to run OO on ESX 4.1
- Redhat Linux 6.1
- Terracotta 3.6.0

Reliability Issues

Fixed reliability issues for the scheduler, by unifying the scheduler and central services.

Client Time Displayed in a Multi Time Zone Deployment

All time display fields in the client web browser are synchronized according to the local time zone of the client computer. The selected time zone is displayed in the upper right-hand corner of the Central window.

Central UI Usability Enhancements

- Ability to add a label to a run name for a specific flow execution. You can add a label to the run name in the following:
 - Execution user interface
 - Scheduler pane
 - Executing a flow API
- New columns added to help the user track the flow execution progress in the **Current Run** view in the Central.
 - The following columns are now available, and are updated with information during the flow progress:
 - Run name
 - Step name
 - Step start time
 - Previous step name
 - Number of processed steps

Studio usability enhancements

- When you edit an input of an operation the **Assign from** and **Assign to** fields are automatically set to the variable name. Now you can configure the default selected value to be either the variable name or not-assigned.
- Improved usability for import of operations from RAS.

New APIs added to Central

The following API methods have been added to Central SDK and SOAP API:

- SOAP API: Repository folders
- SOAP API: Flows
- SOAP API: Selection lists
- SOAP API: Clusters
- SOAP API: Scheduler

For more information, refer to HP OO SDK Guide for more information.

Important: In order to use the news API's you need to download **WSCentralService.zip**. Extract the **WSCentralService.zip** and replace the **WSCentralService.jar** for JAVA, and **wscentrl.dll** for .NET.

Application Notes

Time Zone

- When you change the time zone on your computer, you must log out and log back into Central in order to see the changes.
- The client and server times need to be synchronized with GMT to display the correct date and time information.
- The DST time is always displayed by the current time zone of the user. If the user is currently on DST, the scheduled time is not (or vice versa).

For example: If today is the 29.3.2012, and the flow is scheduled for the 1.4.2012 04:00 AM (on the 30.3.2012 02:00 AM – DST starts), the time that will be display for that flow on the schedule table will be 1.4.2012 03:00 AM. From 30.3.2012 02:00 AM, the time moves to DST. From now on the time displayed for that schedule is 1.4.2012 04:00 AM.

- The time zone cannot be different between the nodes in cluster.

Browser

- You must clean the browser cache after upgrading the version.
- In Firefox 3.6.4 and above, the default browser proxy is set to **Use system proxy settings**.

When you upgrade to Firefox 9.01, the browser proxy settings are changed to the default, overriding any other existing settings. These proxy settings might cause connection problems in the **Current Runs** view in Central. If you encounter these problems, contact your system administrator to verify the required proxy settings.

Studio wswizard tool

Important: In order to use the news API's you need to download **WSCentralService.zip**. Extract the **WSCentralService.zip** and replace the **WSCentralService.jar** for JAVA, and **wscentrl.dll** for .NET.

You cannot run operations that have no inputs. To use **wswizard** generated operations (flows) with no inputs, add the **trimNullComplexTypes** input, and set it to false.

LnC installer

LnC installer can be downloaded from: <https://hpln.hp.com//node/4/otherfiles>.

The HP Live Network connector User Guide is located at: https://hpln.hp.com/system/files/hpln_lnc_users_guide.pdf contains information on how to configure OO in the "Configuring OO Stream" section.

Known Issues

Installation

If you have installed version **9.03**, HP recommends that you uninstall this version, and install version **9.03.0001**. Go to **Help > About**. If the build version is: **201201241119** patch: 9.03, then uninstall the version.

Refer to the Uninstalling OO 9.03 section, described later on in the release notes.

Time Zone

- The time for a flow message pop-up is set according to the time zone set on the server. (QCCR1D140930)
- If you login to OO using LWSSO, the time zone is displayed as the server time zone.

