iWay

iWay Installation and Configuration for
BEA WebLogic
Version 5 Release 5

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Preface

This documentation describes how to install and configure iWay Adapters, iWay Connector for JCA, iWay Business Services Engine (iBSE), and iWay Application Explorer for use with BEA WebLogic Server. It is intended for those with an administrator's knowledge of the operating systems and target systems involved in their implementation.

How This Manual Is Organized

The following table includes numbers, titles, and brief descriptions of chapters and appendixes in this manual.

Chapter/Appendix		Contents
1	*iWay 5.5 for BEA WebLogic Installation Overview*	Provides a brief overview of iWay 5.5 products and components, as well as their installation steps.
2	*Installing iWay 5.5 Components*	Provides installation requirements, instructions for running the installation program, post-installation tasks, and third party requirements for adapters.
3	*Configuring iWay Connector for JCA*	Provides instructions for configuring iWay Connector for JCA.
4	*Configuring iWay Business Services Engine*	Provides instructions for configuring iWay Web services components.
5	*Configuring Application Explorer*	Provides instructions for configuring the different versions of iWay Application Explorer.
A	*Configuring the iWay Emulation Adapter (3270/5250)*	Provides instructions for installing the client components of the iWay Emulation Adapter.
B	*Configuring Legacy Adapters*	Provides instructions for configuring legacy adapters that require an iWay Server component.
C	*Configuring the iWay Adapter for PeopleSoft*	Provides instructions for configuring the iWay Adapter for PeopleSoft.

Chapter/Appendix		Contents
D	*Configuring J.D. Edwards OneWorld for Outbound Transaction Processing*	Provides instructions for configuring J.D. Edwards for use with the iWay Adapter for J.D. Edwards.

Documentation Conventions

The following table lists the conventions that apply in this manual and a description of each.

Convention	Description
`THIS TYPEFACE` or `this typeface`	Denotes syntax that you must enter exactly as shown.
`this typeface`	Represents a placeholder (or variable) in syntax for a value that you or the system must supply.
`underscore`	Indicates a default setting.
this typeface	Represents a placeholder (or variable), a cross-reference, or an important term.
this typeface	Highlights a file name or command.
Key + Key	Indicates keys that you must press simultaneously.
`{ }`	Indicates two or three choices; type one of them, not the braces.
`|`	Separates mutually exclusive choices in syntax. Type one of them, not the symbol.
`...`	Indicates that you can enter a parameter multiple times. Type only the parameter, not the ellipsis points (…).
`.` `.` `.`	Indicates that there are (or could be) intervening or additional commands.

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Help Us to Serve You Better

To help our consultants answer your questions effectively when you call, please provide the following information:

- Your six-digit site code number (*xxxx.xx*).
- Your software configuration.

  The following table lists the information to provide about your software configuration.

	Version-Build Date	HF/Service Pack	Patches	OS	Java Version
iWay Product					
Third-party Application Server					
EIS (adapter target)					

  Note: For EIS, ensure you record the application or database name and release level, including minor versions, for example, 4.6.1.

- The exact nature of the error or problem, specified as follows:
  - Steps to reproduce the problem.
  - Problem description (be as specific as possible).
  - Error message(s).
- To best define the problem, provide the following:
  - Screen captures of the error
  - Error output files
  - Trace files and log files
  - Log transaction
  - XML schemas and/or document instances
  - Other input documents (for example, transformations)
  - Configuration files (all are applicable):

.xch files

config.xml file

base.xml file

repository.xml file

ibserepo.xml file

.dic files

.rules files

- Environment variable settings:

  IWAY55

  IWAY55OEM

  CLASSPATH

  JAVA_HOME

  ACBDIR

  CBDIR (UNIX)

- Has the process, procedure, or query ever worked in its current form? Has it changed recently? If so, how (provide specific details)? How often does the problem occur?
- Can this problem be reproduced? If so, how? Can it be consistently reproduced?
- Have you tried to reproduce your problem in the simplest form possible?
- Do you have a trace file?
- How is the problem affecting your business? Is it halting development or production?
- Do you just have questions about functionality or documentation?

User Feedback

In an effort to produce effective documentation, the Documentation Services staff welcomes your opinions regarding this manual. Please use the Reader Comments form at the end of this manual to communicate suggestions for improving this publication or to alert us to corrections. You also can go to our Web site, http://www.iwaysoftware.com and use the Documentation Feedback form.

Thank you, in advance, for your comments.

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Contents

CHAPTER 1

iWay 5.5 for BEA WebLogic Installation Overview

Topics:

- iWay 5.5 Products and Components
- Installation and Configuration Overview

This section provides an overview of the installation and configuration of iWay 5.5 products and components.

iWay 5.5 Products and Components

This manual explains how to install and configure the following products for use with BEA WebLogic Server:

- iWay Adapters
- iWay Connector for JCA
- iWay Business Services Engine (iBSE)
- iWay Application Explorer

The following topics briefly summarize the iWay 5.5 components. This manual explains how to install all components. Most users require only a subset of the available components.

iWay Adapters

iWay adapter offerings consist of adapters for accessing and integrating information and systems across many different protocols and data sources. iWay Software provides over 200 types of adapters connecting everything from legacy systems and databases to the most recent advancements in information technology. Different iWay installation packages include different adapters, so the available adapters depend on which version of iWay you install. The following are some of the most common adapters installed with iWay 5.5:

- AS2
- Baan
- CICS Transaction Adapter (XML)
- ClarifyCRM (Amdoc ClarifyCRM)
- CORBA
- DB2 Net Driver (iWay Adapter for RDBMS)
- eMail
- Emulation (for 3270/5250)
- FIX
- HIPAA
- HL7
- IMS
- Informix (iWay Adapter for RDBMS)
- iWay/WebFOCUS (EDA) Server (iWay Adapter for RDBMS)
- J.D. Edwards OneWorld
- J.D. Edwards WorldSoft
- JMS
- Lawson
- Lotus Notes
- Manugistics
- MFG/PRO
- Microsoft .NET
- Microsoft Message Queueing (MSMQ)
- MQ Series (IBM WebSphere MQ)
- Oracle (iWay Adapter for RDBMS)
- Oracle Applications (E-Business Suite)
- Oracle AQ
- PeopleSoft
- RDBMS
- SAP R/3
- Siebel
- SQL Server 2000 (iWay Adapter for RDBMS)
- SWIFT
- Sybase (iWay Adapter for RDBMS)
- TIBCO Rendezvous
- Transora
- Tuxedo (Transaction Adapter for BEA Tuxedo)
- UCCnet
- VSAM

By default, you can use any of the adapters installed with iWay 5.5 on a 90-day trial license. If you do not see your adapter in the previous list, contact your iWay Software representative for a complete list of available adapters.

Adapters can be deployed through an application server using iWay Connector for JCA or Servlet iBSE. In addition, adapters can be integrated directly into your own applications. For information on integrating adapters into your applications, contact an iWay Software representative.

Note: When used with BEA WebLogic, the iWay Adapter for RDBMS is used to provide SQL based access to select relational (DB2 on z/OS or OS/400) and non-relational data sources on IBM compatible mainframes (OS/390, Z/OS, VM), midrange (OS/400), and legacy (OpenVMS, Tandem) platforms. In addition, the iWay Adapter for RDBMS can be used to enable SQL call access to business logic stored in iWay stored procedures. iWay stored procedures are often used to provide multi-platform joins and specialized routines. For more details on using the iWay Adapter for RDBMS and a list of supported data sources, see the *iWay Adapter for RDBMS for BEA WebLogic User's Guide Version 5 Release 5*.

iWay Connector for JCA

iWay Connector for JCA runs in J2EE Connector Architecture (JCA) compliant application servers and uses the Common Client Interface (CCI) to provide fast integration services using iWay adapters. The connector provides an extremely quick way to deploy adapters to connect data, applications, systems, and protocols through an application server.

iWay Connector for JCA provides XML transformation, adapter hosting, and integration capabilities. After you deploy iWay Connector for JCA, you have access to all adapters installed with iWay 5.5.

iWay Business Services Engine

iWay Business Services Engine (iBSE) provides transformation and adapter hosting functionality as well as an environment for developing, running, and integrating Web services. It provides a transformation and integration engine for processing XML files and SOAP messages for exchanges with Web services applications. For use with application servers, iBSE is provided as a Web or Enterprise application and referred to as Servlet iBSE.

Servlet iBSE is deployed through a J2EE compliant application server. After you deploy Servlet iBSE, you have access to adapters installed with iWay 5.5. Although you can run both iBSE and iWay Connector for JCA, only one is required to host adapters.

Note: The term Servlet iBSE is used to distinguish the Web application version of iBSE from a version of iBSE that runs external to application servers in a standalone iWay Adapter Manager. iWay Adapter Manager is not required or provided for use with iWay for BEA WebLogic.

iWay Application Explorer

iWay Application Explorer is a GUI tool that uses iWay adapters to create schemas and Web services for use with iWay Connector for JCA, iBSE, or other XML or Web services based programs. It enables you to quickly generate schemas and publish Web services from objects and procedures in production ERP systems, without requiring in-depth knowledge of the objects or systems.

For BEA WebLogic, two versions of Application Explorer are available:

- The Java **Swing** version is either a window accessible within BEA WebLogic workshop or an independent Java application. On Windows, the iWay installation for BEA WebLogic installs the Swing Application Explorer into BEA WebLogic Workshop for you.
- The Java **Servlet** version is a Web application accessible through a Web browser. After installing iWay, it must be deployed into WebLogic server through the console.

Note: An ASP.NET version of Application Explorer is also available from iWay Software. The ASP version is not provided with iWay for BEA WebLogic.

Installation and Configuration Overview

Depending on the components you wish to use, installation and configuration steps for iWay 5.5 may include:

1. Review the requirements and install any required third party components. (Chapter 2, *Installing iWay 5.5 Components*)
2. Run the installation program to install iWay 5.5 components. (Chapter 2, *Installing iWay 5.5 Components*)
3. Copy third party adapter-related files into the iWay 5.5 directory structure. (Chapter 2, *Installing iWay 5.5 Components*)
4. To use iWay Connector for JCA, deploy iWay Connector for JCA and the Connector Test Tool on your application server. (Chapter 3, *Configuring iWay Connector for JCA*)
5. To use the iWay Business Services Engine (iBSE), deploy Servlet iBSE on your application server and optionally set up a database repository. (Chapter 4, *Configuring iWay Business Services Engine*)
6. Configure Application Explorer. (Chapter 5, *Configuring Application Explorer*)
7. Perform any adapter-specific post-installation steps.

CHAPTER 2

Installing iWay 5.5 Components

Topics:

- Installation Requirements
- Installing iWay 5.5
- Copying and Collecting Files for Adapters
- Configuration Steps

The following topics describe the requirements and initial installation procedures for iWay 5.5 components.

Installation Requirements

Review the following installation requirements to ensure your system supports iWay 5.5.

Hardware Requirements

For Windows:

- 400 megahertz (MHz) or higher Intel® Pentium® compatible CPU.
- 256 megabytes (MB) of RAM.
- 50 MB of disk space.

For other platforms, ensure that your machine has a reasonable supply of resources. For exact requirements, contact iWay Software Customer Support.

