JBoss Enterprise Application Platform 6.3

Getting Started Guide

For Use with Red Hat JBoss Enterprise Application Platform 6

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Abstract

This book provides the basic steps to get started with JBoss EAP 6.

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CHAPTER 1. INTRODUCTION

1.1. ABOUT RED HAT JBOSS ENTERPRISE APPLICATION PLATFORM 6

Red Hat JBoss Enterprise Application Platform 6 (JBoss EAP 6) is a middleware platform built on open standards and compliant with the Java Enterprise Edition 6 specification. It integrates JBoss Application Server 7 with high-availability clustering, messaging, distributed caching, and other technologies.

JBoss EAP 6 includes a new, modular structure that allows service enabling only when required, improving start-up speed.

The Management Console and Management Command Line Interface make editing XML configuration files unnecessary and add the ability to script and automate tasks.

In addition, JBoss EAP 6 includes APIs and development frameworks for quickly developing secure and scalable Java EE applications.

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1.2. ABOUT THE RED HAT CUSTOMER PORTAL

The *Red Hat Customer Portal* is the centralized platform for Red Hat knowledge and subscription resources. Use the *Red Hat Customer Portal* to do the following:

- Manage and maintain Red Hat entitlements and support contracts.
- Download officially-supported software.
- Access product documentation and the Red Hat Knowledgebase.
- Contact Global Support Services.
- File bugs against Red Hat products.

The Customer Portal is available here: https://access.redhat.com.

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1.3. ABOUT THE RED HAT JBOSS DEVELOPER PROGRAM

The *Red Hat JBoss Developer Program* ("the Program") allows you to deploy, free of charge, certain Red Hat Subscriptions for development purposes. The Red Hat Subscriptions offered to you in this Program are unsupported and may not address known security vulnerabilities. They may be used for development purposes only and are not intended for other purposes such as use in production environments or for accessing updates without (an) active Red Hat Subscription(s). For complete details about the Red Hat JBoss Developer Program, see http://www.jboss.org/developer-program/termsandconditions.

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1.4. ABOUT THE FULL RED HAT JBOSS COMMERCIAL PROGRAM

The *Full Red Hat JBoss Commercial Program* allows you to deploy to production environments. It

provides additional entitlements to software updates and patches, support services, and access to the Red Hat Knowledgebase. To participate in the program, you must create an account on the Customer Portal at https://access.redhat.com/. To learn more about this program, see Section 1.2, “About the Red Hat Customer Portal”.

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1.5. HOW TO FIND MORE INFORMATION

The purpose of this guide is to get you up and running with Red Hat JBoss Enterprise Application Platform as quickly as possible. If you want to learn more, the complete documentation suite for JBoss EAP is available on the Customer Portal at https://access.redhat.com/site/documentation/en-US/JBoss_Enterprise_Application_Platform.

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CHAPTER 2. PREREQUISITES

2.1. JBOSS EAP 6 INSTALLATION PREREQUISITES

Summary

JBoss EAP is available under the *Red Hat JBoss Developer Program* or the *Full Red Hat JBoss Commercial Program*. For more information about the *Red Hat JBoss Developer Program*, see Section 1.3, “About the Red Hat JBoss Developer Program”. For more information about the *Full Red Hat JBoss Commercial Program*, see Section 1.4, “About the Full Red Hat JBoss Commercial Program”. The following steps describe the prerequisites for both programs.

Common Prerequisites

- Review the supported configurations and ensure your system is supported: https://access.redhat.com/site/articles/111663.
- If you set up an account on the Red Hat Customer Portal and are participating in the *Full Red Hat JBoss Commercial Program*, ensure that your system is up to date with Red Hat issued updates and errata.

ZIP/Installer Prerequisites

- You must grant administration privileges for the installation directory.
- Ensure that the chosen JDK has been extracted (or installed). See the JDK documentation for information on how to do this.
- On Microsoft Windows Server, ensure that the JAVA_HOME and PATH environment variables have been set, otherwise shortcuts will not work.
- On Hewlett-Packard HP-UX, ensure that an **`unzip`** utility has been installed.

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CHAPTER 3. DOWNLOAD AND INSTALL THE PRODUCT

3.1. JBOSS EAP INSTALLATION OVERVIEW

This guide provides instructions for the simplest installation process to help you get started using JBoss EAP as quickly as possible. Complete installation procedures can be found in the *Installation Guide* for JBoss EAP. After you install JBoss EAP, you can configure the server using the Management CLI or the Management Console. For information about how to configure JBoss EAP, see the *Administration and Configuration Guide* for JBoss EAP. Both guides are located on the Customer Portal at https://access.redhat.com/site/documentation/JBoss_Enterprise_Application_Platform/.

You can install JBoss EAP in either of the following ways.

- You can install JBoss EAP using the graphical installation program.
- You can install JBoss EAP using a ZIP file.

Follow the instructions based on your preferred method of installation.

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3.2. DOWNLOAD AND INSTALL JBOSS EAP USING THE GRAPHICAL INSTALLATION PROGRAM

3.2.1. Download the JBoss EAP 6 Installation Program

Summary

JBoss EAP is available under the *Red Hat JBoss Developer Program* or the *Full Red Hat JBoss Commercial Program*. Follow the procedure below that matches your program choice.

Procedure 3.1. Download the JBoss EAP Installation Program from the Customer Portal under the Full Red Hat JBoss Commercial Program

Follow this procedure if you are participating in the Full Red Hat JBoss Commercial Program. For more information about this program, see Section 1.4, “About the Full Red Hat JBoss Commercial Program”.

1. Open a browser and log into the Customer Portal at https://access.redhat.com.
2. Click **Downloads**.
3. Click **`Red Hat JBoss Enterprise Application Platform`** in the **`Product Downloads`** list.
4. Select the correct JBoss EAP version from the **`Version`** drop-down menu.
5. Find **`Red Hat JBoss Enterprise Application Platform 6.x.x Installer`** in the list and click the **`Download`** option.
6. You are prompted to save the JAR file to a directory of your choice. Choose a directory and save the file.

Result

The JBoss EAP 6 installation program JAR file has been downloaded successfully to the target machine.

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3.2.2. Run the JBoss EAP Installation Program

The JBoss EAP installation program can be run in either graphical or text mode. This topic covers the command to run the installation program in graphical mode.

If you are unsure about an option, simply take the default. You can easily configure the server at a later time. For more information about how configure the JBoss EAP server, see the *Administration and Configuration Guide* for Red Hat JBoss Enterprise Application Platform 6 located on the Customer Portal at https://access.redhat.com/site/documentation/JBoss_Enterprise_Application_Platform/.

Procedure 3.2. Run the JBoss EAP Installation Program

1. Open a terminal and navigate to the directory containing the downloaded installation program JAR.
2. Type the following command:

```
java -jar jboss-eap-6.3.0-installer.jar
```

3. Follow the instructions in the table below.

Table 3.1. JBoss EAP Installation Program Screens

Screen name	When it Appears	Description
Section A.1, “Language Selection”	Always	Choose the desired language for the installation program and click **OK**.
Section A.2, “End User License Agreement”	Always	The EULA for RED HAT JBOSS MIDDLEWARE. Select "I accept the terms of this license agreement", and click **Next**.
Section A.3, “Installation Path”	Always	Select the installation path for JBoss EAP and click **Next**. You are prompted to create the new directory, or, if it exists, to replace the named directory.
Section A.4, “Select the Packs to Install”	Always	Select the packs to install. Required packs are disabled for deselection.
Section A.5, “Administrative User Creation”	Always	Create an administrative user and assign a password. Then click **Next**.
Section A.6, “Quickstart Installation”	Always	Install the quickstart examples. Choose **Yes** and select the installation path. Then click **Next**.
Section A.7, “Maven Repository Setup”	If you choose to install the quickstart examples	Keep the default selections to automatically configure the default Maven settings and use the publicly hosted Maven repository. Then click **Next**.

Screen name	When it Appears	Description
Section A.8, “Socket Binding Setup”	Always	Keep the default port bindings, then click **Next**.
Section A.9, “Server Launch”	Always	Select the startup option required on completion of the installation process. Then click **Next**.
Section A.10, “Configure Logging Levels”	Always	Choose **No** to skip configuration of logging levels. Then click **Next**.
Section A.11, “Configure Runtime Environment”	Always	Choose **Perform default configuration** and click **Next** to continue.
Section A.12, “Review Installation Components”	Always	Review your selections and click **Next**.
Section A.13, “Installation Progress”	Always	When installation progress completes, click **Next**.
Section A.14, “Installation Processing Finished”	Always	When processing finishes, click **Next**.
Section A.15, “Create Shortcuts”	Always	Accept the default and click **Next**.
Section A.16, “Generate Install Script”	Always	Click **Done**. Installation is now complete.

Result

The installation is complete and JBoss EAP 6 is installed on your target machine.

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3.3. DOWNLOAD AND INSTALL JBOSS EAP USING THE ZIP

3.3.1. Download JBoss EAP 6 (ZIP Installation)

Summary

JBoss EAP is available under the *Red Hat JBoss Developer Program* or the *Full Red Hat JBoss Commercial Program*. Follow the procedure below that matches your program choice.

Procedure 3.3. Download the ZIP file from the Customer Portal under the Full Red Hat JBoss Commercial Program

Follow this procedure if you are participating in the Full Red Hat JBoss Commercial Program. For more information about this program, see Section 1.4, “About the Full Red Hat JBoss Commercial Program”.

1. Open a browser and log into the Red Hat Customer Portal at https://access.redhat.com.
2. Click **Downloads**.
3. Click **Red Hat JBoss Enterprise Application Platform** in the **Product Downloads** list.
4. Select the correct JBoss EAP version from the **Version** drop-down menu.
5. Find **Red Hat JBoss Enterprise Application Platform 6.*x.x*** in the list and click the **Download** option.
6. You are prompted to save the ZIP file to a directory of your choice. Choose a directory and save the file.

Procedure 3.4. Download the ZIP file from jboss.org under the Red Hat JBoss Developer Program

Follow this procedure if you are participating in the Red Hat JBoss Developer Program. For more information about this program, see Section 1.3, “About the Red Hat JBoss Developer Program”.

1. Open a web browser and access this URL: http://www.jboss.org/products/eap/
2. Click the **Download JBoss EAP** link on the left side of the page to display product download information.
3. Under **Download JBoss EAP 6.3.0**, click the **ZIP** link to download the JBoss EAP archive.
4. You are prompted to save the ZIP file to a directory of your choice. Choose a directory and save the file.

Result

The JBoss EAP 6 ZIP file has been downloaded successfully to the target machine.

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3.3.2. Install JBoss EAP 6 (ZIP Installation)

Summary

This topic covers the steps to install JBoss EAP 6 using the downloaded ZIP file.

Procedure 3.5. ZIP File Installation

1. **Move the ZIP archive to the desired location.**
   Move the ZIP file to the server and directory where you plan to install JBoss EAP 6. The user who will start and stop the server must have read and write access to this directory.
2. **Use an appropriate application to extract the ZIP archive to the desired location.**
   In a Red Hat Enterprise Linux environment, use the **unzip** utility to extract the contents of the ZIP archive.

   In a Microsoft Windows environment, right-click the file and select **Extract All**.

   In a Hewlett-Packard HP-UX environment, use the **unzip** utility to extract the contents of the ZIP archive.

Result

JBoss EAP 6 has been installed successfully. The directory created by extracting the ZIP archive is the top-level directory for the server. This is referred to as ***EAP_HOME***.

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3.4. DOWNLOAD THE QUICKSTART CODE EXAMPLES

3.4.1. Download the Quickstarts

Summary

JBoss EAP 6 comes with a comprehensive set of quickstart code examples designed to help users begin writing applications using the Java EE 6 technologies.

If you chose to install the quickstart examples when you installed JBoss EAP, you can skip this topic. Otherwise, you can download them now under the *Red Hat JBoss Developer Program* or the *Full Red Hat JBoss Commercial Program*. Follow the procedure below that matches your program choice.

Procedure 3.6. Download the Quickstarts under the Full Red Hat JBoss Commercial Program

Follow this procedure if you are participating in the Full Red Hat JBoss Commercial Program. For more information about this program, see Section 1.4, “About the Full Red Hat JBoss Commercial Program”.

1. Open a browser and log into the Red Hat Customer Portal at https://access.redhat.com.
2. Click **Downloads**.
3. Click **`Red Hat JBoss Enterprise Application Platform`** in the **`Product Downloads`** list.
4. Select the correct JBoss EAP version from the **`Version`** drop-down menu.
5. Find **`Red Hat JBoss Enterprise Application Platform 6.x.x Quickstarts`** in the list and click the **`Download`** option.
6. You are prompted to save the Zip file to a directory of your choice. Choose a directory and save the file.
7. Unzip the archive in a directory of your choosing.

Procedure 3.7. Download the Quickstarts under the Red Hat JBoss Developer Program

Follow this procedure if you are participating in the Red Hat JBoss Developer Program. For more information about this program, see Section 1.3, “About the Red Hat JBoss Developer Program”.

1. Open a web browser and access this URL: http://www.jboss.org/products/eap/
2. Click the **`Download JBoss EAP`** link on the left side of the page to display product download information.
3. Under **`Download JBoss EAP 6.3.0`**, click the **`Quickstarts`** link to download a Zip archive containing the examples.

4. You are prompted to save the ZIP file to a directory of your choice. Choose a directory and save the file.

5. Unzip the archive in a directory of your choosing.

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CHAPTER 4. POST-INSTALL INSTRUCTIONS

4.1. SET UP THE DEVELOPMENT ENVIRONMENT

4.1.1. Red Hat JBoss Developer Studio Installation Overview

This guide provides instructions for the simplest install path for Red Hat JBoss Developer Studio. For complete installation procedures, see the *Installation Guide* for Red Hat JBoss Developer Studio on https://access.redhat.com/site/documentation/en-US/Red_Hat_JBoss_Developer_Studio/.

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4.1.2. Download Red Hat JBoss Developer Studio

1. Go to https://www.jboss.org/products/devstudio.html.
2. Click the **`Download Developer Studio 7.1.1`** button. You are prompted to save the ZIP file to a directory of your choice.

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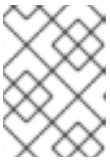
4.1.3. Install Red Hat JBoss Developer Studio

1. Open a terminal and navigate to the directory containing the downloaded **`.jar`** file.
2. Run the following command to launch the GUI installation program:

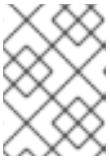
```
java -jar jbdevstudio-build_version.jar
```



NOTE

Alternatively, you may be able to double-click the **`.jar`** file to launch the installation program.

3. Click **`Next`** to start the installation process.
4. Select **`I accept the terms of this license agreement`** and click **`Next`**.
5. Adjust the installation path and click **`Next`**.



NOTE

If the installation path folder does not exist, a prompt will appear. Click **`Ok`** to create the folder.

6. Choose a JVM, or leave the default JVM selected, and click **`Next`**.
7. Red Hat JBoss Developer Studio includes Red Hat JBoss Enterprise Application Platform. If it was previously installed, choose **`No`**. Otherwise, choose **`Yes`** to install and configure it for use with Red Hat JBoss Developer Studio.

8. Review the installation details, and click **Next**.
9. Click **Next** when the installation process is complete.
10. Configure the desktop shortcuts for Red Hat JBoss Developer Studio, and click **Next**.
11. Click **Done**.

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4.1.4. Start Red Hat JBoss Developer Studio

To start Red Hat JBoss Developer Studio, you can double-click on the desktop shortcut created during the installation, or you can start it in a command line. This topic describes how to start Red Hat JBoss Developer Studio using the command line.

Procedure 4.1. Command to start Red Hat JBoss Developer Studio

1. Open a terminal and navigate to the Red Hat JBoss Developer Studio installation directory.
2. Run the following command to start Red Hat JBoss Developer Studio:

   For Linux:

   ```
   [localhost]$ ./jbdevstudio
   ```

   For Microsoft Windows:

   ```
   C:\JBDS_INSTALL_DIRECTORY > jbdevstudio.bat
   ```

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4.1.5. Add the JBoss EAP Server Using Define New Server

These instructions assume this is your first introduction to Red Hat JBoss Developer Studio 7.x and you have not yet added any JBoss EAP servers. The procedure below adds the JBoss server using the Define New Server wizard.

Procedure 4.2. Add the server

1. Open the **Servers** tab. If there is no **Servers** tab, add it to the panel as follows:
   a. Click **Window** → **Show View** → **Other...**.
   b. Select **Servers** from the **Server** folder and click **OK**.
2. Click on the link to **create a new server** or right-click within the blank Server panel and select **New** → **Server**.

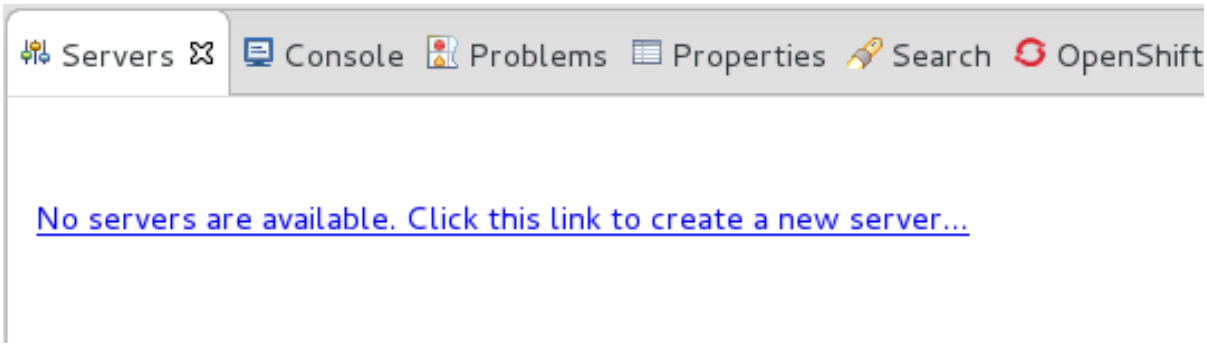

Figure 4.1. Add a new server - No servers available

3. Expand **`JBoss Enterprise Middleware`** and choose **JBoss Enterprise Application Platform 6.1+**. Click **`Next`** to create the JBoss runtime and define the server. The next time you define a new server, this dialog displays a **`Server runtime environment`** selection with the new runtime definition.