Japanese Version

The Japanese online help and guides are overwritten with English version after upgrading to 9.03. (QCCR1D141350)

To retrieve the Japanese documentation, perform the following:

- **Central:**
 - a. Go to ICONCLUDE_HOME/Central/updates/9.03/9.03/backups folder.
 - b. Extract the **central.zip**.
 - c. Copy the docs folder, and replace the new ICONCLUDE_HOME/Central/docs folder.
- **Studio:**
 - a. Go to ICONCLUDE_HOME/Studio/updates/9.03/9.03/backups folder.
 - b. Extract the **studio.zip**.
 - c. Copy the docs folder, and replace the new ICONCLUDE_HOME/Studio/docs folder.

Studio Wswizard tool

- You cannot run operations that have no inputs. To use **wswizard** generated operations (flows) with no inputs, add the **trimNullComplexTypes** input, and set it to false.
- There are known issues using arrays as inputs with operations (flows) created with the **wswizard** (createSelectionList API).

Perform the following to solve these issues:

- Manually modify the inputMap for the operation. For example:
operationName|arrayName|*|arrayItem=arrayItem*.
- Manually modify the xmlTemplate field. For example:

```
< arrayName xsi:type="soap:Array"
xmlns:soap="http://iconclude.com/webservices/rss/v2.0/soap">
<!--Zero or more repetitions:-->
< arrayItem xsi:type="xsd:string">?</ arrayItem >
</ arrayName >
```
- Manually add the inputs **arrayItem0**, **arrayItem1**,, **arrayItemN** for the array values. Add as many inputs as the user requires.

Installing OO 9.03

Supported Environments

Operations Orchestration runs in these operating system environments:

- Windows
- Linux and Solaris

For more information, refer to the HP Operations Orchestration System Requirements guide.

Installation Notes

This release is a cumulative release that includes updates from all the previously released 9.0x.

If you have installed version **9.03**, HP recommends that you uninstall this version, and install version **9.03.0001**. Go to **Help > About**. If the build version is: **201201241119** patch: 9.03, then uninstall the version.

Refer to the Uninstalling OO 9.03 section, described later on in the release notes.

Upgrade and Downgrade Notes

- When you upgrade Central in a cluster environment, perform the upgrade one node at a time. Do not upgrade all nodes at the same time.
- When you install a standalone Load Balancer, you must set the JAVA_HOME.
 - Windows: If Java is not installed, install JRE and set the JAVA_HOME environment variable.
 - Linux: Set the JAVA_HOME environment variable.
- Flows created in 9.0.3 are listed in the **Current Runs** view as **#{runID}** when you downgrade to a previous version.
- When you perform an install or uninstall, a log file containing the executed tasks is created in the **upgrade.log** and **uninstall.log** in the <location of the upgrade folder>/logs folder.
- The 9.03 uninstaller backs up the repository in Studio when downgrading to a previous version. After downgrade, the backed up repository is found at %ICONCLUDE_HOME%/Studio/studiorepo/9.03_{build.date}_old.
- If you are using your own certificate/keystore and you applied the 9.03 patch, then you have to manually restore them from the backups created by the patch installer. Your own certificate/keystore is located in the list under the **From** section below, and must be restored to the corresponding locations listed in the **To** section:

From:

- %ICONCLUDE_HOME\Central\updates\9.03\9.03\backups, open the zip, and locate **rc_keystore** in central\conf.
- %ICONCLUDE_HOME\Studio\updates\9.03\9.03\backups, open the zip, and locate **rc_keystore** in \studio\conf\ rc_keystore.
- %ICONCLUDE_HOME\RAS\updates\9.03\9.03\backups, open the zip, and locate **ras_keystore.jks** in \RAS\java\default\webapp\conf.
- %ICONCLUDE_HOME\LB\updates\9.03\9.03\backups, open the zip, and locate **ras_keystore.key, ras_keystore.jks, ca.pem, ic.pem**, in \clustering\apache\conf.

To:

- Central: %ICONCLUDE_HOME\Central\conf\rc_keystore
- RAS: %ICONCLUDE_HOME\RAS\java\default\webapp\conf\ras_keystore.jks
- LB: %ICONCLUDE_HOME\Clustering\apache\conf\ras_keystore.key, ras_keystore.jks, ca.pem, ic.pem,
- Studio: %ICONCLUDE_HOME\Studio\conf\ rc_keystore

Installing OO 9.03 on Windows

Note: If you have a version lower than 9.x, you must upgrade to a 9.x version before installing 9.03.

