# BEA WebLogic Adapter for Baan®

## Installation and Configuration Guide

Version 8.1.1
Document Revised: October 2003

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## About This Document



## 1. Installing the BEA WebLogic Adapter for Baan

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# About This Document

This document explains how to install and configure the BEA WebLogic Adapter for Baan. This document is organized as follows:

- Chapter 1, "Installing the BEA WebLogic Adapter for Baan," explains how to install the adapter.
- Chapter 2, "Configuring the Adapter for Baan," explains how to configure the adapter.

## Who Should Read This Documentation

This document is intended for the following members of an integration team:

- Integration Specialists—Lead the integration design effort. Integration specialists have expertise in defining the business and technical requirements of integration projects, and in designing integration solutions that implement specific features of WebLogic Integration. The skills of integration specialists include business and technical analysis, architecture design, project management, and WebLogic Integration product knowledge.
- Technical Analysts—Provide expertise in an organization's information technology infrastructure, including telecommunications, operating systems, applications, data repositories, future technologies, and IT organizations. The skills of technical analysts include technical analysis, application design, and information systems knowledge.
- Enterprise Information System (EIS) Specialists—Provide domain expertise in the systems that are being integrated using WebLogic Integration adapters. The skills of EIS specialists include technical analysis and application integration design.

- System Administrators—Provide in-depth technical and operational knowledge about databases and applications deployed in an organization. The skills of system administrators include capacity and load analysis, performance analysis and tuning, deployment topologies, and support planning.

# What You Need to Know

This document assumes that you have an understanding of:

- Web technologies
- WebLogic Integration
- Baan software, system, and environment. This includes understanding of Baan tools and configuration as well as processes and data models.
- Your specific Baan business needs and applications.

# Product Documentation on the dev2dev Web Site

BEA product documentation, along with other information about BEA software, is available from the BEA dev2dev Web site:

`http://dev2dev.bea.com`

To view the documentation for a particular product, select that product from the list on the dev2dev page; the home page for the specified product is displayed. From the menu on the left side of the screen, select Documentation for the appropriate release. The home page for the complete documentation set for the product and release you have selected is displayed.

# Related Information

Readers of this document may find the following documentation and resources especially useful:

- *BEA WebLogic Adapter for Baan Release Notes*

  `http://edocs.bea.com/wladapters/baan/docs811/pdf/relnotes.pdf`

- *BEA WebLogic Adapter for Baan User Guide*

  `http://edocs.bea.com/wladapters/baan/docs811/pdf/user.pdf`

- *Introduction to the BEA WebLogic Adapters*

  `http://edocs.bea.com/wladapters/docs81/pdf/intro.pdf`

- BEA WebLogic Adapters 8.1 Dev2Dev Product Documentation

  http://dev2dev.bea.com/products/wladapters/index.jsp

- Application Integration documentation

  http://edocs.bea.com/wli/docs81/aiover/index.html

  http://edocs.bea.com/wli/docs81/aiuser/index.html

- BEA WebLogic Integration documentation

  http://edocs.bea.com/wli/docs81/index.html

- BEA WebLogic Platform documentation

  http://edocs.bea.com/platform/docs81/index.html

- Baan documentation

  http://www.baan.com

# Contact Us!

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

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

If you have any questions about this version of BEA WebLogic Adapter for Baan, or if you have problems using the BEA WebLogic Adapter for Baan, 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

CHAPTER 1

# Installing the BEA WebLogic Adapter for Baan

This section explains how to install the BEA WebLogic Adapter for Baan with WebLogic Integration on both Windows and UNIX systems.

This section is organized as follows:

# Preparing to Install the Adapter

Before you install the BEA WebLogic Adapter for Baan, be sure to complete the following tasks:

- Review the Release Notes
- Obtain the Samples
- Understanding the Representation of Paths

## Review the Release Notes

The *BEA WebLogic Adapter for Baan Release Notes* contain important information about the software you must install prior to installing the BEA WebLogic Adapter for Baan. Also, be sure to check the release notes for information about any required patches for your system. The *BEA WebLogic Adapter for Baan Release Notes* are available at the following URL:

`http://edocs.bea.com/wladapters/baan/docs811/pdf/relnotes.pdf`

## Obtain the Samples

There are samples available for the Adapter for Baan. These samples contain files used in the configuration of the Adapter for Baan. You can obtain them at:

`http://commerce.bea.com/products/weblogicadapters/wl_adapter_home.jsp`

Alternatively, if you obtained the adapter on CD, the samples are included on that CD.

