



Red Hat Process Automation Manager 7.7

Patching and upgrading Red Hat Process Automation Manager 7.7

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Abstract

This document describes how to apply patch updates and minor release upgrades to Red Hat Process Automation Manager 7.7.

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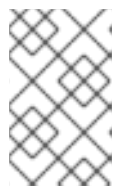
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PREFACE

As a Red Hat Process Automation Manager user, you can apply updates to Red Hat Process Automation Manager as they become available in the Red Hat Customer Portal to keep your Red Hat Process Automation Manager distribution current with the latest enhancements and fixes. Red Hat provides update tools and product notifications for new product releases so you can more readily apply helpful updates to Red Hat Process Automation Manager and KIE Server.

Prerequisites

- You have a Red Hat Customer Portal account.
- Red Hat Process Automation Manager 7.7 is installed. For installation options, see [Planning a Red Hat Process Automation Manager installation](#).



NOTE

If you are using Red Hat Process Automation Manager 7.6 and you want to upgrade to Red Hat Process Automation Manager 7.7, see [Patching and upgrading Red Hat Process Automation Manager 7.6](#).

CHAPTER 1. RED HAT PROCESS AUTOMATION MANAGER VERSIONING

Red Hat Process Automation Manager versions are designated with a numerical **Major.Minor.Patch** format, such as **7.6.1**. In this example, the major release is **7.x.x**, the minor release is **7.6.x**, and the patch release is **7.6.1**. Major releases often require data migration, while minor release upgrades and patch updates are typically managed with update tools provided with the Red Hat Process Automation Manager release artifacts.

The following are the general types of releases for Red Hat Process Automation Manager:

Major release migrations

Major releases of Red Hat Process Automation Manager include substantial enhancements, security updates, bug fixes, and possibly redesigned features and functions. Data migration is typically required when an application is moved from one major release to another major release, such as from Red Hat JBoss BPM Suite 6.4.x to Red Hat Process Automation Manager 7.0. Automated migration tools are often provided with new major versions of Red Hat Process Automation Manager to facilitate migration, but some manual effort is likely required for certain data and configurations. The supported migration paths are specified in product announcements and documentation.

For example migration instructions, see [Migrating from Red Hat JBoss BPM Suite 6.4 to Red Hat Process Automation Manager 7.0](#).

Minor release upgrades

Minor releases of Red Hat Process Automation Manager include enhancements, security updates, and bug fixes. Data migration may be required when an application is moved from one minor release to another minor release, such as from Red Hat Process Automation Manager 7.6.x to 7.7.

Automated update tools are often provided with both patch updates and new minor versions of Red Hat Process Automation Manager to facilitate updating certain components of Red Hat Process Automation Manager, such as Business Central, KIE Server, and the headless Process Automation Manager controller. Other Red Hat Process Automation Manager artifacts, such as the decision engine and standalone Business Central, are released as new artifacts with each minor release and you must re-install them to apply the update.

Before you upgrade to a new minor release, apply the latest patch update to your current version of Red Hat Process Automation Manager to ensure that the minor release upgrade is successful.

Patch updates

Patch updates of Red Hat Process Automation Manager include the latest security updates and bug fixes. Scheduled patch updates contain all previously released patch updates for that minor version of the product, so you do not need to apply each patch update incrementally in order to apply the latest update. For example, you can update Red Hat Process Automation Manager 7.6.0 or 7.6.1 to Red Hat Process Automation Manager 7.6.2. However, for optimal Red Hat Process Automation Manager performance, apply product updates as they become available. Occasionally, unscheduled patch updates may be released outside the normal update cycle of the existing product. These may include security or other updates provided by Red Hat Global Support Services (GSS) to fix specific issues, and may not be cumulative updates.

Automated update tools are often provided with both patch updates and new minor versions of Red Hat Process Automation Manager to facilitate updating certain components of Red Hat Process Automation Manager, such as Business Central, KIE Server, and the headless Process Automation Manager controller. Other Red Hat Process Automation Manager artifacts, such as the decision engine and standalone Business Central, are released as new artifacts with each minor release and you must re-install them to apply the update.

To ensure optimal transition between releases and to keep your Red Hat Process Automation Manager

distribution current with the latest enhancements and fixes, apply new product releases and updates to Red Hat Process Automation Manager as they become available in the Red Hat Customer Portal. Consider also enabling product notifications in the Red Hat Customer Portal.

For information about enabling product notifications, see [Chapter 2, *Enabling Red Hat Process Automation Manager notifications in the Red Hat Customer Portal*](#).