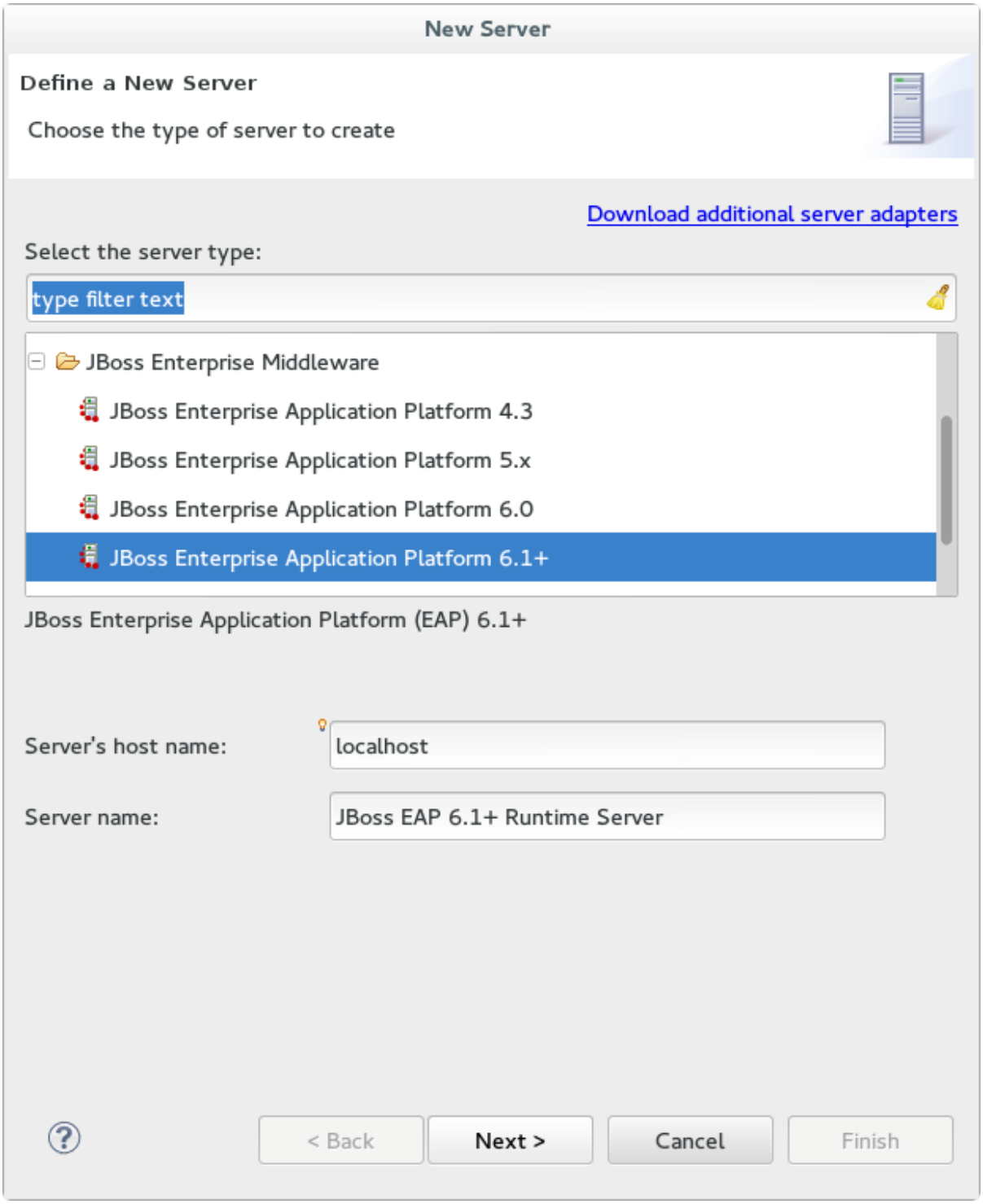

Figure 4.2. Define a New Server

4. Enter a name, for example "JBoss EAP 6.3 Runtime". Under **`Home Directory`**, click **`Browse`** and navigate to your JBoss EAP install location. Then click **`Next`**.

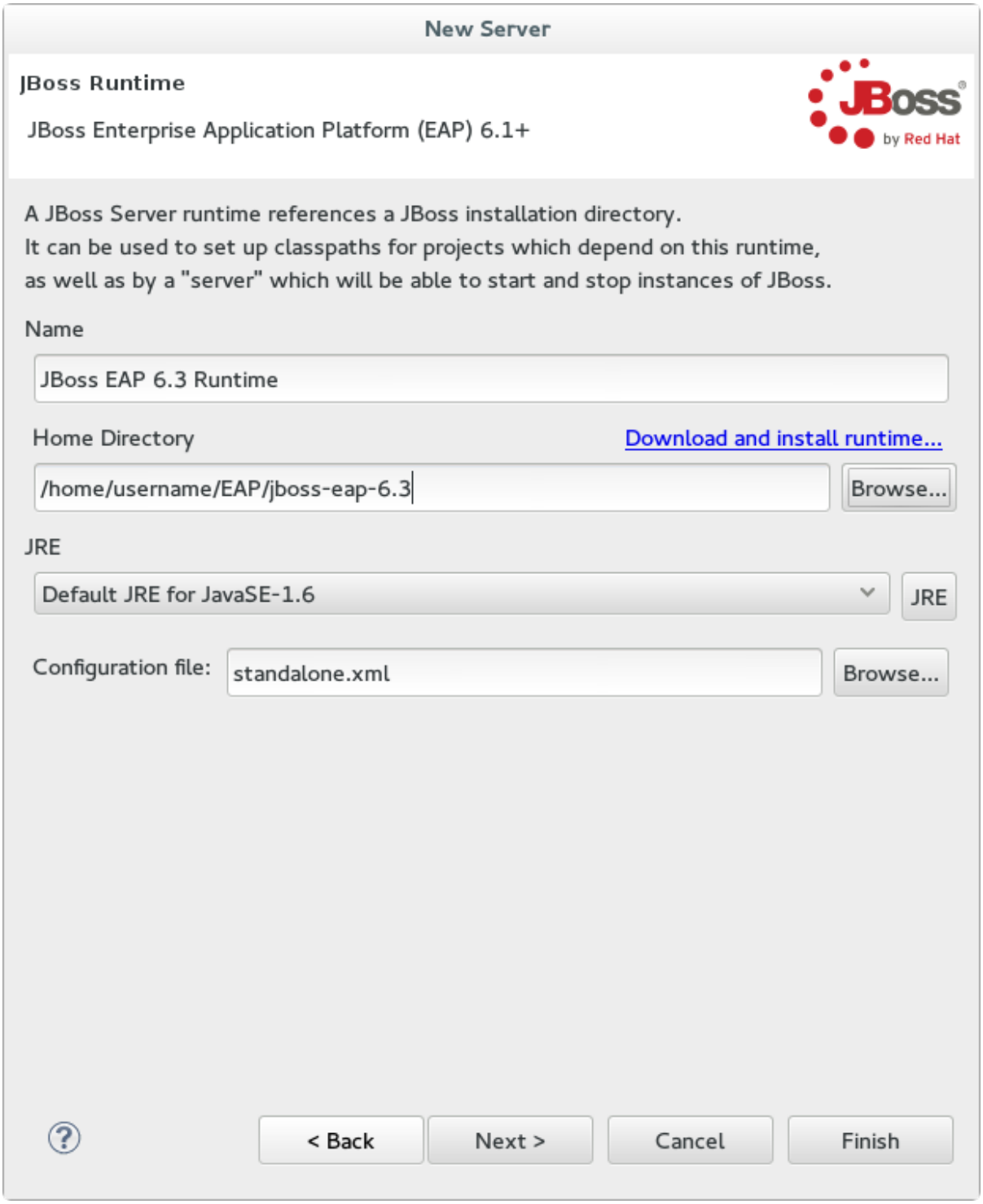

Figure 4.3. Add New Server Runtime Environment

NOTE

Some quickstarts require that you run the server with a different profile or additional arguments. To deploy a quickstart that requires the **`full`** profile, you must define a new server and add a **`Server Runtime Environment`** that specifies **`standalone-full.xml`** for the **`Configuration file`**. Be sure to give the new server a descriptive name.

5. On this screen you define the server behavior. You can start the server manually or let Red Hat JBoss Developer Studio manage it for you. You can also define a remote server for deployment and determine if you want to expose the management port for that server, for example, if you

need connect to it using JMX. In this example, we assume the server is local and you want Red Hat JBoss Developer Studio to manage your server so you do not need to check anything. Click **Next**.

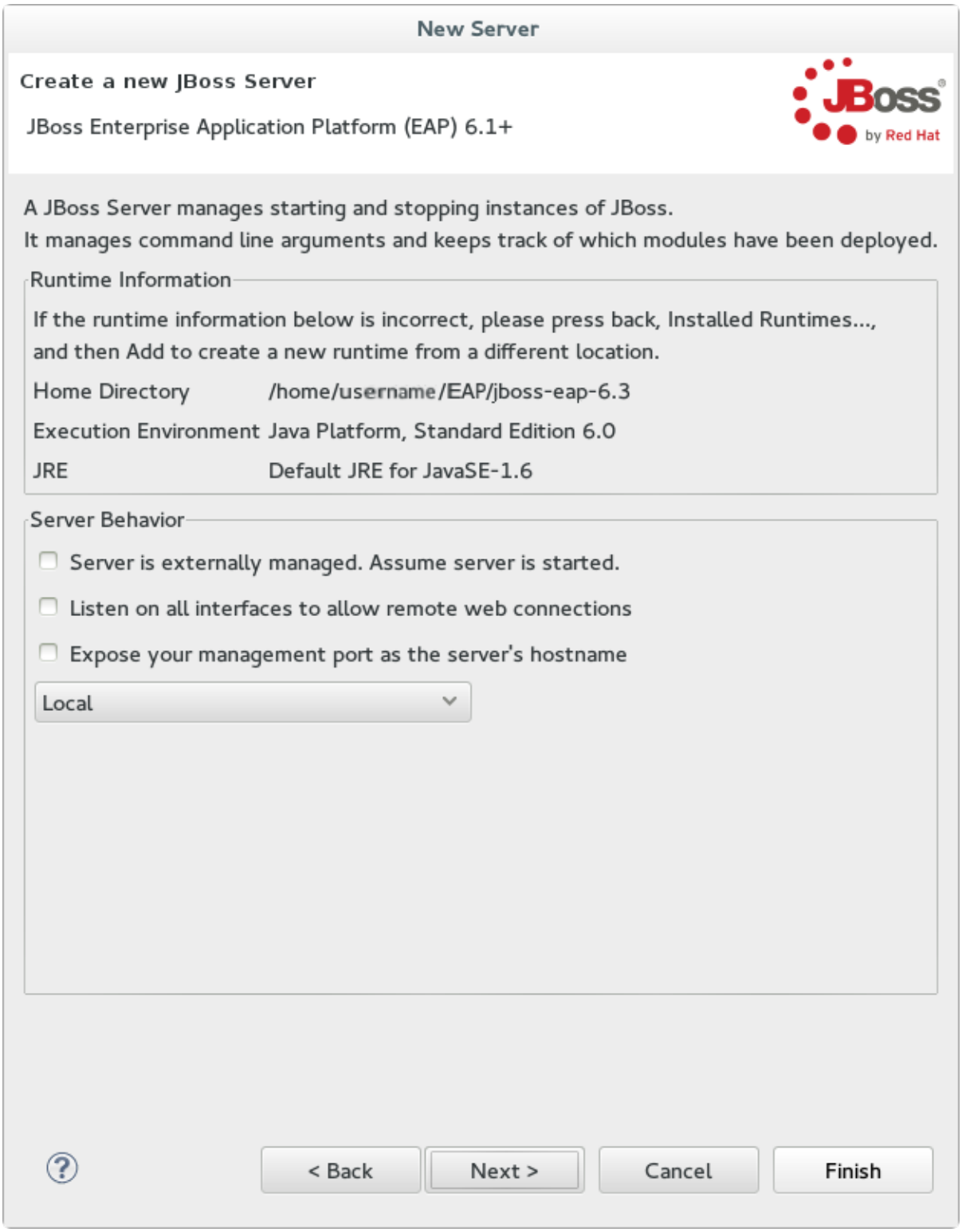

Figure 4.4. Define the New JBoss Server Behavior

6. This screen allows you to configure existing projects for the new server. Because you do not have any projects at this point, click **Finish**.

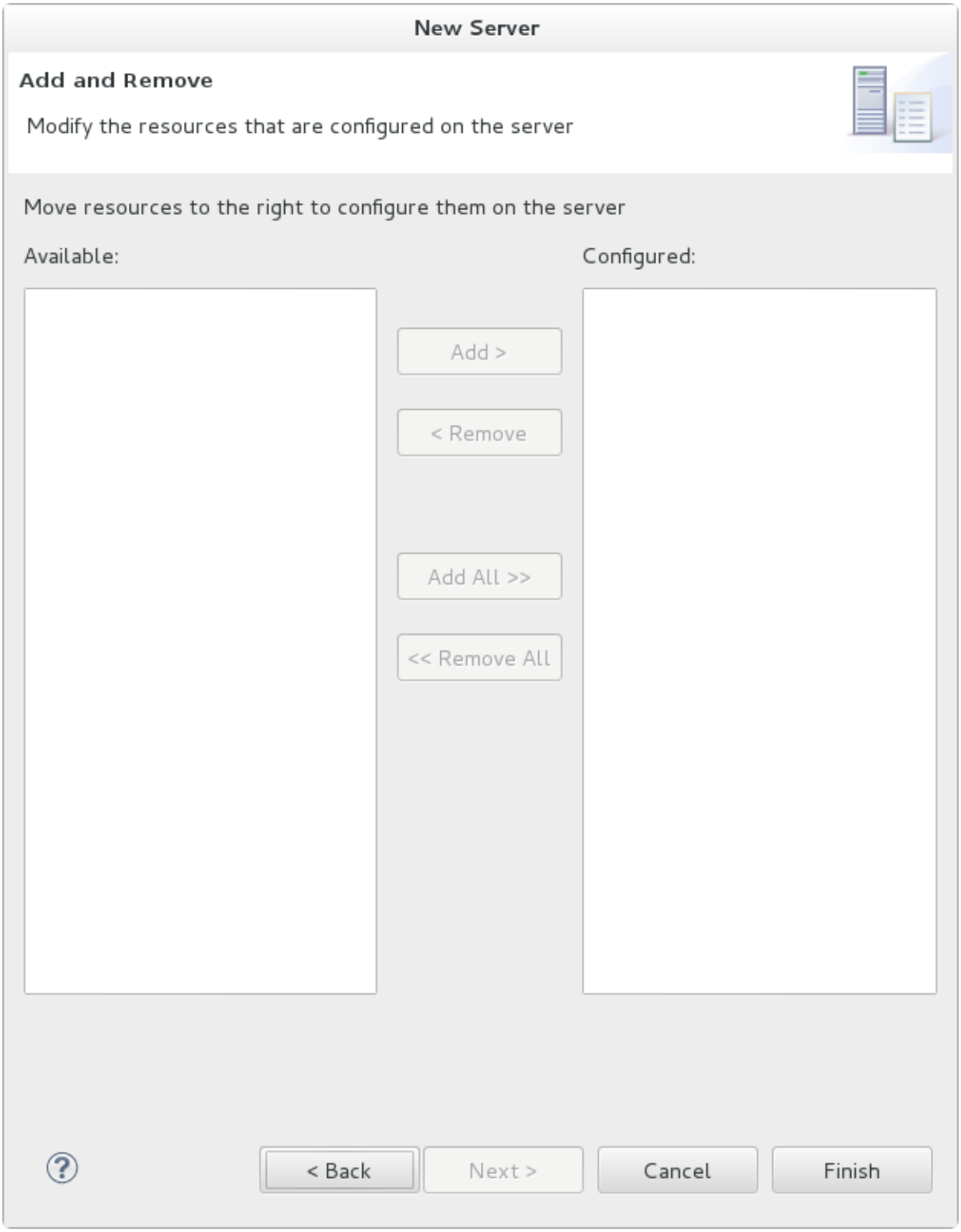

Figure 4.5. Modify resources for the new JBoss server

Result

The JBoss EAP Runtime Server is listed in the **`Servers`** tab.

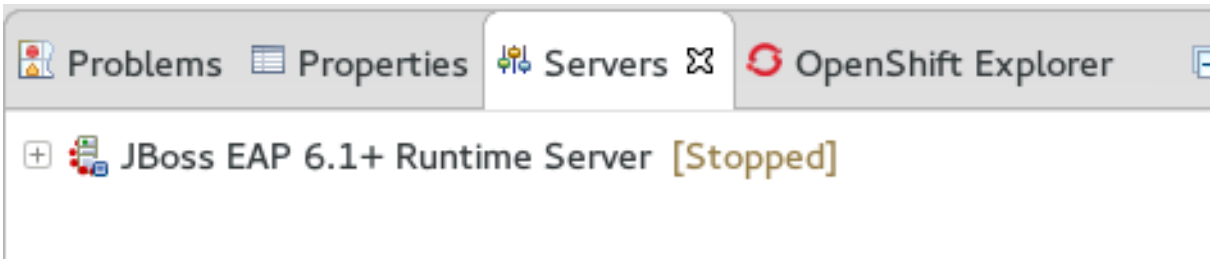

Figure 4.6. Server appears in the server list

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4.2. CONFIGURE MAVEN

4.2.1. About Maven

Apache Maven is a distributed build automation tool used in Java application development to create, manage, and build software projects. Maven uses standard configuration files called Project Object Model, or POM, files to define projects and manage the build process. POMs describe the module and component dependencies, build order, and targets for the resulting project packaging and output using an XML file. This ensures that the project is built in a correct and uniform manner.

Maven achieves this by using a repository. A Maven repository stores Java libraries, plug-ins, and other build artifacts. The default public repository is the Maven 2 Central Repository, but repositories can be private and internal within a company with a goal to share common artifacts among development teams. Repositories are also available from third-parties. JBoss EAP includes a Maven repository that contains many of the requirements that Java EE developers typically use to build applications on JBoss EAP.

For more information about Maven, see Welcome to Apache Maven.

For more information about Maven repositories, see Apache Maven Project - Introduction to Repositories.

For more information about how to use Maven in JBoss EAP, see the chapter entitled *Maven Guide* in the *Development Guide* for Red Hat JBoss Enterprise Application Platform located on the Customer Portal at https://access.redhat.com/site/documentation/JBoss_Enterprise_Application_Platform/.

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4.2.2. Configure the Maven Settings

The artifacts and dependencies needed to build and deploy applications to JBoss EAP 6 are hosted on a public repository. You must direct Maven to use this repository when you build your applications. How you do this depends on whether you plan to use Red Hat JBoss Developer Studio or Maven command line to build and deploy your applications.

Red Hat JBoss Developer Studio includes Maven, so there is no need to download and install it separately. If you plan to use Red Hat JBoss Developer Studio to build and deploy your applications, use the following instructions to configure the Maven settings: Section 4.2.3.1, “Configure Maven for Use with Red Hat JBoss Developer Studio”

If you plan to use the Maven command line to build and deploy your applications, you must first download and install Maven using the instructions here: Section 4.2.4.1, “Download and Install Maven”. Then follow these instructions to configure the Maven settings: Section 4.2.4.2, “Configure the Maven Settings for Use with Command Line”

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4.2.3. Configure Maven for Red Hat JBoss Developer Studio

4.2.3.1. Configure Maven for Use with Red Hat JBoss Developer Studio

The artifacts and dependencies needed to build and deploy applications to Red Hat JBoss Enterprise Application Platform are hosted on a public repository. You must direct Maven to use this repository when you build your applications. This topic covers the steps to configure Maven if you plan to build and deploy application using Red Hat JBoss Developer Studio.

If you plan to use Maven command line to build and deploy applications, you can skip this topic. Instead, follow the instructions here: Section 4.2.4.2, “Configure the Maven Settings for Use with Command Line”.

Maven is distributed with Red Hat JBoss Developer Studio, so it is not necessary to install it separately. However, you must configure Maven for use by the Java EE Web Project wizard for deployments to JBoss EAP. The procedure below demonstrates how to configure Maven for use with JBoss EAP by editing the Maven configuration file from within Red Hat JBoss Developer Studio.