Operating System Requirements

iWay 5.5 for BEA WebLogic is supported on the following operating systems:

- Microsoft Windows 2000 with SP2 and Windows 2003
- UNIX

For additional operating system support information, contact iWay Software Customer Support.

Note: The procedures, names, and paths in this manual use Windows conventions and default locations unless otherwise indicated. For other operating systems and non-default locations, substitute accordingly. Names and case may vary between operating systems.

Browser Requirements

Internet Explorer 6 or higher.

Java Requirements

Java 2 Standard Edition (J2SE™) SDK 1.3.1 or higher is required for iWay 5.5 components. For Windows, LINUX, and Solaris™, you can download and install the latest SDK at no charge from:

```
http://java.sun.com/j2se/downloads.html
```

For other platforms, contact the appropriate vendor.

Note: The terms JDK™ and Java SDK™ are synonymous. Java SDK was formerly called JDK.

To determine if Java is properly installed, execute the following at a command prompt:

```
java -version
```

Information on the Java build appears. For example:

```
java version "1.4.1_03"
Java(TM) 2 Runtime Environment, Standard Edition (build 1.4.1_03-b02)
Java HotSpot(TM) Client VM (build 1.4.1_03-b02, mixed mode)
```

After installing the Java SDK, the Java command must be in your search path to install and run iWay 5.5. On Windows, the Java SDK installation normally handles this for you by placing a copy of java.exe in C:\WINNT\system32. On other platforms, ensure the following is in your PATH variable:

```
/java_home/bin
```

where:

java_home

Is the absolute path where the Java SDK is installed.

Note: The Swing Application Explorer requires Java SDK 1.4.1 or higher.

Additional iBSE Requirements

iBSE requires a repository in which to store transactions and metadata required for the delivery of Web services. iWay Software recommends using a JDBC™ compliant database. However, a file system repository is available and configured by default, so no initial database configuration is required to get started with iWay 5.5.

If you wish to use a database repository, the SQL required to create the repository tables is installed with iWay 5.5. The required steps are explained in Chapter 4, *Configuring iWay Business Services Engine*. The following are certified as iBSE repository databases:

- Microsoft SQL Server 2000 with SP1
- Oracle
- Sybase
- DB2

BEA Requirements

Ensure that BEA WebLogic Server 8.1 is properly installed and functioning before configuring it for use with iWay 5.5. For more information on BEA WebLogic installation and configuration, see BEA documentation.

You can use an existing domain or create a new domain for iWay 5.5 using the Configuration Wizard.

- You can access the Configuration Wizard on Windows from the *Start* menu by selecting *Programs, BEA WebLogic Platform 8.1,* and then *Configuration Wizard*.
- You can access the Configuration Wizard on UNIX by executing the following:

  ```
  /BEA_HOME/weblogic81/common/bin/config.sh
  ```

Note: If multiple domains run on your machine, chose a custom configuration to change the default port so it does not conflict with other domains. For more information, see the documentation for BEA WebLogic.

Adapter Requirements

Many adapters require third party libraries or JDBC drivers provided by the vendor of the target data source, system, or protocol. You must copy these files into the iWay 5.5 directory structure after you install iWay 5.5. For more information, see *Copying and Collecting Files for Adapters* on page 2-10.

Note: Some adapters for legacy data require that you install an iWay Server component on the mainframe containing the data you wish to access. For more information, see Appendix B, *Configuring Legacy Adapters*.

Installing iWay 5.5

The initial iWay 5.5 installation procedure installs iWay Connector for JCA, iBSE, and Application Explorer components, as well as a set of adapters. The set of adapters varies depending on which version of the iWay 5.5 installation you install. After installation, iWay 5.5 components and adapters are available for a 90-day trial. After the trial period, contact iWay Software to obtain a license for the components you wish to continue using.

On Windows, you must be an administrator for the local machine to run the installation.

On UNIX, since iWay components run as part of your application server, it is a good idea to install as the user ID under which your application server runs.

iWay 5.5. Installation

The following procedure installs files for iWay 5.5. After installation, follow the procedures in this manual to activate features that require additional configuration.

Procedure How to Install iWay 5.5

1. Execute the installation program for your platform and version of iWay 5.5. The name of this program may vary. For example:

   - On Windows:

     ```
     iwl8mf.win32.exe
     ```

     ```
     iwl8erp.win32.exe
     ```

     or

     ```
     iwl8sp3.win32.exe
     ```

   - On UNIX platforms there are two options:

     If you have an X Windows environment, you can use a GUI-based installation by executing the installation program with no options. For example:

     ```
     ./iwl8erp.linux.bin
     ```

     If you do not have an X Windows environment, use the text-based installation by executing the installation program with the -console option. For example:

     ```
     ./iwl8erp.linux.bin -console
     ```

     Note: This procedure follows the GUI installation. The prompts for the text-based installation are almost identical.

   The installation begins and the Welcome window opens.

2. Click *Next*.

The License Agreement appears.

3. Review the information, indicate that you accept the terms, and click *Next* to continue.

   The Choose Destination Location window opens.

   Note: If you previously installed iWay 5.5 and did not uninstall, you may not be prompted to choose the destination. iWay 5.5 is automatically installed in the location specified by the IWAY55 environment variable. On UNIX, the install checks your profile and if an IWAY55 variable is declared, you cannot change the location when logged on as the same user ID.

4. Accept the default or click *Browse* to specify a new location and then click *Next*.

   The BEA parameters window appears.

5. Complete the *Base Url* and *BEA Home* fields as follows and then click *Next*.

Base Url	Specify the URL (protocol (http vs. taps), hostname, and port) for accessing your application server. For example: `http://hostname:7001` **Note:** In some versions, the *Base Url* field may not appear.
BEA Home	Specify the BEA directory into which WebLogic and other BEA software are installed. If BEA WebLogic Workshop is installed, iWay Swing Application Explorer and an iWay Connector for JCA (CCI) Control are added to it.

   The Start Copying Files window appears.

6. Click *Next* to start the installation.

Files are copied to your system in the directory you specified.

Post-Installation Topics and Tasks

After installation, an iWay55 directory is created and includes the subdirectories described in the following topic. Review the remainder of this chapter to determine if any tasks are required for your platform and adapters.

Reference **iWay 5.5 Directory Structure**

After installation, an iWay55 directory is created and contains the following subdirectories:

`bea`

Contains components to be deployed into your application server.

`bin`

Contains XML files required for iWay 5.5.

`config`

Contains configuration directories for iWay Connector for JCA. By default, the connector is set to access the base configuration, and connector information is written to the base subdirectory. When additional connector configurations are created, their directories are placed here.

On UNIX, if you use iWay Connector for JCA, ensure that the user ID your application server runs under has full permissions to the iway55/config directory and subdirectories. If you installed under a different user ID than the user ID that runs the application server processes, you may need to use chmod, chown, and/or group ownership.

`etc`

Contains miscellaneous tools and files to configure additional components.

`lib`

Contains adapters, drivers, and other files used by iWay components. All iWay components must access this directory. In most cases, after iWay components recognize this location, the adapters and other files are accessible. For some components, the lib directory is determined automatically after the iWay installation directory is known.

Procedure How to Set Environment Variables

After installation, environment variables are required to use iWay 5.5 components.

- On Windows, environment variables are automatically set by the installation program. No steps are necessary, but it is a good idea to be aware of them in case you need to troubleshoot.
- On UNIX, the installation program appends the $PATH, $IWAY55, and $IWAY55OEM environment variables to the end of the .profile (or .bash_profile) in your home directory. However, you may need to add the shared library path variable listed below. In addition, if you run iWay components under different user IDs, be sure to add these variables to those profiles as well. This includes user IDs that run any third party components such as your application server.

  Ensure profiles are executed before attempting to run iWay 5.5 components.

The following environment variable settings are required to use iWay 5.5 components:

1. The following variable must be defined and set to the location where iWay 5.5. is installed:

   ```
   IWAY55
   ```

   For example:

   ```
   IWAY55=/opt/iWay55/
   export IWAY55
   ```

2. The PATH variable must contain the iWay 5.5 lib directory. For example:

   ```
   PATH=$PATH:/opt/iWay55/lib
   export PATH
   ```

3. An IWAY55OEM variable must be defined and set as follows:

   ```
   IWAY55OEM=BEA
   ```

   For example:

   ```
   export IWAY55OEM=BEA
   ```

4. On UNIX, the shared library variable must contain the iWay 5.5 lib directory. This variable varies depending on your platform.

AIX	LIBPATH
HP-UX	SHLIB_PATH
Other UNIX Platforms	LD_LIBRARY_PATH

For example:

```
LD_LIBRARY_PATH=/opt/iWay55/lib:$LD_LIBRARY_PATH
export LD_LIBRARY_PATH
```

Note: If you plan to run multiple installations of iWay 5.5 components, environment variables must have different values when running and installing each installation.

Uninstalling iWay 5.5

An uninstall utility is provided to properly remove iWay from your system.You should use the uninstall utility rather than manually deleting directories. Manually removing directories on Windows or UNIX may cause problems if you wish to reinstall at a later time.

Procedure How to Uninstall iWay

To uninstall iWay 5.5, do the following:

1. If you have deployed iWay components to your application servers, undeploy them.
2. Ensure your domain is stopped.
3. Copy any files you wish to save out of the iWay55 directories.
4. Execute the uninstall utility. The utility's location varies depending on your platform and the version of iWay you installed. For example:

```
C:\Program Files\iWay55\etc\uninstall\iwl8mf\uninstaller.exe
```

Copying and Collecting Files for Adapters

Some adapters installed with iWay 5.5 require third party libraries or JDBC drivers. To enable these adapters, you must:

1. Use the table that follows to determine third party files required for your adapter. If you do not see your adapter listed in the table, check the iWay Web site or contact a Customer Service representative.
2. Copy any required files into the iWay 5.5 lib directory. The default location for this directory on Windows is:

   ```
   C:\Program Files\iWay55\lib
   ```

   On other platforms, use the corresponding location.

   If the required third party files are not copied into this directory, then your adapter will not be available and may not appear in the JCA Test Tool or Application Explorer.
3. For some adapters, you must also add these files to your domain's CLASSPATH. This is explained following the table that lists adapters and required files.

Note: For BEA WebLogic, the iWay Adapter for RDBMS is used only for SQL and non-SQL access to mainframe and legacy systems.

The adapters installed with iWay 5.5 vary according to the version of iWay 5.5 you installed. If you do not see your adapter listed in the table, check the iWay Web site or contact your iWay Software representative.

Note: The table sometimes lists the actual names of required files rather than the generic name of the driver or library. However, your vendor may change file names, update files, or have different versions of the drivers for different releases. Therefore, confirm which files are required by reviewing information provided by your vendor. Ensure you use the latest version of the driver for the correct release of your target system, data source, or protocol.

If your adapter uses MQ Series as a transport, meet the requirements for MQ Series in the following table.

iWay Adapter for	Required Libraries or Drivers
CICS Transaction Adapter (XML)	None.

CORBA	Your ORB provider's API JAVA libraries.
	For ORBACUS, this is:
	`OB.jar`
	`OBnaming.jar`
	For ORBACUS, you should also add these to your WebLogic Domain's CLASSPATH.

