

BEA WebLogic Adapter for ISO15022

Installation and Configuration Guide for WebLogic Integration 7.0

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About This Document

This document explains how to install, configure, and deploy the BEA WebLogic Adapter for ISO15022 for WebLogic Integration 7.0 to develop online connections to ISO15022 applications.

This document is organized as follows:

■ Chapter 1, "Installing the Adapter," describes how to install the BEA WebLogic Adapter for ISO15022.

Audience

This document is written for system integrators who develop client interfaces between ISO15022 and other applications. It describes how to install the BEA WebLogic Adapter for ISO15022 and how to develop application environments with specific focus on message integration. It is assumed that readers know Web technologies and have a general understanding of Microsoft Windows and UNIX systems.

Related Information

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

■ BEA WebLogic Adapter for ISO15022 User Guide

- BEA WebLogic Adapter for ISO15022 Release Notes
- BEA Application Explorer Installation Guide
- BEA WebLogic Platform installation and user documentation, which is available at the following URL:

http://edocs.bea.com/platform/docs70/index.html

Contact Us!

Your feedback on the BEA WebLogic Adapter for ISO15022 documentation is important to us. Send us e-mail at docsupport@bea.com if you have questions or comments. Your comments will be reviewed directly by the BEA professionals who create and update the BEA WebLogic Adapter for ISO15022 documentation.

In your e-mail message, please indicate which version of the BEA WebLogic Adapter for ISO15022 documentation you are using.

If you have any questions about this version of the BEA WebLogic Adapter for ISO15022, or if you have problems installing and running the BEA WebLogic Adapter for ISO15022, 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 documentation 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] [-l 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.

1 Installing the Adapter

You can use the BEA WebLogic Adapter for ISO15022 to integrate ISO15022 messages and ISO15022 systems into your Java 2 Enterprise Edition (J2EE) application server environment. The installation in this manual is based on a transport protocol of IBM WebSphere MQ (that is, MQSeries). For help with other transports, see the related adapter installation document. Installation is dependent on the underlying resources of WebLogic Server and WebLogic Integration, as well as on IBM MQ MQSeries. After this infrastructure is in place, installation includes the addition of a J2EE Enterprise Application Archive (.ear file), and the creation of an application view for the event adapter and the service adapter.

This section provides instructions for installing the BEA WebLogic Adapter for ISO15022. It includes the following topics:

- Path Representation
- Step 1. Obtaining the Adapter
- Step 2. Configuring the Domain
- Step 3. Updating the BEA License
- Step 4. Updating Class Paths for MQ Series
- Step 5. Updating StartWeblogic Scripts
- Step 6. Deploying the Adapter
- Step 7. Creating or Updating the Adapter Group
- Next Steps

The BEA WebLogic Adapter for ISO15022 supports many different transport protocols for ISO15022 formatted messages. The transport protocol of choice must be installed prior to installation of the BEA WebLogic Adapter for ISO15022. This

document describes the process for one sample transport protocol, IBM's MQSeries. For other transport protocols, please see the related documentation for the specific protocol.

Before you install the BEA WebLogic Adapter for ISO15022, you must review the *BEA WebLogic Adapter for ISO15022 Release Notes* to ensure that you have the required prerequisite software installed. The *BEA WebLogic Adapter for ISO15022 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 7.0 in the default location on a Windows system, *WLI HOME* represents c:\bea\weblogic700\integration.

■ The term domain is used to indicate the name of a domain.

In WebLogic Integration 7.0, a new tool, the Configuration Wizard, is used to create custom user domains. When you use the Configuration Wizard to set up the domain configuration stored on the administration server, you are prompted to assign a domain name, <code>domain</code>, and to specify the location to which the <code>domain</code> directory will be installed. The files required by the administration server are installed in the <code>domain</code> directory under the specified location.

For additional information, see *Using the Configuration Wizard* which is available at the following URL:

http://edocs.bea.com/platform/docs70/confgwiz/index.html

For example, if you accept the Configuration Wizard default location, BEA_HOME\user_projects, the files required by the administration server are installed in the following directory:

BEA HOME\user projects\domain

■ DOMAIN_HOME represents the complete path to the root of a domain.