Procedure 4.3. Configure Maven in Red Hat JBoss Developer Studio

1. Click **Window**→**Preferences**, expand **`JBoss Tools`** and select **`JBoss Maven Integration`**.

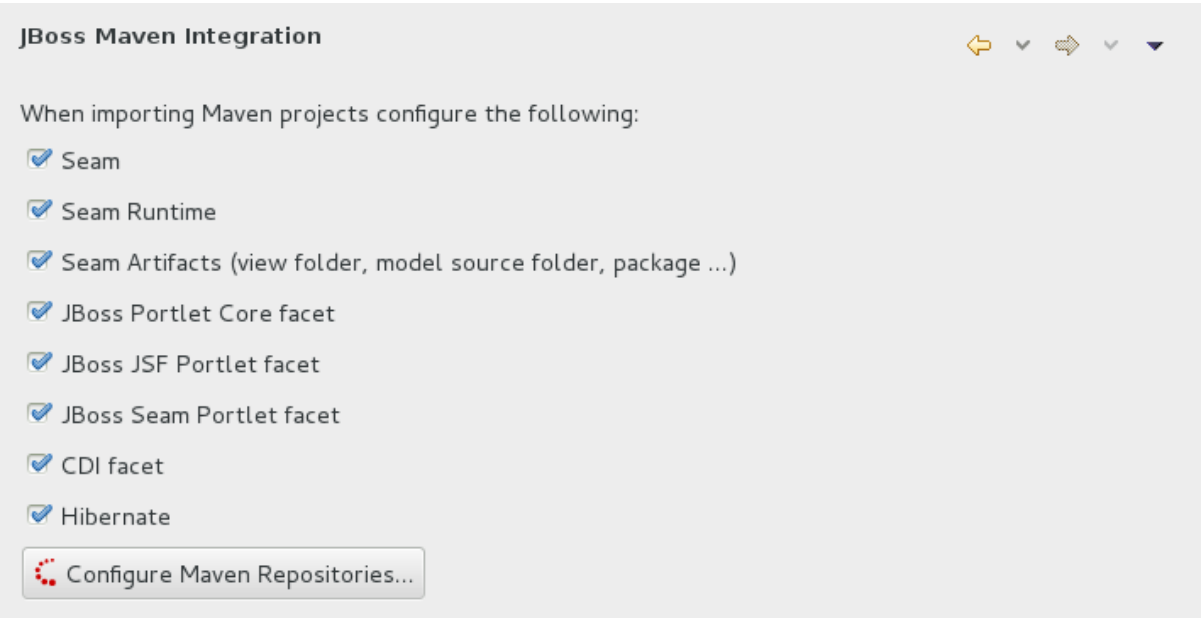

Figure 4.7. JBoss Maven Integration Pane in the Preferences Window

2. Click **`Configure Maven Repositories`**.

3. Click **`Add Repository`** to configure the JBoss GA Tech Preview Maven repository. Complete the **`Add Maven Repository`** dialog as follows:

   a. Set the **`Profile ID`**, **`Repository ID`**, and **`Repository Name`** values to **`jboss-ga-repository`**.

   b. Set the **`Repository URL`** value to **`http://maven.repository.redhat.com/techpreview/all`**.

c. Click the **Active by default** checkbox to enable the Maven repository.

d. Click **OK**

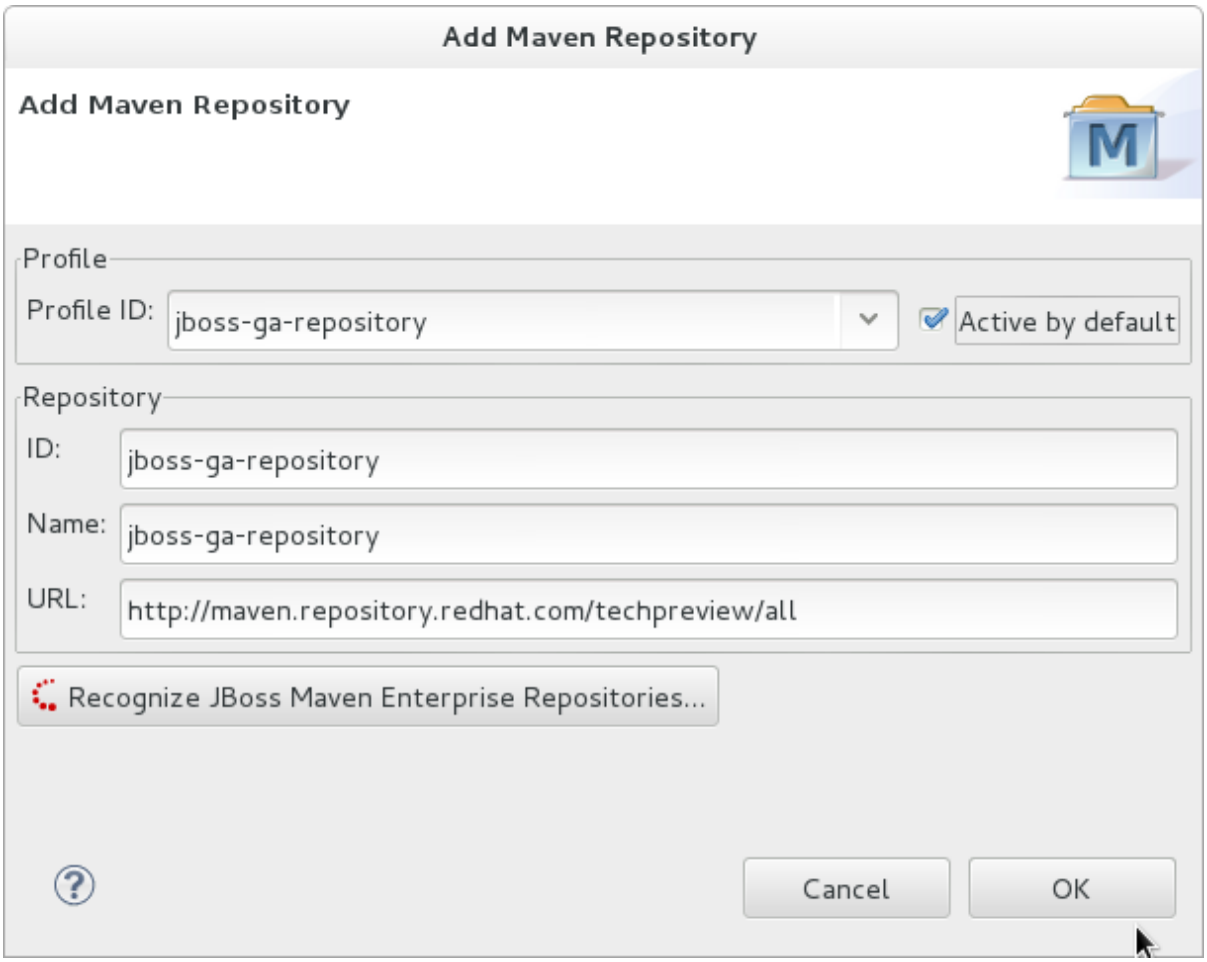

Figure 4.8. Add Maven Repository - JBoss Tech Preview

4. Click **Add Repository** to configure the JBoss Early Access Maven repository. Complete the **Add Maven Repository** dialog as follows:

   a. Set the **Profile ID**, **Repository ID**, and **Repository Name** values to **jboss-earlyaccess-repository**.

   b. Set the **Repository URL** value to **http://maven.repository.redhat.com/earlyaccess/all/**.

   c. Click the **Active by default** checkbox to enable the Maven repository.

   d. Click **OK**

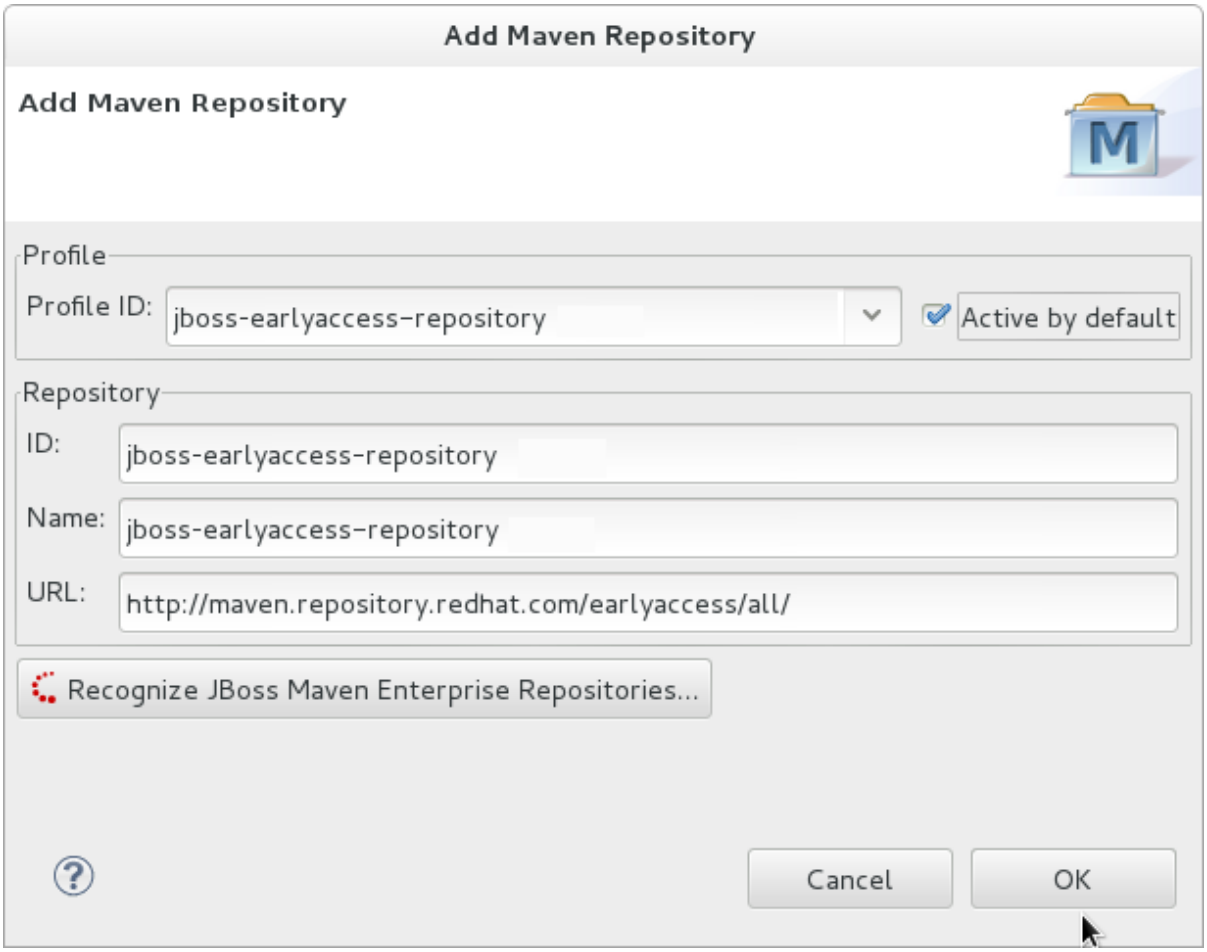

Figure 4.9. Add Maven Repository - JBoss Early Access

5. Review the repositories and click **`Finish`**.

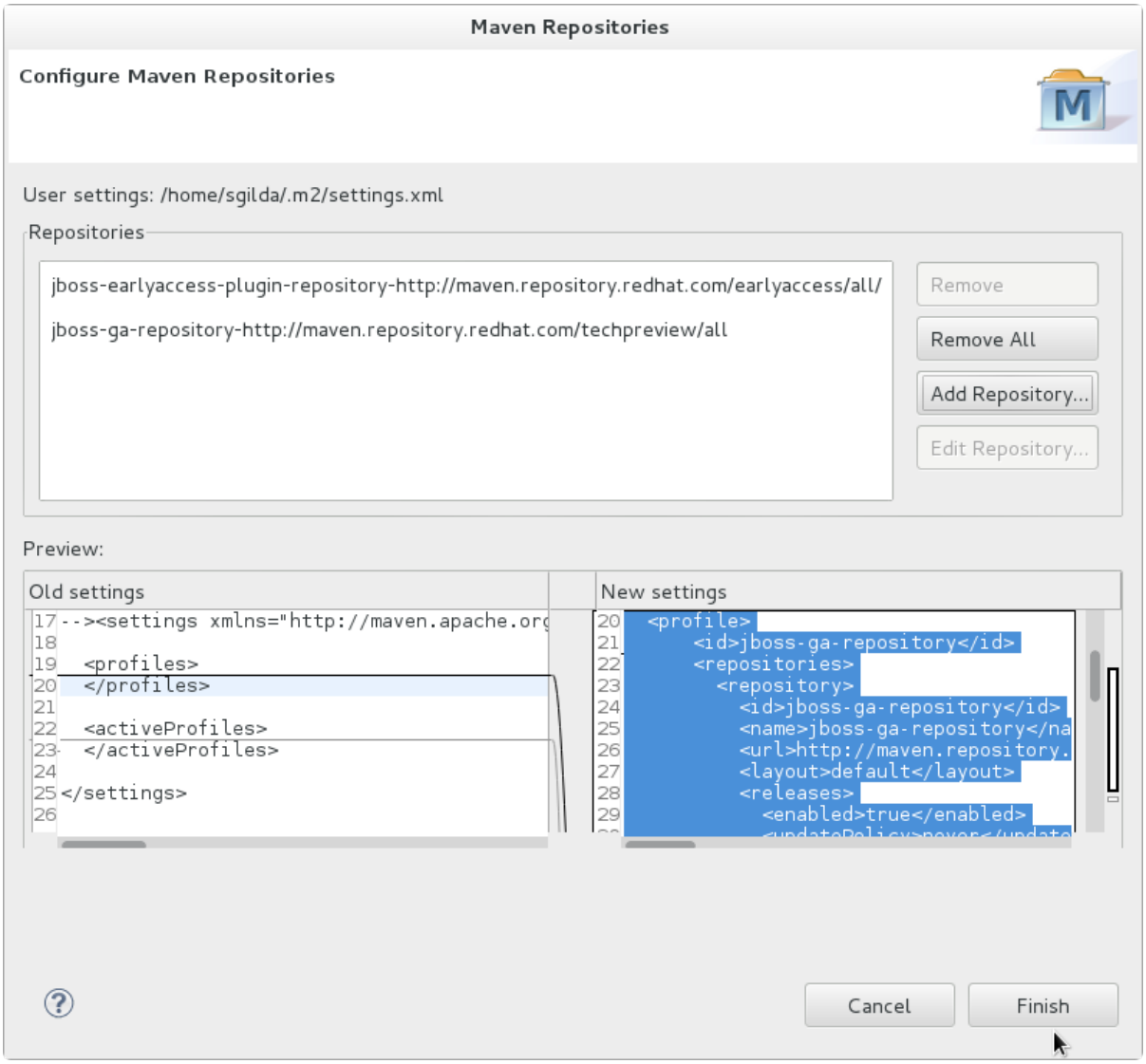

Figure 4.10. Review Maven Repositories

6. You are prompted with the message "Are you sure you want to update the file 'MAVEN_HOME/settings.xml'?". Click **Yes** to update the settings. Click **OK** to close the dialog.

   The JBoss EAP Maven repository is now configured for use with Red Hat JBoss Developer Studio.

Report a bug

4.2.4. Configure Maven for Command Line

4.2.4.1. Download and Install Maven

If you plan to use Maven command line to build and deploy your applications to JBoss EAP, you must download and install Maven. If you plan to use Red Hat JBoss Developer Studio to build and deploy your applications, you can skip this procedure as Maven is distributed with Red Hat JBoss Developer Studio.

1. Go to Apache Maven Project - Download Maven and download the latest distribution for your operating system.

2. See the Maven documentation for information on how to download and install Apache Maven for your operating system.

Report a bug

4.2.4.2. Configure the Maven Settings for Use with Command Line

The artifacts and dependencies needed to build and deploy applications to JBoss EAP 6 are hosted on a public repository. If you plan to use Red Hat JBoss Developer Studio to build and deploy applications, you can skip this topic. Instead, follow the instructions here: Section 4.2.3.1, "Configure Maven for Use with Red Hat JBoss Developer Studio". However, if you plan to use Maven command line, you must direct Maven to use the JBoss EAP 6 Maven Repository across your projects using the Maven settings.

There are 2 ways to configure the settings for use with Maven command line.

- You can copy the preconfigured **`settings.xml`** file that ships with the quickstarts.
- You can manually edit the Maven **`settings.xml`** file.

This topic describes both methods. If you have downloaded the quickstarts, the first procedure is the simplest way to configure the settings.

Prerequisites

You must install Maven before you configure the settings. For more information, see: Section 4.2.4.1, "Download and Install Maven"

Procedure 4.4. Configure Maven Using the Settings Shipped with the Quickstart Examples

The Red Hat JBoss Enterprise Application Platform Quickstarts ship with a **`settings.xml`** file that is configured to use the online JBoss EAP Maven repository. If you have downloaded the quickstarts, this is the easiest way to configure the settings.

1. This procedure overwrites the existing Maven settings file, so you must back up the existing Maven **`settings.xml`** file.
    a. Locate the Maven install directory for your operating system. It is usually installed in ***`USER_HOME`*`/.m2/`** directory.
        - For Linux or Mac, this is: **`~/.m2/`**
        - For Windows, this is: **`\Documents and Settings\`*`USER_NAME`*`\.m2\`** or **`\Users\`*`USER_NAME`*`\.m2\`**
    b. If you have an existing ***`USER_HOME`*`/.m2/settings.xml`** file, rename it or make a backup copy so you can restore it later.
2. If have not yet downloaded the quickstarts, follow the instructions here: Section 3.4.1, "Download the Quickstarts".
3. Copy the ***`QUICKSTART_HOME`*`/settings.xml`** file to the ***`USER_HOME`*`/.m2/`** directory.
4. If you modify the **`settings.xml`** file while Red Hat JBoss Developer Studio is running, follow the procedure at the end of this topic entitled *Refresh the Red Hat JBoss Developer Studio User Settings*.

Procedure 4.5. Manually Edit and Configure the Maven Settings To Use the Online JBoss EAP Maven Repository

You can manually add the JBoss EAP profiles to an existing Maven settings file.

