



BEA WebLogic Adapter for RDBMS

Installation and Configuration Guide for WebLogic Integration 7.0

Copyright

Copyright © 2002 BEA Systems, Inc. All Rights Reserved.

Copyright © 2002 iWay Software. All Rights Reserved.

Restricted Rights Legend

This software and documentation is subject to and made available only pursuant to the terms of the BEA Systems License Agreement and may be used or copied only in accordance with the terms of that agreement. It is against the law to copy the software except as specifically allowed in the agreement. This document may not, in whole or in part, be copied photocopied, reproduced, translated, or reduced to any electronic medium or machine readable form without prior consent, in writing, from BEA Systems, Inc.

Use, duplication or disclosure by the U.S. Government is subject to restrictions set forth in the BEA Systems License Agreement and in subparagraph (c)(1) of the Commercial Computer Software-Restricted Rights Clause at FAR 52.227-19; subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013, subparagraph (d) of the Commercial Computer Software--Licensing clause at NASA FAR supplement 16-52.227-86; or their equivalent.

Information in this document is subject to change without notice and does not represent a commitment on the part of BEA Systems. THE SOFTWARE AND DOCUMENTATION ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. FURTHER, BEA Systems DOES NOT WARRANT, GUARANTEE, OR MAKE ANY REPRESENTATIONS REGARDING THE USE, OR THE RESULTS OF THE USE, OF THE SOFTWARE OR WRITTEN MATERIAL IN TERMS OF CORRECTNESS, ACCURACY, RELIABILITY, OR OTHERWISE.

Trademarks or Service Marks

BEA, Jolt, Tuxedo, and WebLogic are registered trademarks of BEA Systems, Inc. BEA Builder, BEA Campaign Manager for WebLogic, BEA eLink, BEA Manager, BEA WebLogic Commerce Server, BEA WebLogic Enterprise, BEA WebLogic Enterprise Platform, BEA WebLogic Express, BEA WebLogic Integration, BEA WebLogic Personalization Server, BEA WebLogic Platform, BEA WebLogic Portal, BEA WebLogic Server, BEA WebLogic Workshop and How Business Becomes E-Business are trademarks of BEA Systems, Inc.

All other trademarks are the property of their respective companies.

BEA WebLogic Adapter for RDBMS Installation and Configuration Guide for WebLogic Integration 7.0

Part Number	Date	Release
N/A	November 2002	7.0 with Service Pack 1

Table of Contents

About This Document

Audience.....	vi
Related Information.....	vii
Contact Us!.....	vii
Documentation Conventions	viii

1. Installing the Adapter for WebLogic Integration 7.0

Before Installing the Adapter	1-2
Understanding the Representation of Paths.....	1-2
Step 1. Obtaining the BEA WebLogic Adapter for RDBMS.....	1-3
Step 2. Configuring the Domain.....	1-4
Step 3. Updating the BEA License.....	1-5
Step 4. Deploying the Adapter Using the WebLogic Server Console	1-6
Step 5. Creating or Updating the Adapter Group.....	1-14
Creating the Adapter Group	1-15
Adding the User Name to the Adapter Group.....	1-16
Next Steps.....	1-17



About This Document

This document explains how to install the BEA WebLogic Adapter for Relational Database Management Systems (RDBMS) for WebLogic 7.0, which is used to develop client-server interfaces between an RDBMS and other applications.

This document is organized as follows:

- [Chapter 1, “Installing the Adapter for WebLogic Integration 7.0,”](#) describes how to install the BEA WebLogic Adapter for RDBMS.

Audience

This document is written for system integrators who need to develop client-server interfaces between RDBMS and third-party enterprise information system (EIS) applications.

It provides information about using adapter tools to develop connections between a WebLogic Integration client and an RDBMS.

It is assumed that readers have a general understanding of Microsoft Windows and UNIX systems as well as:

- Some experience installing EIS and integration products and an understanding of RDBMS and SQL products with which this software will be integrating.
- Specific business application knowledge.
- Knowledge of the specific business application and data models for the required application.

-
- General knowledge of BEA WebLogic Integration architecture.
 - General knowledge of XML concepts.