For example, if you use the WebLogic Integration 7.0 Configuration Wizard to create a domain in the default location on a Windows system, <code>DOMAIN_HOME</code> represents <code>c:\bea\weblogic700\user_projects\domain</code>.

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 ISO15022 software is packaged as an EAR file (BEA_ISO15022 _1_0_70.ear). You can obtain the software on CD or download it from www.bea.com.

Step 2. Configuring the Domain

The adapter can only be deployed in a domain that includes support for application integration functionality. If you have not already done so, use the Configuration Wizard to create the domain and select one of the following domain templates:

- Enterprise application integration (EAI) domain template
- WebLogic Integration (WLI) domain template

■ Platform domain template

For the information you need to configure a fully functional domain based on the template, see the appropriate section of the *Configuration Wizard Template Reference*:

- For the EAI domain template, see the following URL: http://edocs.bea.com/platform/docs70/template/eaidomain.html
- For the WLI domain template, see the following URL:

 http://edocs.bea.com/platform/docs70/template/wlidomain.html
- For the platform domain template, see the following URL: http://edocs.bea.com/platform/docs70/template/platjar.html

For general information about using the Configuration Wizard, see *Using the Configuration Wizard* at the following URL:

http://edocs.bea.com/platform/docs70/confgwiz/index.html

When you use the Configuration Wizard to create a domain based on the WLI or EAI domain template, a domain-specific version of the Database Wizard is installed in the DOMAIN_HOME directory. You must run the Database Wizard for the domain to initialize the database repository with the required tables and system data. For additional information, see "Configuring the Database for a Domain" in *Starting*, *Stopping and Customizing BEA WebLogic Integration*, at the following URL:

http://edocs.bea.com/wli/docs70/config/index.htm

Step 3. Updating the BEA License

The BEA WebLogic Adapter for ISO15022 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:

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
 ISO15022_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.
- 3. 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.

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

Step 4. Updating Class Paths for MQ Series

To use MQ Series with the adapter, you must set the classpath using the procedure appropriate for your system:

- Extracting JARs and Adjusting Classpath for Windows
- Extracting JARs and Adjusting Classpath for UNIX

Extracting JARs and Adjusting Classpath for Windows

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_ISO15022_1_0.ear file to the directory of your choice (for example, BEA_HOME\ear\lib\ISO15022).
- 2. Go to the root directory for your domain:

cd DOMAIN HOME

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

Find the Set Domain TypeData.cmd 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.cmd</code> file.

 Add the following SVRCP environment variable settings to the SetDomainTypeData.cmd file for the domain to include the MQ Series 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.

```
-> REM ===== Libraries for MQSeries =====
set SVRCP=%SVRCP%;
"D:\MQSeries_Dir\Java\lib\com.ibm.mqjms.jar"
set SVRCP=%SVRCP%;
"D:\MQSeries_Dir\Java\lib\com.ibm.mq.jar"
set SVRCP=%SVRCP%;
"D:\MQSeries_Dir\Java\lib\com.ibm.mqbind.jar"
REM ===== Native Libraries and Localized Properties =====
Here, MQSeries_Dir\sistem is the location of your MQ Series installation, for example:
```

D:\Program Files\MQSeries\

Note: If you are not able to start the server due to an error of "input path length is too long", you may need to adjust the locations of these files or your classpath entries to create a shorter path.

Extracting JARs and Adjusting Classpath for UNIX

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

- 1. Use jar (or another similar extracting product) to extract BEA_ISO15022_1_0.ear to a directory of your choice (for example, BEA_HOME/ear/lib/ISO15022).
- 2. Go to the root directory for your domain:

```
cd DOMAIN HOME
```

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

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

Here, <code>DomainType</code> is the type of 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.cmd</code> file.