CHAPTER 2. ENABLING RED HAT PROCESS AUTOMATION MANAGER NOTIFICATIONS IN THE RED HAT CUSTOMER PORTAL

You can enable notifications in the Red Hat Customer Portal to receive Red Hat Process Automation Manager updates and announcements. These notifications inform you of updated or added documentation, product releases, and patch updates related to Red Hat Process Automation Manager. With notifications enabled, you can more readily apply product updates to Red Hat Process Automation Manager as they become available in the Red Hat Customer Portal to keep your Red Hat Process Automation Manager distribution current with the latest enhancements and fixes.

Prerequisites

- You have a Red Hat Customer Portal account and are logged in.

Procedure

1. In the top-right corner of the Red Hat Customer Portal window, click your profile name and click **Notifications**.
2. Select the **Notifications** tab and click **Manage Notifications**.
3. Next to **Follow**, select **Products** from the drop-down menu, and then select **Red Hat Process Automation Manager** from the next drop-down menu that appears.
4. Click **Save Notification** to finish.

You can add notifications for any other products as needed in the same way.

CHAPTER 3. MIGRATING RED HAT JBOSS ENTERPRISE APPLICATION PLATFORM 7.2 TO 7.3

Red Hat Process Automation Manager 7.8 only supports Red Hat JBoss Enterprise Application Platform 7.3. If you want to upgrade Red Hat Process Automation Manager 7.7 instances to 7.8 you must first migrate Red Hat JBoss EAP from 7.2 to 7.3.

Prerequisites

- Your Red Hat Process Automation Manager and KIE Server instances are not running. Do not apply updates while you are running an instance of Red Hat Process Automation Manager or KIE Server.
- Red Hat JBoss Enterprise Application Platform 7.2 is installed.

Procedure

1. Download Red Hat JBoss EAP 7.3 to each Red Hat JBoss EAP instance:
 - a. Navigate to the [Software Downloads](#) page in the Red Hat Customer Portal (login required) and select the product and version from the drop-down options:
 - **Product: Red Hat JBoss EAP**
 - **Version: 7.3**
 - b. Click **Download** next to **Red Hat JBoss Enterprise Application Platform 7.3 (jboss-eap-7.3.0.zip)**.
2. Extract the **jboss-eap-7.3.0.zip** file to the same base directory of Red Hat JBoss EAP 7.2.



NOTE

The base directory of the Red Hat JBoss EAP installation is referred to as **EAP_HOME**.

3. Run the **jboss-server-migration.sh** script to migrate configurations and deployments from Red Hat JBoss EAP 7.2 to Red Hat JBoss EAP 7.3:

```
$ ./bin/jboss-server-migration.sh -s ../jboss-eap-7.2/
```

Answer **yes** to all questions except the following question. Answer **no** to this question:

```
This tool is not able to assert if the non-persistent deployments found are compatible with the target server, skip scanner's deployments migration?
```

4. Copy the **.niogit** directory from Red Hat JBoss EAP 7.2 directory to the new **.niogit** directory. For example:

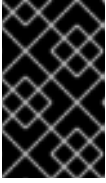
```
$ cp -r ../jboss-eap-7.2/.niogit .niogit
```

5. Change the **MaxMetaspaceSize** memory setting value to **1024m** in the **bin/standalone.conf** file. For example:

-

```
-XX:MaxMetaspaceSize=1024m
```

6. Optional: To migrate unmanaged KIE Server instance configurations to Red Hat JBoss EAP, perform the following tasks:



IMPORTANT

Proceed with this section only if there are unmanaged KIE Server instances configured in the migrated Red Hat JBoss EAP server instance that need to be migrated.

- a. Locate the KIE Server state XML files for the unmanaged instances. The XML files should be located in the directory from where the Red Hat JBoss EAP server is launched. These are usually named after the KIE Server instance identifier, for example **example-kieserver.xml**. You can use **grep** to search for **kie-server-state**, for example:

```
$ grep -FR "<kie-server-state>"
```

- b. Copy the server's state files to the directory where you will launch the new Red Hat JBoss EAP 7.3 instance.

CHAPTER 4. APPLYING PATCH UPDATES AND MINOR RELEASE UPGRADES TO RED HAT PROCESS AUTOMATION MANAGER

Automated update tools are often provided with both patch updates and new minor versions of Red Hat Process Automation Manager to facilitate updating certain components of Red Hat Process Automation Manager, such as Business Central, KIE Server, and the headless Process Automation Manager controller. Other Red Hat Process Automation Manager artifacts, such as the decision engine and standalone Business Central, are released as new artifacts with each minor release and you must re-install them to apply the update.

You can use the same automated update tool to apply both patch updates and minor release upgrades to Red Hat Process Automation Manager 7.7. Patch updates of Red Hat Process Automation Manager, such as an update from version 7.7 to 7.7.1, include the latest security updates and bug fixes. Minor release upgrades of Red Hat Process Automation Manager, such as an upgrade from version 7.6.x to 7.7, include enhancements, security updates, and bug fixes.