## Understanding the Representation of Paths

When you install WebLogic Integration, you specify the locations for files. Some of these files are required by the adapter. This document uses the following conventions to represent the locations of these files.

- *`BEA_HOME`* represents the BEA Home directory of your WebLogic installation. For example:
  - If you install the product in the default location on a Windows system, *`BEA_HOME`* represents `c:\bea`.
  - If you install the product in the default location on a UNIX system, *`BEA_HOME`* represents `/bea`.
- *`WLI_HOME`* represents the root of your WebLogic Integration installation. For example:

  - If you install WebLogic Integration in the default location on a Windows system, *WLI_HOME* represents `c:\bea\weblogic81\integration`.
  - If you install WebLogic Integration in the default location on a UNIX system, *WLI_HOME* represents `/bea/weblogic81/integration`.

- *domain* is used to indicate the name of a domain.

  You use the Configuration Wizard to create custom user domains. When you set up the domain configuration with the Configuration Wizard, you must specify a domain name, *domain*. You must also indicate where the directory associated with this domain is created. This directory contains files required for that domain. To learn more about the Configuration Wizard, see *Using the Configuration Wizard* which is available at the following URL:

  `http://edocs.bea.com/platform/docs81/confgwiz/index.html`

- *DOMAIN_HOME* represents the complete path to the root of a domain.

  For example, if you use the Configuration Wizard to create a domain in the default location on a Windows system, *DOMAIN_HOME* represents `c:\bea\weblogic81\user_projects\`*domain*.

  If you use the Configuration Wizard to create a domain in the default location on a UNIX system, *DOMAIN_HOME* represents `/bea/weblogic81/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.

# Installing the Adapter

This section explains how to install the BEA WebLogic Adapter for Baan with WebLogic Integration. It includes the following steps:

- Step 1. Obtain the BEA WebLogic Adapter for Baan
- Step 2. Configure the Domain
- Step 3. Extract the Adapter Files
- Step 4: Configure a JDBC Driver for Database Connection
- Step 5. Update the BEA License

- Step 6. Deploy the Adapter
- Step 7. Create an Adapter Administrative User

# Step 1. Obtain the BEA WebLogic Adapter for Baan

To obtain the EAR file containing the BEA WebLogic Adapter for Baan software (`BEA_BAAN_8_1.ear`), do one of the following:

- Download the file from the following URL:

  `http://commerce.bea.com/products/weblogicadapters/wl_adapter_home.jsp`

- Obtain the software on CD.

# Step 2. Configure the Domain

You must deploy the BEA WebLogic Adapter for Baan in a domain that supports application integration functionality. You can create one of your own, or use the sample integration domain. The sample integration domain is:

- On Windows: *`BEA_HOME`*`\weblogic81\samples\domains\integration`
- On UNIX: *`BEA_HOME`*`/weblogic81/samples/domains/integration`

If you have not already done so, use the Configuration Wizard to create the domain using the Integration domain template.

To learn more about the Configuration Wizard, see the *Configuration Wizard Template Reference* at the following URL:

`http://edocs.bea.com/platform/docs81/confgwiz/index.html`

# Step 3. Extract the Adapter Files

This section explains how to extract the BEA WebLogic Adapter for Baan files. You only have to extract the files from the samples. You do not need to extract the contents of the adapter ear file.

Extract the files using the procedure appropriate for your system:

- Extracting Files for Windows
- Extracting Files for UNIX

### Extracting Files for Windows

To extract the BEA WebLogic Adapter for Baan sample files:

1. Use WinZip (or another similar extracting product) to extract the `BEA_BAAN_SAMPLES.zip` file to a directory of your choice (for example, *`BEA_HOME`*`\adapters\baan\samples`).

### Extracting Files for UNIX

To extract the BEA WebLogic Adapter for Baan sample files:

1. Use jar (or another similar extracting product) to extract the `BEA_BAAN_SAMPLES.zip` file to a directory of your choice (for example, *`BEA_HOME`*`/adapters/baan/samples`).

