

# BEA WebLogic Adapter for Oracle Applications

Installation and Configuration Guide for WebLogic Integration 2.1

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## BEA WebLogic Adapter for Oracle Applications Installation and Configuration Guide for WebLogic Integration 2.1

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N/A	April 2003

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# **About This Document**

This document explains how to install, configure, and deploy the BEA WebLogic Adapter for Oracle Applications for WebLogic Integration 2.1 to develop online connections to Oracle Applications using BEA WebLogic Integration.

This document is organized as follows:

 Chapter 1, "Installing the Adapter for WebLogic Integration 2.1," describes how to install the adapter.

# **Audience**

This document is written for system integrators with programming backgrounds and an understanding of the Oracle Applications product in an application space. Extensive knowledge of Oracle Applications is not required, but may be helpful in learning about the adapter.

## **Related Information**

The following documents provide additional information for the associated software components:

■ BEA WebLogic Adapter for Oracle Applications *User Guide* 

- BEA WebLogic Adapter for Oracle Applications Release Notes
- BEA Application Explorer Installation and Configuration Guide
- BEA WebLogic Server 6.1 installation and user documentation, which is available at the following URL:

```
http://edocs.bea.com/wls/docs61/index.html
```

■ BEA WebLogic Integration 2.1installation and user documentation, which is available at the following URL:

```
http://edocs.bea.com/wlintegration/v2_1sp/index.html
```

### **Contact Us!**

Your feedback on the BEA WebLogic Adapter for Oracle Applications documentation is important to us. Send us e-mail at <a href="mailto:docsupport@bea.com">docsupport@bea.com</a> if you have questions or comments. Your comments will be reviewed directly by the BEA professionals who create and update the adapter documentation.

In your e-mail message, please indicate which version of the adapter documentation you are using.

If you have any questions about this version of the adapter, or if you have problems installing and running it, contact BEA Customer Support through BEA WebSupport at www.bea.com. You can also contact Customer Support by using the contact information provided on the Customer Support Card, which is included in the product package.

When contacting Customer Support, be prepared to provide the following information:

- Your name, e-mail address, phone number, and fax number
- Your company name and company address
- Your machine type and authorization codes
- The name and version of the product you are using
- A description of the problem and the content of pertinent error messages

# **Documentation Conventions**

The following conventions are used throughout this document.

Convention	Item
boldface text	Indicates terms defined in the glossary.
Ctrl+Tab	Indicates that you must press two or more keys simultaneously.
italics	Indicates emphasis or book titles.
monospace text	Indicates code samples, commands and their options, data structures and their members, data types, directories, and file names and their extensions.  Monospace text also indicates text that you must enter from the keyboard.  Examples:  #include <iostream.h> void main ( ) the pointer psz chmod u+w *  \tux\data\ap .doc tux.doc BITMAP float</iostream.h>
monospace boldface text	Identifies significant words in code.  Example:  void commit ( )
monospace italic text	Identifies variables in code.  Example: String expr
UPPERCASE TEXT	Indicates device names, environment variables, and logical operators.  Examples:  LPT1  SIGNON  OR

Convention	Item
{ }	Indicates a set of choices in a syntax line. The braces themselves should never be typed.
[ ]	Indicates optional items in a syntax line. The brackets themselves should never be typed.
	Example:
	<pre>buildobjclient [-v] [-o name ] [-f file-list] [-l file-list]</pre>
	Separates mutually exclusive choices in a syntax line. The symbol itself should never be typed.
	Indicates one of the following in a command line:
	■ That an argument can be repeated several times in a command line
	■ That the statement omits additional optional arguments
	■ That you can enter additional parameters, values, or other information
	The ellipsis itself should never be typed.
	Example:
	<pre>buildobjclient [-v] [-o name ] [-f file-list]</pre>
	Indicates the omission of items from a code example or from a syntax line. The vertical ellipsis itself should never be typed.