IMPORTANT

Red Hat Process Automation Manager 7.8 only supports Red Hat JBoss EAP 7.3. You must migrate Red Hat JBoss EAP 7.2 to 7.3 before upgrading Red Hat Process Automation Manager from 7.7 to 7.8. For more information about migrating Red Hat JBoss EAP 7.2 to 7.3, see [Migrating Red Hat JBoss Enterprise Application Platform 7.2 to 7.3](#).



NOTE

Only updates for Red Hat Process Automation Manager are included in Red Hat Process Automation Manager update tools. Updates to Red Hat JBoss EAP must be applied using Red Hat JBoss EAP patch distributions. For more information about Red Hat JBoss EAP patching, see the [Red Hat JBoss EAP patching and upgrading guide](#).

Prerequisites

- Your Red Hat Process Automation Manager and KIE Server instances are not running. Do not apply updates while you are running an instance of Red Hat Process Automation Manager or KIE Server.
- Red Hat JBoss EAP is migrated from 7.2 to 7.3. For more information about migrating Red Hat JBoss EAP 7.2 to 7.3, see [Migrating Red Hat JBoss Enterprise Application Platform 7.2 to 7.3](#).

Procedure

1. Navigate to the [Software Downloads](#) page in the Red Hat Customer Portal (login required), and select the product and version from the drop-down options.
If you are upgrading to a new minor release of Red Hat Process Automation Manager, such as an upgrade from version 7.6.x to 7.7, first apply the latest patch update to your current version of Red Hat Process Automation Manager and then follow this procedure again to upgrade to the new minor release.
2. Click **Patches**, download the **Red Hat Process Automation Manager [VERSION] Update Tool** and extract the downloaded **rhnam-\$VERSION-update.zip** file to a temporary directory.
This update tool automates the update of certain components of Red Hat Process Automation Manager, such as Business Central, KIE Server, and the headless Process Automation Manager

controller. Use this update tool first to apply updates and then install any other updates or new release artifacts that are relevant to your Red Hat Process Automation Manager distribution.

- If you want to preserve any files from being updated by the update tool, navigate to the extracted **rhpm-\$VERSION-update** folder, open the **blacklist.txt** file, and add the relative paths to the files that you do not want to be updated.
When a file is listed in the **blacklist.txt** file, the update script does not replace the file with the new version but instead leaves the file in place and in the same location adds the new version with a **.new** suffix. If you blacklist files that are no longer being distributed, the update tool creates an empty marker file with a **.removed** suffix. You can then choose to retain, merge, or delete these new files manually.

Example files to be excluded in **blacklist.txt** file:

```
WEB-INF/web.xml // Custom file
styles/base.css // Obsolete custom file kept for record
```

The contents of the blacklisted file directories after the update:

```
$ ls WEB-INF
web.xml web.xml.new
```

```
$ ls styles
base.css base.css.removed
```

- In your command terminal, navigate to the temporary directory where you extracted the **rhpm-\$VERSION-update.zip** file and run the **apply-updates** script in the following format:



IMPORTANT

Make sure that your Red Hat Process Automation Manager and KIE Server instances are not running before you apply updates. Do not apply updates while you are running an instance of Red Hat Process Automation Manager or KIE Server.

On Linux or Unix-based systems:

```
$ ./apply-updates.sh $DISTRO_PATH $DISTRO_TYPE
```

On Windows:

```
$ .\apply-updates.bat $DISTRO_PATH $DISTRO_TYPE
```

The **\$DISTRO_PATH** portion is the path to the relevant distribution directory and the **\$DISTRO_TYPE** portion is the type of distribution that you are updating with this update.

The following distribution types are supported in Red Hat Process Automation Manager update tool:

- **rhpm-business-central-eap7-deployable**: Updates Business Central (**business-central.war**)
- **rhpm-kie-server-ee8**: Updates KIE Server (**kie-server.war**)

- **rhcam-controller-ee7**: Updates the headless Process Automation Manager controller (**controller.war**)

Example update to Business Central and KIE Server for a full Red Hat Process Automation Manager distribution on Red Hat JBoss EAP:

```
./apply-updates.sh ~EAP_HOME/standalone/deployments/business-central.war rhcam-
business-central-eap7-deployable
```

```
./apply-updates.sh ~EAP_HOME/standalone/deployments/kie-server.war rhcam-kie-server-
ee8
```

Example update to headless Process Automation Manager controller, if used:

```
./apply-updates.sh ~EAP_HOME/standalone/deployments/controller.war rhcam-controller-
ee7
```

The update script creates a **backup** folder in the extracted **rhcam-\$VERSION-update** folder with a copy of the specified distribution, and then proceeds with the update.