## Step 4: Configure a JDBC Driver for Database Connection

To configure a database connection, you need a JDBC 2.1 compliant driver for the RDBMS you are using. Get the appropriate driver and perform the following steps using the procedure appropriate for your system.

### Configuring a JDBC Driver for Windows

To configure a JDBC driver for Windows:

1. Place the JAR files that constitute the driver in a folder of your choice.

   For example: For MS SQL database driver configuration, copy the driver files to `C:\` as follows:

   ```
   C:\jdbcDriver\msutil.jar
   C:\jdbcDriver\msbase.jar
   C:\jdbcDriver\mssqlserver.jar
   ```

2. Go to the root directory for your domain:

   ```
   cd DOMAIN_HOME
   ```

3. Open the script file with an ASCII editor. For WebLogic Integration 8.1 SP2, the script file you edit is `setDomainEnv.cmd`. For versions of WebLogic Integration, earlier than 8.1 SP2, the file name is `startWeblogic.cmd`.

4. Find the following command in the script file:

   ```
   set
   CLASSPATH=%PRE_CLASSPATH%;%WLP_PRE_CLASSPATH%;%WEBLOGIC_CLASSPATH%;%CLA
   SSPATH%;%POST_CLASSPATH%;%WLP_POST_CLASSPATH%
   ```

5. Immediately *before* this command line, insert the command lines to include the driver files in the WebLogic Server `CLASSPATH`.

   For example, for MS SQL Server, insert the following command lines:

   ```
   set
   WEBLOGIC_CLASSPATH=%WEBLOGIC_CLASSPATH%;C:\jdbcDriver\msutil.jar;C:\jdb
   cDriver\msbase.jar;C:\jdbcDriver\mssqlserver.jar
   ```

6. Save your changes and close the script file.

7. Start WebLogic Server by running `startWebLogic.cmd` from your domain folder.

## Configuring a JDBC Driver for UNIX

To configure a JDBC driver for UNIX:

1. Place the JAR files that constitute the driver in a folder of your choice.

   For example: For MS SQL database driver configuration, copy the driver files as follows:

   ```
   /jdbcDriver/msutil.jar
   /jdbcDriver/msbase.jar
   /jdbcDriver/mssqlserver.jar
   ```

2. Go to the root directory for your domain:

   ```
   cd DOMAIN_HOME
   ```

3. Open the WebLogic script file with an editor. For WebLogic Integration 8.1 SP2, the file is `setDomainEnv.sh`. For earlier versions of WebLogic Integration, the file is `startWebLogic.sh`.

4. Find the following command in the script file:

   ```
   CLASSPATH=$PRE_CLASSPATH:$WLP_PRE_CLASSPATH:$WEBLOGIC_CLASSPATH:
   $CLASSPATH:$POST_CLASSPATH:$WLP_POST_CLASSPATH
   ```

5. Immediately before this command line, insert the command lines to include the driver files in the WebLogic Server `CLASSPATH`.

   For example, for MS SQL Server, insert the following command lines:

   ```
   WEBLOGIC_CLASSPATH=$WEBLOGIC_CLASSPATH:/jdbcDriver/msutil.jar:/jdbcDriv
   er/msbase.jar:/jdbcDriver/mssqlserver.jar
   ```

6. Add the tools.jar to your `CLASSPATH`, as follows:

   ```
   CLASSPATH="${CLASSPATH}:${ARDIR}/ant/ant.jar:
   ${JAVA_HOME}/lib/tools.jar"
   ```

7. Save your changes and close the script file.
8. Start WebLogic Server by running `startWebLogic.sh` from your domain folder.

## Step 5. Update the BEA License

In order to use the BEA WebLogic Adapter for Baan you must have a valid software license. If you have downloaded the adapter for evaluation, see the instructions on the adapter download page to obtain an evaluation license. If you have purchased a license for the adapter, you should receive the license file as an e-mail attachment. Once you have the license file for the adapter, you must update your `license.bea` file to include the new information for the adapter.

To update your `license.bea` file:

1. Save the adapter license file in the *BEA_HOME* directory. To avoid overwriting your `license.bea` file, use a name other than `license.bea`. For example, save the file as `baan_adapter_license.bea`. The adapter license file is the *license_update_file* referred to in step 4 of this procedure.