 Add the following SVRCP environment variable settings to the SetDomainTypeData.cmd file for the domain to include the MQ Series 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.

```
SVRCP=$SVRCP:/opt/MQSeries/Java/lib/com.ibm.mqjms.jar
SVRCP=$SVRCP:/opt/MQSeries/Java/lib/com.ibm.mq.jar
SVRCP=$SVRCP:/opt/MQSeries/Java/lib/com.ibm.mqbind.jar
SVRCP=$SVRCP:/opt/MQSeries/Java/lib"
```

Here, MQSeries_Dir is the location of your MQ Series installation, for example: /opt/MQSeries

Step 5. Updating StartWeblogic Scripts

If you are using the platform domain, you must update the class path settings in the StartWeblogic.cmd file for your platform:

- Editing for Windows
- Editing for Unix

Editing for Windows

On Windows, edit the StartWeblogic.cmd file, which you will find in your domain home directory, and locate the following line:

```
REM Set any additional CLASSPATH information

Add the following statement below:

set CLASSPATH=%CLASSPATH%; BEA_HOME\adapters\jdom.jar

Here, BEA HOME is the BEA home directory.
```

Editing for Unix

On Unix, edit the StartWeblogic.cmd file, which you will find in your domain home directory, and locate the following line:

REM Set any additional CLASSPATH information

Add the following statement below:

\$CLASSPATH=\$CLASSPATH:BEA HOME/adapters/jdom.jar

Here, BEA HOME is the BEA home directory.

Step 6. Deploying the Adapter

After the BEA WebLogic Adapter for ISO15022 is installed, it must be deployed to your domain. To configure and deploy an adapter using the WebLogic Server Administration Console, complete the following steps:

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

```
http://host:port/console/
```

Here, host 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.

The WebLogic Server Administration Console opens.

Console Welcome to BEA WebLogic Server Home 🖽 🍛 wlidomain ⊞ ≌ Servers Connected to localhost:7001 Clusters ... Machines 4 Information and Resources Metwork Channels Helpful Tools **General Information** □ □ Deployments ■ ■ Applications Convert weblogic properties Read the documentation Set your console preferences ⊞ EJB Configure applications ■ Web Applications **Domain Configurations** Web Service Components ■ Connectors Startup & Shutdown Network Configuration Your Deployed Resources Application's ⊟ Services Security Settings **□**JCOM Domains Applications Realms ■ ■JDBC Servers | EJB. ⊞ ≝JMS ⊞ Messaging Bridge Clusters Web Applications ⊞ 🕮 XML **Machines** Web Service Components JTA Network Channels Connectors ⊞ ■SNMP Startup & Shutdown ■WLEC WebLogic Tuxedo Connect Services Configurations **i**Jolt **i** JDBC SNME Other Services ^IVirtual Hosts ⊞ ≌ Mail

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 Configure a new Application link.

The console displays the Locate Application or Component to configure window.

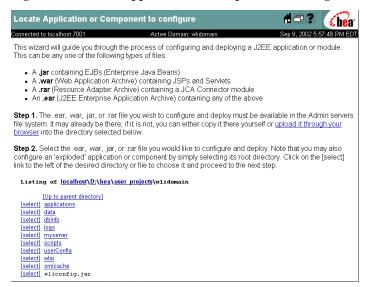


Figure 1-3 Locate Application or Component to Configure Window

6. Do one of the following:

If you copied the BEA_ISO15022_1_0_70.ear file to a directory on the administrative server, navigate to that directory. For example, if you copied the file to the D:\bea\AdapterEars directory, select the directory as shown in the following figure.

Figure 1-4 Locating the Adapter EAR File

Listing of localhost\D:\bea\AdapterEars [Up to parent directory] [select] BEA_ISO15022_1_0_70.ear

If you have not copied the BEA_ISO15022_1_0_70.ear file to a directory on the administrative server, do the following:

a. Navigate to the directory to which the file will be uploaded.

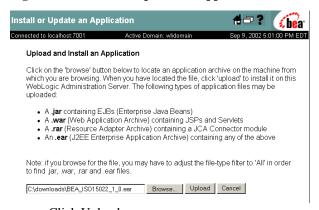
For example, to upload the adapter from your local machine to the D:\bea\AdapterEars directory on the administrative server, select the directory as shown in the following figure.