# Installing the Adapter for WebLogic Integration 2.1

This section provides instructions for installing the BEA WebLogic Adapter for Oracle Applications. It includes the following topics:

- Path Representation
- Step 1. Obtaining the Adapter
- Step 2. Extracting JARs and Adjusting Class Paths
- Step 3. Configuring the Integration Database
- Step 4. Replacing xmltoolkit.jar
- Step 5. Updating the BEA License
- Step 6. Deploying the Adapter
- Step 7. Adding the Administrative Server User Name
- Step 9. Install Application Explorer

Before you install the BEA WebLogic Adapter for Oracle Applications, you must review the *BEA WebLogic Adapter for Oracle Applications Release Notes* to ensure that you have the required prerequisite software installed. The *BEA WebLogic Adapter for Oracle Applications Release Notes* is available at the following URL:

http://edocs.bea.com/wladapters/doc703/index.html

# **Path Representation**

Because the location of files in the WebLogic Integration environment depends on options selected during installation and configuration, the conventions that follow are used throughout to represent paths.

 BEA\_HOME represents the BEA Home directory specified for your WebLogic installation.

For example, if you install the product in the default location on a Windows system, BEA HOME represents c:\bea.

■ WLI HOME represents the root of your WebLogic Integration installation.

#### For example:

- If you install WebLogic Integration 2.1 in the default location on a Windows system, WLI HOME represents c:\bea\wlintegration2.1.
- The term domain is used to indicate the name of a domain.
  - In WebLogic Integration 2.1, preconfigured domains (bpmdomain, eaidomain, wlidomain, and samples) are created as subdirectories of the WLI\_HOME\config directory. Therefore, domain may be used to represent the root of a preconfigured WebLogic Integration 2.1 domain as follows:

```
WLI HOME\config\domain
```

■ DOMAIN HOME represents the complete path to the root of a domain.

#### For example:

• If you install WebLogic Integration 2.1 in the default location on a Windows system, <code>DOMAIN\_HOME</code> represents

```
c:\bea\wlintegration2.1\config\domain.
```

**Note:** WLI\_HOME and BEA\_HOME (italicized) also represent the corresponding Windows and UNIX environment variables. For example, the literal interpretation of WLI\_HOME is %WLI\_HOME% for Windows and \$WLI\_HOME for UNIX.

Unlike WLI\_HOME and BEA\_HOME, DOMAIN\_HOME is not an environment variable that is set by default in the WebLogic Integration environment.

# **Step 1. Obtaining the Adapter**

The BEA WebLogic Adapter for Oracle Applications is packaged as an EAR file (BEA\_ORACLEAPPS\_1\_0.ear). You can obtain the software on CD or download it from www.bea.com.

Note: At the time of publication of this document, WebLogic Server 6.1 is unable to explode RAR files (BEA Support CASE number 333672). Use an extraction tool (such as WinZip) to extract the contents of the adapter EAR file,

BEA\_ORACLEAPPS\_1\_0.ear, and add the location of the unpackaged objects to the server's classpath (see Step 2. Extracting JARs and Adjusting Class Paths).

# Step 2. Extracting JARs and Adjusting Class Paths

Set the classpath using the procedure appropriate for your system:

- Extracting Windows JARs and Adjusting Class Paths
- Extracting UNIX JARs and Adjusting Class Paths

## **Extracting Windows JARs and Adjusting Class Paths**

To unzip the adapter JAR files and adjust the classpath on Windows, complete the following steps:

- 1. Use WinZip (or another similar extracting product) to extract the BEA\_ORACLEAPPS\_1\_0.ear file to a directory of your choice (for example, BEA\_HOME\AdapterEars).
- If you will be using Oracle AQ, ensure that aqapi.jar resides in a valid location.

The agapi. jar file, which contains the Oracle AQ drivers, is required for using the adapter with Oracle AQ. The file is installed with the Oracle RDBMS, and is found in the %ORACLE HOME%\rdbms\jlib directory; here, %ORACLE HOME% is the installation directory of the Oracle RDBMS.

The agapi. jar file must reside on the same machine as the the WebLogic Server. If it does not, copy it to the WebLogic Server machine. It can reside in any directory there (for example, BEA HOME\adapters\lib).

- 3. Download the following files
  - classes12.zip
  - nls charset12.zip

from the following Oracle Technology Web site and place them into the BEA HOME\AdapterEars directory created in step 1:

http://otn.oracle.com/software/tech/java/sqlj jdbc/content.html

4. Go to the root directory for your domain:

```
cd DOMAIN HOME
```

**Note:** You must choose a WebLogic Integration domain that supports application integration functionality.

5. Find the Set Domain Type Data. cmd file.

Here, DomainType is the type of the domain. For example, if your domain is configured to support the development of solutions that employ the full range of WebLogic Integration functionality, it contains the SetwliDomainData.cmd file.