DB2 Net Driver
(iWay Adapter for RDBMS)
	JDBC driver for DB2 (db2java.zip).
	Installed as part of the DB2 server. The default location on Windows is one of the following:
	`C:\SQLLIB\java\db2java.zip`
	`C:\Program Files\SQLLIB\java\db2java.zip`
	Because the iWay Adapter for RDBMS uses JDBC 2.0 features, you must run the usejdbc2.bat file supplied with DB2. Obtain the usejdbc2.bat from your DB2 server or download the current version from the DB2 JDBC driver download Web page.
	This process builds the proper JDBC 2.0-compliant version of the db2java.zip file.
	Note: To run the usejdbc2 procedure, you must stop the DB2 instance.

Emulation (3270/5250) (Telnet)	None. However, additional information is available in Appendix A, *Configuring the iWay Emulation Adapter (3270/5250)*.
FIX	None.
HIPAA	None.
HL7	None.
IMS	None.

iWay Adapter for	Required Libraries or Drivers
Informix (iWay Adapter for RDBMS)	JDBC driver for Informix (ifxjdbc.jar). Download this driver from the Informix Web site. Using the appropriate archive tool, open the archive containing the Informix JDBC driver (ifxidbc.jar) and extract the run-time files. The file names may vary by platform, but usually are contained in the root of the archive. Open setup.jar to copy the extracted files.
IMS Database (iWay Adapter for RDBMS)	None.
IMS Transaction Manager	None
iWay/WebFOCUS (EDA) Server (iWay Adapter for RDBMS)	None.

J.D. Edwards OneWorld	J.D Edwards OneWorld Java-based ThinNet API.
	
	This is normally distributed as .jar files with the J.D Edwards OneWorld installation media. These libraries may vary depending on the J.D. Edwards release. They usually consist of the following:
	
	`Kernel.jar`
	
	`Connector.jar`

Manugistics	Oracle JDBC driver (`classes12.zip` or `ojdbc14.jar`)
Microsoft .NET	Microsoft .NET Framework. This is usually installed with Visual Studio .NET, ASP.NET, or other applications that require the .NET Framework. If you do not have any of these products, you can install the .NET Framework from the iWay Software Web site: `http://iwse.ibi.com/iway55/redist/dotnetfx.exe`

iWay Adapter for	Required Libraries or Drivers

MQ Series (IBM WebSphere MQ)	`com.ibm.mq.jar`
	`com.ibm.mqbind.jar`
	For BEA WebLogic, these files must be added to your WebLogic domain's CLASSPATH.The following binary files are also required:
	`MQXAi02.dll`
	`mqjbnd05.dll`
	`mqjbdf02.dll`
	For non-Windows platforms, use the corresponding files.

Oracle Applications (E-Business Suite)	Oracle JDBC drivers (thin type4 or OCI type2) and/or Oracle Client NET8 or NET9. All calls to Oracle E-Business Suite occur through these drivers. If you do not have the appropriate JDBC driver, Oracle Technology Network (OTN) provides a download site: `http://otn.oracle.com/software/tech/java/sqlj_jdbc/content.html` **Note:** You require a logon ID to download the drivers. If you are using OCI drivers, you must install and configure Oracle Client on the machine with the iWay Adapter for Oracle. To use iWay Concurrent Program request functionality, you must install and configure Oracle Client on the Oracle database that supports Oracle E-Business Suite.
Oracle AQ	`Aqapi.jar` and Oracle JDBC driver (`classes12.zip` or `ojdbc14.jar`)

iWay Adapter for	Required Libraries or Drivers

Oracle
 	
(iWay Adapter for RDBMS)
	Oracle JDBC driver (`classes12.zip` or `ojdbc14.jar`)
	
	You can download this driver from the Oracle Web site at:
	
	`http://otn.oracle.com/software/tech/java/sqlj_jdbc/content.html`
	
	Note: You require a logon ID to download the drivers.
	
	For more information on Oracle JDBC issues, see the Oracle JDBC FAQ at:
	
	`http://otn.oracle.com/tech/java/sqlj_jdbc/htdocs/jdbc_faq.htm`

PeopleSoft	• PeopleSoft Java Object Adapter (psjoa.jar) This file provides a low level interface between client applications and PeopleSoft. This file is provided with PeopleSoft in the following directory: *PS_HOME*`\web\PSJOA` where: *PS_HOME* Is the PeopleSoft home directory. **Note**: The psjoa.jar file is different for every version of PeopleSoft. When you upgrade your Peopletools release, ensure you copy the psjoa.jar file for the new release into the iWay55\lib directory and restart all components. • pstools.properties (for PeopleSoft 8.1x) PeopleSoft release 8.1x requires an additional file called pstools.properties in the following directory: *PS_HOME*`\web\jmac` For more information, see Appendix C, *Configuring the iWay Adapter for PeopleSoft*.

iWay Adapter for	Required Libraries or Drivers
RDBMS (XML Adapter for RDBMS)	See requirements in this table for specific target data sources. For example, DB2, Oracle, SQL Server, and so forth. When used with BEA WebLogic, the iWay Adapter for RDBMS is used to provide SQL based access to select relational (DB2 on z/OS or OS/400) and non-relational data sources on IBM compatible mainframes (OS/390, Z/OS, VM), midrange (OS/400), and legacy (OpenVMS, Tandem) platforms. In addition, the iWay Adapter for RDBMS can be used to enable SQL call access to business logic stored in iWay stored procedures. iWay stored procedures are often used to provide multi-platform joins and specialized routines. For more details on using the iWay Adapter for RDBMS and a list of supported data sources, see the *iWay Adapter for RDBMS for BEA WebLogic User's Guide Version 5 Release 5*.
SAP R/3	SAP Java connector (normally sapjco.jar). Information on the current set of SAP connectors is available at: `http://service.sap.com/connectors` A valid SAP service ID is required to access this site. To download the current version, follow the information provided on the SAP Java Connector (SAP JCo) overview page. For more information, contact your SAP BASIS Administrator. Using the appropriate archive tool, open the archive containing the SAP Java Connector (SAP JCo) and extract the run-time files. The file names may vary by platform but usually are contained in the root of the archive. When using an application server, if you run into problems with the adapter for SAP, add sapjco.jar to your application server's CLASSPATH. For BEA WebLogic, the sapjco.jar file must be added to your WebLogic domain's CLASSPATH.

iWay Adapter for	Required Libraries or Drivers

Siebel	For Siebel 6.3.x and higher, Siebel Java Data Bean API.
	
	This is distributed as .jar files with the Siebel Thin Client. These libraries vary by Siebel release in both content and name. Therefore, the Siebel Thin Client provided with the target Siebel system must always be used with the adapter. For example:
	
	• Siebel 6.3.x
	
	`SiebelTcOM.jar`
	`SiebelTcCommon.jar`
	`SiebelTC_enu.jar`
	`SiebelDataBean.jar`
	
	• Siebel 7.0.3
	
	`SiebelJI_Common.jar`
	`SiebelJI_enu.jar`
	
	• Siebel 7.5.2
	
	`SiebelJI_Common.jar`
	`SiebelJI_enu.jar`
	`SiebelJI.jar`
	
	The Siebel COM-based API (Windows only) requires the Siebel Thin Client to be installed and accessible to iWay 5.5.
	
	Note: The following files listed previously are for English language implementations:
	
	`SiebelTC_enu.jar`
	`SiebelJI_enu.jar`
	
	For non-English installations, the last three letters (*_enu*) vary.
	
	If you are using MQ Series as a transport, you also need the following file:
	
	`com.ibm.mq.jar`
	
	For BEA WebLogic, this MQ Series file must also be added to your domain's CLASSPATH as explained in *Adding Drivers to CLASSPATH* on page 2-17.

iWay Adapter for	Required Libraries or Drivers
Sybase (iWay Adapter for RDBMS)	JDBC driver for Sybase servers (jConnect for JDBC). You can download the driver from the Sybase downloads Web site: http://www.sybase.com/downloads Select "jConnect for JDBC" and review information on the jConnect for JDBC Web site. Obtain the jConnect.zip file that corresponds to your version of Sybase and follow the steps described on the jConnect download page to extract the JDBC driver.
SWIFT	None.
VSAM	None.

Adding Drivers to CLASSPATH

In addition to copying files into the lib directory, the following must be added to your domain's CLASSPATH if you use the relevant adapter or adapter components.

iWay Adapter for...	Files Needed in CLASSPATH
SAP	sapjco.jar
MQ Series	com.ibm.mq.jar

Procedure How to Add Files to CLASSPATH

1. If it is started, stop the domain you are using for iWay.
2. In a text editor, open the file in which you set CLASSPATH. CLASSPATH is set in different places depending on the release and type of BEA WebLogic domain. It is often set in one of the following files:

   BEA_HOME\bea\user_projects\domains*your_domain*\startWebLogic.cmd

   BEA_HOME\bea\user_projects\domains*your_domain*\setDomainEnv.cmd

   If you are not sure where to set CLASSPATH, consult BEA WebLogic documentation.

3. Find the lines that set CLASSPATH. For example:

   On Windows:

   ```
   set CLASSPATH=%WEBLOGIC_CLASSPATH%;%POINTBASE_CLASSPATH%;%JAVA_HOME%\j
   re\lib\rt.jar;%WL_HOME%\server\lib\webservices.jar;%CLASSPATH%
   ```

   On UNIX:

   ```
   CLASSPATH="${WEBLOGIC_CLASSPATH}:${POINTBASE_CLASSPATH}:${JAVA_:xHOME}
   /jre/lib/rt.jar:${WL_HOME}/server/lib/webservices.jar:${CLASSPATH}"

   export CLASSPATH
   ```

4. Add the full path to any files required for your adapter, including the file name. Adding directories to CLASSPATH is not sufficient. You must add the full paths including each file. For example:

   On Windows:

   ```
   set CLASSPATH=%WEBLOGIC_CLASSPATH%;%POINTBASE_CLASSPATH%;%JAVA_HOME%\j
   re\lib\rt.jar;%WL_HOME%\server\lib\webservices.jar;"C:\Program
   Files\iWay55\lib\sapjco.jar";%CLASSPATH%
   ```

   On UNIX:

   ```
   CLASSPATH="${WEBLOGIC_CLASSPATH}:${POINTBASE_CLASSPATH}:${JAVA_:xHOME}
   /jre/lib/rt.jar:${WL_HOME}/server/lib/webservices.jar:/opt/iWay55/lib/
   sapjco.jar:${CLASSPATH}"
   export CLASSPATH
   ```

5. Save and exit the file.

Configuration Steps

After installation, the configuration steps depend on the components you wish to use.

1. For iWay Connector for JCA, deploy the connector and JCA Test Tool. (Chapter 3, *Configuring iWay Connector for JCA*)
2. For iBSE, configure Servlet iBSE and optionally set up a database repository. (Chapter 4, *Configuring iWay Business Services Engine*)
3. Configure a version of Application Explorer. (Chapter 5, *Configuring Application Explorer*)
4. Review the appendixes for any adapter-specific post-installation steps.

