

HP Service Manager

for supported Windows[®] and UNIX[®] operating systems

Software Version: 9.3x patch

Application Patch Manager Guide

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1 Overview



This guide applies to Service Manager applications version 9.31 or later. Throughout this document, **9.3x** represents the applications version (for example, 9.31), and **xxxx** represents the applications build number.

This guide describes the HP Service Manager Applications Patch Manager and how to use it to update your applications to the latest applications release.

The HP Service Manager Applications Patch Manager enables you to keep your Service Manager applications up to date without going through a complete application upgrade. By adding incremental updates, you decrease the number of changes you will need to reconcile on your next application upgrade.

Applications patch releases include fixes and enhancements. Any changes required for those objects are described in the *HP Service Manager 9.3x Release Notes*.

This version of the Applications Patch Manager updates your HP Service Manager applications from version 9.30, or from a 9.30 patch level (1, 2, or 3), or from version 9.3x to the latest patch. After the patch is applied, the version of your HP Service Manager applications will be 9.3x.xxxx. Before you can apply the applications patch, you must first install the required minimum patch version of the Service Manager 9.3x client and server. For instructions see the *HP Service Manager Installation Guide*.

Topics in this section include:

- [Applications Patch Manager requirements](#) on page 10
- [Implementation Overview](#) on page 12

Applications Patch Manager requirements

Be sure to meet the requirements before you try to apply or create an applications patch.

Required knowledge

You should be an experienced System Administrator who is familiar with your Service Manager installation.

You should be familiar with the following:

- How your existing Service Manager system operates
- How the application files function
- How to compare records
- The Rapid Application Development (RAD) environment

If you do not have the administrative experience necessary to apply the applications patch, you may need assistance from your local application developers and database administrators. You can also contact HP Customer Support.

Required tools

After applying an applications patch, it is necessary to reconcile any conflicts that are discovered by the Applications Patch Manager. The utilities you will use most when reconciling conflicts include:

- Database Manager
- Display application
- Forms Designer
- Merge Utility
- RAD Editor

Required software

Service Manager system requirements:

- Service Manager application release level: 9.3x or 9.3x Application Patch
- Service Manager application release language: All languages for 9.3x
- Service Manager client/server release level: 9.3x or 9.3x Patch
- The Service Manager server process must have read-write access to the database.

For detailed information, see the release notes that came with the Application Patch.

Documentation resources

You may require access to the following Service Manager documentation.

- Service Manager 9.3x online Help for information about Database Manager, Display application, Forms Designer, Merge Utility, and the RAD Editor. You can access the online Help by using the HP Service Manager client or Help server.
- *HP Service Manager 9.30 Installation Guide*. HP bundles this guide with the installation media.
- *HP Service Manager 9.3x Release Notes* for information about Software Change Requests (SCRs), enhancements, and known issues. The release notes are part of the installation materials and are also available on the Customer Support Web site.

HP Customer Support Web site access

The HP Customer Support Web site has operating system and compatibility information, product documentation, and release notes. If you do not have an account for this Web site, contact HP Customer Support at: **www.hp.com/go/hpsoftwaresupport**.

Implementation Overview

Before you can apply the Applications patch, you must first upgrade the client and server to the required minimum patch version. Do not upload the 9.3x data files. Then apply the applications patch on a copy of your production system. The Applications Patch Manager installs new objects and determines whether previously existing objects are identical to the ones installed originally. If an existing object is unchanged from the original object for your existing version of HP Service Manager, the Patch Manager replaces it with the new object. If the object on your system is different from the original for that version, the Patch Manager leaves the old object untouched. Patch Manager also installs the new object and adds a prefix (NEW9.3x.xxxx<name>) to the name of the new version.

You can keep your old version, accept the new one, or merge the two versions. How much work this will require depends on whether the particular objects that this patch updates were tailored on your system, and on the specific differences that exist.