Extensive internal knowledge of the specific SQL environment is not required, but may be helpful in learning about the BEA WebLogic Adapter for RDBMS.

Related Information

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

- *BEA WebLogic Adapter for RDBMS User Guide*
- *BEA WebLogic Adapter for RDBMS Release Notes*
- BEA WebLogic Platform installation and user documentation, which is available at the following URL:
<http://edocs.bea.com/platform/docs70/index.html>
- Specific RDBMS installation and user documentation.

Contact Us!

Your feedback on the BEA WebLogic Adapter for RDBMS 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 RDBMS documentation.

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

If you have any questions about this version of the BEA WebLogic Adapter for RDBMS, or if you have problems installing and running the BEA WebLogic Adapter for RDBMS, 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.
<i>italics</i>	Indicates emphasis or book titles.

Convention	Item
monospace text	<p>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.</p> <p><i>Examples:</i></p> <pre>#include <iostream.h> void main () the pointer psz chmod u+w * \tux\data\ap .doc tux.doc BITMAP float</pre>
monospace boldface text	<p>Identifies significant words in code.</p> <p><i>Example:</i></p> <pre>void commit ()</pre>
<i>monospace italic text</i>	<p>Identifies variables in code.</p> <p><i>Example:</i></p> <pre>String <i>expr</i></pre>
UPPERCASE TEXT	<p>Indicates device names, environment variables, and logical operators.</p> <p><i>Examples:</i></p> <pre>LPT1 SIGNON OR</pre>
{ }	<p>Indicates a set of choices in a syntax line. The braces themselves should never be typed.</p>
[]	<p>Indicates optional items in a syntax line. The brackets themselves should never be typed.</p> <p><i>Example:</i></p> <pre>buildobjclient [-v] [-o name] [-f <i>file-list</i>]... [-l <i>file-list</i>]...</pre>
	<p>Separates mutually exclusive choices in a syntax line. The symbol itself should never be typed.</p>

Convention	Item
...	<p>Indicates one of the following in a command line:</p> <ul style="list-style-type: none">■ 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 <p>The ellipsis itself should never be typed.</p> <p><i>Example:</i></p> <pre>buildobjclient [-v] [-o name] [-f file-list]... [-l file-list]...</pre>
. . .	<p>Indicates the omission of items from a code example or from a syntax line.</p> <p>The vertical ellipsis itself should never be typed.</p>



1 Installing the Adapter for WebLogic Integration 7.0

This section provides instructions for installing the BEA WebLogic Adapter for RDBMS with WebLogic Integration 7.0. It includes the following topics:

- [Before Installing the Adapter](#)
- [Understanding the Representation of Paths](#)
- [Step 1. Obtaining the BEA WebLogic Adapter for RDBMS](#)
- [Step 2. Configuring the Domain](#)
- [Step 3. Updating the BEA License](#)
- [Step 4. Deploying the Adapter Using the WebLogic Server Console](#)
- [Step 5. Creating or Updating the Adapter Group](#)
- [Next Steps](#)

Before Installing the Adapter

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

<http://edocs.bea.com/wlapters/doc70/index.html>

Understanding the Representation of Paths

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`.
- *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, *domain*, and to specify the location to which the *domain* directory will be installed. The files required by the administration server are installed in the *domain* directory under the specified location.

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

<http://edocs.bea.com/platform/docs70/configwiz/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, *DOMAIN_HOME* represents c:\bea\weblogic700\user_projects\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 BEA WebLogic Adapter for RDBMS

The BEA WebLogic Adapter for RDBMS software is packaged as an EAR file (*BEA_RDBMS_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/configwiz/index.html>

When you use the Configuration Wizard to create a domain that includes support for application integration, 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 RDBMS 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.

Note: A single license is provided for the BEA WebLogic Utility Adapter Pack, which includes the file, RDBMS, email, and HTTP adapters. If you have already updated the license for another utility adapter, you can skip this step.