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

2. Go to the *BEA_HOME* directory:
   - 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. Add the JDK to your `PATH` variable. If it is already included, skip to step 4.
   - On a Windows system:

     ```
     set PATH=BEA_HOME\jdk141_02\bin;%PATH%
     ```

   - On a UNIX system:

     ```
     PATH=BEA_HOME/jdk141_02/bin:$PATH
     export PATH
     ```

4. Merge the adapter license file into your existing license:
   - 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 of the adapter license file you saved in step 1.

5. Save a backup copy of your updated `license.bea` file. This backup location should be a safe place that is neither the WebLogic Integration nor the application installation directories.

# Step 6. Deploy the Adapter

After you have installed the BEA WebLogic Adapter for Baan, you must deploy it to your domain.

To deploy the adapter:

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

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

   Where,

   – *`host`* represents the machine on which WebLogic Server is running

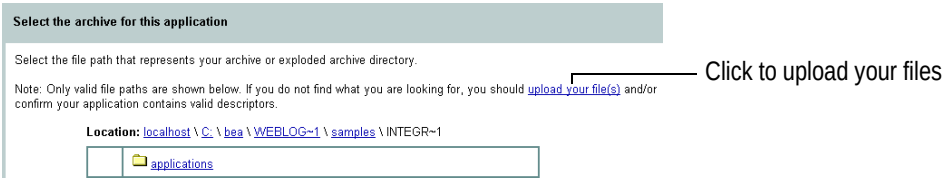
   – *`port`* represents the listening port.

   For example, `http://localhost:7001/console/`
3. Enter the user name and password for the server.

   The WebLogic Server Administration Console appears.

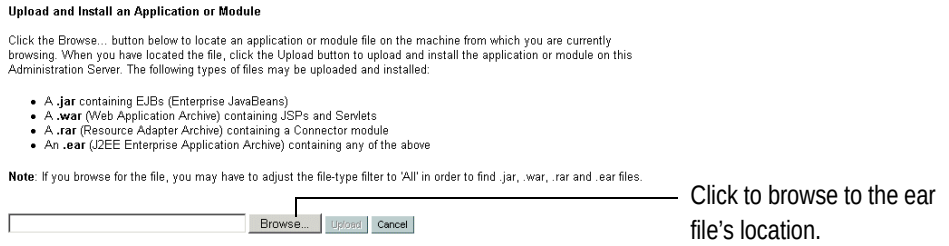

4. In the left pane, expand the Deployments node.
5. Under the Deployments node, right-click Applications and select Deploy a New Application.

   This initiates the Deployment Assistant in the right panel.



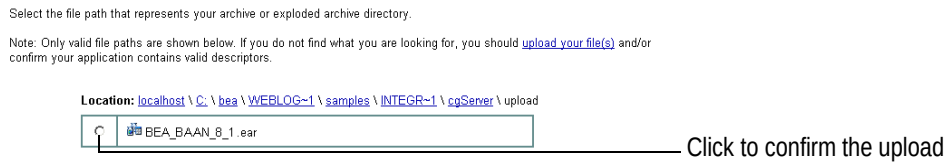

6. Click the upload your files(s) link.

   The Deployment Assistant displays the Install or Update an Application window.



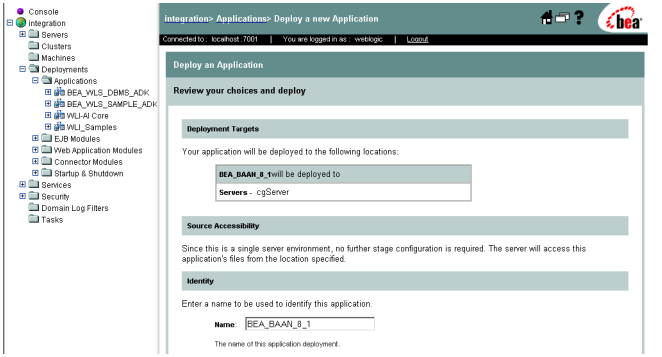

7. Click Browse, navigate to the directory in which the `BEA_BAAN_8_1.ear` file resides, and then click Upload.

   The Administration Console prompts you to confirm the uploaded application.