1. Locate the Maven install directory for your operating system. It is usually installed in ***USER_HOME*/.m2/** directory.
   - For Linux or Mac, this is **~/.m2/**
   - For Windows, this is **\Documents and Settings*USER_NAME*\.m2** or **\Users*USER_NAME*\.m2**
2. If you do not find a **settings.xml** file, copy the **settings.xml** file from the ***USER_HOME*/.m2/conf/** directory into the ***USER_HOME*/.m2/** directory.
3. Copy the following XML into the **<profiles>** element of the file.

```
<!-- Configure the JBoss GA Maven repository -->
<profile>
  <id>jboss-ga-repository</id>
  <repositories>
    <repository>
      <id>jboss-ga-repository</id>
      <url>http://maven.repository.redhat.com/techpreview/all</url>
      <releases>
        <enabled>true</enabled>
      </releases>
      <snapshots>
        <enabled>false</enabled>
      </snapshots>
    </repository>
  </repositories>
  <pluginRepositories>
    <pluginRepository>
      <id>jboss-ga-plugin-repository</id>
      <url>http://maven.repository.redhat.com/techpreview/all</url>
      <releases>
        <enabled>true</enabled>
      </releases>
      <snapshots>
        <enabled>false</enabled>
      </snapshots>
    </pluginRepository>
  </pluginRepositories>
</profile>
<!-- Configure the JBoss Early Access Maven repository -->
<profile>
  <id>jboss-earlyaccess-repository</id>
  <repositories>
    <repository>
      <id>jboss-earlyaccess-repository</id>
      <url>http://maven.repository.redhat.com/earlyaccess/all/</url>
      <releases>
        <enabled>true</enabled>
      </releases>
      <snapshots>
        <enabled>false</enabled>
      </snapshots>
```

```
    </repository>
  </repositories>
  <pluginRepositories>
    <pluginRepository>
      <id>jboss-earlyaccess-plugin-repository</id>
      <url>http://maven.repository.redhat.com/earlyaccess/all/</url>
      <releases>
        <enabled>true</enabled>
      </releases>
      <snapshots>
        <enabled>false</enabled>
      </snapshots>
    </pluginRepository>
  </pluginRepositories>
</profile>
```

Copy the following XML into the **<activeProfiles>** element of the **settings.xml** file.

```
<activeProfile>jboss-ga-repository</activeProfile>
<activeProfile>jboss-earlyaccess-repository</activeProfile>
```

4. If you modify the **settings.xml** file while Red Hat JBoss Developer Studio is running, follow the procedure at the end of this topic entitled *Refresh the Red Hat JBoss Developer Studio User Settings*.

Procedure 4.6. Refresh the Red Hat JBoss Developer Studio User Settings

If you modify the **settings.xml** file while Red Hat JBoss Developer Studio is running, you must refresh the user settings.

1. From the menu, choose **Window** → **Preferences**.
2. In the **Preferences** Window, expand **Maven** and choose **User Settings**.
3. Click the **Update Settings** button to refresh the Maven user settings in Red Hat JBoss Developer Studio.

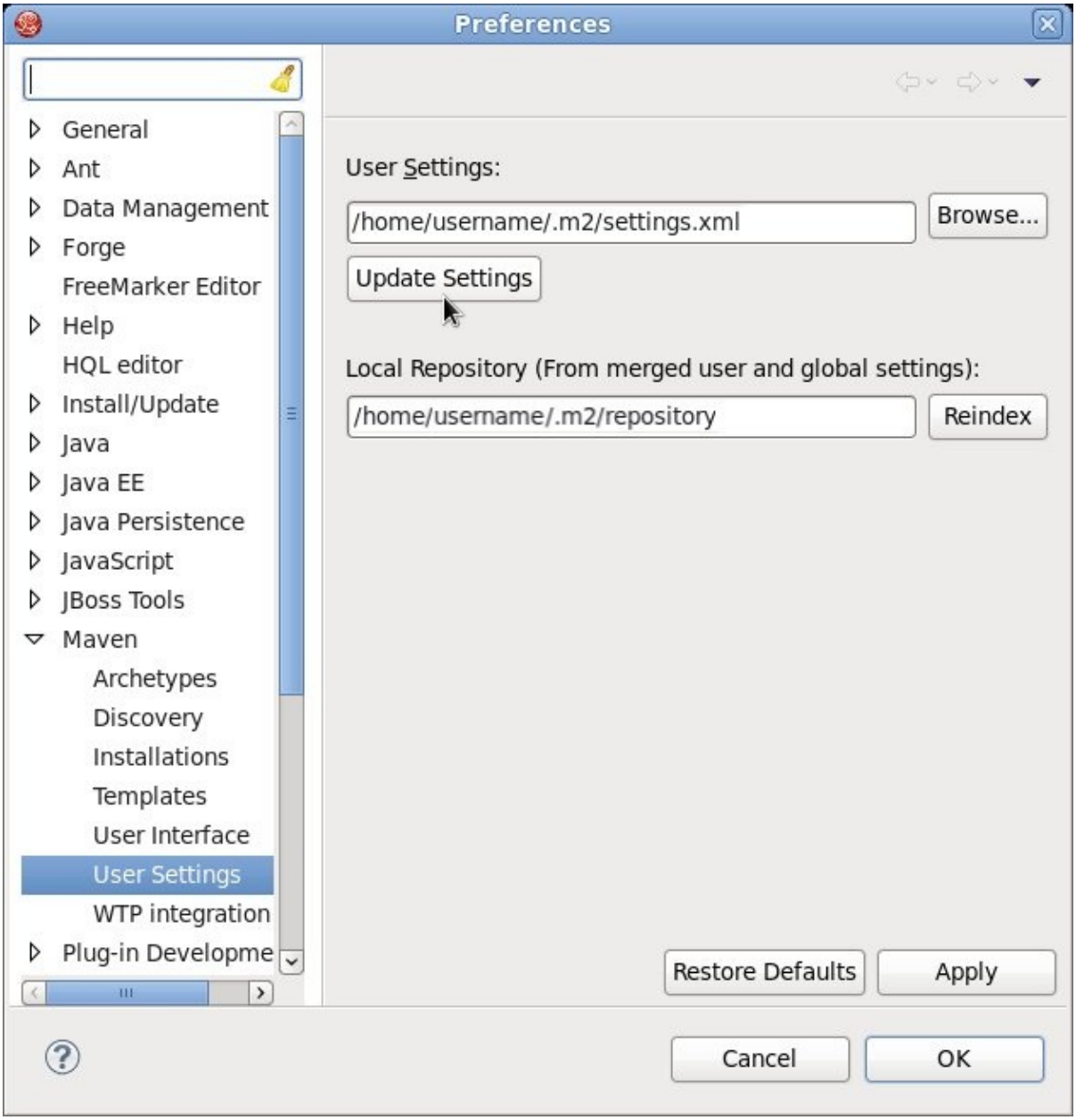

Figure 4.11. Update Maven User Settings

IMPORTANT

If your Maven repository contains outdated artifacts, you may encounter one of the following Maven error messages when you build or deploy your project:

- Missing artifact *ARTIFACT_NAME*
- [ERROR] Failed to execute goal on project *PROJECT_NAME*; Could not resolve dependencies for *PROJECT_NAME*

To resolve the issue, delete the cached version of your local repository to force a download of the latest Maven artifacts. The cached repository is located in your `~/.m2/repository/` subdirectory on Linux, or the `%SystemDrive%\Users\USERNAME\.m2\repository\` subdirectory on Windows.

Report a bug

CHAPTER 5. TRY IT OUT

5.1. RUN THE QUICKSTARTS

5.1.1. Run the Quickstarts in Red Hat JBoss Developer Studio

This section describes how to use Red Hat JBoss Developer Studio to deploy the quickstarts and run the Arquillian tests.

Procedure 5.1. Import the quickstarts into Red Hat JBoss Developer Studio

Each quickstart ships with a POM (Project Object Model) file that contains project and configuration information for the quickstart. Using this POM file, you can easily import the quickstart into Red Hat JBoss Developer Studio.

IMPORTANT

If your quickstart project folder is located within the IDE workspace when you import it into Red Hat JBoss Developer Studio, the IDE generates an invalid project name and WAR archive name. Be sure your quickstart project folder is located outside the IDE workspace before you begin!

1. If you have not yet done so, Section 4.2.4.2, “Configure the Maven Settings for Use with Command Line”.
2. Start Red Hat JBoss Developer Studio.
3. From the menu, select **File** → **Import**.
4. In the selection list, choose **Maven** → **Existing Maven Projects**, then click **`Next`**.

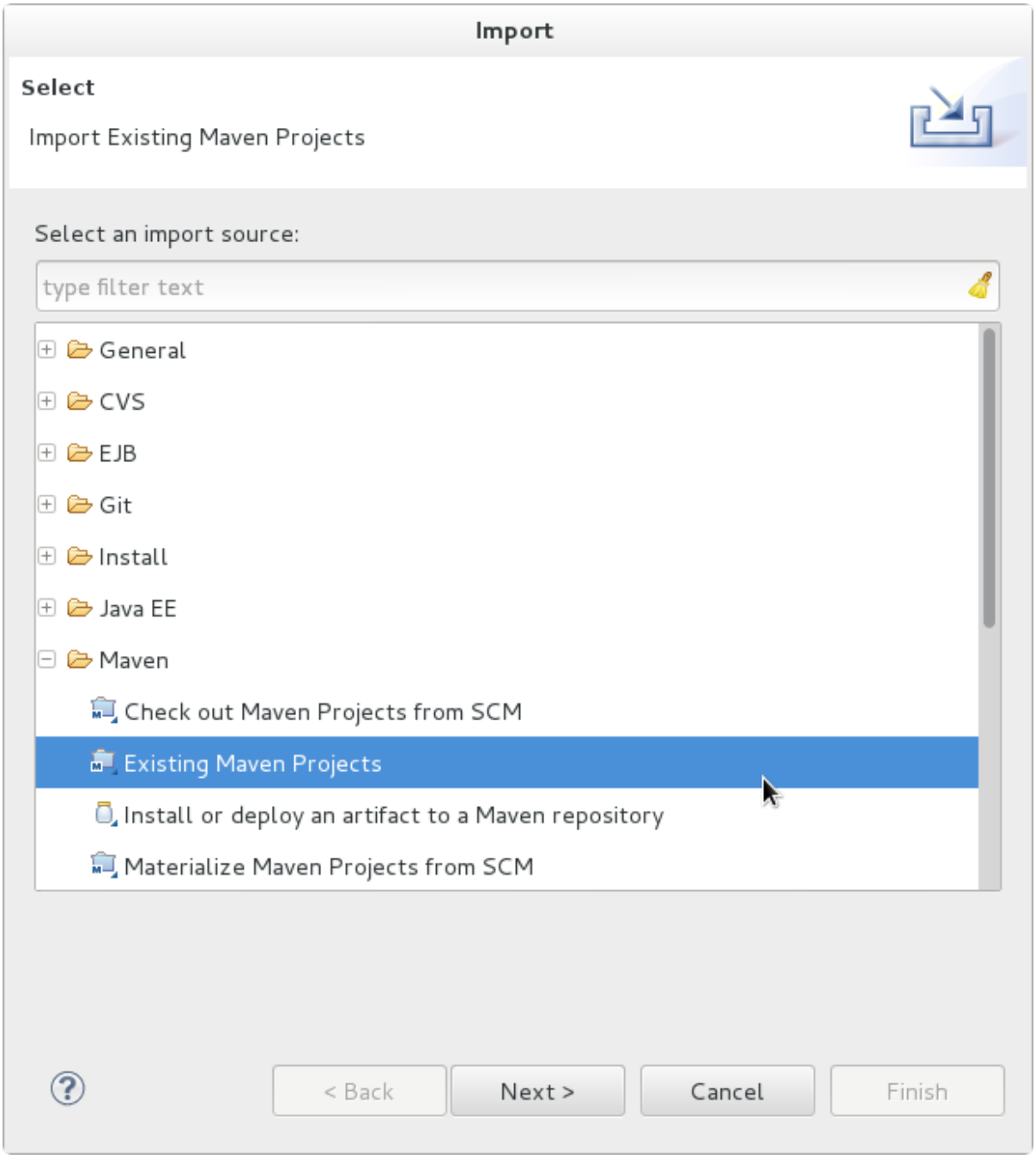

Figure 5.1. Import Existing Maven Projects

5. Browse to the directory of the quickstart you plan to test, for example the **helloworld** quickstart, and click **OK**. The **Projects** list box is populated with the **pom.xml** file of the selected quickstart project.

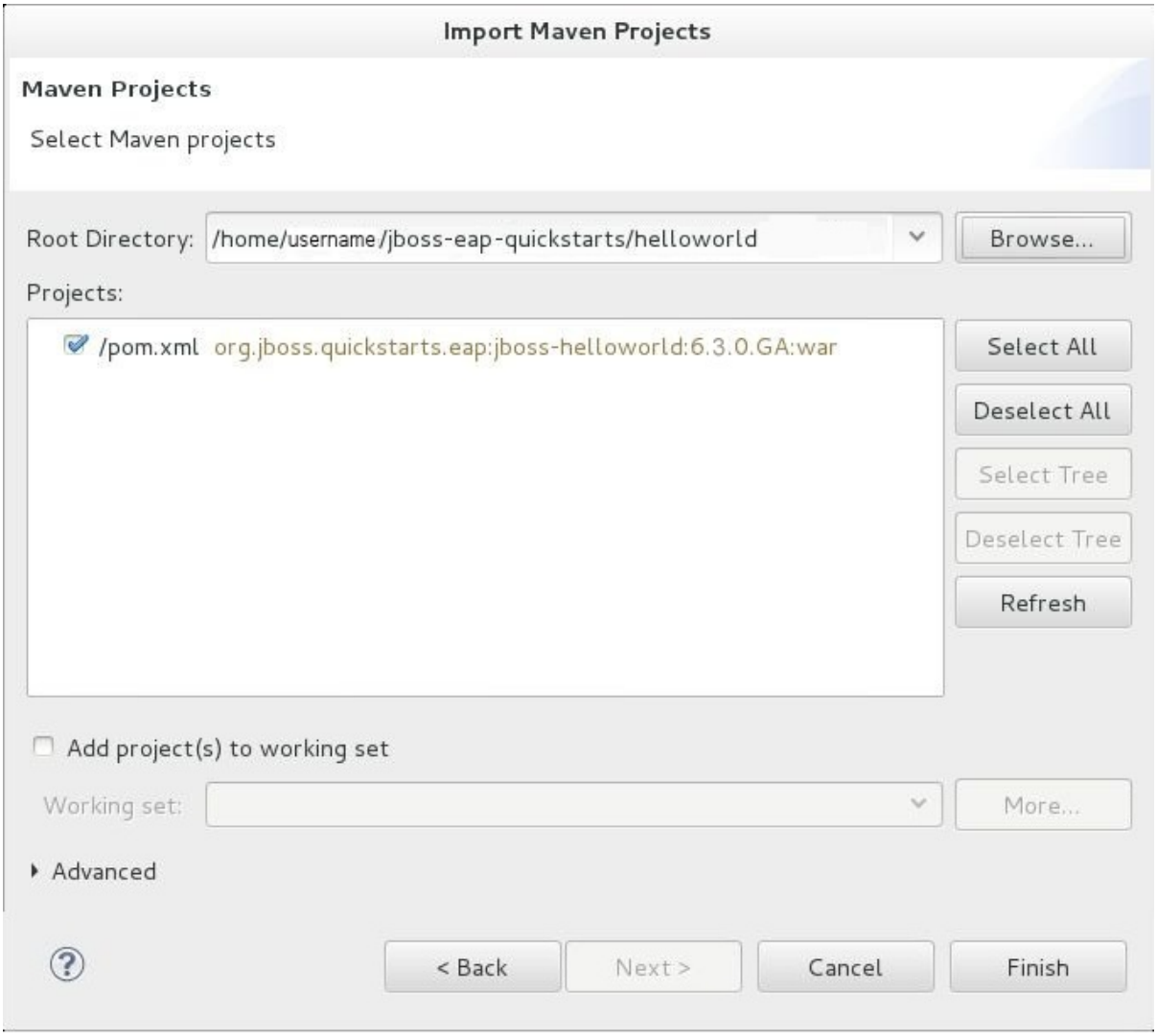

Figure 5.2. Select Maven Projects

6. Click **`Finish`**.

Procedure 5.2. Build and Deploy the `helloworld` quickstart

The **`helloworld`** quickstart is one of the simplest quickstarts and is a good way to verify that the JBoss server is configured and running correctly.

1. If you do not see a **`Servers`** tab or have not yet defined a server, follow the instructions here: Section 4.1.5, "Add the JBoss EAP Server Using Define New Server". If you plan to deploy a quickstart that requires the **`full`** profile or additional startup arguments, be sure to create the server runtime environment as noted in the quickstart instructions.

2. Right-click on the **`jboss-helloworld`** project in the **`Project Explorer`** tab and select **Run As**. You are provided with a list of choices. Select **Run on Server**.

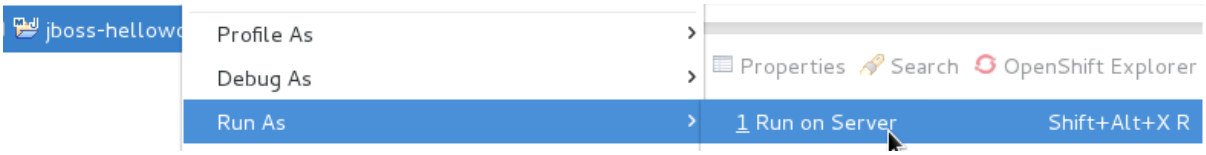

Figure 5.3. Run As - Run on Server

3. Select **`JBoss EAP 6.1+ Runtime Server`** from the server list and click **`Next`**.

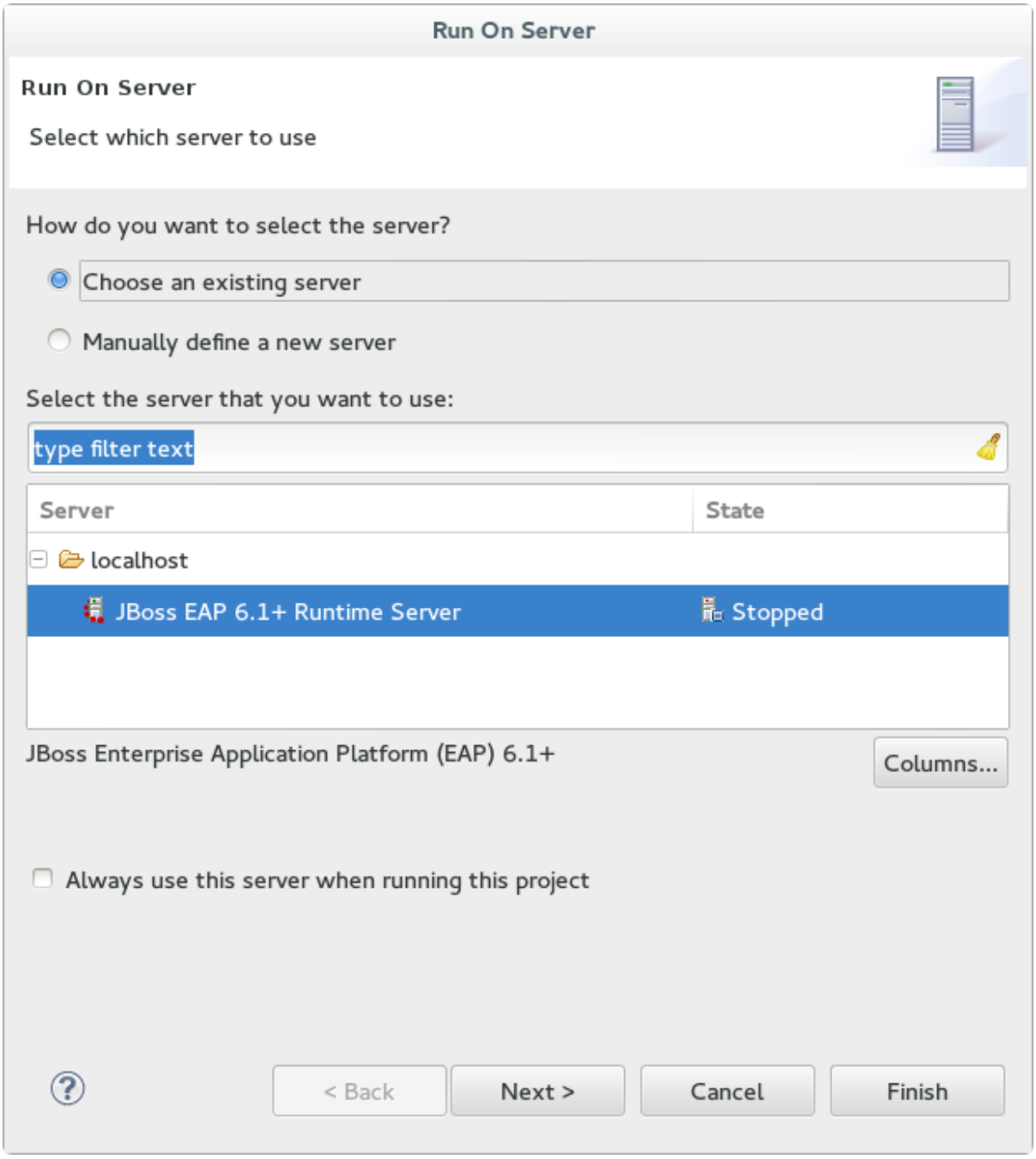

Figure 5.4. Run on Server

4. The next screen displays the resources that are configured on the server. The **`jboss-helloworld`** quickstart is configured for you. Click **`Finish`** to deploy the quickstart.