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 `utility_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, *license_update_file* 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 4. Deploying the Adapter Using the WebLogic Server Console

After the BEA WebLogic Adapter for RDBMS 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:

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

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

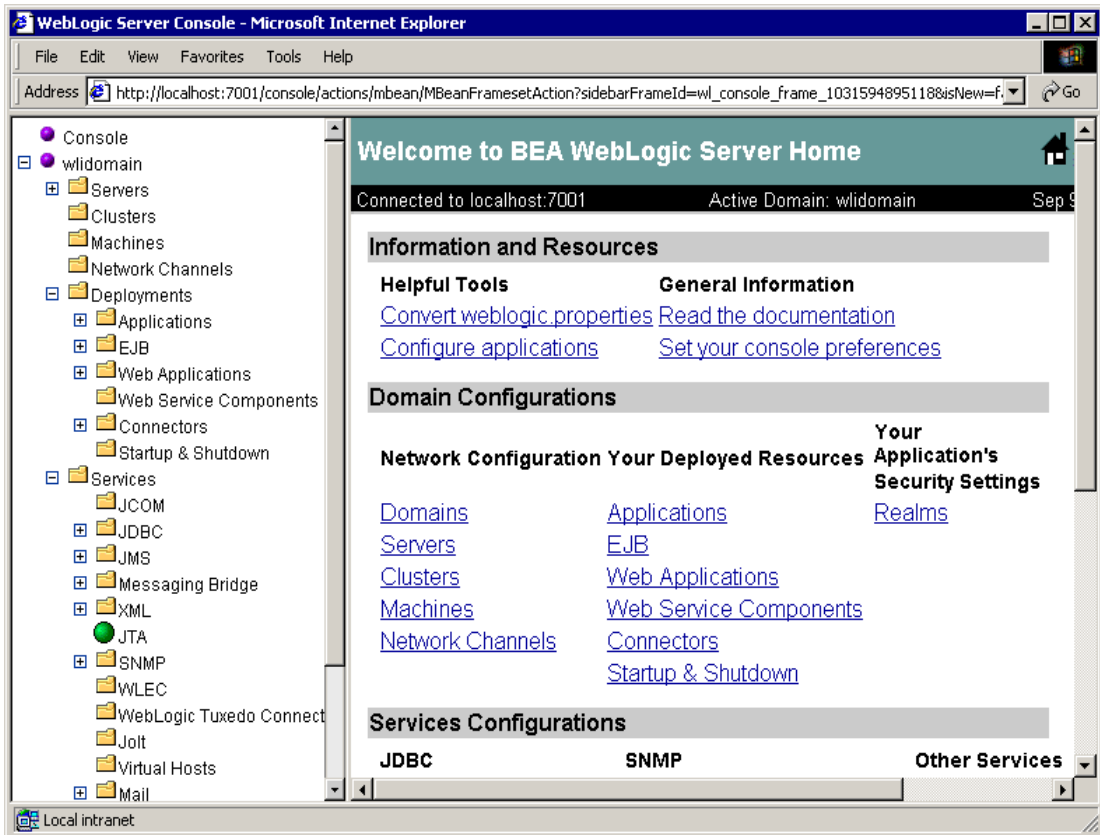
Here, *host* represents the machine on which WebLogic Server is running and *port* represents the listening port.

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

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

The WebLogic Server Administration Console opens.