8. Click the radio button next to the application file and then click Continue.

   The Administration Console uploads the file and displays the Deploy an Application window (specifying the default target server).




9. Click Deploy.

   The Administration Console deploys the application and displays its deployment status.

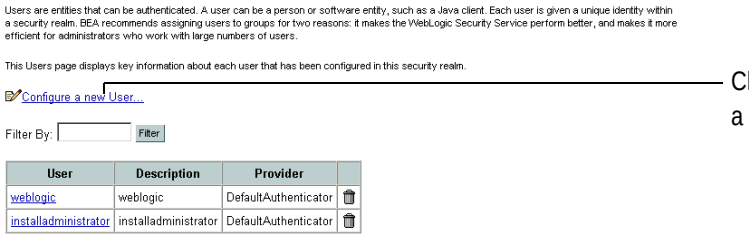
# Step 7. Create an Adapter Administrative User

If you want to manage security for the BEA WebLogic Adapter for Baan, you can create an administrative user (such as `baanAdapterAdmin`) who is authorized to log in to the Application View Console, create application views, configure services and events, deploy, and test. This adapter administrator also needs to be added to the `Administrators` group.

To create a new adapter administrative user:

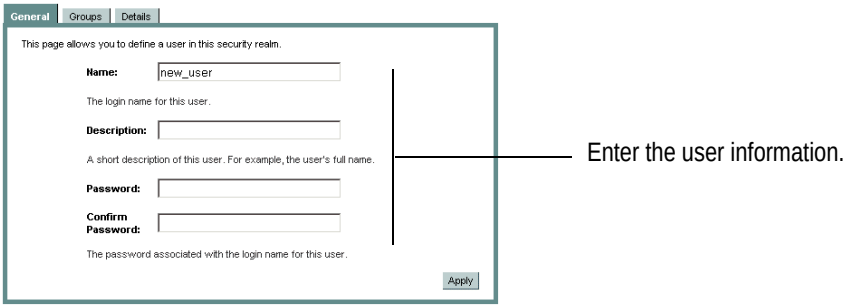
1. In the left pane of theWebLogic Server Administration Console, click the Security node.
2. In the left pane, click the Realms node.
3. In the left pane, click the name of the realm for which you want to configure security.
4. In the left pane, click Users.

   The Users page appears.



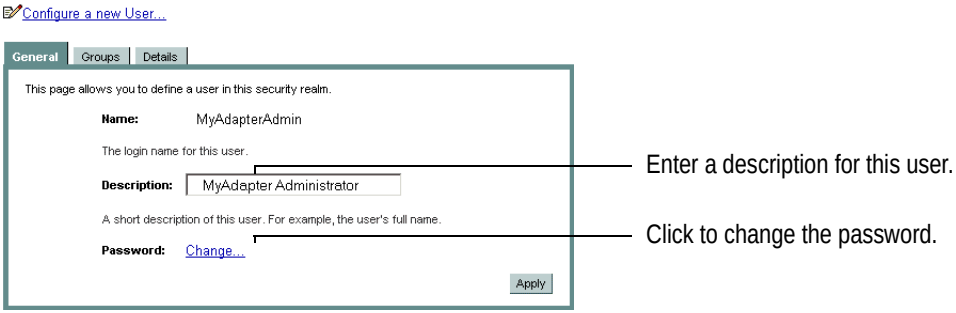
5. Click the Configure a New User link.

   The Create User page appears.



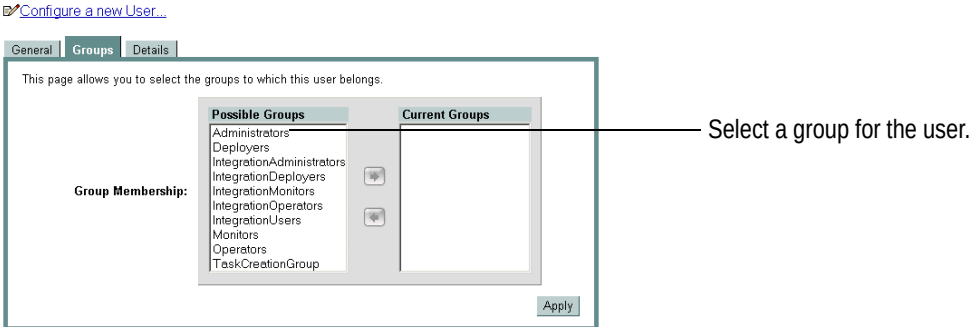

6. Enter the user name, description and password, and then click Apply.

   The User page appears.