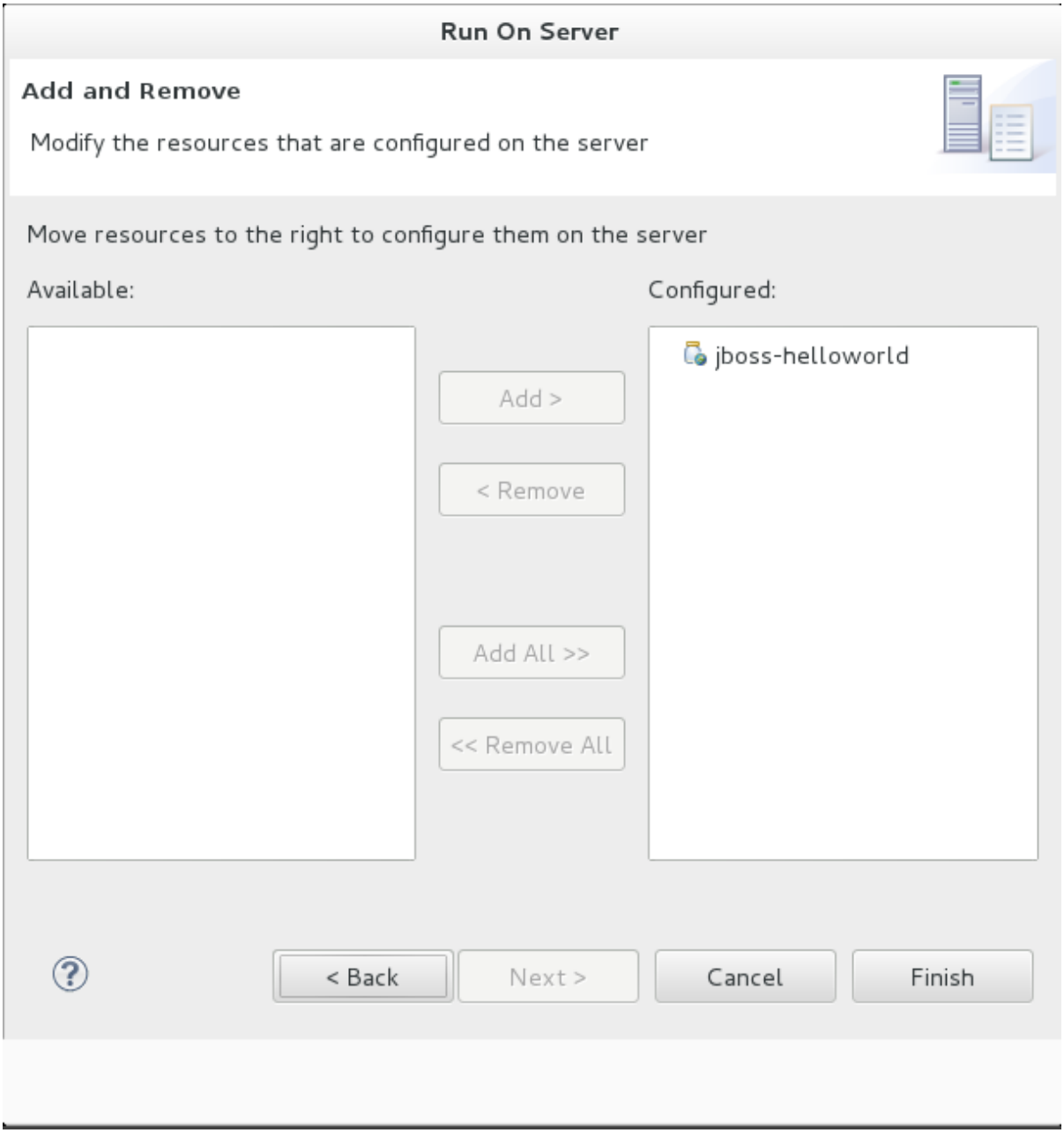

Figure 5.5. Modify Resources Configured on the Server

5. Review the results.
   - In the **Server** tab, the JBoss EAP 6.3 Runtime Server status changes to **[Started, Republish]** .
   - The server **Console** tab shows messages detailing the JBoss EAP 6.3 server start and the helloworld quickstart deployment.
   - A **helloworld** tab appears displaying the URL http://localhost:8080/jboss-helloworld/HelloWorld and the text "Hello World!".
   - The following messages in the **Console** confirm deployment of the **jboss-helloworld.war** file:

     ```
     JBAS018210: Register web context: /jboss-helloworld
     JBAS018559: Deployed "jboss-helloworld.war" (runtime-name :
     "jboss-helloworld.war")
     ```

The registered web context is appended to **`http://localhost:8080`** to provide the URL used to access the deployed application.

6. To verify the **`helloworld`** quickstart deployed successfully to the JBoss server, open a web browser and access the application at this URL: http://localhost:8080/jboss-helloworld

Procedure 5.3. Run the `bean-validation` quickstart Arquillian tests

Some quickstarts do not provide a user interface layer and instead provide Arquillian tests to demonstrate the code examples. The **`bean-validation`** quickstart is an example of a quickstart that provides Arquillian tests.

1. Follow the procedure above to import the **`bean-validation`** quickstart into Red Hat JBoss Developer Studio.

2. If you do not see a **`Servers`** tab or have not yet defined a server, follow the instructions here: Section 4.1.5, “Add the JBoss EAP Server Using Define New Server”

3. Right-click on the **`jboss-bean-validation`** project in the **`Project Explorer`** tab and select **Run As**. You are provided with a list of choices. Select **Maven Build**.

4. In the **`Goals`** input field of the **`Edit Configuration`** dialog, type: **`clean test -Parq-jbossas-remote`**

   Then click **`Run`**.

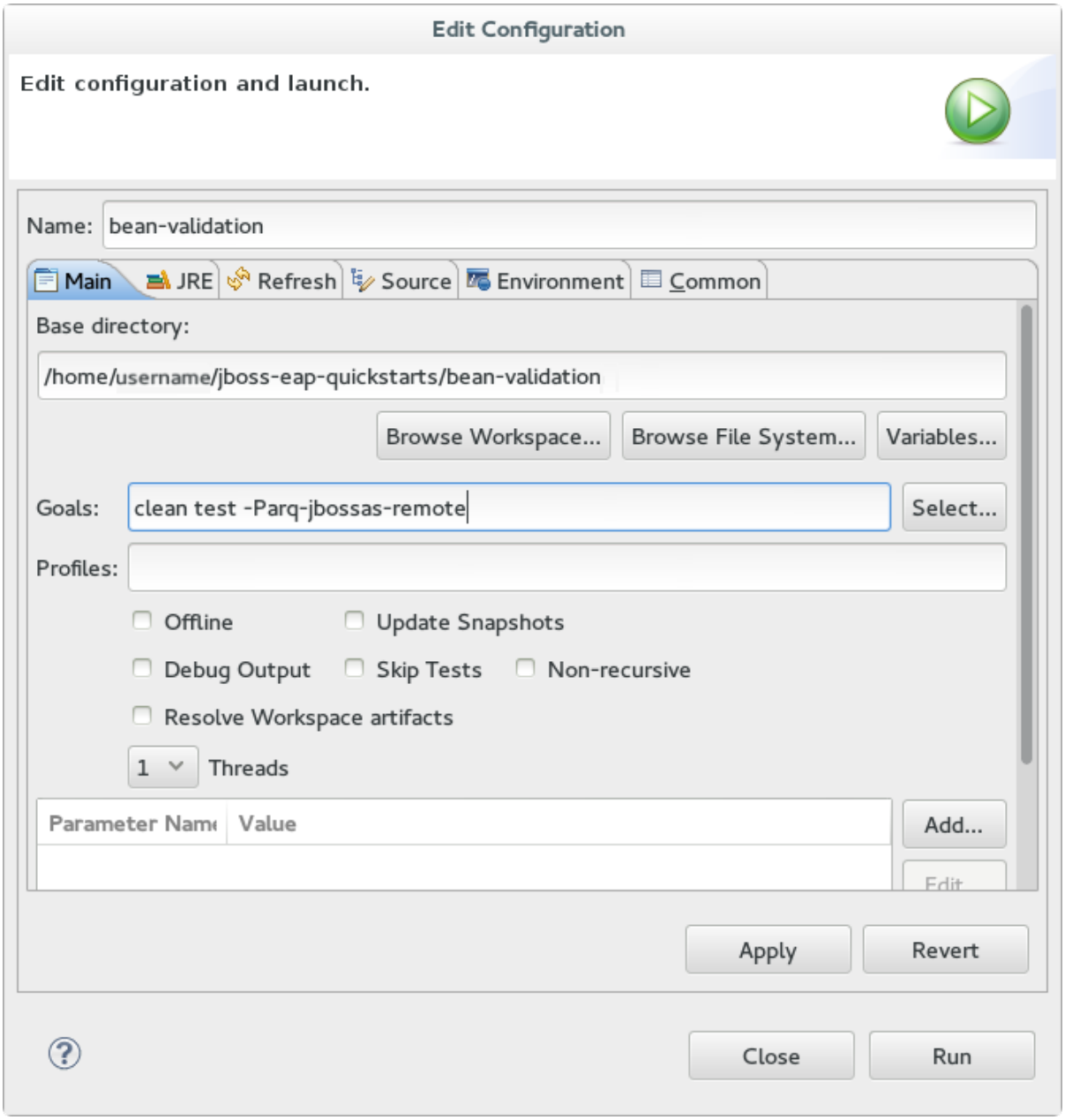

Figure 5.6. Edit Configuration

5. Review the results.

   The server **Console** tab shows messages detailing the JBoss EAP server start and the output of the **bean-validation** quickstart Arquillian tests.

```
-------------------------------------------------------
 T E S T S
-------------------------------------------------------
Running
org.jboss.as.quickstarts.bean_validation.test.MemberValidationTest
Tests run: 5, Failures: 0, Errors: 0, Skipped: 0, Time elapsed:
2.189 sec

Results :

Tests run: 5, Failures: 0, Errors: 0, Skipped: 0

[INFO] ------------------------------------------------------------
```

```
--------------
[INFO] BUILD SUCCESS
[INFO] ------------------------------------------------------------------------
--------------
```

Report a bug

5.1.2. Run the Quickstarts Using a Command Line

Procedure 5.4. Build and Deploy the Quickstarts Using a Command Line

You can easily build and deploy the quickstarts using a command line. Be aware that, when using a command line, you are responsible for starting the JBoss server if it is required.

1. If you have not yet done so, Section 4.2.4.2, “Configure the Maven Settings for Use with Command Line”.

2. Review the **`README.html`** file in the root directory of the quickstarts.

   This file contains general information about system requirements, how to configure Maven, how to add users, and how to run the Quickstarts. Be sure to read through it before you get started.

   It also contains a table listing the available quickstarts. The table lists each quickstart name and the technologies it demonstrates. It gives a brief description of each quickstart and the level of experience required to set it up. For more detailed information about a quickstart, click on the quickstart name.

   Some quickstarts are designed to enhance or extend other quickstarts. These are noted in the **`Prerequisites`** column. If a quickstart lists prerequisites, you must install them first before working with the quickstart.

   Some quickstarts require the installation and configuration of optional components. Do not install these components unless the quickstart requires them.

3. Run the **`helloworld`** quickstart.

   The **`helloworld`** quickstart is one of the simplest quickstarts and is a good way to verify that the JBoss server is configured and running correctly. Open the **`README.html`** file in the root of the **`helloworld`** quickstart. It contains detailed instructions on how to build and deploy the quickstart and access the running application

4. Run the other quickstarts.

   Follow the instructions in the **`README.html`** file located in the root folder of each quickstart to run the example.

Report a bug

APPENDIX A. INSTALLATION PROGRAM SCREEN SHOTS

A.1. LANGUAGE SELECTION

Figure A.1. JBoss EAP Installation Program Language Selection

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A.2. END USER LICENSE AGREEMENT

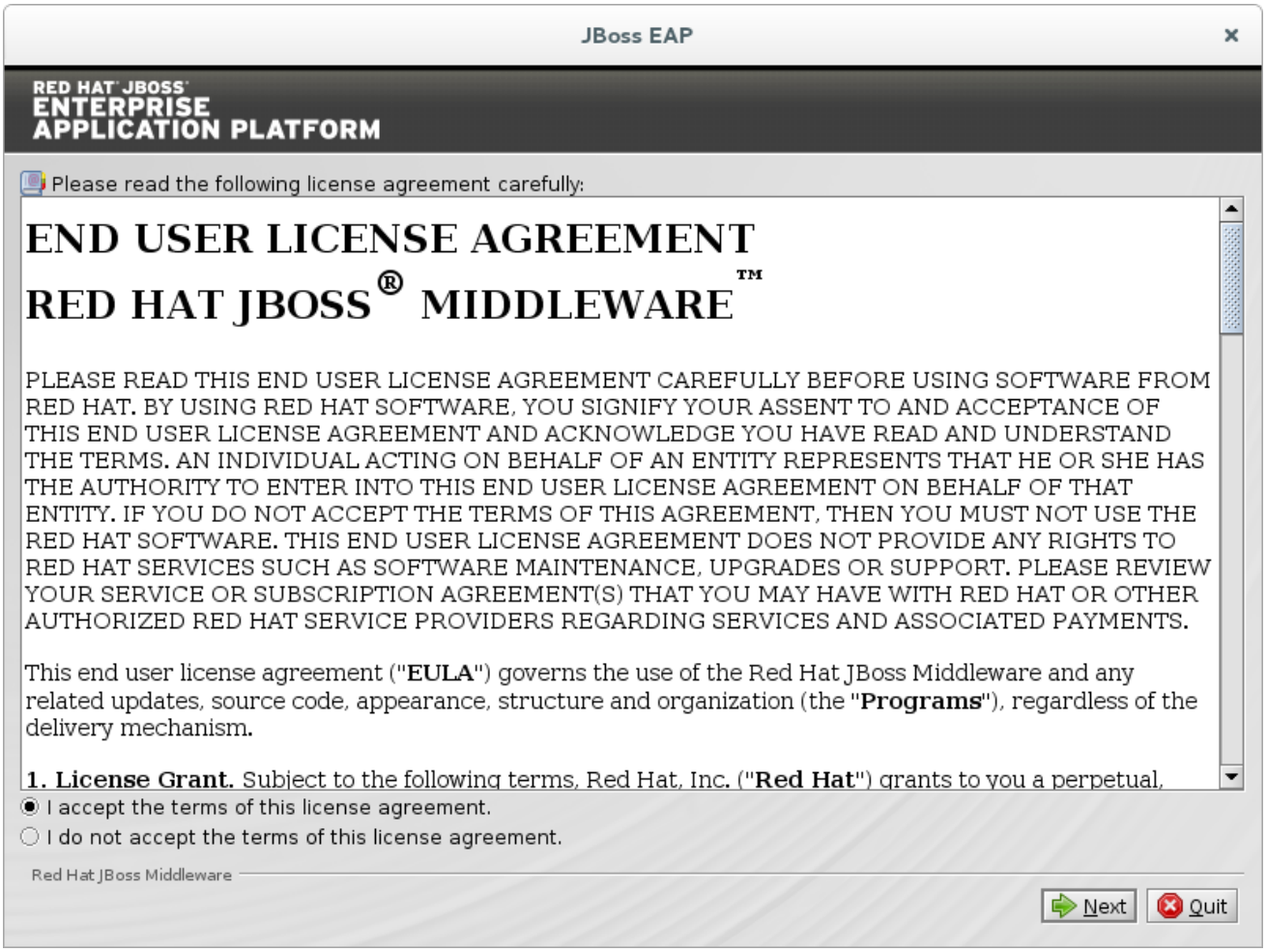

Figure A.2. JBoss EAP Installation Program End User License Agreement

Report a bug

A.3. INSTALLATION PATH

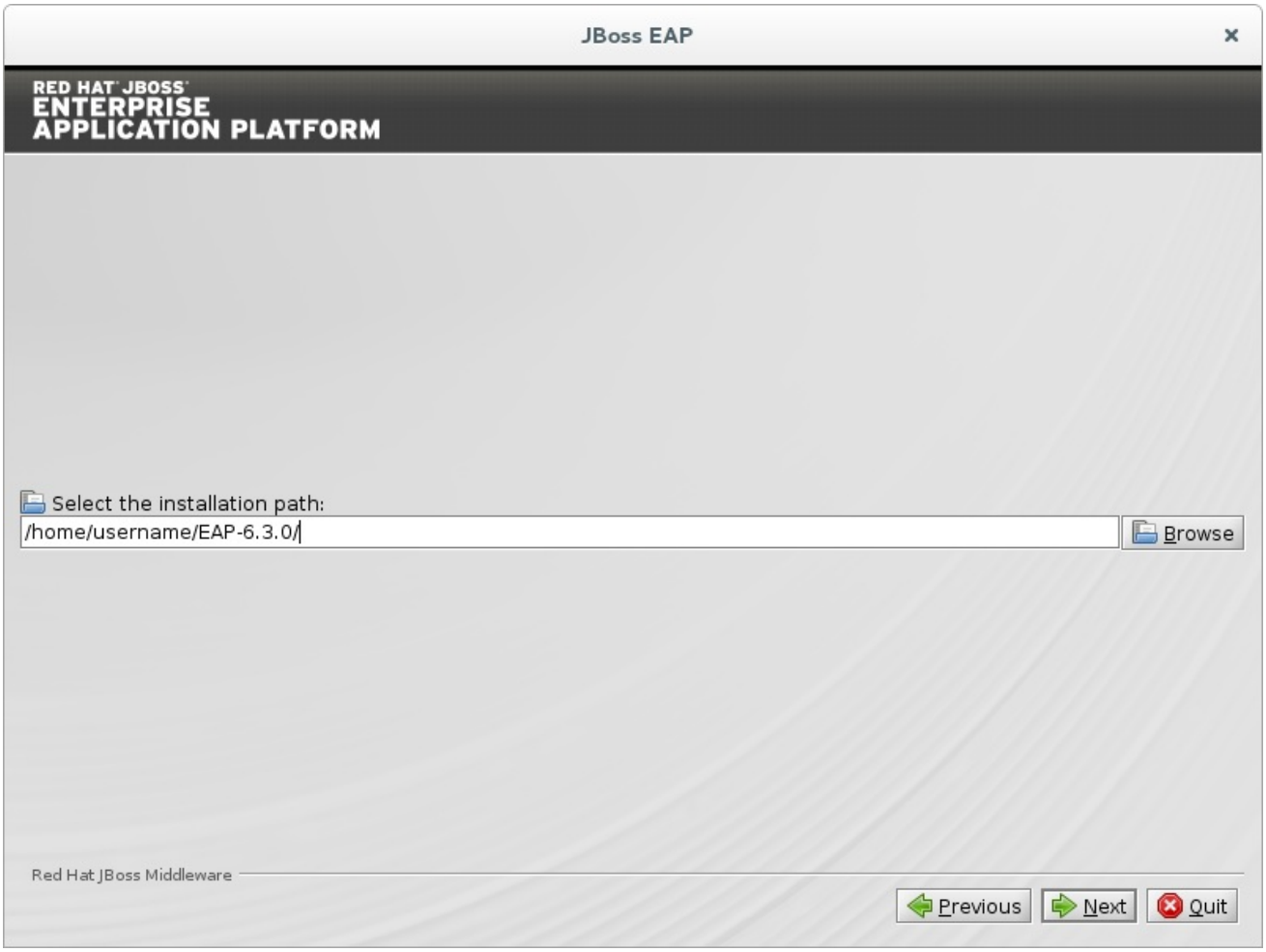

Figure A.3. JBoss EAP Installation Program Installation Path

Report a bug

A.4. SELECT THE PACKS TO INSTALL

Select or deselect the packs to install. Required packs are disabled for deselection.