6. Update the following SVRCP environment variable settings to the SetDomainTypeData.cmd file for the domain to include all the JAR files included in the EAR file.

**Note:** The SVRCP environment variable is used in the SetDomainTypeData script to set the classpath for the java executable.

After the following line:

```
set SVRCP=%SVRCP%;%WLI DOMAIN HOME%\wlai
```

add the following JAR files, which are listed in the order required for the classpath:

```
SET SVRCP=%SVRCP%; BEA HOME\AdapterEars\ibi-edaqm.jar
SET SVRCP=%SVRCP%; BEA HOME \ AdapterEars \ BEA ORACLEAPPS 1 0.jar
```

```
SET SVRCP=%SVRCP%;BEA_HOME\AdapterEars\xercesImpl.jar
SET SVRCP=%SVRCP%;BEA_HOME\AdapterEars\xmlParserAPIs.jar
SET SVRCP=%SVRCP%;BEA_HOME\AdapterEars\xmltoolkit.jar
SET SVRCP=%SVRCP%;BEA_HOME\AdapterEars\classes12.zip
SET SVRCP=%SVRCP%;BEA_HOME\AdapterEars\nls charset12.zip
```

**Note:** If you will use Oracle AQ, the following file must be appended to the SVRCP variable:

```
SET SVRCP=%SVRCP%; BEA HOME\AdapterEars\aqapi.jar
```

Here, BEA HOME\AdapterEars is the directory specified in step 2.

### **Extracting UNIX JARs and Adjusting Class Paths**

To extract the adapter JAR files and adjust the classpath on UNIX, complete the following steps:

- Use jar (or another similar extracting product) to extract
   BEA\_ORACLEAPPS\_1\_0.ear to a directory of your choice (for example,
   BEA\_HOME/ear/lib/OracleApps).
- If you will be using Oracle AQ, ensure that aqapi.jar resides in a valid location.

The agapi.jar file, which contains the Oracle AQ drivers, is required for using the adapter with Oracle AQ. The file is installed with the Oracle RDBMS, and is found in the <code>\$ORACLE\_HOME/rdbms/jlib</code> directory; here, <code>\$ORACLE\_HOME</code> is the installation directory of the Oracle RDBMS.

The aqapi.jar file must reside on the same machine as the WebLogic Server. If it does not, copy it to the WebLogic Server machine. It can reside in any directory there (for example, BEA HOME/adapters/lib).

- 3. Download the following files
  - classes12.zip
  - nls charset12.zip

from the following Oracle Technology Web site and place them into the BEA\_HOME\AdapterEars directory created in step 1:

http://otn.oracle.com/software/tech/java/sqlj jdbc/content.html

4. Go to the root directory for your domain:

cd DOMAIN\_HOME

**Note:** You must choose a WebLogic Integration domain that supports application integration functionality.

5. Find the SetDomainTypeData file.

Here, <code>DomainType</code> is the type of the domain. For example, if your domain is configured to support the development of solutions that employ the full range of WebLogic Integration functionality, it contains the <code>SetwliDomainData</code> file.

6. Update the following SVRCP environment variable settings to the SetDomainTypeData file for the domain to include all the JAR files included in the EAR file.

**Note:** The SVRCP environment variable is used in the Set*DomainType*Data script to set the classpath for the java executable.

After the following line:

```
SVRCP=$SVRCP:$WLI DOMAIN HOME\wlai
```

add the following JAR files, which are listed in the order required for the classpath:

```
SVRCP=$SVRCP:BEA_HOME/ear/lib/ORACLEAPPS/ibi-edaqm.jar

SVRCP=$SVRCP:BEA_HOME/ear/lib/ORACLEAPPS/BEA_ORACLEAPPS_1_0.jar

SVRCP=$SVRCP:BEA_HOME/ear/lib/ORACLEAPPS/xercesImpl.jar

SVRCP=$SVRCP:BEA_HOME/ear/lib/ORACLEAPPS/xmlParserAPIs.jar

SVRCP=$SVRCP:BEA_HOME/ear/lib/ORACLEAPPS/xmltoolkit.jar

SVRCP=$SVRCP:BEA_HOME/ear/lib/ORACLEAPPS/classes12.zip

SVRCP=$SVRCP:BEA_HOME/ear/lib/ORACLEAPPS/nls_charset12.zip
```

**Note:** If you will use Oracle AQ, the following file must be appended to the SVRCP variable:

```
SVRCP=$SVRCP:BEA HOME/ear/lib/ORACLEAPPS/agapi.jar
```

Here, BEA HOME/ear/lib/ORACLEAPPS is the directory specified in step 2.