To install the Windows version of 9.03

1. Exit Studio and Central, and then stop the OO services:

- RSCentral
- RSScheduler
- RSJRAS
- RSCLuster
- RSGridserver (Load Balancer Service)

Note: For any standalone installation, you only need to stop the relevant service and apply the patch separately.

2. Unzip the file **hpoo_9.03.zip** to a temporary folder.

3. Check to make sure that the %ICONCLUDE_HOME% variable points to the OO home directory.

4. Change the directories to the location of the unzipped patch and run the **install_9_0x.bat** file.

5. Restart the OO services.

IMPORTANT: After this procedure, the RSScheduler service is removed and unified with the RSCentral service.

IMPORTANT: If Central is installed in a cluster configuration, make sure that you apply this release to all Central installations in the clustered nodes (one node at a time) after stopping the services.

IMPORTANT: Changes in this upgrade require clearing all the browser history and caches.

The original files are backed up before the installation is modified with the new ones. The **About** box in Central and Studio should show release: **9.03** patch: **9.03**.

Installing OO 9.03 on Linux or Solaris

Note: If you have a version lower than 9.x, you must upgrade to a 9.x version before installing 9.03.

To install the Linux version of OO 9.03 for an OO installation on a Linux or Solaris system

1. Exit Central, and then stop the OO services:

- Central.sh
- Scheduler.sh
- JRAS.sh
- CLUSTER.sh
- PASLB.sh

Note: For any standalone installation, you only need to stop the relevant service and apply the patch separately.

Note: For any standalone installation without jre1.6 folder, install java 1.6.0_X JDK and set JAVA_HOME accordingly.

2. Unzip the file **hpoo_9.03.zip** to a temporary folder.
3. Set the \$ICONCLUDE_HOME variable to point to the OO home directory.
4. Set the \$ ICONCLUDE_CLUSTER_HOME variable to point to the OO cluster home directory.
5. On a Solaris SA RAS, set the \$JAVA_HOME environment variable to the JRE home directory.
6. Run the **install_9_0x.sh** file.
7. Watch the script for any errors.
8. Restart the OO services.

IMPORTANT: After this procedure, the Scheduler.sh service is removed and unified with the Central.sh service.

IMPORTANT: If Central is installed in a cluster configuration, make sure that you apply this release to all Central installations in the clustered nodes (one node at a time) after stopping the services.

IMPORTANT: Changes in this upgrade require clearing all the browser history & caches.

The original files are backed up before the installation is modified with the new ones. The **About** box in Central and Studio should show release: **9.03** patch: **9.03**.

Uninstalling OO 9.03

Uninstalling OO 9.03 on Windows

To uninstall the Windows version of 9.03

1. Exit Studio and Central, and then stop the OO services:

- RSCentral
- RSJRAS
- RSCLuster
- RSGridserver

Note: For any standalone installation, you only need to stop the relevant service and uninstall the patch separately.

2. Unzip the file **hpoo_9.03.zip** to a temporary folder.

3. Check to make sure that the %ICONCLUDE_HOME% variable points to the OO home directory.

4. Change directories to the location of the unzipped patch and run the **uninstall_9_0x.bat** file.

5. Restart the OO services.

IMPORTANT: If the uninstall procedure fails due to insufficient disk space, delete the old repository folder from %ICONCLUDE_HOME%/Studio/studiorepo/9.03_{build.date}_old.

IMPORTANT: After this procedure, the RSScheduler service is added back to the version.

IMPORTANT: If Central is installed in a cluster configuration, make sure that you uninstall this release to all Central installations in the clustered nodes (one node at a time) after stopping the services.

IMPORTANT: Changes in this downgrade require clearing all the browser history and caches.