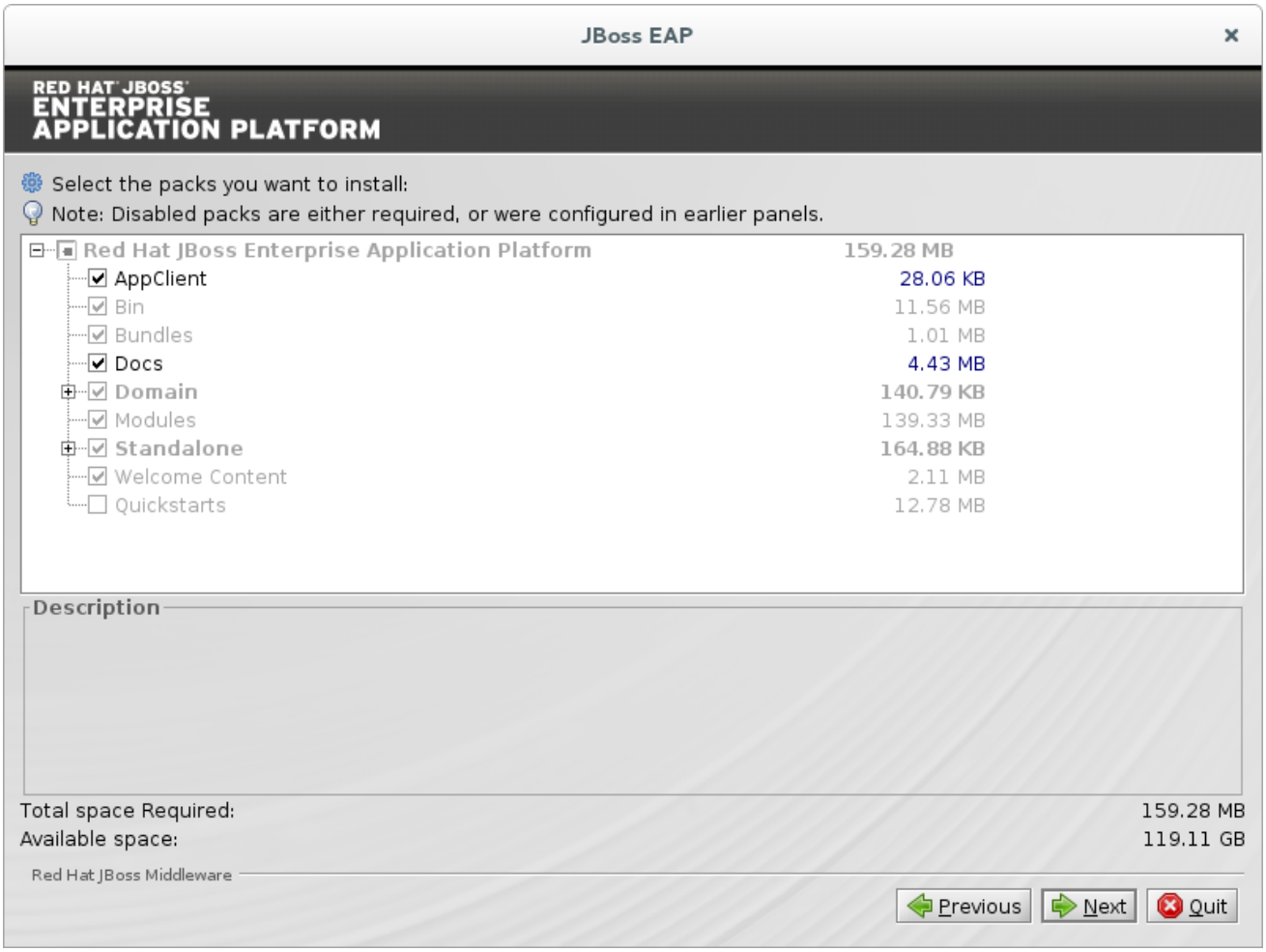

Figure A.4. JBoss EAP Installation Program Select Packs to Install

Report a bug

A.5. ADMINISTRATIVE USER CREATION

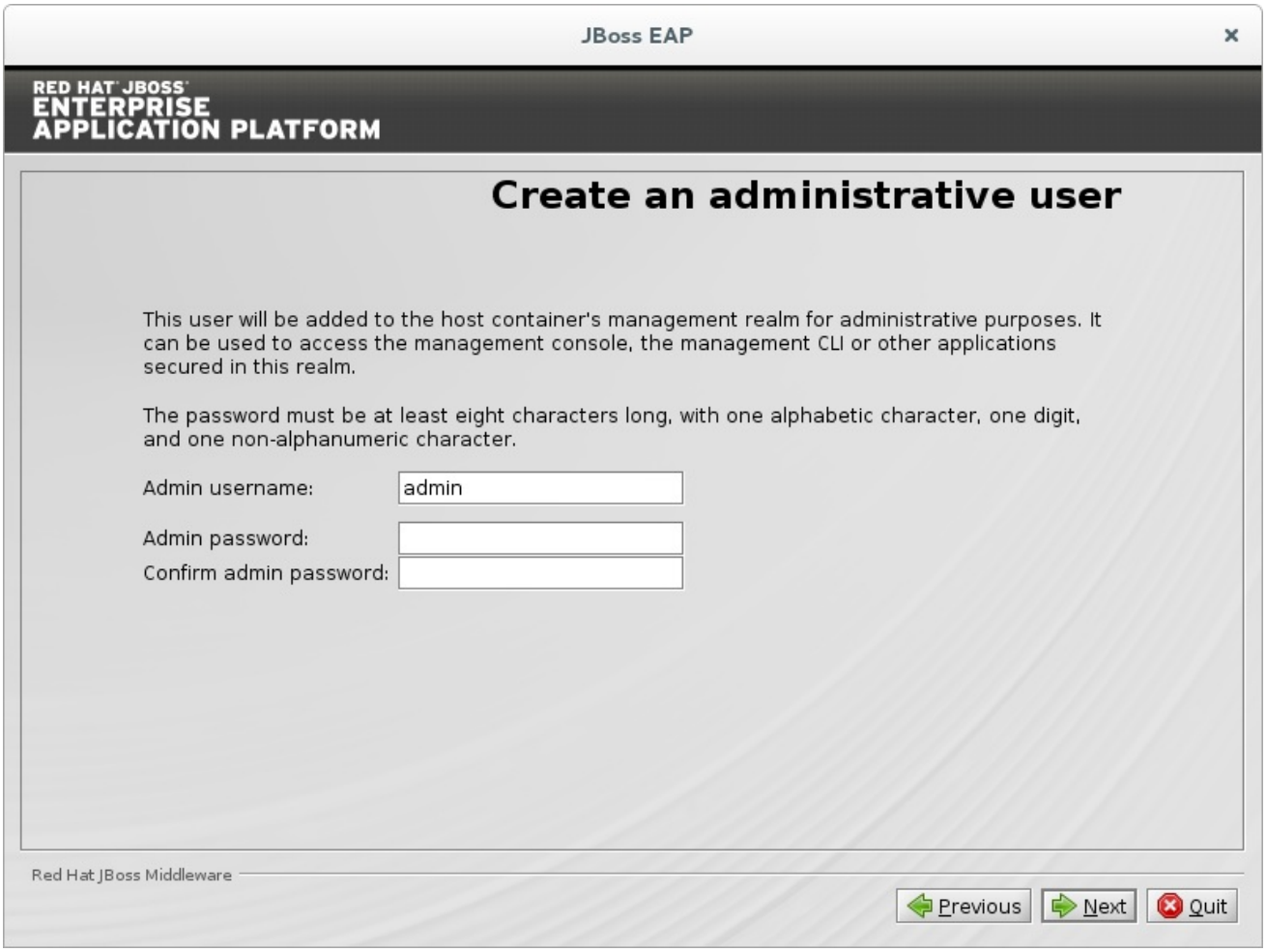

Figure A.5. JBoss EAP Installation Program Administrative User Creation

Report a bug

A.6. QUICKSTART INSTALLATION

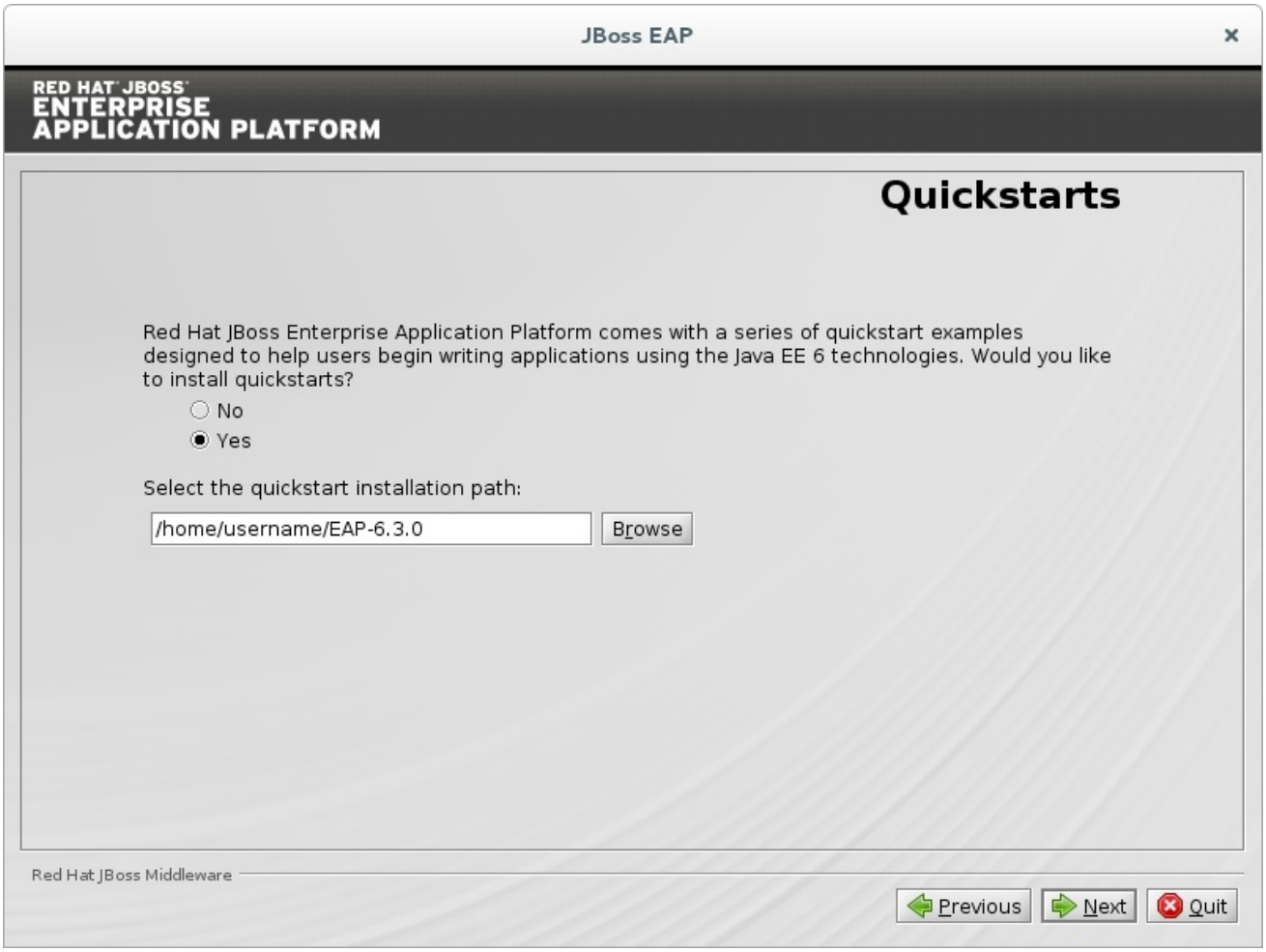

Figure A.6. JBoss EAP Installation Program Quickstart Setup

Report a bug

A.7. MAVEN REPOSITORY SETUP

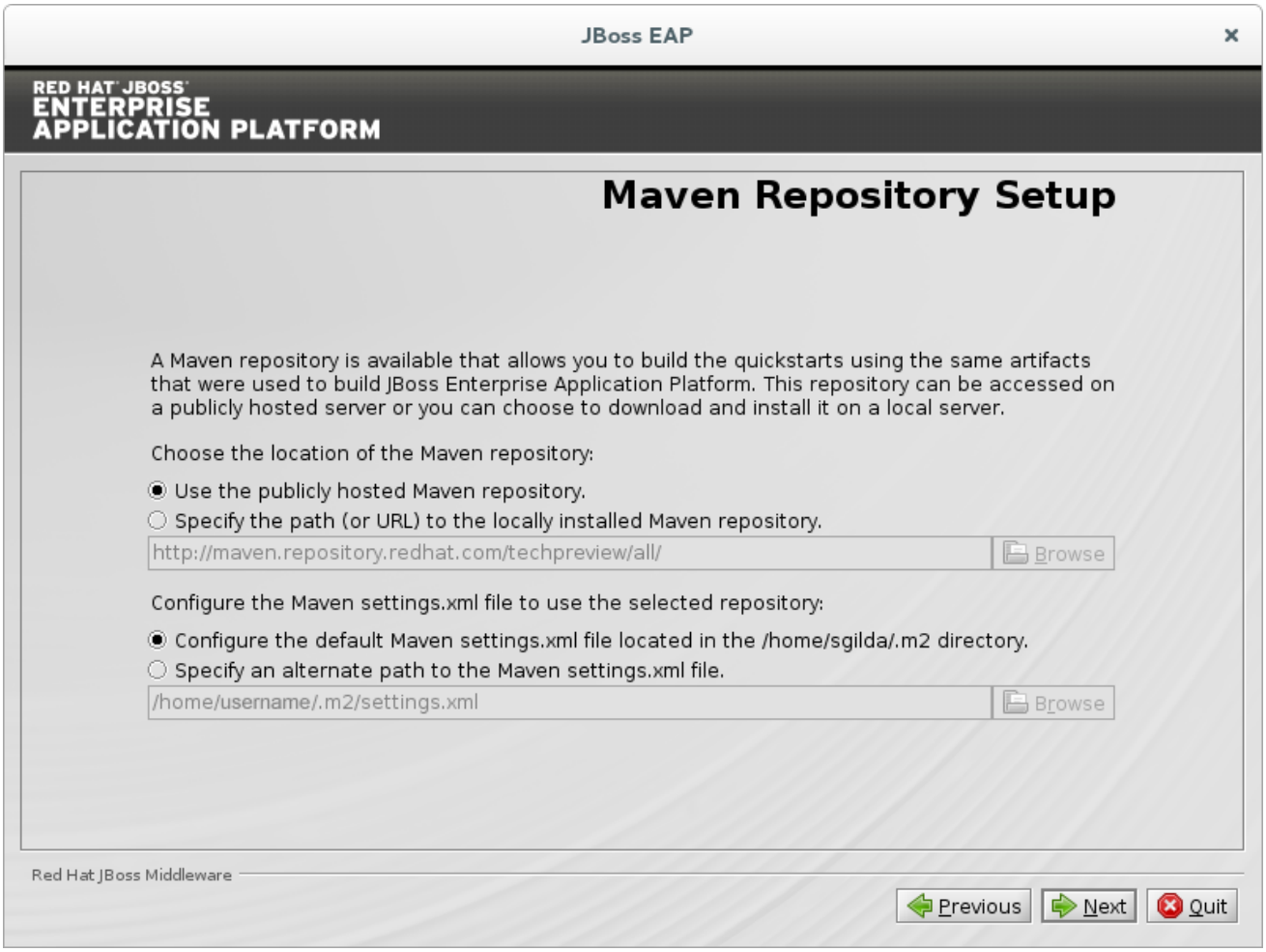

Figure A.7. JBoss EAP Installation Program Maven Repository Setup

Report a bug

A.8. SOCKET BINDING SETUP

Determine whether to use the default bindings, or configure custom bindings.