Figure 1-1 WebLogic Server Console

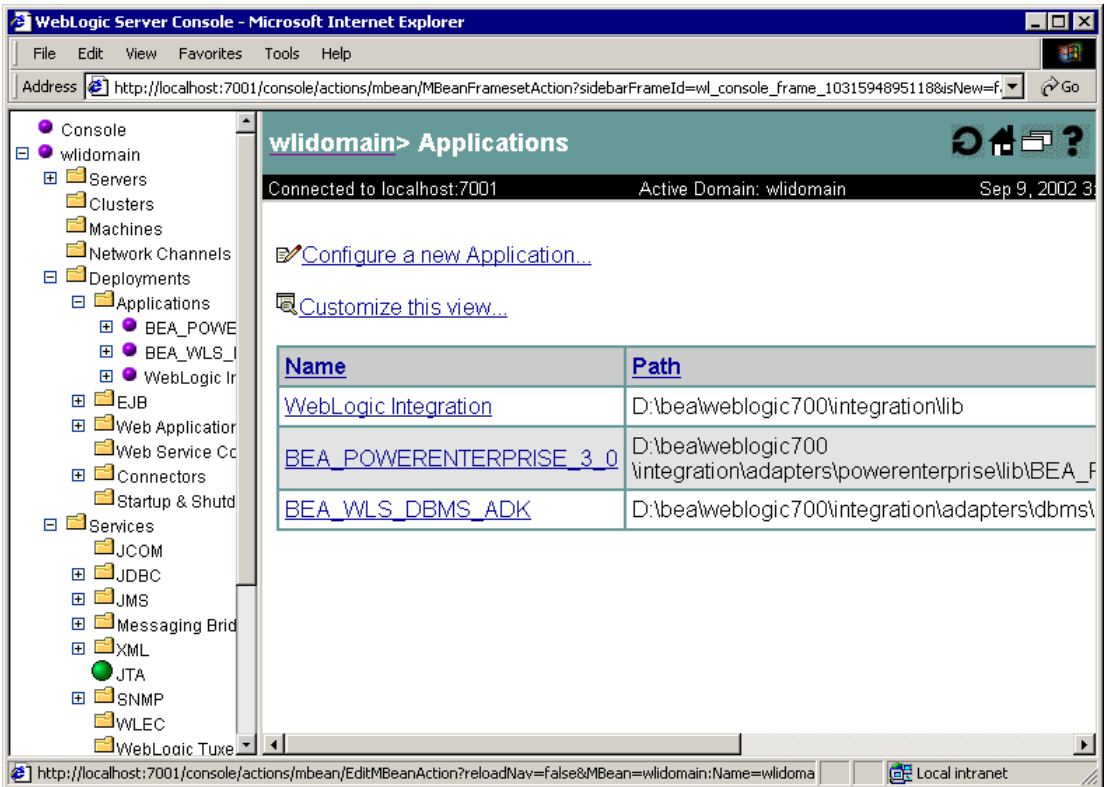


4. In the left pane, choose Deployments and then Applications from the navigation tree.

The console displays the Applications window.