Uninstalling OO 9.03 on Linux or Solaris

To uninstall the Linux version of OO 9.03 for a Linux or Solaris system

1. Exit Central, and then stop the OO services:

- Central
- JRAS
- CLUSTER
- PASLB

Note: For any standalone installation, you only need to stop the relevant service and uninstall the patch separately.

Note: For any standalone installation without jre1.6 folder, install java 1.6.0_X JDK and set JAVA_HOME accordingly.

2. Unzip the file **hpo0_9.03.zip** to a temporary folder.
3. Set the \$ICONCLUDE_HOME variable to point to the OO home directory.
4. Set the \$ ICONCLUDE_CLUSTER_HOME variable to point to the OO cluster home directory.
5. On a Solaris SA RAS, set the \$JAVA_HOME environment variable to the JRE home directory.
6. Run the **uninstall_9_0x.sh** file.
7. Watch the script for any errors.
8. Restart the OO services.

IMPORTANT: After this procedure, the Scheduler.sh service is added back to the version.

IMPORTANT: If Central is installed in a cluster configuration, make sure that you uninstall this release to all Central installations in the clustered nodes after stopping the services.

IMPORTANT: Changes in this downgrade require clearing all the browser history and caches.

New Defect Fixes in 9.03

The reference number for each fixed defect is the Quality Center Change Request (QCCR) number.

For more information about fixed defects, visit HP Software Support Online, or contact your HP Support representative directly.

- Wrap flow short description in about pop-up window. (QCCR1D92399)

In the Flow Library tab, when you right-click a flow, and select **About**, the words do not fit in the pop-up window.
- Report filtering lost when examining report details. (QCCR1D119803)
- Support for OO Installation on VMWare ESX Server 4.1. (QCCR1D123025)

VMWare ESX Server 4.1 is missing from OO installation system requirements.
- Cannot open a flow after you delete and save the Parallel Split operation. (QCCR1D137373)
- Studio renders incorrectly html input that contains attributes in tags in the Display window. (QCCR1D138711)

The Display operation can display HTML tags. However, if those tags contain attributes, such as align=center, they are incorrectly rendered.

This is only valid in the Studio debug windows. This does not occur in the web user interface, as the HTML code is rendered by the browser.
- Editing the schedule of a disabled flow re-enables the flow. (QCCR1D139410)

When you edit a flow schedule of a disabled flow, the flow reverts to enabled after saving the changes in the flow schedule.
- Streaming 9.00.05 RAS content produces false negatives. The content client receives an error. (QCCR1D139714)

Workaround: The error is a false negative, as all content has been streamed and restarting RAS shows that all libraries were successfully loaded.
- Studio rich editor throws java.lang.IndexOutOfBoundsException. (QCCR1D140829)

In the OO HTML view, when you modify text in the description tab of a flow (or operation or folder), an error appears.
- Reports created in Central in a different time zone than the user, the time in the user interface is incorrect. (QCCR1D141600)

- Load Balancer standalone upgrade requires manual jre installation. (QCCR1D141844)

When installing only OO Load Balancer 9.00 on a system, and you upgrade to 9.03, the upgrade process complains that java is required and does not proceed. The user needs to install JRE and set JAVA_HOME to point to it.

Workaround:

When installing standalone Load Balancer, you must set JAVA_HOME.

- Windows: Java is not installed, the user needs to install JRE and set JAVA_HOME.
- Linux: Set JAVA_HOME.
- When you update to 9.03 the updated help documentation is not updated (Studio and Central). (QCCR1D141350)
- Session expired errors on **Current Runs** in Firefox when **System Proxy Settings** is selected. (QCCR1D141031)
- **Current Runs** filters from the **Filter Panel** does not work with run name of the form **Windows Health Check_104**. However, the filter on the **Name** column does. (QCCR1D141002)
- SoapUI used by **wswizard** issues, causes problems when creating operations with arrays as inputs. (QCCR1D140994)

There are certain limitations that are caused by SoapUI (used by **wswizard**). When you create operations with arrays as inputs, perform the following when using arrays as inputs for operation (flows) generated with **wswizard**:

Note: There is no need to perform the following if they were generated correctly from the **wsdl**.