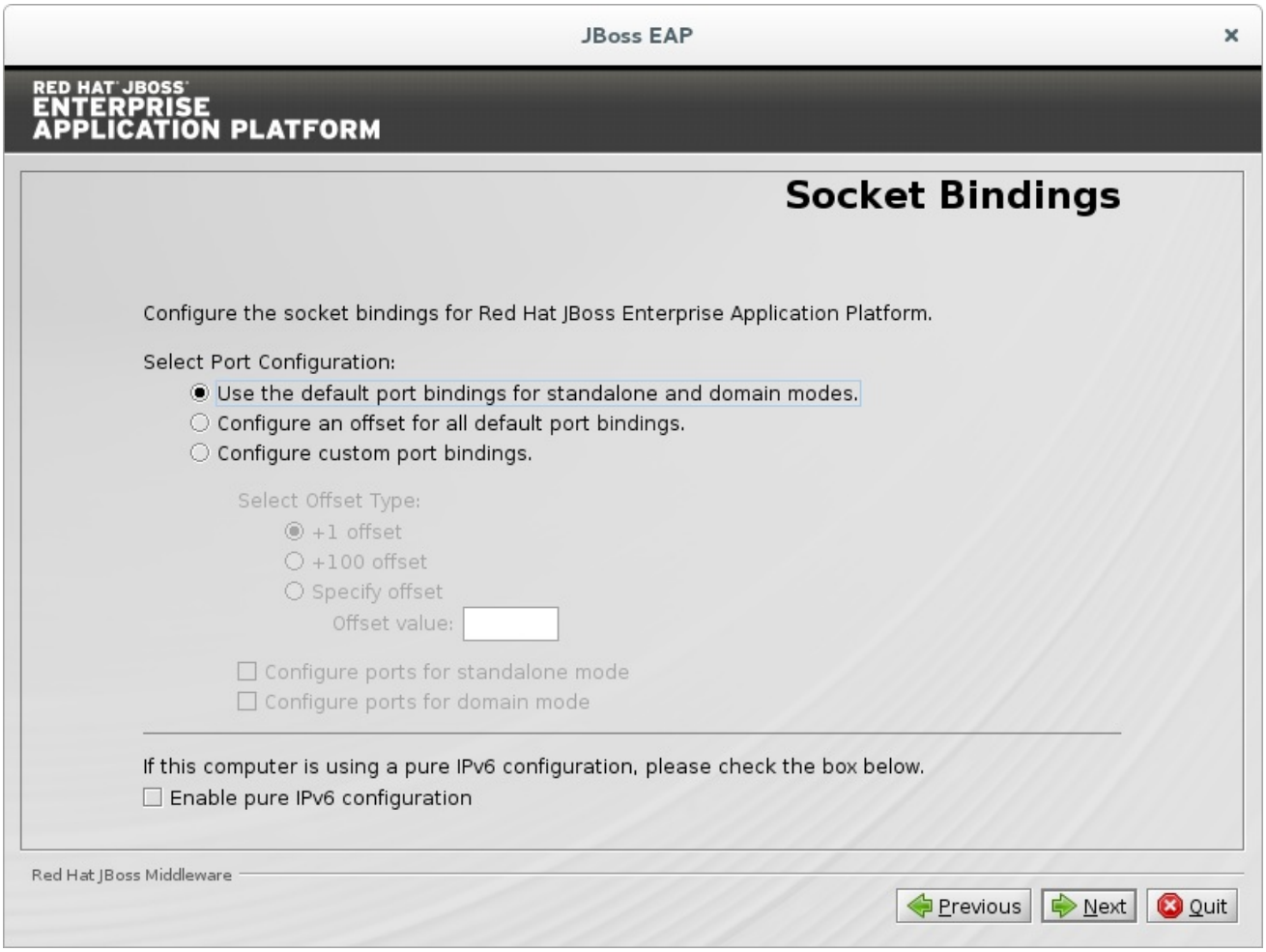

Figure A.8. JBoss EAP Installation Program Default Socket Bindings

Report a bug

A.9. SERVER LAUNCH

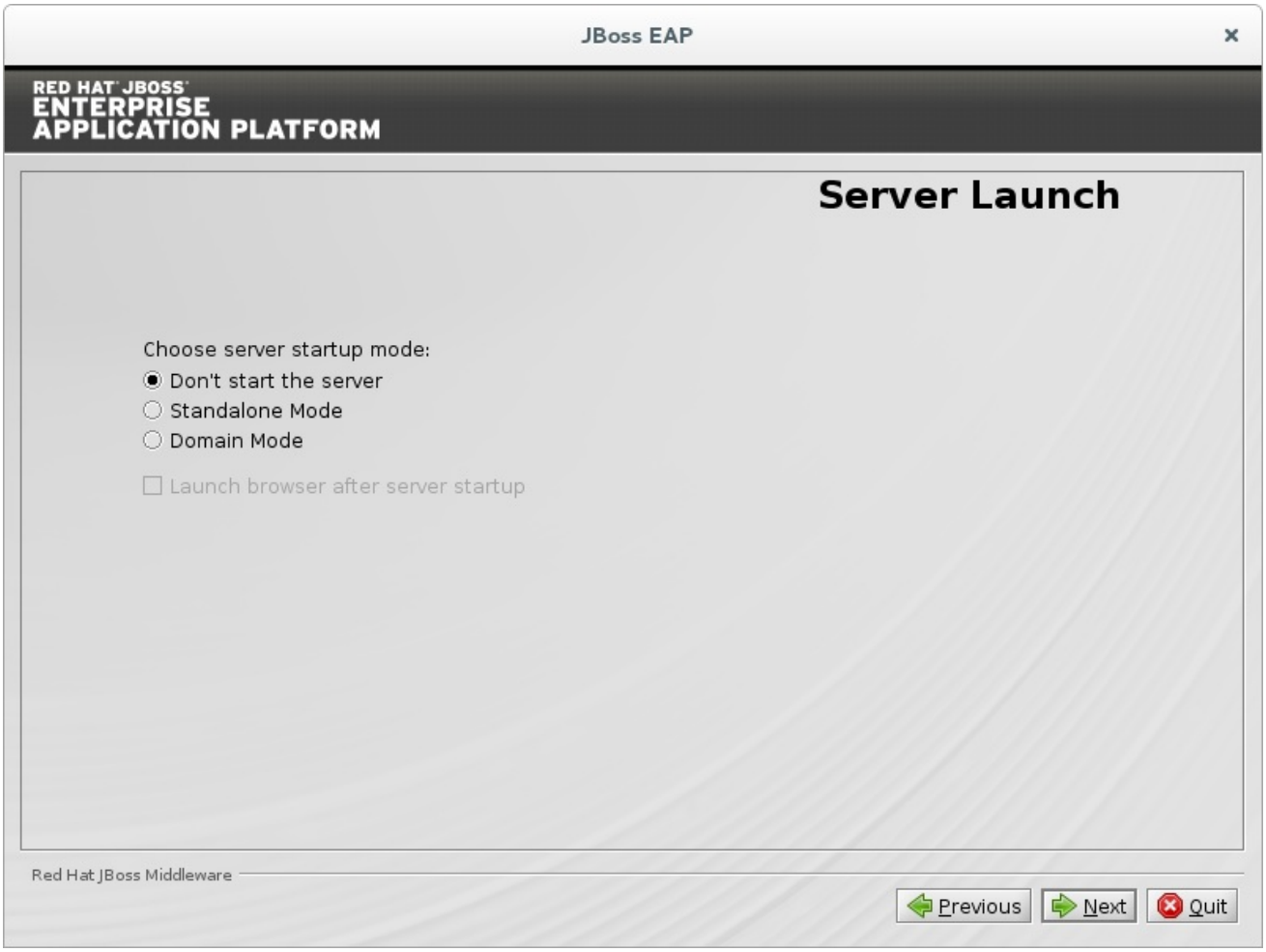

Figure A.9. JBoss EAP Installation Program Server Launch

Report a bug

A.10. CONFIGURE LOGGING LEVELS

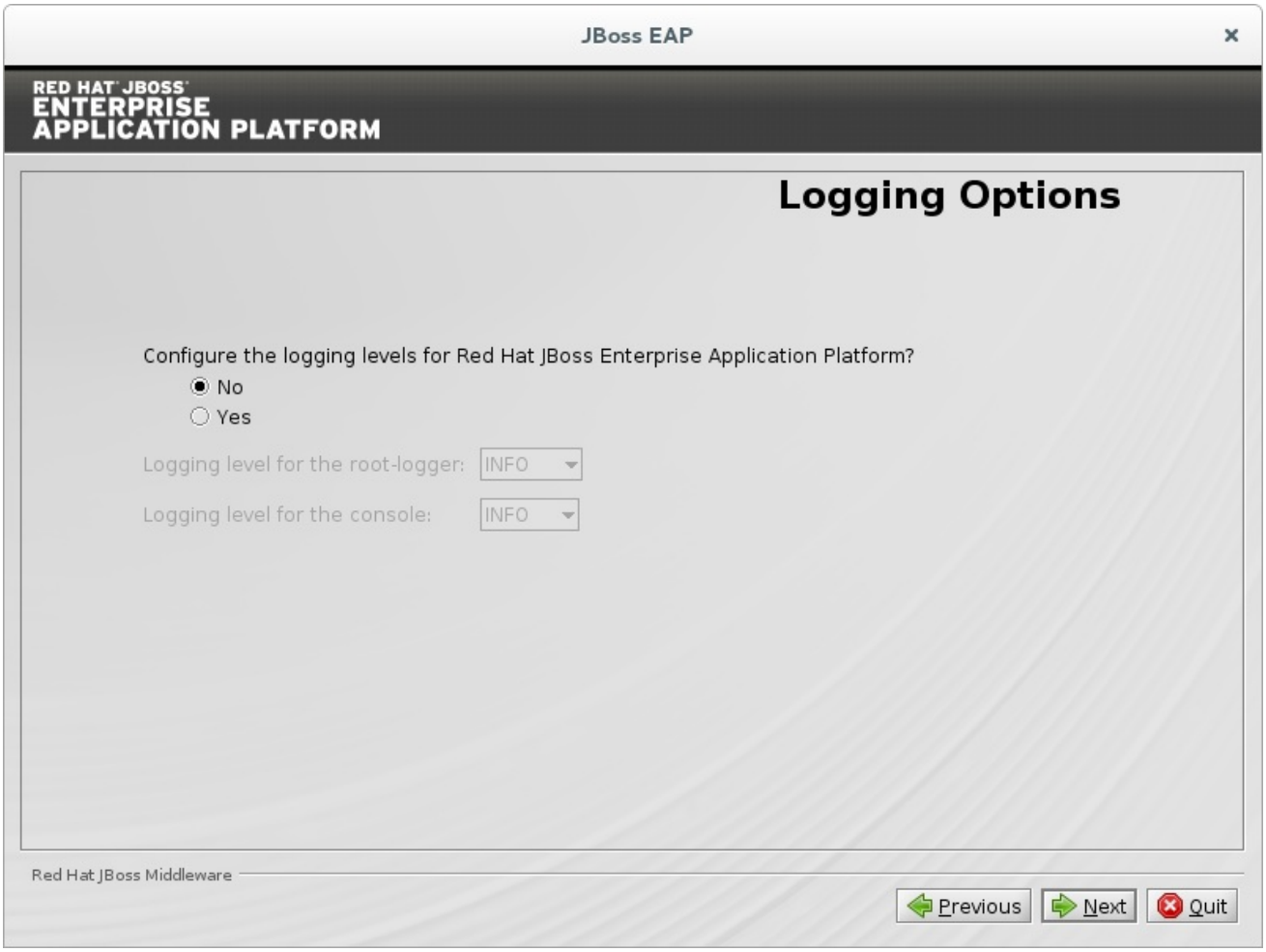

Figure A.10. JBoss EAP Installation Program Configure Logging Levels

Report a bug

A.11. CONFIGURE RUNTIME ENVIRONMENT

Choose **`Perform advanced configuration`** to customize installation and configuration of security, caching, LDAP, and datasource options.

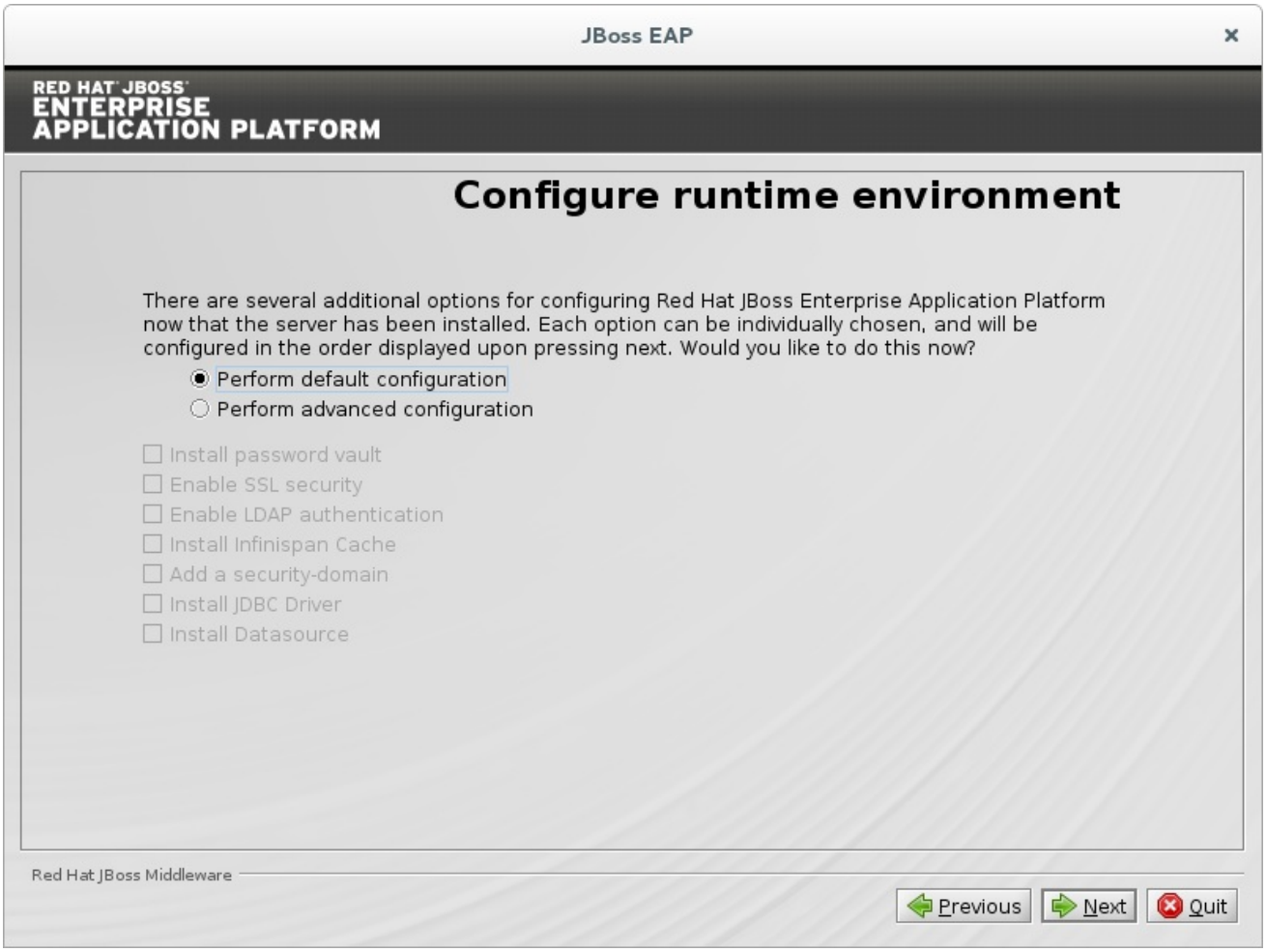

Figure A.11. JBoss EAP Installation Program Configure Runtime Environment - Default

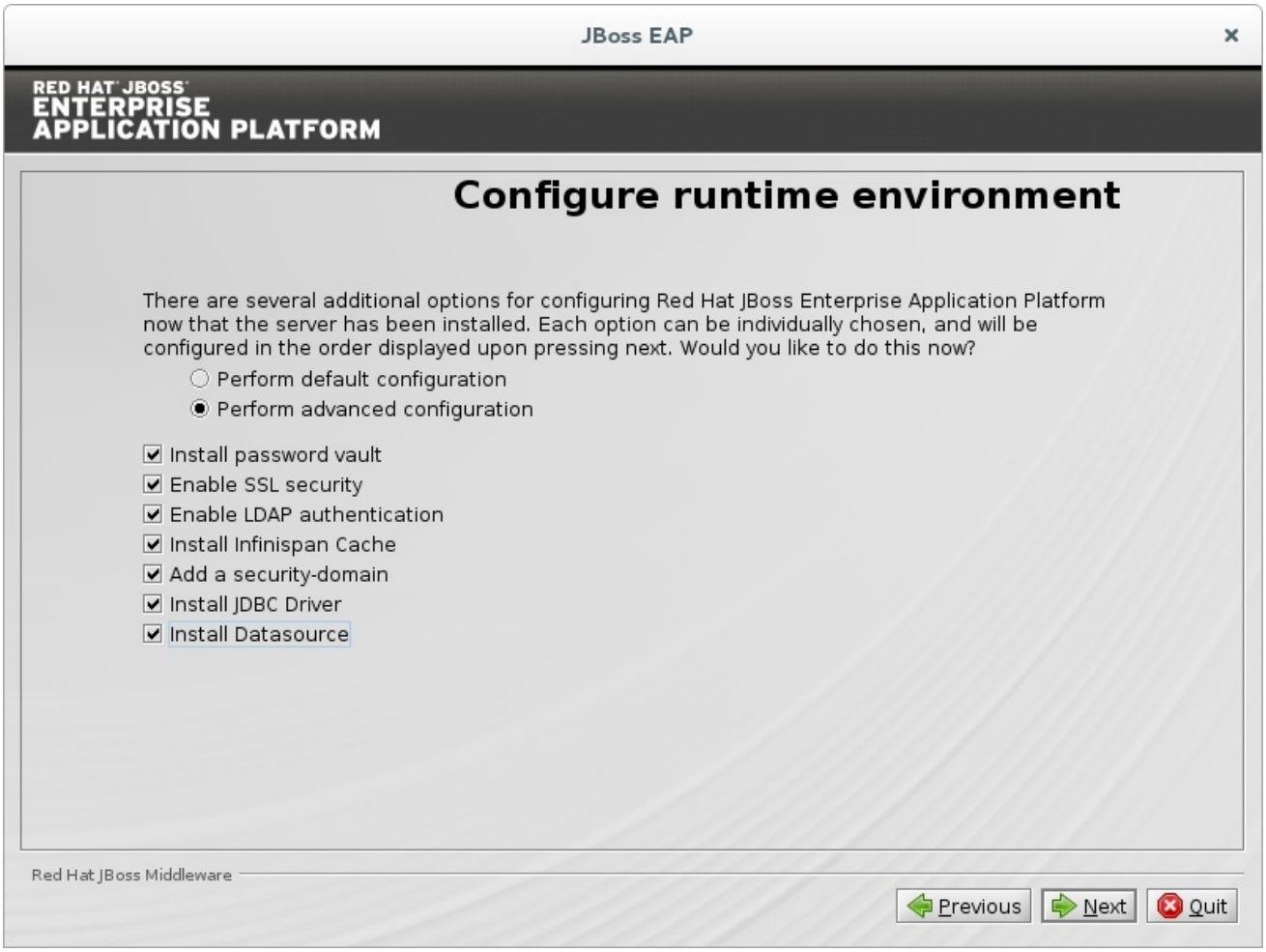

Figure A.12. JBoss EAP Installation Program Configure Runtime Environment - Advanced