1 *Installing the Adapter for WebLogic Integration 7.0*

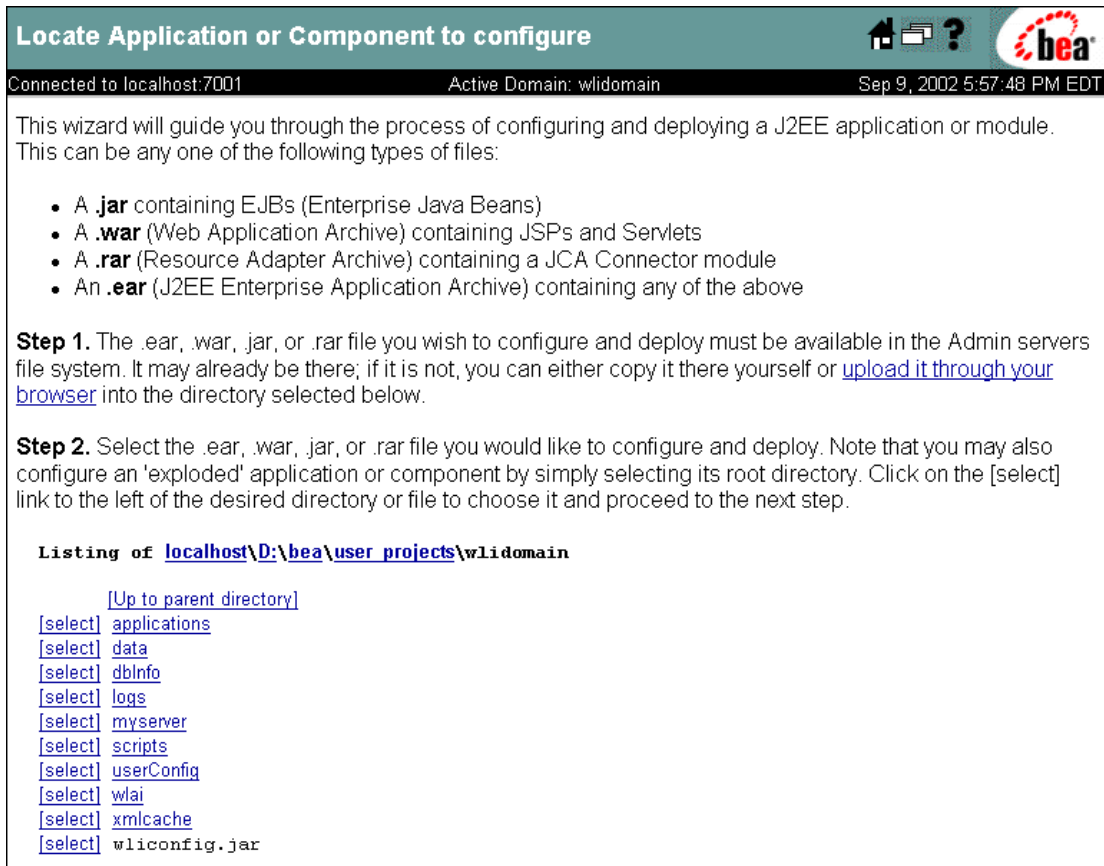
Figure 1-2 Applications Window



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_RDBMS_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_RDBMS_1_0_70.ear

If you have not copied the BEA_RDBMS_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

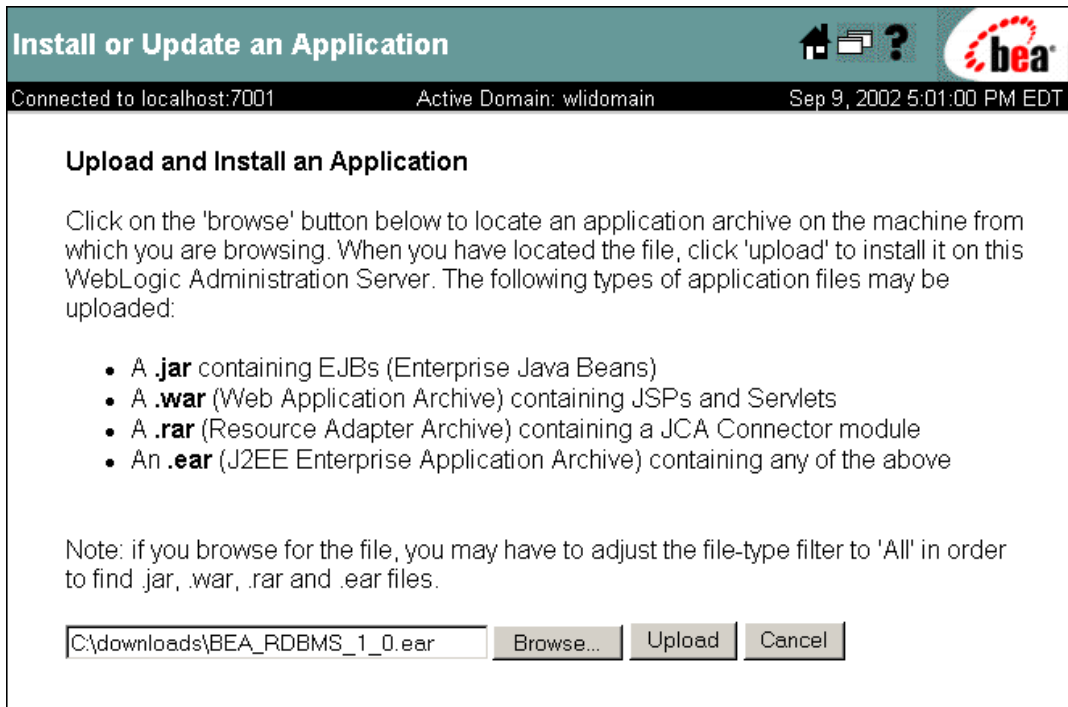
Listing of [localhost\D:\bea\AdapterEars](#)

[\[Up to parent directory\]](#)