CHAPTER 3

Configuring iWay Connector for JCA

Topics:

- Configuring and Deploying iWay Connector for JCA
- Deploying and Running the JCA Test Tool

This section explains how to configure iWay Connector for JCA. If you are using Servlet iBSE, but do not plan to use iWay Connector for JCA, you can skip to Chapter 4, *Configuring iWay Business Services Engine*.

Configuring and Deploying iWay Connector for JCA

iWay Connector for JCA runs in J2EE™ Connector Architecture (JCA) compliant application servers and uses the Common Client Interface (CCI) to provide fast integration services using iWay adapters. The connector provides a quick way to deploy adapters and connect data, applications, systems, and protocols. After you deploy the connector, you have access to adapters installed with iWay 5.5.

iWay Connector for JCA is installed with iWay 5.5 as the iwafjca.rar file. The default location on Windows is:

```
C:\Program Files\iWay55\bea\iwafjca.rar
```

For other platforms, see the corresponding location.

Caution: The iwafjca.rar file in the iWay55\etc\setup directory is not configured by default. This should only be used if the bea\iwafjca.rar file does not exist or causes problems. If you use the file in the iWay55\etc\setup directory you must manually edit the ra.xml file located inside the archive.

Before deploying the connector, review the information below regarding configurations and settings.

Connector Configurations Overview

iWay Connector for JCA has configuration directories where repository, schemas, and other information are stored. By default, a configuration called base is used and files and information are written under the iWay55 directories to the following default location on Windows:

```
C:\Program Files\iway55\config\base
```

For other platforms, see the corresponding location.

The default file system repository for the base configuration on Windows is:

```
C:\Program Files\iway55\config\base\repository.xml
```

The repository.xml file is not created until you access the configuration using Application Explorer or the JCA Test Tool.

An iWay Connector for JCA configuration can be created by manually creating a directory under iway55\config with the name of the configuration.

On UNIX, ensure the user ID under which your application server runs has full permissions to the iway55/config directory and subdirectories. If you installed under a user ID other than the user ID that runs the application server processes, you may be required to use chmod, chown, and/or group ownership.

For more information on iWay Connector for JCA, see the *iWay Connector for JCA for BEA WebLogic Server User's Guide*.

Deploying iWay Connector for JCA to BEA WebLogic

The following procedure refers to the directory where BEA WebLogic is installed as *BEA_HOME*. The procedure refers to the root of a domain as *DOMAIN_HOME*. Substitute the absolute paths on your system for *BEA_HOME* and *DOMAIN_HOME*. The procedure contains paths for a Windows system. If you are on a UNIX system, substitute accordingly.

Procedure How to Deploy iWay Connector for JCA

1. Start the domain you are using for iWay, for example:

   BEA_HOME\user_projects\domains*DOMAIN_NAME*\startWebLogic.cmd

2. Open the BEA WebLogic console to deploy iWay Connector for JCA.

   The BEA WebLogic console is accessible through a browser at:

   `http://hostname:port/console`

   where:

   hostname

   Is the hostname of the machine where your domain is running.

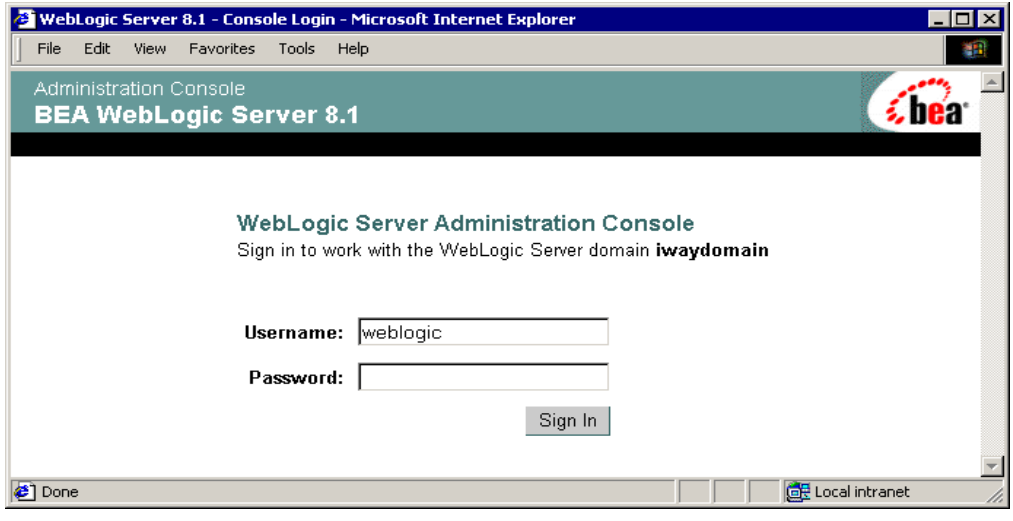
   port

   Is the port for the domain you are using for iWay. The port for the default domain is 7001.

   For example:

   `http://localhost:7001/console`

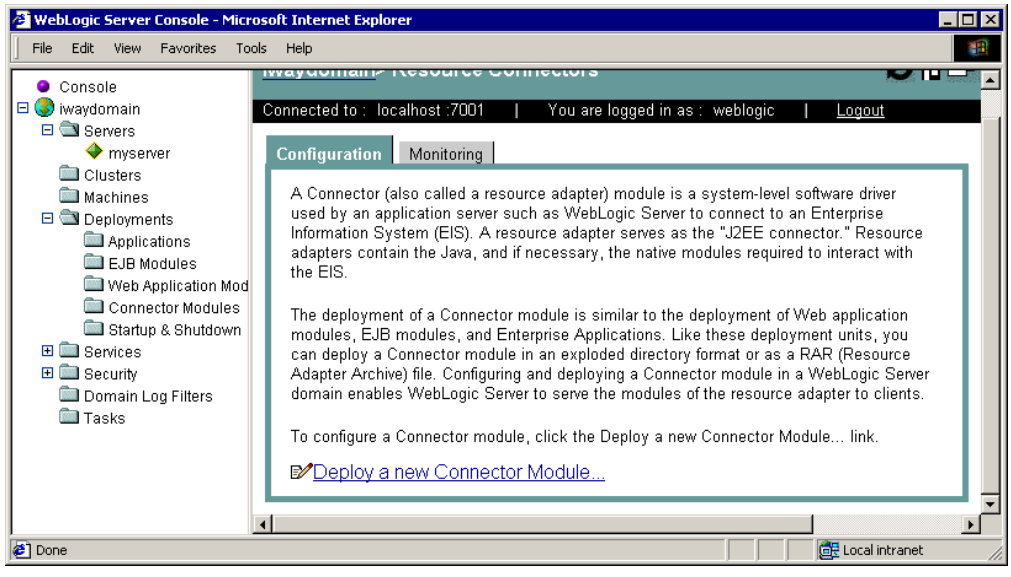
   A logon page appears. If the logon page does not open, ensure your WebLogic domain is started and that you used the correct port.



3. Log on to WebLogic.

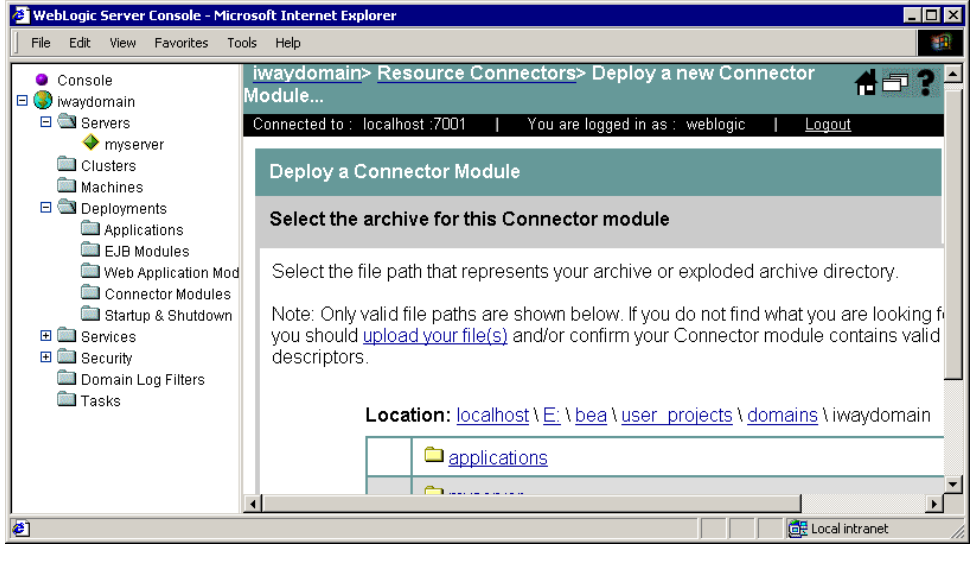
4. Expand the *Deployments* folder in the left pane and then, click *Connector Modules*.

A page appears for deploying .rar files.

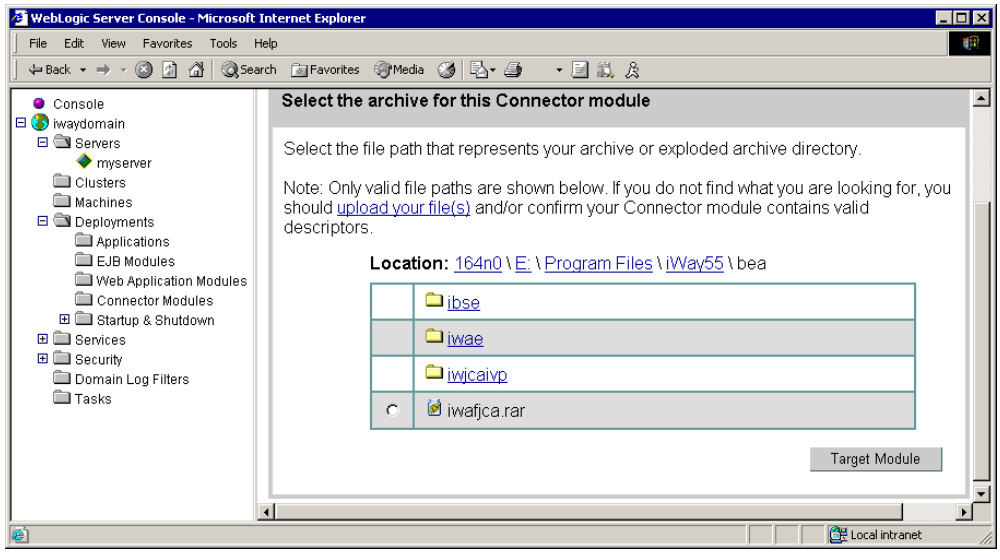


5. Click *Deploy a new Connector Module*.

A page appears for you to specify where the connector is installed.



6. Click the links next to *Location* to view and specify the directory containing the iWay Connector for JCA file (iwafjca.rar).