7. Click the Groups tab.

   The Groups page appears.



8. In the Possible Groups list, select Administrators and then click the right arrow to add the Administrators group to the list of current groups.
9. Click Apply.
10. In the left pane, click the Users node and confirm that the user you created appears in the list of users.

# Next Steps

After you have finished installing the BEA WebLogic Adapter for Baan, you can proceed to the following tasks:

- Configuring the Adapter for Baan
- Starting Integration with Baan

## Starting Integration with Baan

After you have successfully installed and deployed the BEA WebLogic Adapter for Baan, you can begin integrating with your Baan system using the adapter and BEA WebLogic Integration. To learn more about integrating with Baan, see the *BEA WebLogic Adapter for Baan User Guide* at the following URL:

`http://edocs.bea.com/wladapters/baan/docs811/pdf/user.pdf`

CHAPTER 2

# Configuring the Adapter for Baan

This section describes how to configure the BEA WebLogic Adapter for Baan.

This section is organized as follows:



## Configuring the Baan Data Dictionary File

This section applies only to adapters installed on Microsoft Windows.

You must edit the contents of the Baan data dictionary file to reflect the actual root directory of the adapter installation and the location of the base XML files.

To configure the Baan data dictionary file:

1. Find the data dictionary file, `Baan_Data_Dictionary.xml`. This file is one of the samples that you extracted in Step 3. Extract the Adapter Files.
2. Open the file with a text editor.
3. Edit the following line so the base attribute points to where you extracted the samples file.

```
<CUSTOMER table="ttccom010550" base="C:\Program
Files\iWay\Ibse\baan\base_customer.xml" rootname="SYNC_CUSTOMER_005">
```

4. In the same file, edit the base attribute of the definitions of the Inventory, Item, Sales Order, BOM, and Purchase Order tables.

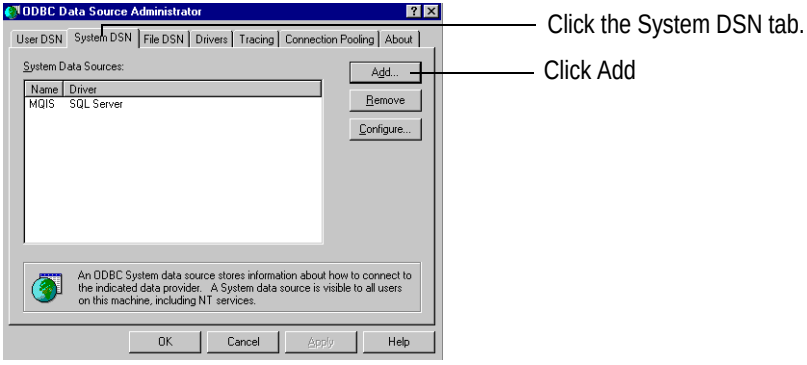
# Configuring an ODBC Data Source for Baan Services

If you use MS SQL 6.5, which is required by Baan version 4.0, you must configure an ODBC data source for the Baan database so that the adapter can communicate with it. However, if you have a higher version of MS SQL or of Baan, you can use a JDBC driver. Before using a JDBC driver you must first configure it. For more information, see "Configure a JDBC Driver for Database Connection," on page 1.

**Note:** The 8.1.1 release of the BEA WebLogic Adapter for Baan supports Microsoft SQL Server as the data source for Baan. For information about support for other data sources, contact BEA support.

To configure the ODBC data source:

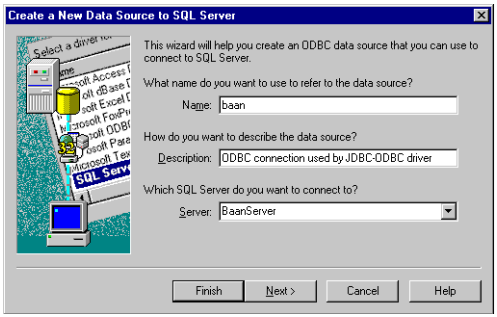
1. Invoke the ODBC Data Source Administrator.