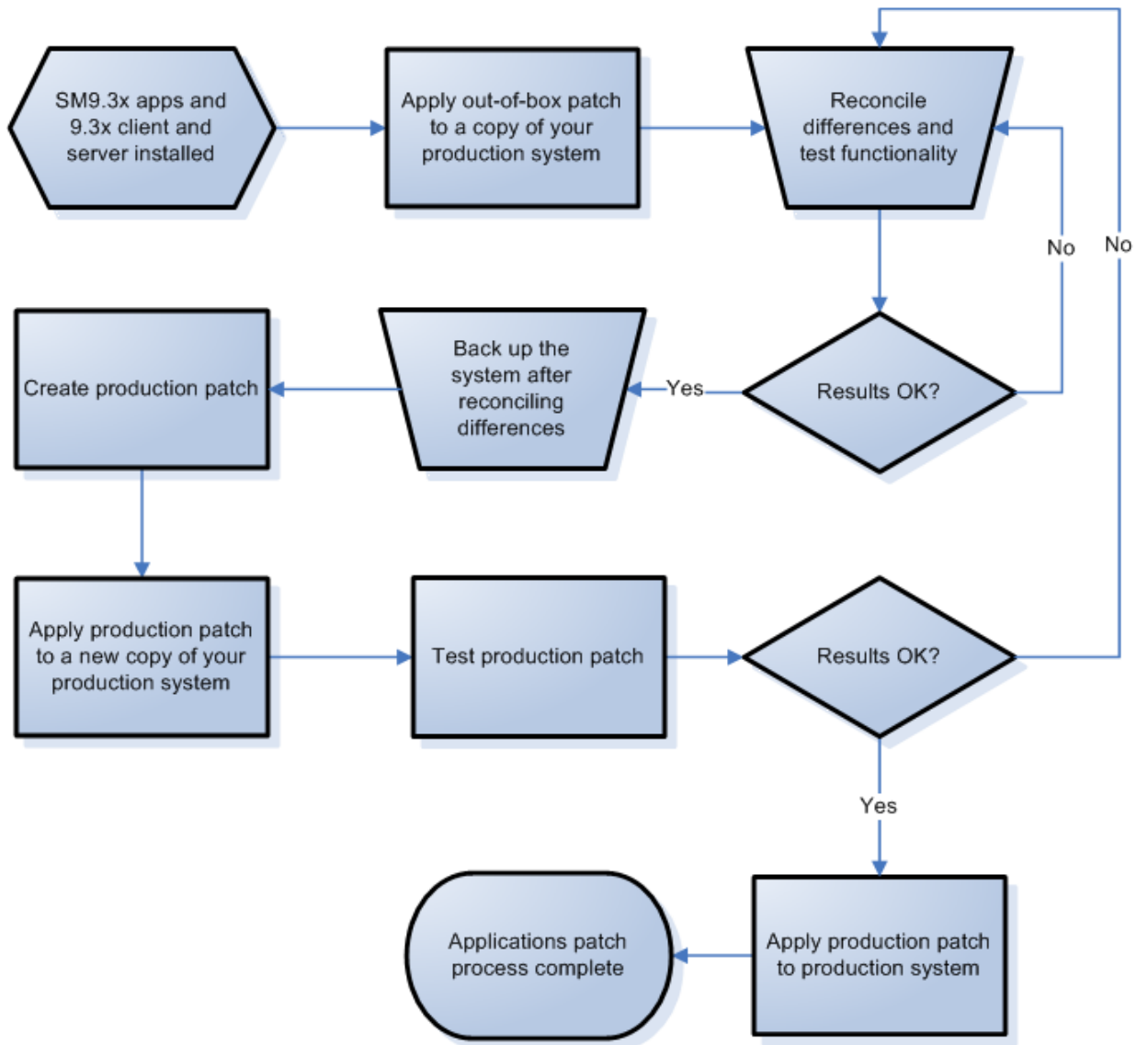


Figure 1 Applications Patch Manager Process Flows

2 Applying the Out-Of-Box Patch and Reconciling the Differences

Before you can update your tailored Service Manager system, you need to apply the out-of-box patch to a copy of that system, and then handle any objects the system could not update automatically.

