



PRIMAVERA

**P6 EPPM Adapter Installation and Configuration Guide  
16 R2**

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# Downloading the P6 Adapter

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Obtain the **P6-ERP\_R<release\_level>IntegrationSyncServices.zip** file from the Tools part of the physical media pack. This zip file contains the following:

- ▶ an endorsed folder that contains the saaj-impl.jar file
- ▶ the P6 Adapter file

Unzip these files to a local directory.

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## Creating a WebLogic Domain for the P6 Adapter Deployment

You need to create a WebLogic domain on which to deploy your P6 Adapter.

The following instructions represent the creation of a basic WebLogic server domain.

To create the WebLogic domain for your P6 Adapter:

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**Note:** Click **Next** after each step.

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- 1) Run the **Oracle WebLogic Configuration Wizard**.
- 2) On the **Configuration Type** page, do the following:
  - a. Select **Create a new domain**.
  - b. In the **Domain Location** field, enter the path to the new domain, or click **Browse** to create the domain directory.
- 3) On the **Templates** page, do the following:
  - a. Select **Create Domain Using Product Templates** and then select the **Basic WebLogic Domain - 12.1.3 [wlserver]** check box.
- 4) On the **Administrator Account** page, specify the username and password for the domain's administrator account
- 5) On the **Domain Mode and JDK** page, complete the following:
  - a. Select **Production**.

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**Note:** Do not install the domain in the default Development Mode. It leads to P6Adapter issues.

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- b. Select the JDK to use in the domain or click **Browse** to navigate to the JDK you want to use.
- 6) (Optional) On the **Advanced Configuration** page, select the check box for each category (if any) for which you want to perform advanced configuration tasks. Refer to the *Fusion Middleware Creating Domains Using the Configuration Wizard* guide for more information about the pages that result from the selection of any of the check boxes.
- 7) On the **Configuration Summary** page, click **Create**.
- 8) Select **Done**.

### Create an Endorsed Folder

You need to create an endorsed folder to properly configure your P6 Adapter.

To create an endorsed folder:

- 1) Locate the folder that contains the JDK you used when you created the WebLogic domain. This folder is known as `<JDK_HOME>`.  
If it does not already exist, create an endorsed folder: `<JDK_HOME>/jre/lib/endorsed`.
- 2) In the `<p6adapter_INSTALL_HOME>/endorsed` folder, locate the `saaj-impl.jar` file.
- 3) Copy the `saaj-impl.jar` file to the endorsed folder you created (`<JDK_HOME>/jre/lib/endorsed`).

### Configure P6 EPPM Web Services Message Protection Settings

The P6 Adapter uses Web Services to connect to a P6 EPPM deployment. You need to configure your Message Protection settings for your P6 EPPM applications. You use these settings when you configure your P6 Adapter using the following procedure:

- 1) Launch the **Primavera P6 Administrator**.
  - ▶ Change to the `<p6home>\p6` folder, where `<p6home>` is the location you specified when installing P6 EPPM.
  - ▶ On Windows, run the `adminpv.cmd` file.
  - ▶ On Solaris/Linux, run the `adminpv.sh` script.
- 2) Enter your privileged user name and password for the Primavera database (for example, `privuser`).
- 3) In the **Configurations** tab, expand your configuration.
- 4) Navigate to a configuration to modify.
- 5) On the **Configurations** tab:
  - a. Set the **Web Services/Security/Authentication/Mode** setting to Username Token Profile.
  - b. Set the **Web Services/Security/Authentication/Username Token Profile** settings for Nonce and Created.

1. Set **Nonce/Require Nonce** to false or true, depending on your requirements. If you set this field to true, you must select **Enable Encryption** when you configure the P6 Deployment in Primavera Gateway.
2. Set **Created/Require Created** to false.
- c. Set the **Web Services/Security/Message Protection** settings:
  1. Set **Require Timestamp** to false.
  2. Set **Require Digital Signatures for Incoming Messages** to false or true, depending on your requirements. If you set this field to true, you must select **Enable Encryption** when you configure the P6 Deployment in Primavera Gateway.
  3. Do one of the following:
    - If you are not using encryption, set **Require Encryption for Incoming Messages** to false.
    - If you are using encryption, set **Require Encryption for Incoming Messages** to true and then set the following KeyStore properties:  
**KeyStore Type:** JKS  
**File location:** Enter the location of the file on which the KeyStore resides.  
**KeyStore Password:** Enter the KeyStore password.  
**Private Key Alias:** Enter the alias of the private key.  
**Private Key Password:** Enter the password that is associated with the private key.
- d. Select **Save Changes**.