5. After the update tool completes, return to the **Software Downloads** page of the Red Hat Customer Portal where you downloaded the update tool and install any other updates or new release artifacts that are relevant to your Red Hat Process Automation Manager distribution. For files that already exist in your Red Hat Process Automation Manager distribution, such as **.jar** files for the decision engine or other add-ons, replace the existing version of the file with the new version from the Red Hat Customer Portal.
6. If you use the standalone **Red Hat Process Automation Manager 7.7.0 Maven Repository** artifact (**rhcam-7.7.0-maven-repository.zip**), such as in air-gap environments, download **Red Hat Process Automation Manager 7.7.x Maven Repository** and extract the downloaded **rhcam-7.7.x-maven-repository.zip** file to your existing **~/maven-repository** directory to update the relevant contents.

Example Maven repository update:

```
$ unzip -o rhcam-7.7.1-maven-repository.zip 'rhba-7.7.1.GA-maven-repository/maven-
repository/*' -d /tmp/rhbaMavenRepoUpdate
```

```
$ mv /tmp/rhbaMavenRepoUpdate/rhba-7.7.1.GA-maven-repository/maven-repository/
$REPO_PATH/
```



NOTE

You can remove the **/tmp/rhbaMavenRepoUpdate** folder after you complete the update.

7. After you finish applying all relevant updates, start Red Hat Process Automation Manager and KIE Server and log in to Business Central.
8. Verify that all project data is present and accurate in Business Central, and in the top-right corner of the Business Central window, click your profile name and click **About** to verify the updated product version number.
If you encounter errors or notice any missing data in Business Central, you can restore the contents in the **backup** folder within the **rhcam-\$VERSION-update** folder to revert the update tool changes. You can also re-install the relevant release artifacts from your previous version of

Red Hat Process Automation Manager in the Red Hat Customer Portal. After restoring your previous distribution, you can try again to run the update.

CHAPTER 5. ENABLING EXECUTABLE RULE MODELS WHEN UPGRADING TO RED HAT PROCESS AUTOMATION MANAGER 7.7

Beginning in Red Hat Process Automation Manager 7.7, rule assets are built from executable rule models by default with the standard **kie-maven-plugin** plugin. The executable model is a more efficient alternative to the standard asset packaging in previous versions of Red Hat Process Automation Manager.

When you install Red Hat Process Automation Manager 7.7, this default executable model behavior is configured for all new projects that you create going forward. However, if you are upgrading to Red Hat Process Automation Manager 7.7 from a previous version of the product and you have not already enabled executable rule models, you must add the required dependency to your existing Red Hat Process Automation Manager projects so that your rule assets are built from executable models in Red Hat Process Automation Manager 7.7. If you do not use the **kie-maven-plugin** plugin or if the required **drools-model-compiler** dependency is missing from your project, then rule assets are built without executable models.

For more information about executable rule models, see [Packaging and deploying a Red Hat Process Automation Manager project](#).

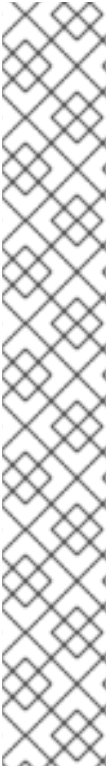
Procedure

In the **pom.xml** file of your Maven project or on the relevant class path of your Java project, add the following dependency to enable rule assets to be built from the default executable model:

```
<dependency>
  <groupId>org.drools</groupId>
  <artifactId>drools-model-compiler</artifactId>
  <version>${rhpam.version}</version>
</dependency>
```

This dependency compiles the executable model into Red Hat Process Automation Manager internal data structures so that it can be executed by the decision engine.

The **<version>** is the Maven artifact version for Red Hat Process Automation Manager currently used in your project (for example, 7.33.0.Final-redhat-00002).



NOTE

Instead of specifying a Red Hat Process Automation Manager **<version>** for individual dependencies, consider adding the Red Hat Business Automation bill of materials (BOM) dependency to your project **pom.xml** file. The Red Hat Business Automation BOM applies to both Red Hat Decision Manager and Red Hat Process Automation Manager. When you add the BOM files, the correct versions of transitive dependencies from the provided Maven repositories are included in the project.

Example BOM dependency:

```
<dependency>
  <groupId>com.redhat.ba</groupId>
  <artifactId>ba-platform-bom</artifactId>
  <version>7.7.0.redhat-00002</version>
  <scope>import</scope>
  <type>pom</type>
</dependency>
```

For more information about the Red Hat Business Automation BOM, see [What is the mapping between RHPAM product and maven library version?](#)

CHAPTER 6. ADDITIONAL RESOURCES

- [*Planning a Red Hat Process Automation Manager installation*](#)
- [*Patching and upgrading Red Hat Process Automation Manager 7.6*](#)
- [*Release notes for Red Hat Process Automation Manager 7.7*](#)

APPENDIX A. VERSIONING INFORMATION

Documentation last updated on Wednesday, Aug 05, 2020.