This chapter explains what you need to do to apply the out-of-box patch and handle your tailored objects.

Topics in this section include:

- [Setting up a copy of your production system on page 15](#)
- [Applying the out-of-box patch on page 16](#)
- [Reviewing the results on page 18](#)
- [Reconciling differences on page 22](#)

Setting up a copy of your production system

In order to create the best possible production patch, create the patch on a system that replicates your production environment as closely as possible.

When setting up this system, be sure to incorporate the following:

- The same operating system version
- The same database version
- The same Service Manager client and server versions
- A copy of your production data

Applying the out-of-box patch

Once you have set up a copy of your production system, you must first upgrade the HP Service Manager client and server to the required minimum version. Do not upload the data files when installing the new server.

Follow these steps to apply the out-of-box patch to a copy of your production system:

- 1 For Unix:
 - a Navigate to the directory where **applications-9.3x.xxxx-patchrel.zip** is located on the server.
 - b Uncompress **applications-9.3x.xxxx-patchrel.zip** into the directory on the server where the production copy resides.

For Windows:

- a Navigate to the directory where **applications-9.3x.xxxx-patchrel.msi** is located on the server.
- b Double-click **applications-9.3x.xxxx-patchrel.msi** and follow the steps provided by the installer to install the patch.

Regardless of the operating system, the installation process creates the **app_patchrel\SM9.30-9.3x.xxxx** directory, which contains the files that make up the applications patch release. The created directory by default is **C:\Program Files\HP\Service Manager 9.3x\Applications\app_patchrel\SM9.30-9.3x.xxxx**.

- 2 Log in to your Service Manager server as a System Administrator.
- 3 On the Service Manager toolbar, select **Window > Preferences**.
- 4 Uncheck the **Client side load/unload** checkbox and click **OK**.
- 5 Go to **System Administration > Ongoing Maintenance > Patch Release** and select **Apply Patch Release**.
- 6 Enter the fully qualified path and file name to **patchrel.unl** in **app_patchrel\SM9.30-9.3x.xxxx**, and then click **Next**. The path must be relative to the server, instead of to the client computer, if the client is not installed on the same machine as the server.

The Applications Patch Manager displays the current version of your applications and the version that will result after you apply the patch.

- 7 Confirm that the source and target versions listed match your current production system and the applications patch version, and then click **Next** to apply the patch.

When the Applications Patch Manager finishes applying the patch, it displays a message indicating that your system was successfully updated.

- 8 Click **Finish**.

You will be disconnected from your Service Manger server.

Reviewing the results

After you apply the out-of-box patch to your system, you will be able review the list of updated objects.

Follow these steps to review the results of the applications update:

- 1 Log in to your Service Manager server as a System Administrator.
- 2 Go to **System Administration > Ongoing Maintenance > Patch Release** and select **View/Merge Results**.

Service Manager displays the Applications Patch Results screen.

- 3 Enter optional search criteria, and then click **Search**.

Service Manager displays the results of your search. For more information, see [Description of View/Merge results](#) on page 19.

- 4 Click a record in the list to review it.

Description of View/Merge results

The search criteria, search results, and a description of the applicable action for each result are described in the table below.

Table 1 Patch Release Result fields and applicable actions for each result

Field	Definition
Object Name	Enter the name of the object you want to search for, or leave this field blank to return objects with any name. The object name is typically the unique identifier in the database table specified for the object type.
Object Type	Enter the type of object you want to search for, or leave this field blank to return all object types. Some of the object types you could search for are: Application Cluster, Object, Process, ScriptLibrary, displayoption, format, formatctrl, help, joindefs, link, scmessage, screlconfig, triggers, validity, and wizard.
Result: Added	Select this option to search for new objects that were added to the system by the patch. These objects did not exist in your system before this update. For objects with this result, no further action is necessary.
Result: Error	Select this option to search for objects that encountered an error while being updated by the Applications Patch Manager. For more information about the error, review the sm.log file. Required Action: Fix the cause of the error in a copy of your production system, and then apply the patch again.
Result: Forced	Select this option to search for objects that were tailored on your Service Manager system, where the Applications Patch Manager added the new object and backed up your tailored object as a revision. You will only see this result after applying the production patch. For objects with this result, no further action is necessary.
Result: Merged	Select this option to search for objects that were tailored on your Service Manager system, which you have merged with the version in this patch. Required Action: Test these objects, and when satisfied change their result to Reconciled .