**Note:** Only WS-Addressing version 200508 is supported. Ensure that the WS-Addressing element in the Request header contains the Message ID attribute.

## Disable Content Repository in the Configuration Settings

P6 Adapter does not work when the content repository is enabled in the configuration used by P6Adapter in the P6 Administrator Application. You must disable the content repository setting, in the P6 Administrator Application as follows:

- 1) In the **Configurations** tab, create a new configuration or select an existing **<Configuration Name>**, then select, **Database, Instance, Content Repository**.
- 2) Select **None** as the value for the **Content Repository**.
- 3) If needed, modify the **BREBootstrap.xml** file to point to the correct configuration which has the repository disabled for the P6 adapter.

## Set Java Options for the WebLogic Domain

To set the location of your P6 bootstrap file.

- 1) Navigate to **<P6\_Adapter\_Domain\_Home>\bin** and click **startWeblogic.cmd** (for Windows) or **startWeblogic.sh** (for Linux) file for the WebLogic domain in which you will deploy the **p6adapter.ear** file.

2) Add the following JVM option to the startWeblogic startup script:

▶ On Windows:

```
set JAVA_OPTIONS=%SAVE_JAVA_OPTIONS% -Dprimavera.bootstrap.home=<BOOTSTRAP_HOME>
-Djavax.xml.soap.MessageFactory=com.sun.xml.messaging.saaj.soap.ver1_1.SOAPMessageFactory1_1
mpl -Djavax.xml.soap.SOAPConnectionFactory=weblogic.wsee.saaj.SOAPConnectionFactoryImpl
```

▶ On non-Windows:

```
JAVA_OPTIONS="${SAVE_JAVA_OPTIONS} -Dprimavera.bootstrap.home=<BOOTSTRAP_HOME>
-Djavax.xml.soap.MessageFactory=com.sun.xml.messaging.saaj.soap.ver1_1.SOAPMessageFactory1_1
mpl -Djavax.xml.soap.SOAPConnectionFactory=weblogic.wsee.saaj.SOAPConnectionFactoryImpl"
```

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**Note:** Replace **<P6\_BOOTSTRAP\_HOME>** in the preceding lines with the location that contains a BREbootstrap.xml file.

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### Tips

Important terms and applications that you should be familiar with when you configure the WebLogic Domain:

- ▶ **Configuration:** A P6 database record that contains a group of settings that determines how the P6 Application runs. A P6 database can hold multiple configuration records in the database.
- ▶ **BREBootstrap.xml:** An XML file that points to a particular configuration record within a particular database. The configuration record is identified by the configuration name.
- ▶ **dbconfig.cmd** (for Windows) or **dbconfig.sh** (for Linux): A tool that allows you to create a BREBootstrap.xml file AND create or use an existing configuration record. The BREBootstrap.xml file is created in the same directory as the dbconfig.cmd file. If a BREBootstrap.xml exists in that directory, the dbconfig.cmd utility overwrites the existing BREBootstrap.xml file.
- ▶ **P6 Administrator application (adminpv.cmd or adminpv.sh):** Allows you to subsequently change the details of any configuration that lives in the database pointed to by BREBootstrap.xml.

### Edit Memory Settings

Oracle recommends that you set the following memory parameters for the typical environment that is hosting the P6 Adapter.

- 1) Determine which JDK you are using for your P6 Adapter domain.
- 2) Determine whether the application server that is hosting the P6 Adapter domain is running on a 64 bit operating system. If the application server is running on a 64 bit operating system, determine whether the application server is using the 64 bit mode when hosting the domain:
  - a. Locate and open the following file:

For Windows,

```
<Middleware_home>\wlserver\common\bin\commEnv.cmd
```

For Linux,

```
<Middleware_home>/wlserver/common/bin/commEnv.sh
```



- b. Search for the following line and set `<setting>` to `True`:
  - Windows**

```
set JAVA_USE_64BIT=<setting>
```
  - Linux**

```
JAVA_USE_64BIT=<setting>
```
- c. Close the **commEnv.cmd** / **commEnv.sh** file.
- 3) Locate and open the following file:
  - Windows**

```
<P6_Adapter_Domain_Home>\bin\setDomainEnv.cmd
```
  - Linux**

```
<P6_Adapter_Domain_Home>/bin/setDomainEnv.sh
```
- 4) Make the following edits to the **setDomainEnv.cmd** / **setDomainEnv.sh** file:
  - a. Search for the following line:
    - Windows**

```
set MEM_ARGS_64BIT=%WLS_MEM_ARGS_64BIT%
```
    - Linux**

```
MEM_ARGS_64BIT="${WLS_MEM_ARGS_64BIT}"
```
  - b. Replace the line above with the following lines:
    - Windows**

```
@REM set MEM_ARGS_64BIT=%WLS_MEM_ARGS_64BIT%
set MEM_ARGS_64BIT=-XX:NewSize=256m -Xms1024m -Xmx1024m
```
    - Linux**

```
# MEM_ARGS_64BIT="${WLS_MEM_ARGS_64BIT}"
MEM_ARGS_64BIT="-XX:NewSize=256m -Xms1024m -Xmx1024m"
```
- 5) Save the changes to the **setDomainEnv.cmd** / **setDomainEnv.sh** file.
- 6) Restart the WebLogic domain.

## Start the WebLogic Domain

To start the WebLogic domain for the P6 Adapter deployment:

- 1) Launch **startWebLogic.cmd** (for Windows) or **startWebLogic.sh** (for Linux) at `<Domain home>\bin`. For example:
  - C:\Oracle\Middleware\user\_projects\domains\base\_domain\bin**
- 2) When prompted, enter the administrator user name and password for the P6 Adapter domain.
- 3) After the domain starts, open the **WebLogic Administration Console**, for example:
  - http://localhost:7001/console**
- 4) In the console, enter the administrator user name and password for the domain.

## Deploy the p6adapter.ear File into the WebLogic Domain

To deploy the p6adapter.ear into the WebLogic domain using the **WebLogic Administration Console**:

- 1) In the **Change Center** pane, select **Lock & Edit**.
- 2) In the **Domain Structure** pane, select **Deployments**.
- 3) In the **Summary of Deployments** pane, select **Install**.
- 4) In the **Install Application Assistant** pane:
  - a. Specify the path to the **p6adapter.ear** file and select **Next**. For example:  
c:\INSTALL\_HOME\p6adapter.ear.
  - b. Select **Install this deployment as an application** and select **Next**.
  - c. Accept the defaults and select **Next**.
  - d. Review the configuration settings you have chosen and select **Finish** to complete the installation.
- 5) In the **Settings for p6adapter** window, select **Save**.
- 6) In the **Change Center** pane, select **Activate Changes**.
- 7) In the **Domain Structure** pane, select **Deployments**.
- 8) In the **Summary of Deployments** pane:
  - a. Select p6adapter.
  - b. Select the down arrow to the right of the **Start** button and select **Servicing all requests**.
- 9) In the **Start Application Assistant** pane, select **Yes**.

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**Note:** The **p6adapter** state column should be **Active**. If the state is **Start Running**, refresh the screen until the status is changed to **Active**.

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## Upgrading the P6 Adapter

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To deploy a new version of the P6 Adapter, you must perform the following tasks in the **WebLogic Administration Console**:

- 1) Log in to the WebLogic Administration Console with administrator credentials.
- 2) Delete the current deployment of the p6adapter.ear file as follows:
  - a. In the **Deployments** pane, click **Stop, Force Stop Now**.
  - b. In the **Stop Deployments** screen, click **Yes** to confirm.  
In the **Deployments** pane, the **State** of the p6adapter.ear will now display **Prepared**.
  - c. In the **Change Center** pane, click **Lock and Edit**.
  - d. In the **Deployments** pane, select p6adapter.ear and click the **Delete** button.

- e. In the **Delete Deployments** screen, click **Yes** to confirm.
  - f. In the **Change Center** pane, click the **Activate Changes** button.  
The current P6 adapter deployment is deleted.
- 3) Follow instructions to ***Deploy the p6adapter.ear File into the WebLogic Domain*** (on page 10).

# Legal Notices

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