- Manually modify the inputMap for the operation. For example:
operationName|arrayName|*|arrayItem=arrayItem*.
- Manually modify the xmlTemplate field. For example:

```
< arrayName xsi:type="soap:Array"
xmlns:soap="http://iconclude.com/webservices/rss/v2.0/soap">
<!--Zero or more repetitions-->
< arrayItem xsi:type="xsd:string"?</ arrayItem >
</ arrayName >
```
- Manually add the inputs **arrayItem0**, **arrayItem1**,, **arrayItemN** for the array values. Add as many inputs as the user requires.
- Executing **wswizard** generated **getSelectionList** flow with empty value for name returns different error message than the expected one. (QCCR1D140993)

- The minutes are taken from the server instead of the client. (QCCR1D140924)

The server clock and client clock are synchronized in the time zone level by date and hour. If from some reason, the client and the server are not synchronized on the minutes level, the user will see is the minutes taken from the server.

For example:

- Client time: 27/12/11 9:45 AM
 - Server time: 26/12/11 23:47 PM
 - The time that will be calculated for the Central UI will be 27/12/11 9:47 AM
- Entering special characters in REST and HTTP flows, requires URL Encoding. (QCCR1D140292)

For more information on URL Encoding, refer to <http://blooberry.com/indexdot/html/topics/urlencoding.htm>

- Example, RSFlowinvoke is one scenario for using rest API:

```
RSFlowInvoke.exe
"<http://CENTRAL_HOST:8080/PAS/services/rest/run=yourRunName/Library/My Ops Flows/yourFlow>" -u
```

```
centralUser -p centralPassword
```

- Example of wrong request:

```
RSFlowInvoke.exe
"<http://CENTRAL_HOST:8080/PAS/services/rest/run=+++/Library/My Ops
```

```
Flows/yourFlow>" -u centralUser -p centralPassword
```

- Cluster installation failed as there are duplicate SQL statements of the insert command from the two nodes. (QCCR1D139540)

When you try to install a Linux cluster, the installation fails.

Workaround: Run the installation again. The next time you run the installation the upgrade will complete successfully and will not try to upgrade the database.

Note: When you upgrade Central in a cluster environment, the upgrade should be performed one by one. Do not upgrade all Centrals at the same time.

- Upgrade or downgrade log files of the installation progress (QCCR1D141208)

When you perform an install or uninstall, a log containing the executed are created in the **upgrade.log** and **uninstall.log** in the <location of the upgrade folder>/logs folder.

- All system stuck when NFS mount repository is down. (QCCR1D119803)

The system checks the connecting to the repository every 120 seconds and notifies the log if there is no response for 10 seconds.

If the connection is lost the user receives the following timeout message to the log (ERROR level):

"Timeout exception: Tried to perform repository access check. Operation exceeded X seconds".

While this job is running the user will get the following message to the log (INFO level):
"Checking repository connection".

The connectivity check occurs, by default, every 120 seconds and notify for timeout if there is no response for 10 seconds. The user can change the default values by going to the **Central.properties** and change the values of the following properties (in seconds):

- `dharmarepository.check.connection.interval.seconds=120`
- `dharmarepository.connection.timeout.seconds=10`

If the user changes the connection timeout to be 0 (or negative number) the connectivity check will not start until he will change it to be a positive number and restart the server.

- Live Network Connector installer exits abruptly for a set of credentials. (QCCR1D141353)

The installer fails when configuring the LNC installer and adding the default HP credentials. This is related to the older version of the LNC installer and has been fixed in the newest version (3.11).

- Terracotta has been updated to the latest version 3.6.0. (QCCR138449)
- Update library tree exception. (QCCR1D47618)

In Firefox 3.6.4 and above, the default browser proxy is set to Use system proxy settings. When you upgrade to 9.01, the browser proxy settings are changed to that default, overriding any other existing settings. These proxy settings might cause connection problems in the Current Runview in Central. If you encounter these problems, contact your system administrator to verify the required proxy settings.