Table 1 Patch Release Result fields and applicable actions for each result

Field	Definition
<p>Result: Previously Reconciled</p>	<p>Select this option to search for objects that were tailored on your Service Manager system, that were marked as reconciled during a previous upgrade or patch release, or where your object was not changed and the Applications Patch Manager added a new object NEW9.3x.xxxx<object name>.</p> <p>Required Action: Choose one of the following for each object with this result.</p> <ul style="list-style-type: none"> • <i>Keep the old version</i> — No further action is necessary. • <i>Keep the new version</i> — Select the object in the merge view and click Copy all from left to right on the tool bar. • <i>Merge new and old versions</i> — Determine which of the new features should be incorporated into your tailored object, and then make the changes in your tailored object. When finished, delete the new object.
<p>Result: Reconciled</p>	<p>Select this option to search for objects that you have already marked as Reconciled.</p> <p>For objects with this result, no further action is necessary.</p>

Table 1 Patch Release Result fields and applicable actions for each result

Field	Definition
Result: Renamed	<p>Select this option to search for objects that were tailored on your Service Manager system, and where your object was not changed and the Applications Patch Manager added a new object NEW9.3x.xxxx<object name>. You will only see this result after applying the out-of-box patch.</p> <p>Required Action: Choose one of the following for each object with this result.</p> <ul style="list-style-type: none"> • <i>Keep the old version</i> — No further action is necessary. • <i>Keep the new version</i> — Select the object in the merge view and click Copy all from left to right on the tool bar. • <i>Merge new and old versions</i> — Determine which of the new features should be incorporated into your tailored object, and then make the changes in your tailored object. When finished, delete the new object.
Result: Updated	<p>Select this option to search for objects that were automatically updated by the Applications Patch Manager. These are objects that were not tailored on your Service Manager system.</p> <p>For objects with this result, no further action is necessary.</p>
Result: Already Current	<p>Select this option to search for objects that were already the latest version.</p> <p>For objects with this result, no further action is necessary.</p>

Reconciling differences

The next step is to reconcile any differences between your tailored objects and the updated objects introduced by the applications patch.

Use the RAD Comparison Utility to assist in merging changes in RAD applications. For all other types of objects, you can use the standard Service Manager tools, or the Merge utility.

- [Merging new objects with your tailored objects](#) on page 22
- [Reconciling differences between RAD applications](#) on page 24
- [Reconciling differences between Content Pack and Applications Patch](#) on page 26

Merging new objects with your tailored objects

After you have applied the out-of-box patch successfully, you are ready to reconcile the differences and merge the new objects with your tailored versions of the objects where necessary.

- Use the Merge utility to view and merge simple objects.
- Use the Merge utility to identify the changes necessary for records with complex data structures, such as formatctrl, joindefs, links, and structured arrays, but use the normal tool for tailoring these objects to integrate the necessary changes manually.



Avoid merging changes in XML records where there are instance nodes with record IDs (such as, recordid="svcCatalog"). Changes to instance nodes with record IDs can break the primary key for a record.

Follow these steps to use the Merge utility:

- 1 Log in to your Service Manager server as a System Administrator.
- 2 Go to **System Administration > Ongoing Maintenance > Patch Release** and select **View/Merge Results**.
- 3 Enter optional search criteria, and then click **Search**.

Service Manager displays the results of your search. For more information see, [Description of View/Merge results](#) on page 19.