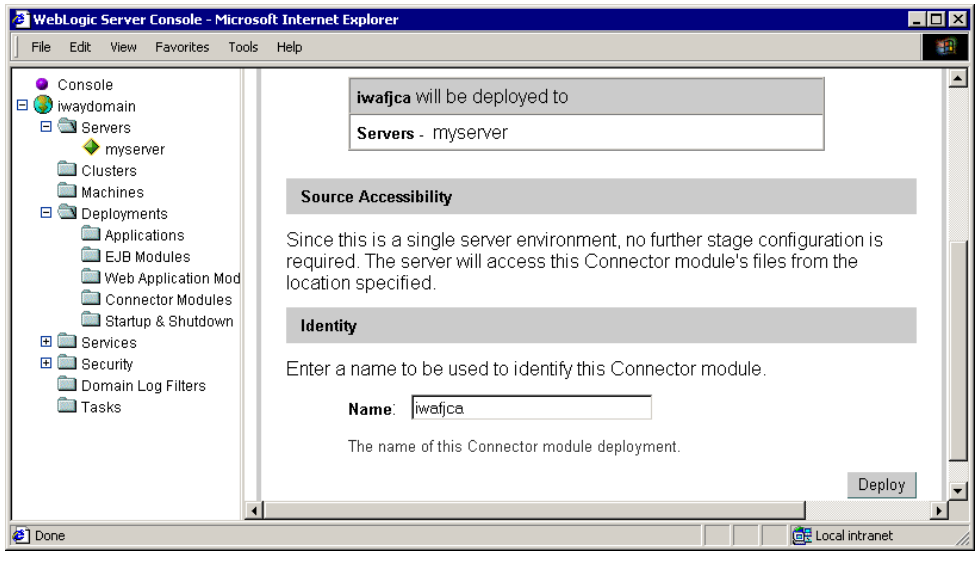


7. Select the option button next to *iwafjca.rar* and then, click *Target Module*.

   If there are multiple servers in your domain, you are prompted to specify into which server or servers to deploy.

8. If prompted, check which servers to deploy to.

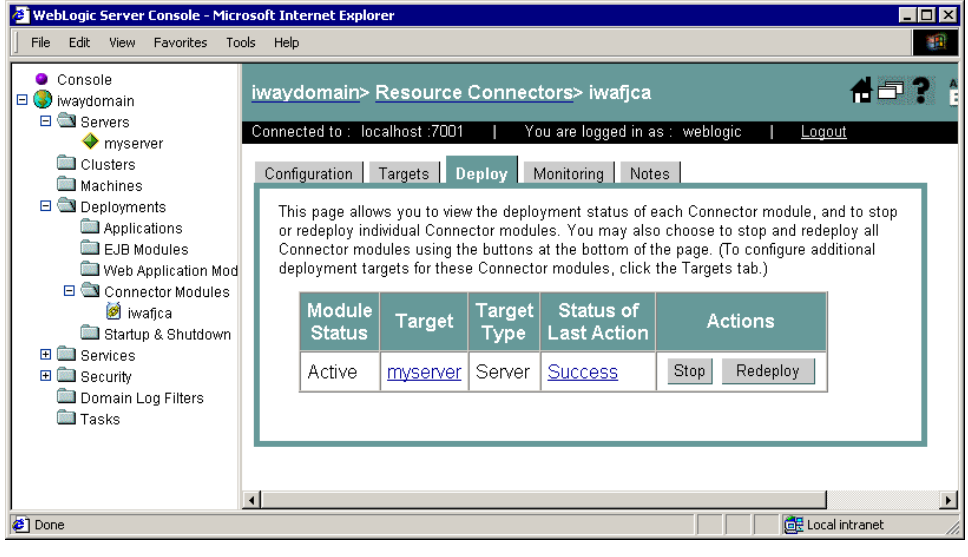
If you are deploying into a single server, information about the server displays.



If you are deploying into multiple servers, you are prompted to copy the module to each server.

9. Click *Deploy* to complete the deployment process.

After the deployment completes, *iwafjca* appears on the left below *Connector Modules*.



Note: You may need to expand the *Connector Modules* folder to see *iwafjca*.

Changing Default Connector Settings

The behavior of iWay Connector for JCA is controlled by the following file inside the iwafjca.rar archive:

```
META-INF/ra.xml
```

The following topic explains how to change the default settings for iWay Connector for JCA.

Reference

How to Configure iWay Connector for JCA Settings

This is not a required configuration. It is provided for reference. If you wish, you can proceed to *Deploying and Running the JCA Test Tool* on page 3-10.

To change defaults, you must:

1. Extract the META-INF\ra.xml file from the iwafjca.rar archive. To do this:

   a. Open a command prompt and navigate to the directory containing the connector. For example:

   ```
   C:\Program Files\iWay55\bea
   ```

   b. Issue the following command:

   ```
   jar xvf iwafjca.rar META-INF/ra.xml
   ```

   The jar command is located in the Java SDK's bin directory which might not be in your search path. If you receive an error, execute the jar command using its full path. This path varies depending on which version of Java is installed. For example:

   ```
   C:\j2sdk1.4.1_03\bin\jar xvf iwafjca.rar META-INF/ra.xml
   ```

   Note: Be sure to use the jar command and not Winzip. Winzip does not properly extract Java related archives.

2. Open the extracted ra.xml file in a text editor.

3. Modify the contents of the <param-value> tags to change defaults. If you did not install in C:\Program Files\iWay55, be sure to change the IWayHome variable.

   The following settings can be changed:

   - **IWayHome.** The installation directory where iWay 5.5. is installed.

```
<config-property-name>IWayHome</config-property-name>
  <config-property-type>java.lang.String</config-property-type>
  <config-property-value>c:\program files\iway55</config-property-value>
</config-property>
```

Note: In some environments, the IWayHome parameter is ignored. This parameter is required when your application accesses the JCA Connector via JNDI.

- **IWayConfig.** Configuration instance for the connector to use at run time. By default, a base configuration is available and defined in this file. A program can access this information via JNDI, or it can override these values.

```
<config-property>
    <config-property-name>IWayConfig</config-property-name>
    <config-property-type>java.lang.String</config-property-type>
    <config-property-value>base</config-property-value>
 </config-property>
```

- **LogLevel.** Trace setting. This can be set to DEBUG, INFO, or ERROR.

```
<context-param>
<config-property>
    <config-property-name>LogLevel</config-property-name>
    <config-property-type>java.lang.String</config-property-type>
    <config-property-value></config-property-value>
</config-property>
```

  For example:

```
<config-property-value>DEBUG</config-property-value>
```

  A directory in the configuration directory contains the logs. Also, be sure to review logs generated by your application server.

  Leave the remainder of this file unchanged.

4. Save the file and exit the editor.
5. Use the jar command to return the ra.xml file to the META-INF directory within the archive. To do this, you can:

   a. Ensure that you are in the directory that contains the connector. For example:

```
C:\Program Files\iWay55\bea
```

   b. Issue the following command:

```
jar uvf iwafjca.rar META-INF/ra.xml
```

6. Redeploy the connector.

Deploying and Running the JCA Test Tool

iWay 5.5 includes a sample Web application called the JCA Test Tool. The JCA Test Tool lets you test iWay Service and Event adapters with iWay Connector for JCA. On Windows, the default location for the Test Tool Web application is:

```
C:\Program Files\iWay55\bea\iwjcaivp
```

On other platforms, use the corresponding location.

Deploying the JCA Test Tool

Deploy the JCA Test Tool to BEA WebLogic as explained below.

Procedure How to Deploy the JCA Test Tool to BEA WebLogic

To deploy the JCA Test Tool:

1. In a browser, open the BEA WebLogic console at:

   ```
   http://hostname:port/console
   ```

   where:

   hostname

   Is the hostname of the machine where BEA WebLogic is running.

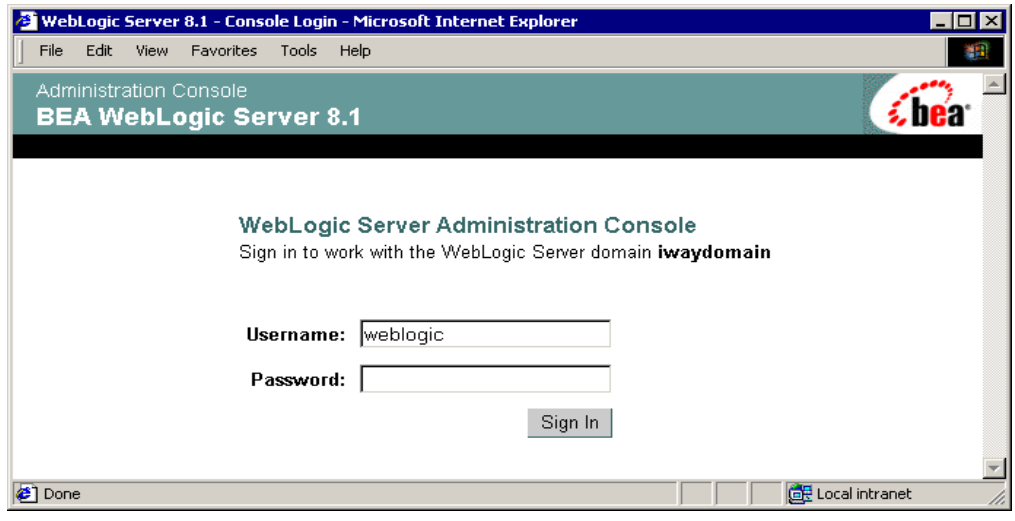
   port

   Is the port for the domain you are using for iWay. The port for the default domain is 7001.

   For example:

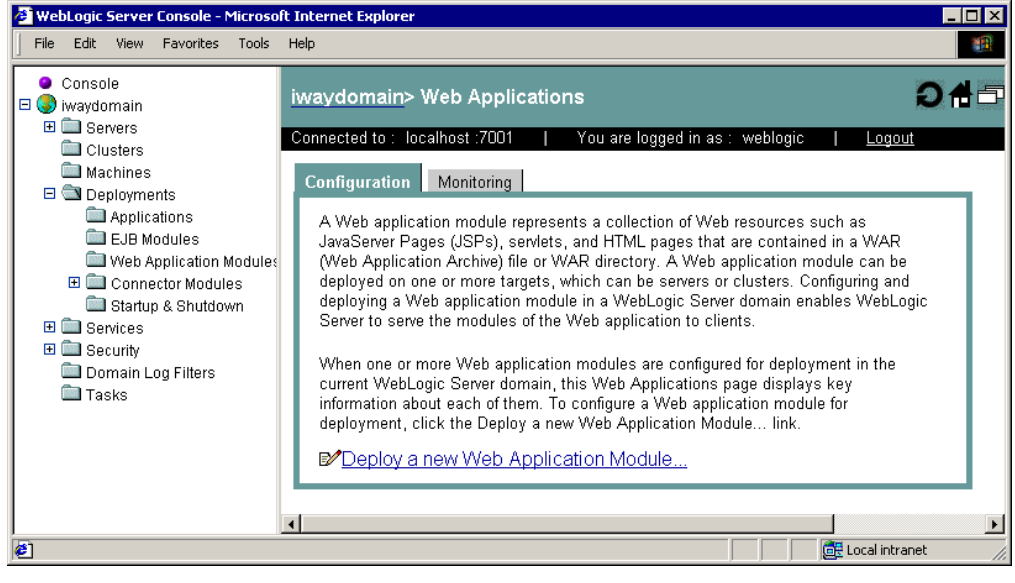
   ```
   http://localhost:7001/console
   ```

A logon page appears.