Previous Defect Fixes Included in OO 9.02.0002

QCCR1D136052: Corrupt Primary results are returned when fetched via the SOAP portion of the OO SDK: The problem occurs only on MySQL databases. To fix this defect, follow the procedure in the Working with MySQL Database section.

QCCR1D137941: In the **Reports** tab you see the history ID and not the flow run ID: The history ID column will be replaced by the run ID column.

QCCR1D137942: Flows launch, but not all are visible on the **Reports** tab: All flows from the run history that does not appear in the **Run** table will be shown in the **Reports** tab. For those that now appear the **Run** table, you can see them in the current run.

QCCR1D137561: Headless flows are saved in the run history of each step in the flow, even if you remove them from the flow and it causes OO to work slowly: Added 2 flags to the system settings: "**saveHistoryBasedOnFlags**" flag, if true, forces Central to respect the flags selected in the Studio, and "**disableSaveHistory**" flag, if true, disables step history for all steps of a headless flow, regardless of the flags.

QCCR1D135421: Reversion of behavior change in **SSH Command** when using credentials in OO 9.00.

QCCR1D137547: The patch version is displayed as 9.02.00 in Discovered RAS section in Studio instead of 9.02.00.

QCCR1D137103: Scheduled or UI-executed orphaned flows never restart on a new node after a Central failover: Currently, all flows of invocation types: Scheduled, Headless, and SOAP are resumed in case the **resume automatically** flag is enabled on the Administration Configuration screen.

NOTE: All types mentioned were Headless based on the OO documentation.

NOTE: All types mentioned will be showed as Headless on the current run dialog after resumed.

Previous Defect Fixes Included in OO 9.02

QCCR1D134235: OO Central throws a "NullPointerException" when the setting "log4j.rootLogger" is set to DEBUG in the log4j.properties of Central

This has been fixed in OO 9.02.

QCCR1D134715: RSCLUSTER service fails to start after configuring for RAS Clustering

The OO Load Balancer RSCLUSTER service failed to start after configuring for RAS Clustering due to expired OO certificates.

QCCR1D134899: Provide ability to change permissions on selected objects

When you select multiple objects in the repository and edit the permissions, only the first object's permission is modified. To avoid this, when you select more than one object, the permission editor is disabled.

QCCR1D134898: "Copy Deep" is allowed to transfer (copy) objects across repositories

When you perform a "Copy Deep", you were able to copy the objects across repositories. This has been now disabled.

QCCR1D134414: In Studio, the Description tab is not in HTML format

The Studio Description tab was in only available in plain text. You can now view the Description tab in HTML format. To enable the Studio description tab in HTML format, add the following line in the StudioI4j.ini file (in the OO Home directory Studio/ folder, and then restart Studio:

```
-Dstudio.newdescriptioneditors=true
```

QCCR1D134901: Lengthy shutdown time (8 minutes) on Windows 2008 x64 server of embedded OO RSCentral service appears as a Network Node Manager iSPI NET installer hang.

You must manually fix this issue by downgrading the Acceptors value from 25 to 2 in all Jetty.xml instances [for Class SslSelectChannelConnector]. The instances are:

- RAS/Java/Default/webapp/conf/jetty.xml
- Scheduler/conf/jetty.xml
- Central/conf/jetty.xml

Note: Lowering the number as shown above will have adverse effects if Central receives hundreds of simultaneous connection requests. In this case, increase the number of acceptors to the old default value (25).

QCCR1D136012: Studio now has an HTML based editor

The HTML based editor is disabled by default. To enable it, add the "-Dstudio.newdescriptioneditors=true" property in the Studio.I4j.ini file (in the OO Home directory Studio/ folder), and then restart Studio. The Description tab is now displayed with the new format with multiple options for processing the HTML, XML tags, and text.

QCCR1D135606: WS API getting status for certain run IDs results in "IndexOutOfBounds" exception

The WS API `getRunStatus` method resulted in an `IndexOutOfBoundsException` for run IDs 111111111, 41983384, or 71983389.