- 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



Install or Update an Application

Connected to localhost:7001 Active Domain: wlidomain Sep 9, 2002 5:01:00 PM EDT

Upload and Install an Application

Click on the 'browse' button below to locate an application archive on the machine from which you are browsing. When you have located the file, click 'upload' to install it on this WebLogic Administration Server. The following types of application files may be uploaded:

- A **.jar** containing EJBs (Enterprise Java Beans)
- A **.war** (Web Application Archive) containing JSPs and Servlets
- A **.rar** (Resource Adapter Archive) containing a JCA Connector module
- An **.ear** (J2EE Enterprise Application Archive) containing any of the above

Note: If you browse for the file, you may have to adjust the file-type filter to 'All' in order to find .jar, .war, .rar and .ear files.

C:\downloads\BEA_RDBMS_1_0.ear Browse... Upload Cancel

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

Listing of [localhost\D:\bea\AdapterEars](#)

[\[Up to parent directory\]](#)
[\[select\]](#) BEA_RDBMS_1_0_70.ear

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

Configure Application or Component

Connected to localhost:7001 Active Domain: wldomain Sep 9, 2002 5:33:42 PM EDT

Step 3. You have chosen to configure
D:\bea\AdapterEars\BEA_RDBMS_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	→ ←	

Step 4. Enter a name for this application.
BEA_RDBMS_1_0_70

Step 5. Press 'Configure and Deploy' to configure and deploy the application, or 'Cancel' to leave the Domain unchanged.

Configure and Deploy Cancel

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_RDBMS_1_0_70 to BEA_RDBMS_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.

Figure 1-9 Configured Application

Configure Application or Component



Connected to localhost:7001Active Domain: wldomainSep 9, 2002 5:33:42 PM EDT

Step 3. You have chosen to configure

D:\bea\AdapterEars\BEA_RDBMS_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

Step 4. Enter a name for this application.

BEA_RDBMS_1_0

Step 5. Press 'Configure and Deploy' to configure and deploy the application, or 'Cancel' to leave the Domain unchanged.

Configure and DeployCancel

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 5. 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

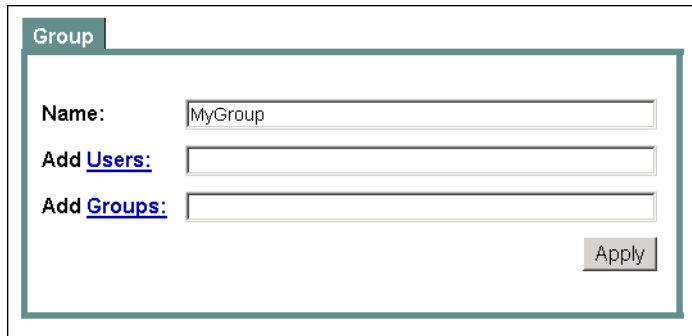
If you created a domain based on the . . .	And the administrative server user name is . . .	Then . . .
Platform domain template	Any value	Create the adapter group and add the administrative user name to it as described in “Creating the Adapter Group” on page 1-15.
WLI or EAI domain template	<code>system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



Group

Name:

Add [Users](#):

Add [Groups](#):

Apply

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

The screenshot shows a window titled "Group" with a light blue header. Inside the window, the "Name:" field is set to "adapter". The "Members:" section shows a checkbox next to the text "username", with "(Select to remove)" written below it. There are two empty text input fields, one labeled "Add Users:" and the other labeled "Add Groups:". In the bottom right corner of the window is a button labeled "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 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

mydomain> Realms> myRealm> Groups

Connected to localhost:7001 Active Domain: mydomain Sep 10, 2002 5:41:32 PM EDT

Group

Name: adapter

Members:
(Select to remove)

☐ [admin](#) ☐ [wlcSamplesUser](#) ☐ [joe](#) ☐ [wlisystem](#) ☐ [hub](#)
☐ [system](#) ☐ [mary](#) ☐ [guest](#)

Add Users:

Add Groups:

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

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 RDBMS. For more information, see the *BEA WebLogic Adapter for RDBMS User Guide*.