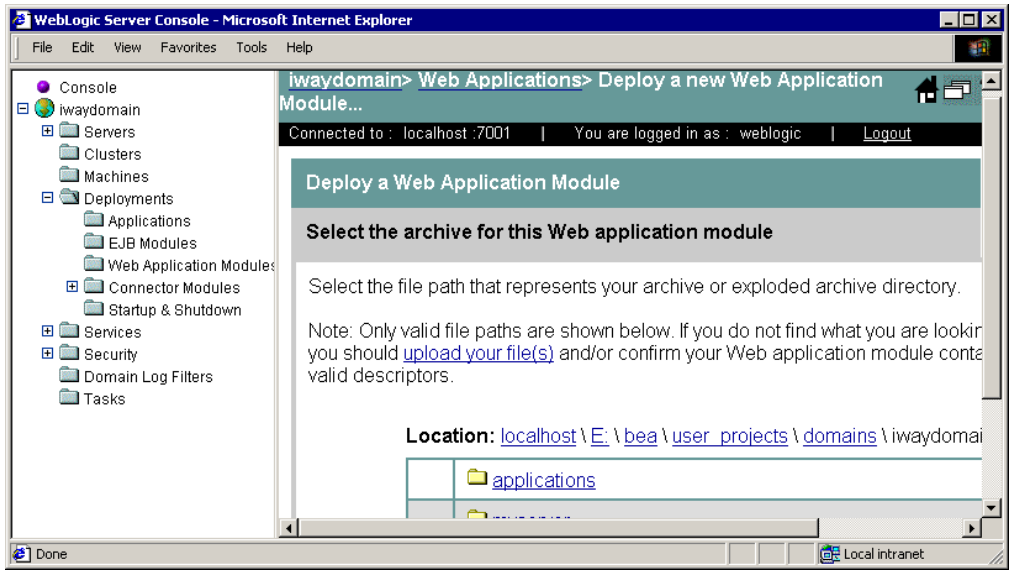
2. Log on to WebLogic.
3. Expand the *Deployments* folder on the left and then, click *Web Application Modules*.

   A page appears for deploying and controlling Web applications. If other applications are already deployed, they appear.

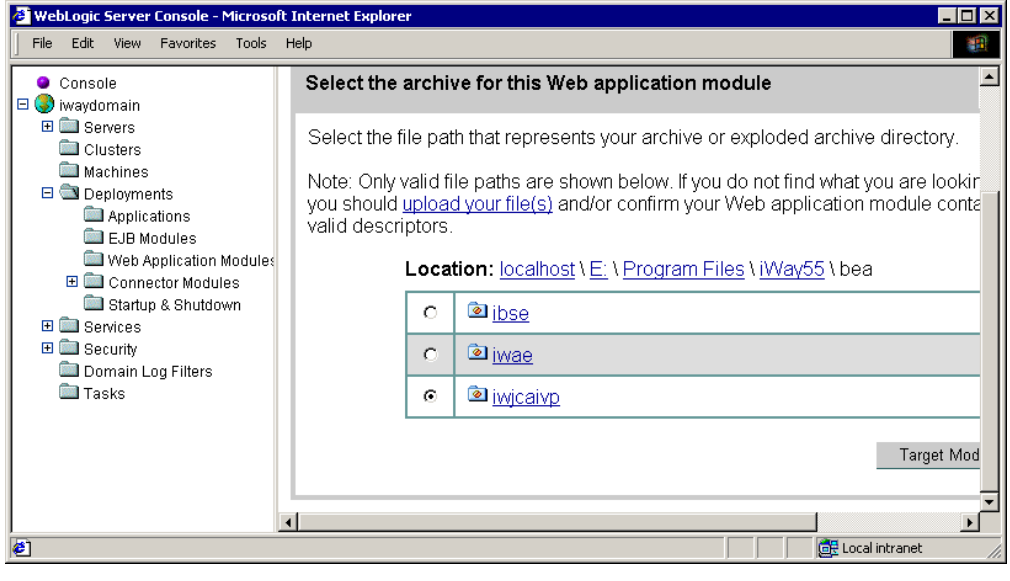


4. Select *Deploy a new Web Application Module.*

A page appears for you to specify where the Web application is located.



5. Click the links next to *Location* to view and specify the location of the directory with the Test Tool files.

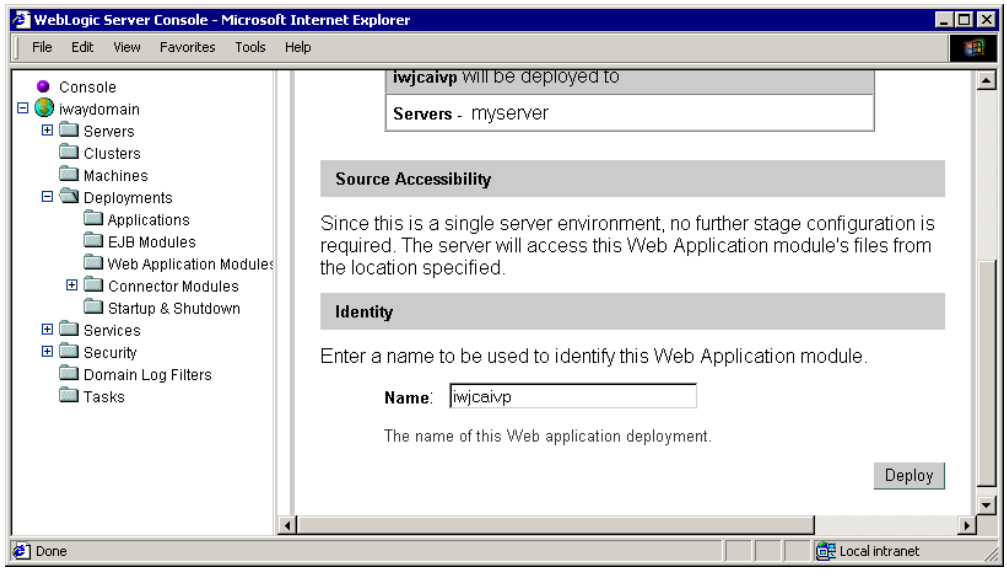


6. Select the option button next to the *iwjcaivp* directory and then, click *Target Module*.

If there are multiple servers in your domain, you are prompted to specify into which server or servers to deploy.

7. If prompted, check which servers to deploy to and click *Continue*.

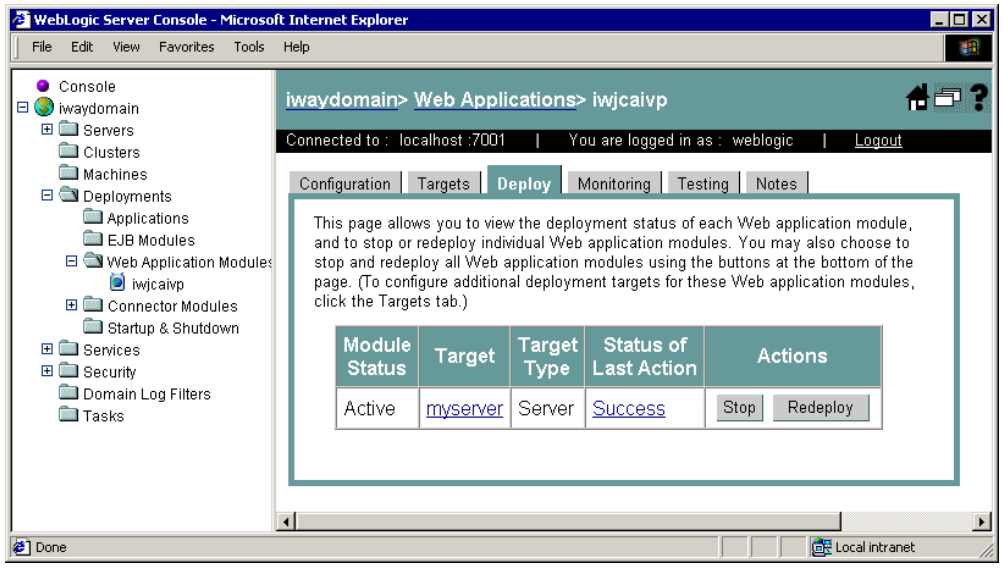
If you are deploying into a single server, information about the server displays.



If you are deploying into multiple servers, you are prompted to copy the module to each server.

8. Click *Deploy*.

After a few seconds, the application is deployed, and appears on the left under *Web Application Modules*.



Note: You may need to expand the *Web Application Modules* folder to see the application.

Running the JCA Test Tool

After deploying the JCA Test Tool, access it to test the deployment.

Procedure How to Run the JCA Test Tool

To run the JCA Test Tool:

1. Open a browser to:

   `http://hostname:port/iwjcaivp`

   where:

   hostname

   Is the name of the machine where your application server is running.

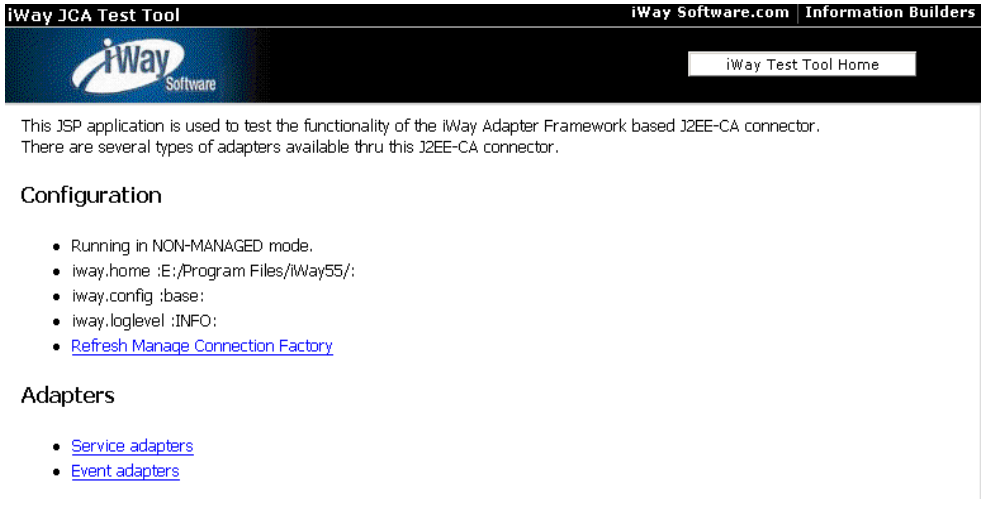
   port

   Is the port for the domain you are using for iWay. The port for the default domain is 7001.