QCCR1D134908: Asynchronous OO calls intermittently return an incomplete (wrong) "rawResult".

When making an asynchronous call to an OO flow, the `rawResult` was intermittently incorrect. This issue has been fixed and the correct `rawResult` is returned reliably as soon as the flow completes.

QCCR1D135191: Restoring repository from backup does not restore Japanese folder and flow names.

Folder and flow names in Japanese were not restored properly when importing from a backup repository.

QCCR1D135193: All RAS-based flows using the OO Load Balancer fail in OO 7.60 or OO 9.00.

In a RAS Cluster installation, all RAS-dependent flows failed to execute due to expired OO certificates. The default expired OO certificates are now replaced with new certificates.

QCCR1D130928: SOAP API "getFlowDetails" does not return default values for inputs.

The WS API method `getFlowDetails` returned `defaultValue` as `NULL` for inputs that were assigned constant values. This issue is now fixed and `defaultValue` returns the constant value assigned to the input.

QCCR1D108972: ROI not showing on run report for ROI of subflow when the flow is run heedlessly.

QCCR1D132914: The default certificates for the RAS and Central are set to expire on May 20th 2011.

This release replaces the default OO certificates (which are now expired) with newly generated ones that have the same name. For example, in the Conf file if the release finds files such as 'ras_keystore.jks' and 'rc_keystore', it backs them up and replaces them with the ones from this release.

If you use your own certificates, you must back them up and manually replace them in the OO Home directory in the /Central/conf/ folder for Central. Do the same for RAS, Scheduler, Studio, and Load Balancer in their respective 'conf' locations.

Previous Defect Fixes Included in OO 9.00.02

QCCR1D115611: The description changes in plugin operations are not seen when the content is installed.

QCCR1D111877: In the Japanese language version of OO 9.00, the descriptions of some operations in the Library/Operations/Network/Utilities/ folder are displayed in English.

QCCR1D111063: In the Japanese language version of OO 9.00, the descriptions of some operations in the Library/Utility Operations/ folder are displayed in English.

QCCR1D111253: In the Japanese language version of OO 9.00, the descriptions of some operations in the Library/Integrations/Hewlett-Packard/Operations Orchestration/Cluster/ folder are displayed in English.

QCCR1D111255: In the Japanese language version of OO 9.00, the descriptions of some operations in the Library/Integrations/Hewlett-Packard/Operations Orchestration/Scheduling/ folder are displayed in English.

QCCR1D111256: In the Japanese language version of OO 9.00, the descriptions of some operations in the Library/Integrations/Hewlett-Packard/Operations Orchestration/Repository/ folder are displayed in English.

QCCR1D111257: In the Japanese language version of OO 9.00, the descriptions of some of the operations in the Library/Integrations/Hewlett-Packard/Operations Orchestration/ folder are displayed in English.

QCCR1D111259: In the Japanese language version of OO 9.00, the descriptions of some operations in the Library/Integrations/Hewlett-Packard/Service Automation Visualizer/ folder are displayed in English.

QCCR1D135746: Looping over an **XPath Evaluator** returns the same result, even if the XML string inputs differ.

QCCR1D136016: The XML Element Filter flow step fails intermittently.