- 4 Open the record you wish to merge, right-click the detail page and then click **Merge** in the drop-down menu.

Service Manager displays both objects side-by-side in the Merge Applications Patch Records view.



The XML for the new object is shown on the left side, and the XML for your tailored object is shown on the right side with the differences highlighted.

- 5 For simple objects and elements, use the arrow buttons at the top of the pane to select individual changes and copy them from the new object over to your tailored object, or copy all changes from the new record to your tailored object. For complex objects, do the merge manually by using the appropriate tool for the object type.
- 6 Click **SAVE**.
- 7 Change the Result to **Merged** and then click **Save**.
- 8 Test the updated functionality of the merged object.
- 9 When you are satisfied that the object is working correctly, right-click the detail page and then click **Mark as Reconciled** in the drop-down menu.
- 10 Repeat this procedure for all changes that need to be merged.

Example of reconciling an object by using the Merge utility

For this example, before applying the patch, we tailored the form **login.prompt.g** by adding the label “**TAILORED VERSION**”. After applying the out-of-box patch, the **login.prompt.g** is one of the **Renamed** objects in the results list.

Follow these steps to merge the example form change:

- 1 Go to **System Administration > Ongoing Maintenance > Patch Release** and click **View/Merge Results**.
Service Manager displays the Applications Patch Results screen.
- 2 Specify **login.prompt.g** as the object name, and then click search.
- 3 Right-click the detail page and then click **Merge** in the drop-down menu.
- 4 Service Manager displays both objects side-by-side in the Merge Applications Patch Records view.

After you compare the two forms, you decide to merge the new changes into your tailored form.

- 5 Use the arrow buttons at the top of the pane to select the change.
- 6 Click **Copy Current Change from Left to Right** on the tool bar.
- 7 Click **SAVE**.
- 8 Change the Result to **Merged**, and then click **Save**.
- 9 Log out from the Service Manager server, and then log in again.
- 10 Confirm that the updated label is displayed on login.
- 11 Go to **System Administration > Ongoing Maintenance > Patch Release** and click **View/Merge Results**.

Service Manager displays the Applications Patch Results screen.

- 12 Specify **login.prompt.g** as the object name, and then click **Search**.
- 13 Right-click the detail page and then click **Mark as Reconciled** in the drop-down menu.

Reconciling differences between RAD applications

Use these guidelines when reconciling differences between a tailored RAD application and the new one:

- If your company does not have a RAD license, you will not be able to merge the two objects. Back up the old object by renaming it **OLDSM9.3<objectname>**, and then rename the new object by removing the prefix **NEW9.3x.xxxx** from the object name.
- If your company has a RAD license, use the RAD Comparison Utility to compare the objects and merge the changes.

Example of reconciling a RAD difference

For this example, we have tailored the RAD panel **approval.generate** by adding the expression **\$L.rem="TAILORED VERSION"** to the start panel. After we apply the out-of-box patch, the **approval.generate** is one of the **Renamed** objects in the results list.

Follow these steps to merge the panels:

- 1 Open **approval.generate** (the tailored version) in the RAD Editor.
- 2 Click **More** or the More Actions icon and then select **Compare Applications**.
- 3 Enter **NEW9.3x.xxxxapproval.generate** in the field for New Application Name, where *xxxx* is the current patch version. For example, when applying Service Manager 9.31.xxxx Applications Patch, specify the object name as **NEW9.31.xxxxapproval.generate**.
- 4 Click **Compare All** on the tool bar.
- 5 Make a note of the Unmatched and Deleted Panels (these are the panels that you would like to analyze when reconciling differences).

In this example, the start panel appears in the Unmatched Panels column.