   For example:

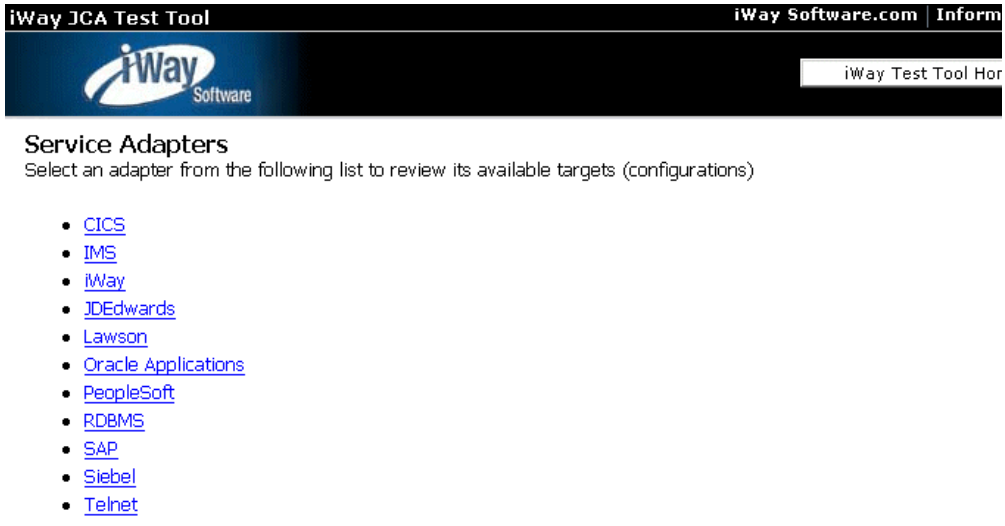
   `http://localhost:7001/iwjcaivp`

   The iWay JCA Test Tool window opens and provides links for viewing iWay Service or Event adapters.



2. To display the available adapters, click the *Service adapters* or *Event adapters* links.

A page appears displaying links for available adapters.



The adapters that appear vary depending on the version of iWay you install and which files are in the iWay55\lib directory. If your adapter requires third party drivers or libraries, they must be in the lib directory or your adapter may not appear.

Initially, no targets are configured for the iWay Connector for JCA. However, after targets are configured using Application Explorer, you can test them using this tool.

Note: After configuring targets using Application Explorer, you may need to redeploy the JCA Test Tool before the targets appear.

Configuring the JCA Test Tool

If you wish to change defaults for the JCA Test Tool, you must modify the web.xml file installed with the Test Tool. The default location on Windows is:

```
drive:\Program Files\iWay55\bea\iwfjcaivp\WEB-INF\web.xml
```

On other platforms, use the corresponding location.

This file defines aspects of the iWay JCA Test Tool running environment. Modifying this file is optional in most environments. You change parameters in this file by modifying the contents of the <param-value> tags.

The following parameters can be changed:

- **iway.jndi.** (optional) Connection factory name for iWay Connector for JCA. The connection factory name under BEA WebLogic is eis/IWAFConnectionFactory. The iWay JCA Test Tool attempts to connect to the adapter via JNDI if JNDI is defined. If JNDI is undefined, iway.home and iway.config are used instead.

```
<context-param>
  <param-name>iway.jndi</param-name>
  <param-value></param-value>
  <description>
  JNDI name for the IWAF JCA Resource Adapter. If not
  provided, the application will create a new one based
  on iway.home, iway.config and iway.loglevel.
  </description>
</context-param>
```

- **iway.home.** The installation directory where iWay 5.5. is installed.

```
<context-param>
  <param-name>iway.home</param-name>
  <param-value>c:\Program Files\iway55</param-value>
  <description>
  ONLY USED IF IWAY.JNDI NOT SET.
  Absolute path of iway installation directory.
  </description>
</context-param>
```

- **iway.config.** Configuration used at run time. A configuration named base is installed with iWay 5.5 and available by default.

```
<context-param>
  <param-name>iway.config</param-name>
  <param-value>base</param-value>
  <description>
  ONLY USED IF IWAY.JNDI NOT SET.
  configuration name
  </description>
</context-param>
```

- **iway.loglevel.** Tracing level. The level can be DEBUG, INFO, and ERROR.

```
<context-param>
  <param-name>iway.loglevel</param-name>
  <param-value>DEBUG</param-value>
  <description>
  ONLY USED IF IWAY.JNDI NOT SET.
  Log level: DEBUG FATAL ERROR INFO WARN
  </description>
</context-param>
```

For more information on iWay Connector for JCA, see the *iWay Connector for JCA for BEA WebLogic Server User's Guide*.

CHAPTER 4

Configuring iWay Business Services Engine

Topics:

- Configuring, Deploying, and Verifying Servlet iBSE
- Creating and Configuring the iBSE Repository

This section explains how to configure and install iWay Business Services Engine (iBSE) components. If you are not using Web services components, proceed to Chapter 5, *Configuring Application Explorer*.

Configuring, Deploying, and Verifying Servlet iBSE

The iWay Business Services Engine (iBSE) is a transformation and integration engine for processing XML files and SOAP messages for exchange with Web services applications and other systems. For use with BEA WebLogic, iBSE is available as a Web application and referred to as Servlet iBSE.

To use Servlet iBSE:

1. Deploy the iBSE Web application. (*Deploying Servlet iBSE* on page 4-2)
2. Configure Servlet iBSE. (*Configuring Servlet iBSE* on page 4-7)
3. Verify Servlet iBSE. (*Verifying Servlet iBSE* on page 4-9).

Deploying Servlet iBSE

Servlet iBSE is a Web application installed as an expanded directory with iWay 5.5. The default location on Windows is:

```
C:\Program Files\iWay55\bea\ibse
```

For other platforms, see the corresponding location.

When using a file-based repository, information is written within the Web application's directory structure. Therefore, the user ID under which your domain runs must have full access to this directory.

Procedure How to Configure BEA WebLogic 8.1 for Servlet iBSE Deployment

1. Start the domain you are using for iWay. For example:

   BEA_HOME\user_projects\domains*DOMAIN_NAME*\startWebLogic.cmd

2. Open the console to deploy the ibse Web application in a browser at:

   http://*hostname*:*port*/console

   where:

   hostname

   Is the hostname of the machine where WebLogic is running.

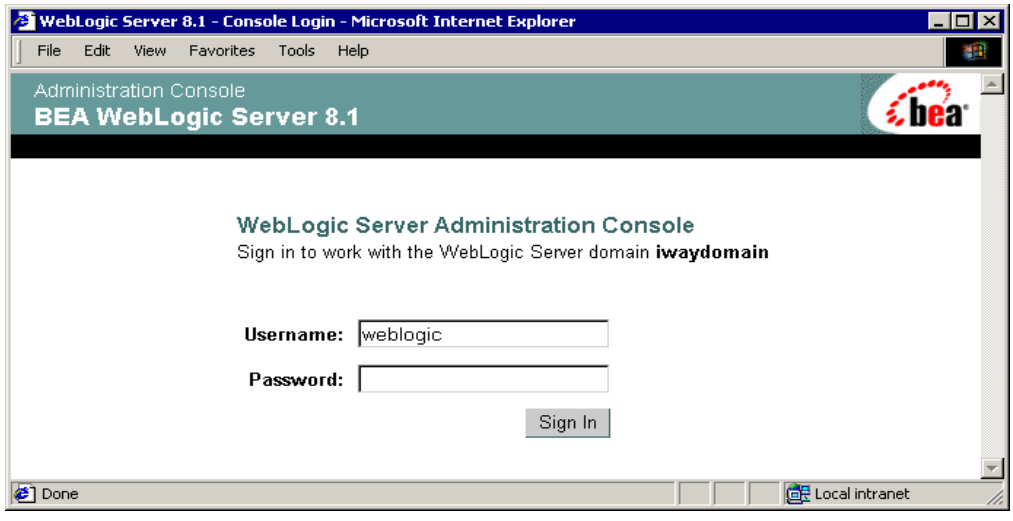
   port

   Is the port for the domain you are using for iWay. The port for the default domain is 7001.

   For example:

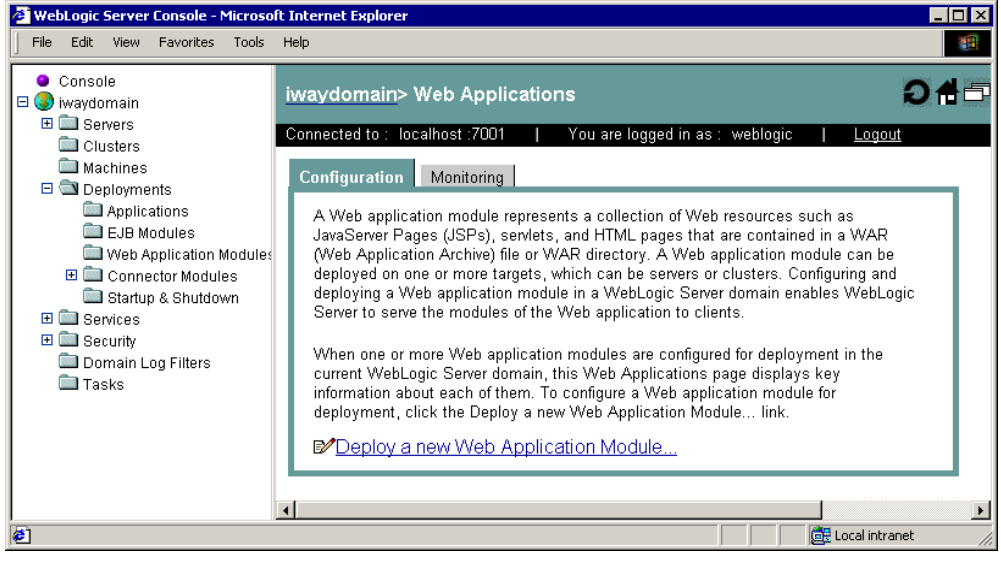
   ```
   http://localhost:7001/console
   ```

A logon page opens. If the page does not open, ensure your domain is started, and you used the correct port.



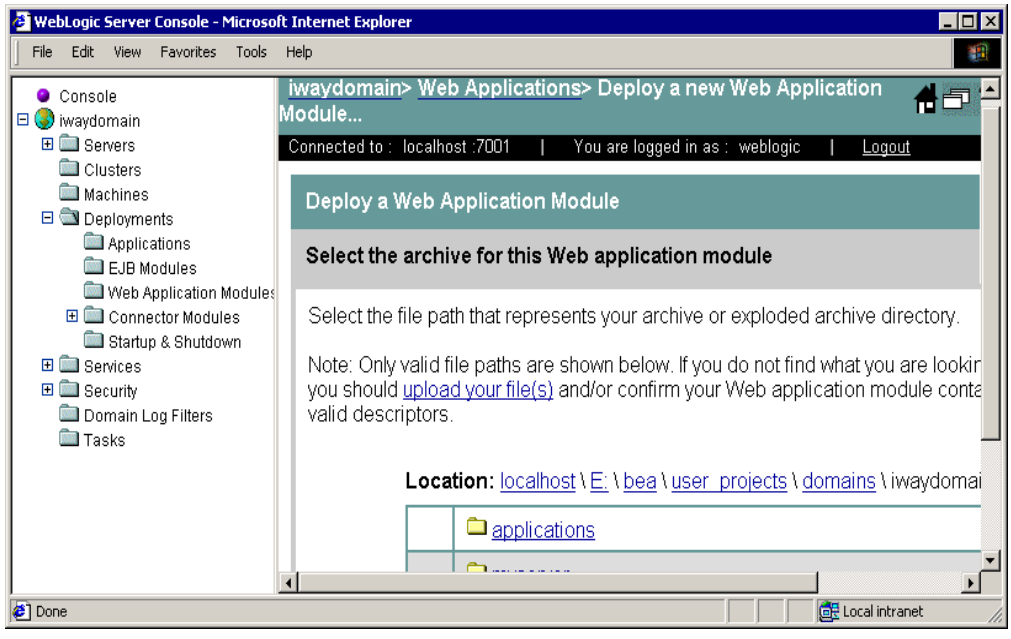
3. Log on to WebLogic.
4. In the left pane, expand the *Deployments* folder and then, click *Web Application Modules*.