Previous Defect Fixes Included in OO 9.00.01

- In Studio, when you select a parent folder as "Delete in target", its child should be automatically selected as "Move in target" so that the child will have a new parent. If you select a parent folder as "Delete in target" and its child as "No Change", the child becomes parentless. In a remote repository, the child folder is shown under a new folder named Lost+Found which is created at root level (Defect QCCR1D112585).
- The OO Scheduler cannot handle a flow input with a value from any list except a selection list. When you schedule a flow that has a list value assigned to a single value input, you got the Scheduler error message "Unexpected server response" (Defect QCCR1D112094).
- When a running Central node is disconnected from a cluster and is then re-connected, the Central node doesn't get a nodeDisconnected event, so even though the flows are not running in that Central, their state is shown as Running on the other Central's Current Runs page instead of Orphaned (Defect QCCR1D112043).
- In a two-node Central cluster with one node that has an active clustering environment, if you run a flow on the active node and shut down the server while the flow is running, the server fails over to the inactive node but the Central on that node shuts down. This shuts down the whole cluster (Defect QCCR1D111512).
- With run recovery enabled on the General tab of the Central System Administration page, if a node disconnects during flow runs, the orphaned runs are not recovered by the other node (Defect QCCR1D111899).
- In a two-node Central Terracotta clustered setup, when one node has the active Terracotta cluster and the other node is inactive, if the network is stopped/unplugged on the active node then the other node becomes active. When the network is re-enabled or comes back alive, the result is two active clustering environments (a split brain). This causes corruption of the shared repository file system, especially in VM-based setups (Defect QCCR1D111900).
- If you abandon the move of or rename a folder in a public repository, the following Studio operations do not work correctly on the children of that abandoned folder:
 - Exporting
 - Changing permissions
 - Generating documentation
 - Searching
 - Publishing preview

(Defect QCCR1D111764).

Fixing the Expired Certificate for the OO Web services SDK

IMPORTANT: This release contains a fix for the Expired Certificate for the OO Web services SDK integration in the SDK folder of this release. This procedure should be done in case **9.02/9.02.0001** patch **was not** already applied.

To fix the OO Web services SDK integration

1. Create a backup copy of the following certificates and also the keystore in which they have been imported:
 - SDK/WSCentralService/central.crt
 - SDK/WSCentralService/central-pem.crt
2. Replace the old certificates in the keystore with the new ones, located in the SDK directory from the release package using the instructions below:
3. Using the Java keytool utility, delete the old alias and import the new certificate using the same alias name.

For example, assume you have a keystore named **cacerts** at location C:\temp. The keystore contains the old certificate **central.crt** with a pas alias in it. Using the Java keytool utility, delete the old alias and import the new certificate using the same alias name as shown below:

```
keytool -delete -alias pas -keystore c:\temp\cacerts
```

```
keytool -import -alias pas -file SDK/WSCentralService/central.crt -keystore c:\temp\cacerts
```

Note: Ideally, use one of the two certificates because they both are the same— one is in PEM format and other is in DER format.

Working with the MySQL Database

Note: This procedure should be done once.

1. Unzip the file **hpoo_9.03.zip** to a temporary folder.
2. Run the query in the **sp_reset_run_id.sql** file, in order to add the stored procedure to your database.
3. Modify the **init.sql** file to use the OO database schema name (replace the dharmia).
4. Copy the **init.sql** file to the installation directory of the MySQL (for example, "C:\Program Files\MySQL\MySQL Server 5.1").
5. Add the **init-file** option to MySQLINSTALLDIR\my.ini. For example, modify C:\Program Files\MySQL\MySQL Server 5.1\my.ini and add the following line "init-file=C: \Program Files\MySQL\MySQL Server 5.1\init.sql").
6. Restart the MySQL server.
7. For more information on "init-file" option:

<http://dev.mysql.com/doc/refman/5.0/en/option-files.html>

<http://dev.mysql.com/doc/refman/5.1/en/server-options.html#option%5Fmysqld%5Finit-file>

NOTE: Wait until the database is fully up before working with OO.

Support

You can visit the HP Software support web site at:

www.hp.com/go/hpsoftwaresupport

This Web site provides contact information and details about the products, services, and support that HP Software offers.

HP Software online software support provides customer self-solve capabilities. It provides a fast and efficient way to access interactive technical support tools needed to manage your business. As a valued support customer, you can benefit by using the support site to:

- Search for knowledge documents of interest
- Submit and track support cases and enhancement requests
- Download software patches
- Manage support contracts
- Look up HP support contacts
- Review information about available services
- Enter into discussions with other software customers
- Research and register for software training

Most of the support areas require that you register as an HP Passport user and sign in. Many also require an active support contract. To find more information about support access levels, go to the following URL:

http://h20230.www2.hp.com/new_access_levels.jsp

To register for an HP Passport ID, go to the following URL:

<http://h20229.www2.hp.com/passport-registration.html>

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