Figure 1-5 Selecting the Target Directory



- b. Click the upload it through your browser link to display the Install or Update an Application window.
- c. Click Browse to display the Choose File dialog box.
- d. In the Choose File dialog box, locate the file, and then click Open.
 The console displays the selected location.

Figure 1-6 Install or Update an Application Window



e. Click Upload.

The browser status bar indicates upload progress. When the upload is complete, you are returned to the Locate Application or Component to configure window. The uploaded file now resides in the directory selected in step a.

Figure 1-7 Adapter EAR File Uploaded to Administrative Server



7. Click the [select] link to the left of the adapter EAR file.

The console displays the Configure Application or Component window.

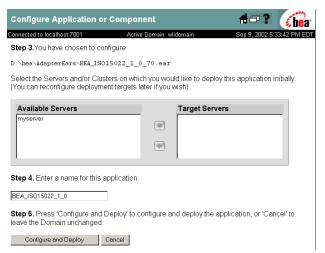


Figure 1-8 Configure Application or Component Window

- 8. Select the servers or clusters on which to deploy the adapter by using the arrow buttons to move entries from the available list to the target list.
- 9. You must change the application name from BEA_ISO15022_1_0_70 to BEA_ISO15022_1_0.

Note: If you do not change the application name, the adapter will not be available to application views.

The following figure shows a configured application.

Configure Application or Component Connected to localhost:7001 Step 3. You have chosen to configure D:\bea\AdapterEars\BEA_ISO15022_1_0_70.ear Select the Servers and/or Clusters on which you would like to deploy this application initially (You can reconfigure deployment targets later if you wish) Available Servers Target Servers myserver 190 1 Step 4. Enter a name for this application. BEA_ISO15022_1_0 Step 5. Press 'Configure and Deploy' to configure and deploy the application, or 'Cancel' to leave the Domain unchanged. Configure and Deploy Cancel

Figure 1-9 Configured Application

10. Click Configure and Deploy.

The console displays the deployment status, which includes a description, status, begin time, and end time for the deployed adapter.

Step 7. Creating or Updating the Adapter Group

Before you create an application view that uses the events or services supported by an adapter, the following requirements must be met:

- The user group, adapter, must be defined.
- The administrative server user name must be a member of the adapter group.

The action required to complete the configuration depends on which domain template you selected when you created the domain. See the following table for guidelines.

Table 1-1 Configuration Requirements

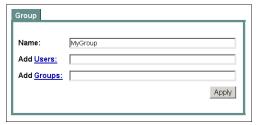
If you created a domain based on the	And the administrative server user name is	Then
Platform domain template	Any value	Create the adapter group and add the administrative user name to it as described in "Creating the Adapter Group" on page 1-15.
WLI or EAI domain template	system	The adapter group is already defined. This group includes the system user name by default. No further configuration is required.
WLI or EAI domain template	A value other than system	The adapter group is already defined. Add the user name to the group as described in "Adding the User Name to the Adapter Group" on page 1-16.

Creating the Adapter Group

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

- 1. In the left pane of the WebLogic Server Administration Console, choose Compatibility Security and then Groups from the navigation tree.
- 2. Click the Create a New Group link to display the Group window.

Figure 1-10 Group Window



- 3. Enter adapter in the Name field.
- 4. Enter the administrative server user name in the Add Users field.
- 5. Click Apply.

The Group window is updated as shown in the following figure.

Figure 1-11 Group Window

Group	
Name:	adapter
Members: (Select to remove)	□ <u>username</u>
Add <u>Users:</u>	
Add <u>Groups:</u>	
	Apply

Adding the User Name to the Adapter Group

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 Compatibility Security and then Groups from the navigation tree.
 - The console displays the groups currently defined for the domain.
- 2. Locate and click the link for the adapter group to display the group definition.

Figure 1-12 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.

Next Steps

When you have successfully installed and deployed the adapter, 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 ISO15022. For more information, see the *BEA WebLogic Adapter for ISO15022 User Guide*.