# **Step 3. Configuring the Integration Database**

If you have not already done so, you must create the WebLogic Integration database tables for your domain. For detailed instructions, see "Configuring the Database for a Domain" in *Starting, Stopping and Customizing BEA WebLogic Integration*, which is available at the following URL:

http://edocs.bea.com/wlintegration/v2\_1sp/config/index.htm

# Step 4. Replacing xmltoolkit.jar

The BEA adapters include a new xmltoolkit.jar file. You need to replace your existing WebLogic Integration xmltoolkit.jar with the new JAR file.

To configure the new xmltoolkit.jar file, follow these steps:

- 1. Rename your original xmltoolkit.jar to xmltoolkit.jar.old by entering the commands appropriate for your operating system:
  - On a Windows system:

```
cd WLI_HOME\lib
rename xmltoolkit.jar xmltoolkit.jar.old
```

• On a UNIX system:

```
cd WLI_HOME/lib
mv xmltoolkit.jar xmltoolkit.jar.old
```

- 2. Extract the xmltoolkit.jar from the adapter EAR file into a temporary directory.
- 3. Copy the new xmltoolkit.jar file (extracted in step 2) to the WLI\_HOME\lib directory for Windows or the WLI\_HOME/lib directory for UNIX.

**Caution:** Simply replacing the xmltoolkit.jar file is not sufficient; you must also make changes to the setenv and SetDomainTypeData scripts as described in the following steps.

- 4. Edit the top-level setenv script and make the appropriate changes for your operating system:
  - On a Windows system, edit the WLI HOME\setenv.cmd file.

#### Replace the line:

```
set WLICOMMONCP=
with
set WLICOMMONCP=%WLI HOME%\lib\xmltoolkit.jar
```

• On a UNIX system, edit the WLI HOME/setenv.sh file.

#### Replace the line:

```
WLICOMMONCP=$WLI_LIB/wlicommon.jar
with
WLICOMMONCP=$WLI_LIB/wlicommon.jar:$WLI_HOME/lib/xmltoolkit.
iar
```

5. Edit the SetDomainTypeData script.

Here, <code>DomainType</code> is the type of the domain. For example, depending on the configuration of your domain, locate and edit the <code>SetwliDomainData</code> or <code>SetEaiDomainData</code> script.

• On a Windows system:

For example, edit the DOMAIN HOME\SetwliDomainData.cmd file.

#### Replace the line:

```
set SVRCP=%WLISERVERCP%;%CMNCP%
with
set
SVRCP=%WLI HOME%\lib\xmltoolkit.jar;%WLISERVERCP%;%CMNCP%
```

On a UNIX: system:

For example, edit the DOMAIN\_HOME/SetwliDomainData file.

Replace the line:

```
SVRCP=$WLISERVERCP:$CMNCP
with
SVRCP=$WLI HOME/lib/xmltoolkit.jar:$WLISERVERCP:$CMNCP
```

# **Step 5. Updating the BEA License**

The BEA WebLogic Adapter for Oracle Applications cannot be used without a valid software license. If you have downloaded the adapter for evaluation, you must obtain an evaluation license as described on the adapter download page. If you have purchased a license for the adapter, the license file is typically sent to you as an e-mail attachment.

When you have obtained a valid license for the adapter, update your license. bea file by completing the following steps:

1. Save the license file that you obtained with a name other than license.bea, in the BEA\_HOME directory. For example, save the file as oracleapps\_adapter\_license.bea. Use this file as the license\_update\_file in step 4 of this procedure.

Warning: Do not overwrite or change the name of the existing license.bea file.

- 2. Perform the step appropriate for your platform:
  - On a Windows system, open an MS-DOS session and go to the BEA\_HOME directory.
  - On a UNIX system, go to the BEA\_HOME directory.
- If it is not already included, add the JDK to your PATH variable by executing the command appropriate to your system:
  - On a Windows system:

```
set PATH=BEA_HOME\jdk131_03\bin;%PATH%
```

• On a UNIX system:

```
PATH=BEA_HOME/jdk131_03/bin:$PATH export PATH
```

- 4. Merge the license update file into your existing license by executing the command appropriate to your system:
  - On a Windows system:

```
UpdateLicense license update file
```

• On a UNIX system:

```
sh UpdateLicense.sh license update file
```

Here, <code>license\_update\_file</code> is the name to which you saved the license update file in step 1.