- 6 On the current session, navigate to the Start panel.
- 7 On another session, open **NEW9.31.xxxxapproval.generate**, and then navigate to the Start panel.
- 8 After you compare the two panels, you decide that you would like to keep your tailoring. Copy the tailored expression (**`$L.rem="TAILORED VERSION"`**) to the start panel of **NEW9.31.xxxxapproval.generate**, then save and compile.
- 9 Delete your old tailored RAD application, and then rename **NEW9.31.xxxxapproval.generate** to **approval.generate**.
- 10 Confirm the functionality of your change.
- 11 Go to **System Administration > Ongoing Maintenance > Patch Release** and click **View/Merge Results**.
Service Manager displays the Applications Patch Results screen.
- 12 Specify **approval.generate** as the object name, and then click **Search**.
- 13 Right-click the detail page and then click **Mark as Reconciled** in the drop-down menu.

Reconciling differences between Content Pack and Applications Patch



See the latest applications patch release notes for how to reconcile differences between the released content packs and that specific applications patch.

3 Creating and Applying the Production Patch

Once you have handled all objects requiring reconciliation, you will create a tailored production patch and apply it to your actual production system.

This chapter explains what you need to do to create a production patch and apply it to your tailored production Service Manager system.

Topics in this section include:

- [Creating the production patch](#) on page 28
- [Testing the production patch](#) on page 29
- [Applying the production patch](#) on page 29
- [Going live after applying the production patch](#) on page 30

Creating the production patch

Once you are satisfied with the results of your reconciliation process, you can create a production patch.



It is recommended that you back up your database after reconciling differences to prevent unexpected data loss.

Follow these steps to create the production patch:

- 1 Log in to your Service Manager server as a System Administrator.
- 2 Go to **System Administration > Ongoing Maintenance > Patch Release** and select **Create Patch Release**.

The Applications Patch Manager asks you to prepare an area to contain the applications patch files that you will create. This location will be referred to as the production patch directory.

- a Using the standard method for your operating system, create the production patch directory.
 - b Copy the file **patchrel.txt** from the **app_patchrel\SM9.30-9.3x.xxxx** directory where you unzipped the out-of-box patch release to the production patch directory.
 - c Enter the fully qualified path and file name to **patchrel.txt** in the production patch directory.
- 3 Click **Next**.

The Applications Patch Manager displays the version you will create the patch for.

- 4 Click **Next** to create the patch.

The Application Patch Manager creates the production applications patch in the production patch directory.

After you test this patch and confirm that it works as desired, you will be able to apply it to your production system.

Testing the production patch

After creating the applications patch for your production system, test it extensively. This will be an iterative process that may require several changes to patch objects and the recreation of production patches. Employ user acceptance testing verification and validate your changes.

Applying the production patch

The steps that you used to apply the out-of-box patch to the copy of your production system are the same steps you need to apply to the production patch that you created in your actual production system.



When applying the patch to the production system, you must be the only user logged in to the system.

Follow these steps to apply the patch you created to your production system:

- 1 Have all users log out of the server.
- 2 Prevent users from logging into your Service Manager Server by running the quiesce command from the operating system's command prompt.
sm -quiesce:1
- 3 Log in to your Service Manager server as a System Administrator.
- 4 Go to **System Administration > Ongoing Maintenance > Patch Release** and select **Apply Patch Release**.

Service Manager displays a screen that asks you to find a file called **patchrel.un1**.

- 5 Enter the fully qualified path and file name to **patchrel.un1** in the production patch directory, and then click **Next**. The path must be relative to the server, instead of to the client computer, if the client is not installed on the same machine as the server.

The Applications Patch Manager displays the current version of your applications and the version that will result after you apply the patch.

- 6 Confirm that the source and target versions listed match your current production system and the applications patch version, and then click **Next** to apply the patch.

When the Applications Patch Manager finishes applying the patch, it displays a message indicating that your system was successfully updated.

- 7 Click **Finish**.
- 8 Log out from your Service Manger server, restart the server, and then log in again.
- 9 Allow users to log in to the server by running the quiesce command from the operating system's command prompt.
sm -quiesce:0

Going live after applying the production patch

Any tailored objects that were updated by the application patch are backed up as a revision. If issues are encountered after going live, these objects can be quickly swapped back to their original tailored versions. After a period of time, you may want to delete the old revision objects.

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