2. Click the System DSN tab.
3. Click Add.

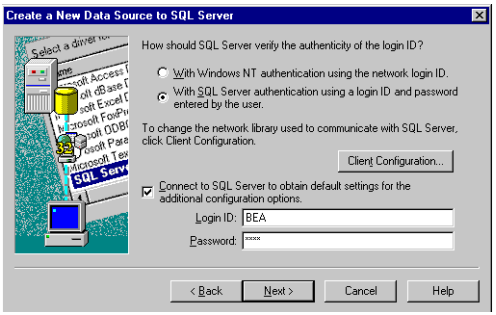
   A screen appears with a list of registered ODBC drivers for your system.
4. Select the driver provided by your database vendor.
5. Click OK.

The Create a New Data Source window opens.




6. Enter in the information for this ODBC data source:
   - A name for the new data source, for example, baan
   - A description
   - The host name or the location of the Baan Server
7. Click Next.

   The Create a New Data Source window opens.




8. Provide the connection information for your ODBC driver:
   - Indicate whether SQL Server should use Windows authentication or SQL Server authentication
   - Click Client information to change the network library the adapter uses to communicate with SQL Server.
   - Check Connect to SQL Server to obtain default settings for the additional configuration options.

– Provide a valid SQL Server login ID and password to enable the ODBC Data Source Administrator to connect to SQL Server to obtain the default settings.

9. Click continue. The wizard tests the connection, using the information you provided.

   The test results appear.


   If your test was not successful or if you have other questions about configuring an ODBC data source, see the documentation for your ODBC driver or operating system.

10. Click OK to finish the process.

# Configuring the Database

To configure the BEA WebLogic Adapter for Baan for event processing, you must perform these database configuration tasks:

- Configuring an Event Table
- Adding the Database Triggers to Baan Tables

## Configuring an Event Table

In order for the Adapter for Baan to process events from Baan, you must create an event table. The event table enables the adapter to receive events by acting as a temporary holding table for event information. The adapter event listener detects changes to the event table and sends that data to the BEA WebLogic Adapter for Baan in the form of an event.

To create the event table:

1. Start the Query Analyzer.

2. Run the script `iw_events.sql`. This script is part of the samples you extracted in Step 3. Extract the Adapter Files.

   The script creates the following tables:

   - `dbo.iw_events`
   - `dbo.iw_events_id`

Now that you have created the event table, you must add the database triggers to complete the database event configuration.

## Adding the Database Triggers to Baan Tables

The Baan table listener relies on database triggers that move data about an update into the Baan Event table. These triggers must be applied to the production Baan tables that are supported by the listener. The following table lists the database trigger file and the Baan table where it must be applied:

To add database triggers to the Baan tables:

1. Start the Query Analyzer.
2. Run the following scripts. These scripts are part of the samples you extracted in Step 3. Extract the Adapter Files. You must apply triggers to each of these tables.

**Table 2-1 Database Trigger File**

| Baan Table | SQL Server Script File |
|---|---|
| Bill of Materials, Baan table name `TTIBOM010550` | `iw_events_bom.sql` |
| Customer, Baan table name `TTCCOM010550` | `iw_events_customer.sql` |
| Inventory, Baan table name `TTDINV001550` | `iw_events_inventory.sql` |
| Item, Baan table name `TTIITM001550` | `iw_events_item.sql` |

**Table 2-1 Database Trigger File**

| Baan Table | SQL Server Script File |
|---|---|
| Purchase Order, Baan table name `TTDPUR040550` | `iw_events_purchase.sql` |
| Sales Order, Baan table name `TTDSLS040550` | `iw_events_salesorder.sql` |

**Note:** The supplied database triggers do not update the `iw_events` database if an update was made to Baan with the user ID of `iwadapt`. Updates made by the adapter should not be captured in an event. By supplying the `iwadapt` user ID to the service, the adapter ensures that updates are not handled in the same way as updates made by other applications.

# Next Steps

After installing and configuring the BEA WebLogic Adapter for Baan, you are ready to create schemas and application views that employ Baan events and services. For more information, see the *BEA WebLogic Adapter for Baan User Guide*.

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