Report a bug

A.12. REVIEW INSTALLATION COMPONENTS

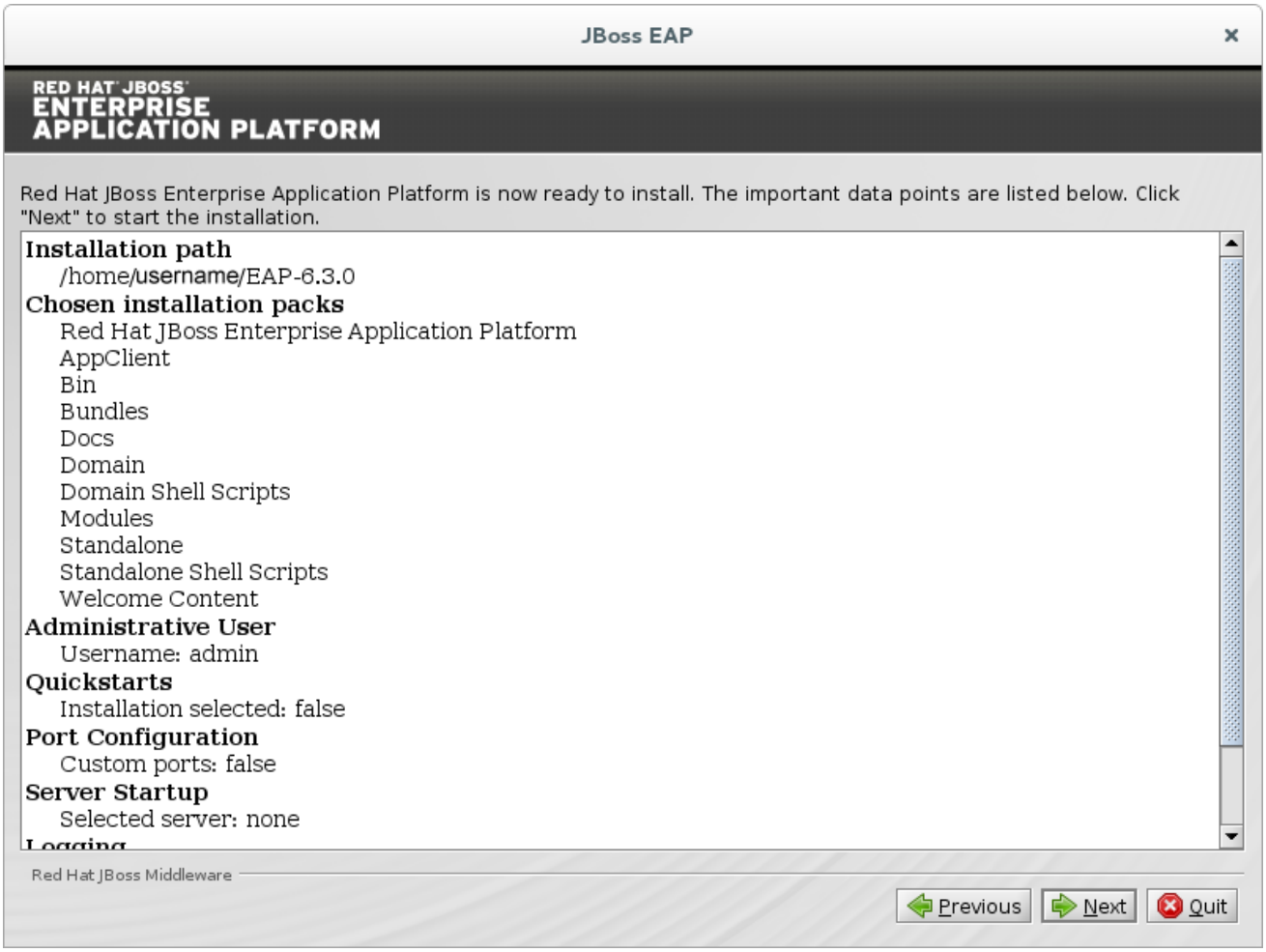

Figure A.13. JBoss EAP Installation Program Review Selected Components

Report a bug

A.13. INSTALLATION PROGRESS

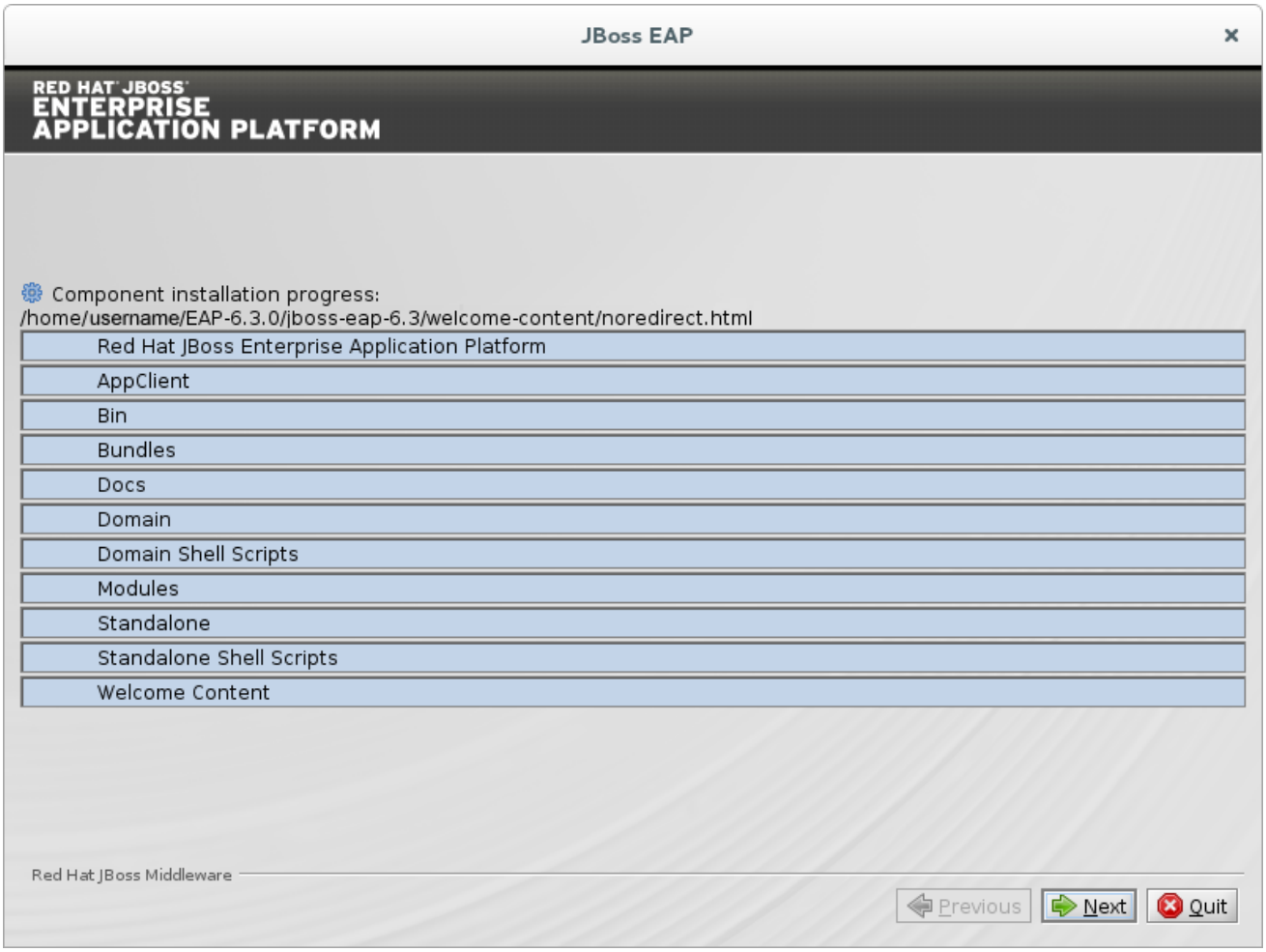

Figure A.14. JBoss EAP Installation Program Component Installation Progress

Report a bug

A.14. INSTALLATION PROCESSING FINISHED

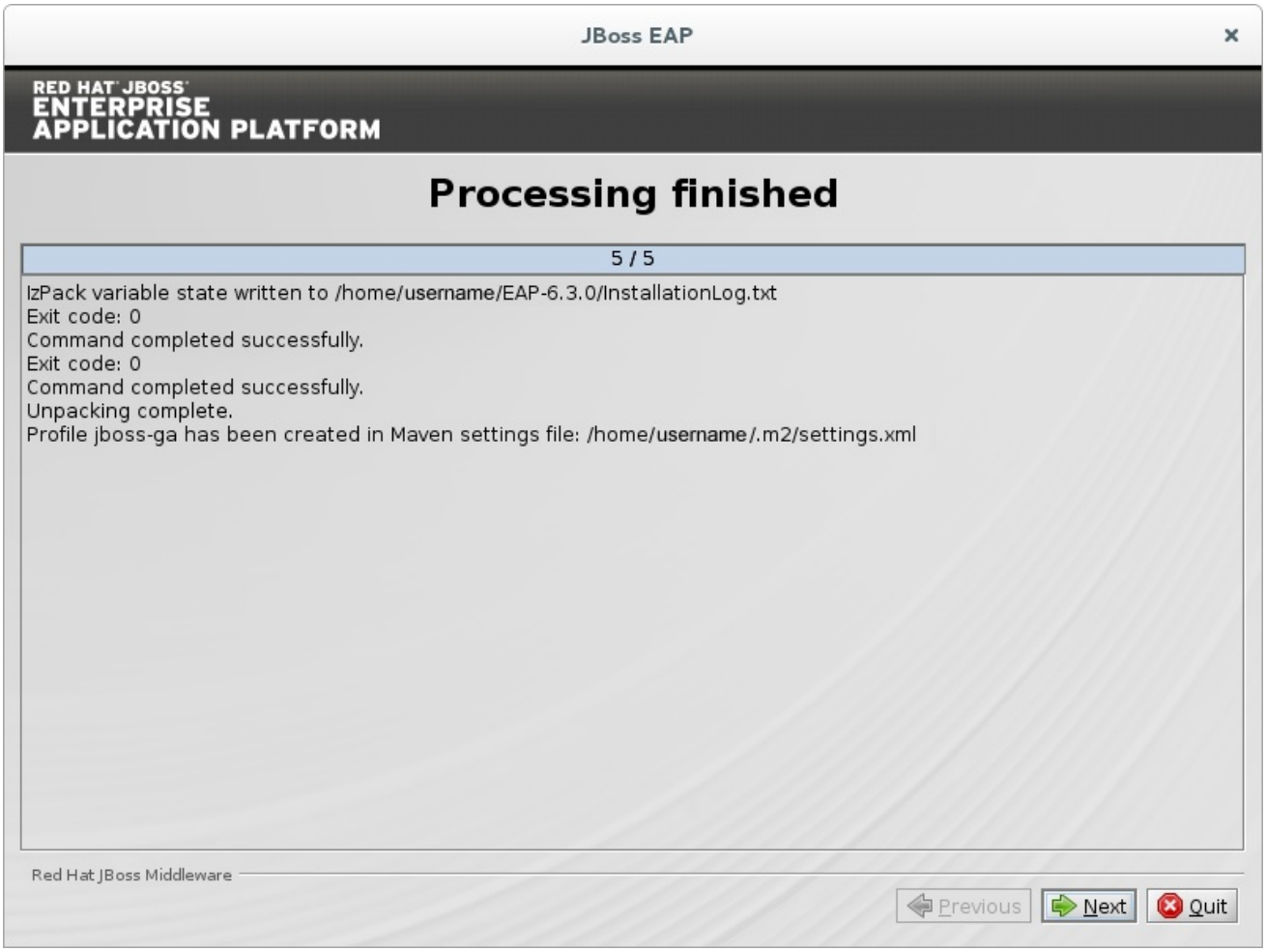

Figure A.15. JBoss EAP Installation Program Processing Finished

Report a bug

A.15. CREATE SHORTCUTS

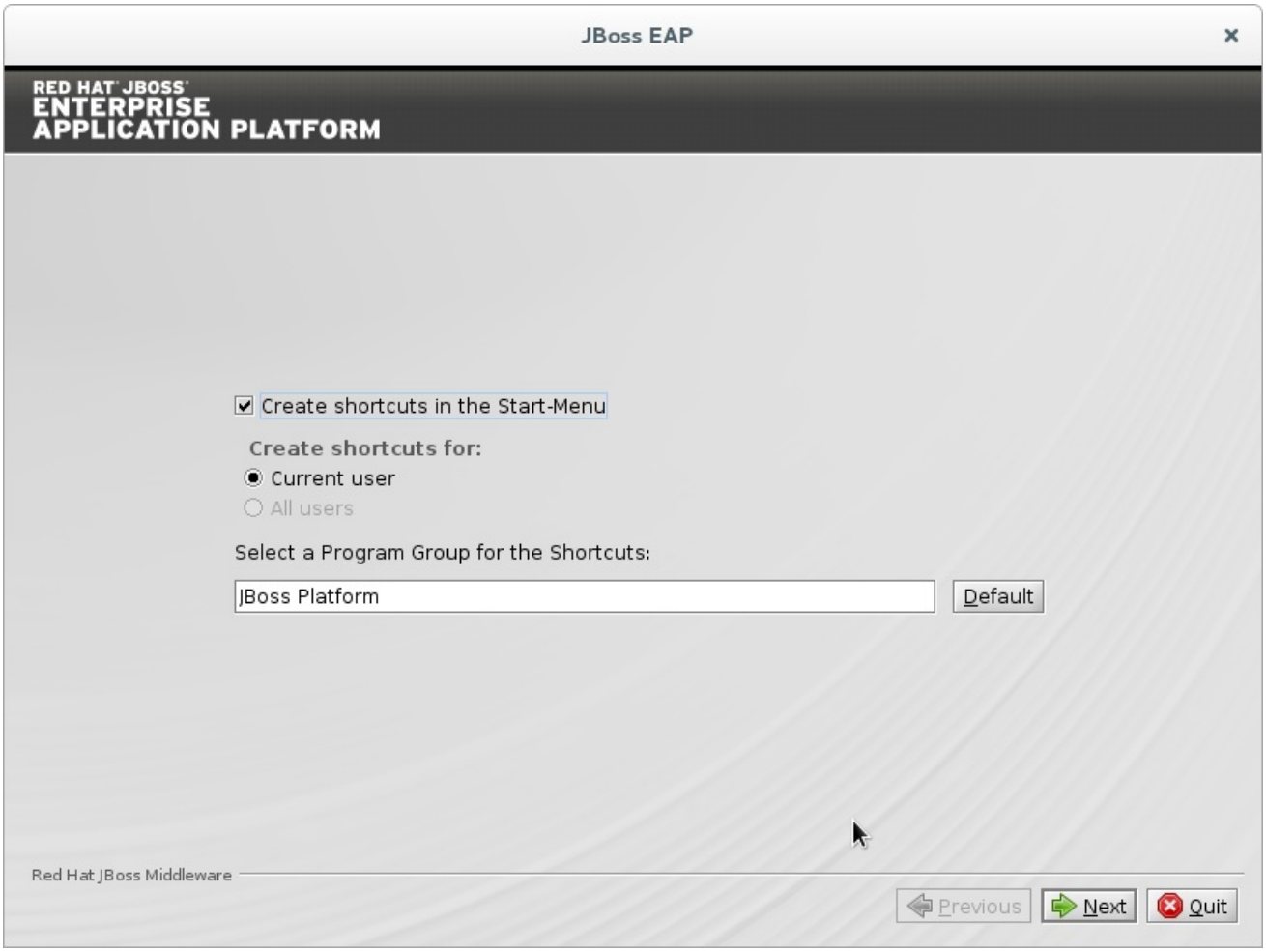

Figure A.16. JBoss EAP Installer Create Shortcuts

Report a bug

A.16. GENERATE INSTALL SCRIPT

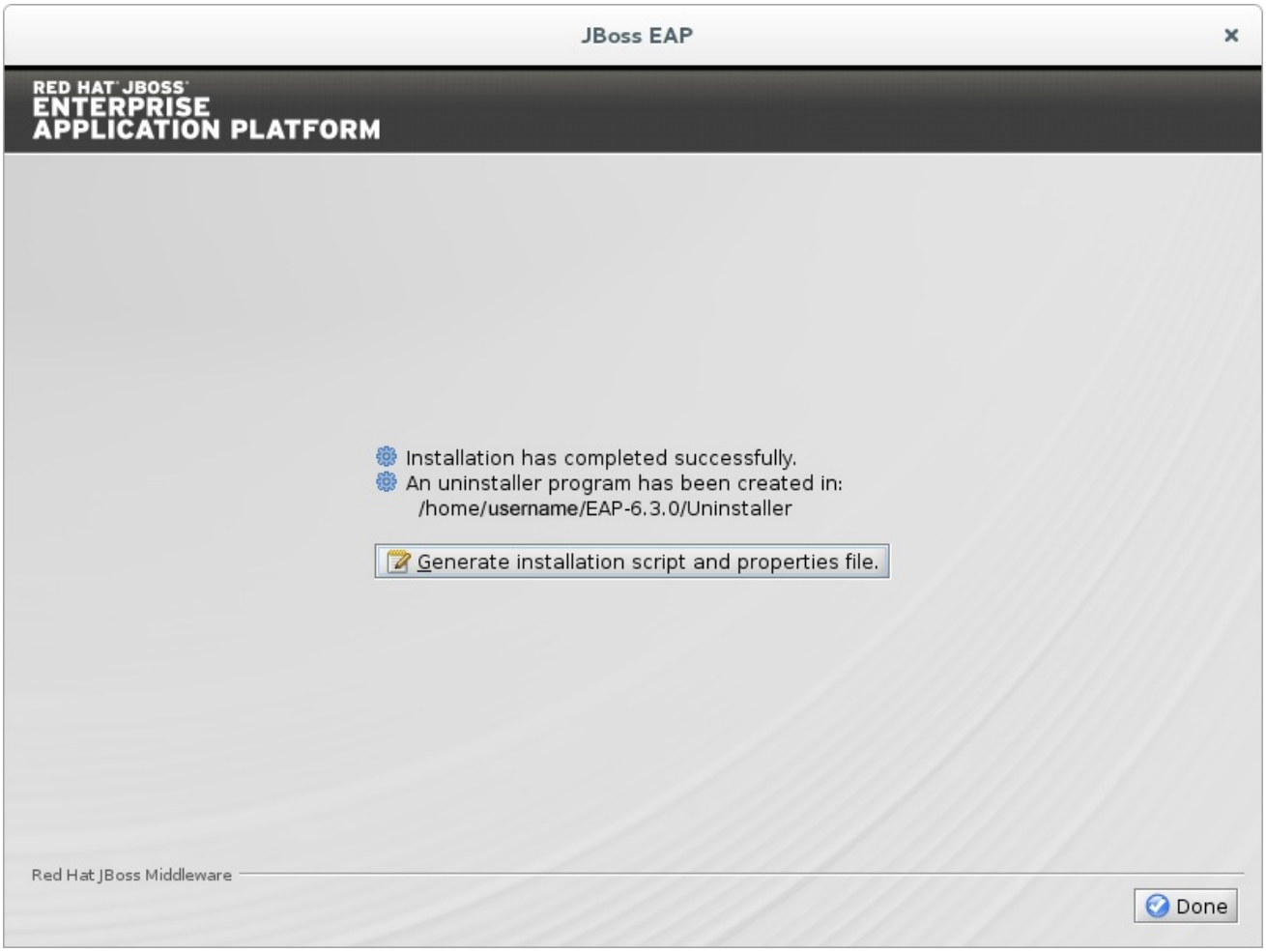

Figure A.17. JBoss EAP Installation Program Generate Install Script

Report a bug

APPENDIX B. REVISION HISTORY

Revision 6.3.0-50 **Monday November 24 2014** **Russell Dickenson**
Red Hat JBoss Enterprise Application Platform 6.3.0 Continuous Release

Revision 6.3.0-22 **Friday August 8 2014** **Lucas Costi**
Red Hat JBoss Enterprise Application Platform 6.3.0 Continuous Release

Revision 6.3.0-21 **Friday July 25 2014** **Lucas Costi**
Red Hat JBoss Enterprise Application Platform 6.3.0.GA