5. Save a copy of your updated license. bea file in a safe place outside the WebLogic Integration and application installation directories.

# **Step 6. Deploying the Adapter**

After the BEA WebLogic Adapter for Oracle Applications is installed, it must be deployed to WebLogic Server for your domain (for example, wlidomain). To configure and deploy an adapter using the WebLogic Server Administration Console, complete the following steps:

- 1. Start WebLogic Server.
- 2. Start the WebLogic Server Administration Console in a browser using the following URL:

```
http://localhost:port/console/
```

Here, *localhost* represents the machine on which WebLogic Server is running and *port* represents the listening port.

```
For example, http://localhost:7001/console/
```

3. When prompted, enter the user name and password for the server.

**Note:** If you have not updated the default login, see "WebLogic Integration Users and Passwords" in *Starting, Stopping, and Customizing WebLogic Integration* at the following URL:

```
http://edocs.bea.com/wlintegration/v2 1sp/config/getstart.htm
```

The WebLogic Server Administration Console opens.

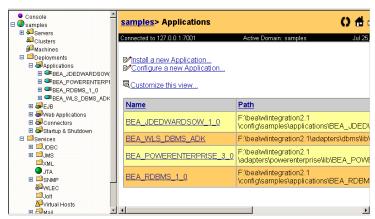
Figure 1-1 WebLogic Server Console



4. In the left pane, choose Deployments and then Applications from the navigation tree.

The console displays the Applications window.

Figure 1-2 Applications Window



5. Click the Install a new Application link.

The console displays the Install or Update an Application window.

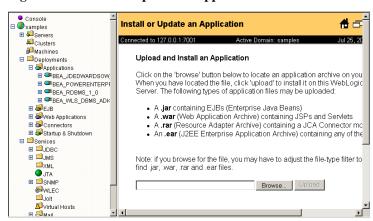
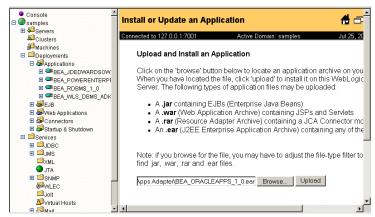


Figure 1-3 Install or Update an Application Window

 Click Browse to locate the application archive you selected during installation (BEA\_ORACLEAPPS\_1\_0.ear).

Figure 1-4 Locating the Application Archive Window



7. Click Upload to upload the BEA ORACLEAPPS 1 0.ear file.

The console displays the application files currently installed to indicate that the upload is complete and the adapter file is deployed to WebLogic Server.

- 8. You can verify deployment by viewing the adapter configuration, as follows:
  - a. Choose Deployments and then Applications from the navigation tree.
  - b. Click the BEA\_ORACLEAPPS\_1\_0.ear file link.

# Step 7. Adding the Administrative Server User Name

A user group, adapter, is defined in each domain that supports application integration functionality. Before you create an application view that employs the events or services supported by an adapter, you must add the user name defined for the administrative server to the adapter group.

**Note:** By default, the adapter group includes the user system. If the user name defined for the administrative server is system, skip this step. For example, if you are starting the server in a preconfigured domain, and you have not modified the default administrative server login, you can skip this step.

To add the administrative server user name to the adapter group, complete the following steps:

- 1. In the left pane of the WebLogic Server Administration Console, choose Security and then Groups from the navigation tree.
  - The console displays groups currently defined for the domain.
- 2. Locate and click the link for the adapter group to display the group definition.

Figure 1-5 Group Definition



- 3. If the administrative server user name is not included in the Members list, enter the user name in the Add Users field.
- 4. Click Apply to add the user name to the group.

The name is added to the Members list.

# **Step 9. Install Application Explorer**

If you have not already installed the BEA Application Explorer, install it now. See the BEA Application Explorer Installation and Configuration Guide.

When you have successfully deployed the adapter and installed the BEA Application Explorer, you can log on to the WebLogic Integration Application View Console to create application views that employ events and services supported by the BEA WebLogic Adapter for Oracle Applications. For more information, see the BEA WebLogic Adapter for Oracle Applications *User Guide*.