   A page appears for deploying and controlling Web applications. If other applications are already deployed, they appear.

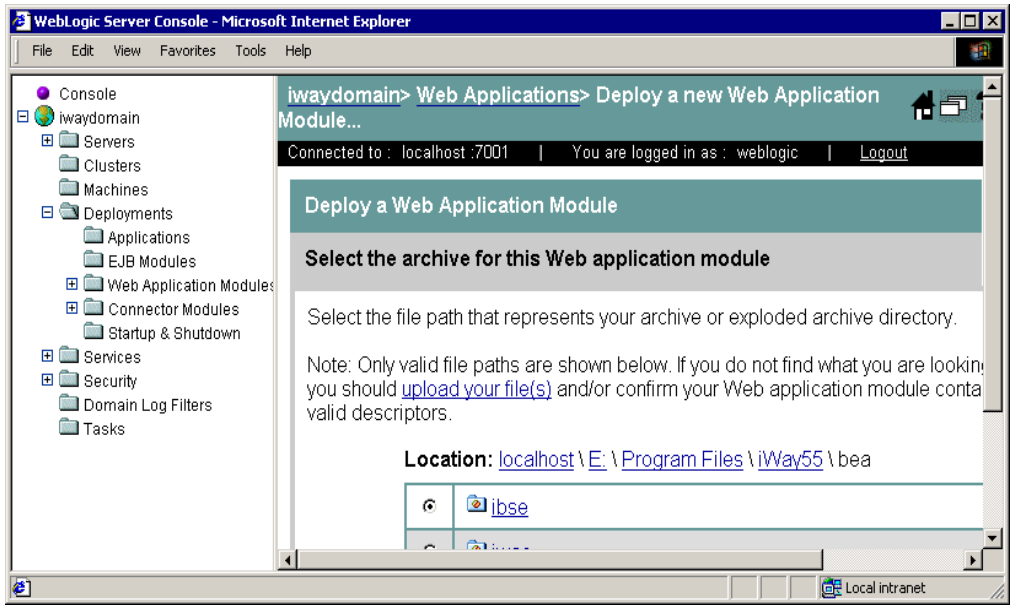


5. Select *Deploy a new Web Application Module.*

   A page appears for you to specify where the Web application is located.



6. Click the links next to *Location* to view and specify the location of the directory above the directory with Servlet iBSE files.

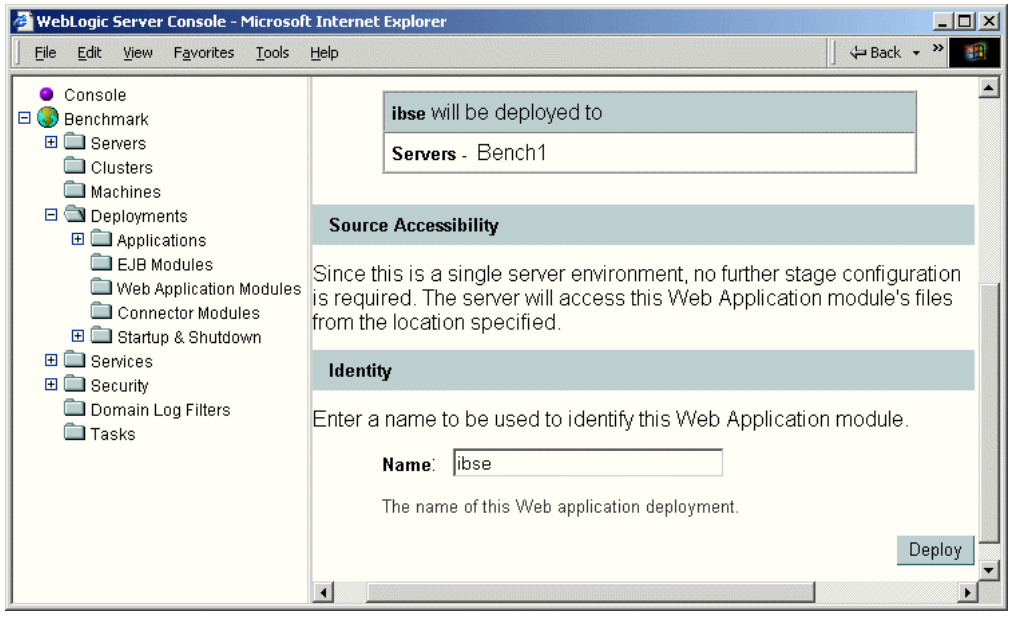


7. Select the option button next to the *ibse* directory and then click *Target Module*.

If there are multiple servers in your domain, you are prompted to specify into which server or servers to deploy.

8. If prompted, check which servers to deploy to and click *Continue*.

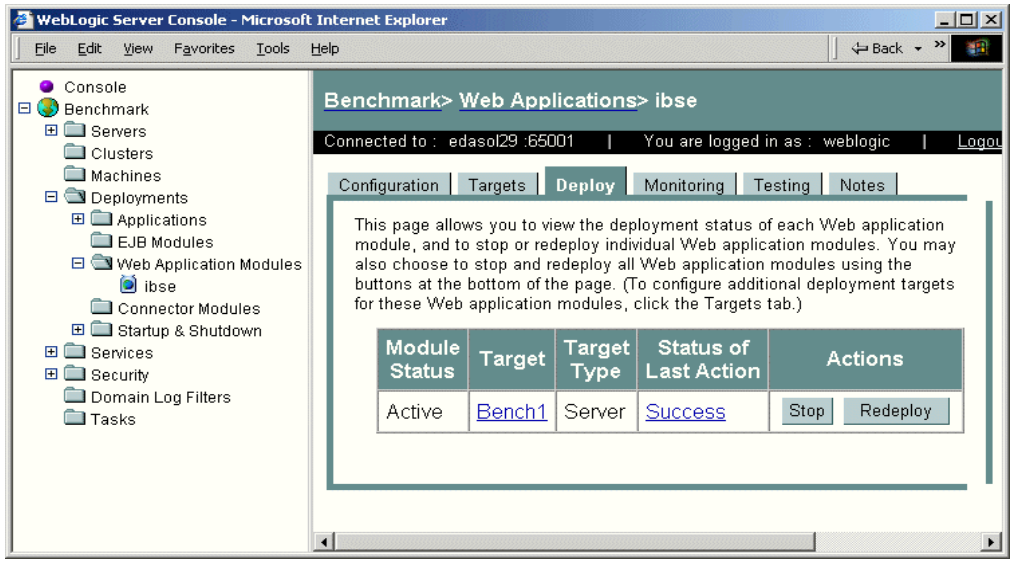
If you are deploying into a single server, information about the server displays.



If you are deploying into multiple servers, you are prompted to copy the module to each server.

9. Click *Deploy*.

When deployment completes, *ibse* appears on the left under *Web Application Modules*.



Note: You may need to expand the *Web Application Modules* folder to see *ibse*.

Configuring Servlet iBSE

After Servlet iBSE is deployed through your application server, you can configure it using its configuration Web page.

Procedure How to Configure Servlet iBSE

1. Open the following page in your browser:

   `http://hostname:port/ibse`

   where:

   hostname

   Is the hostname of the application server machine.

   port

   Is the port for the domain you are using for iWay. The port for the default domain is 7001.

   For example:

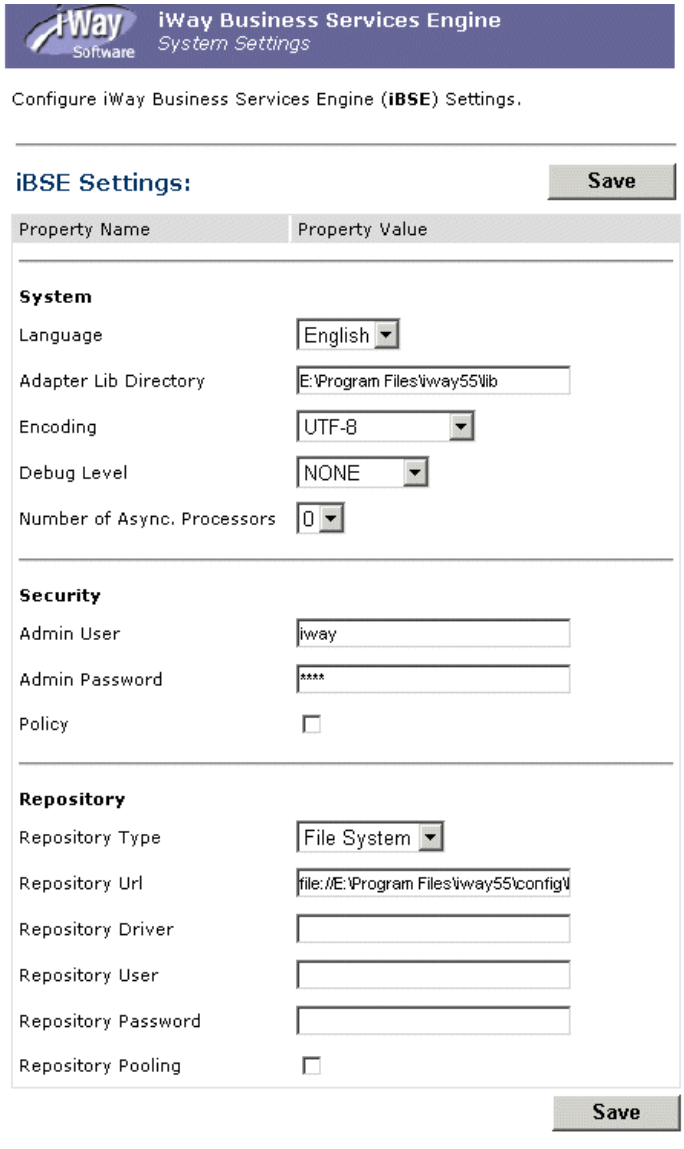
   `http://localhost:7001/ibse`

   Note: The first time you access this page, it may take some time to load.

2. Log on when prompted. When first installed, the user ID and the password are:

- User Name: iway
- Password: iway

The Servlet iBSE configuration page opens and provides fields for editing iBSE parameters.



3. Ensure the *Adapter Lib Directory* field specifies the path to the iWay 5.5 lib directory. For example:

   ```
   C:\Program Files\iWay55\lib
   ```

   For some environments, this defaults, but for others, it does not.

   After the path is specified, adapters in the lib directory are available to Servlet iBSE.

4. For security purposes, provide a new password in the *Admin Password* field.

   Note: The *Repository Url* field specifies where the file system repository will be created. To use a database repository, you must enter the repository connection information. For now, use a file system repository for the initial verification. You can switch to a database repository as explained later in this section.

5. Click *Save*.

   The file-based repository is created, and Servlet iBSE is ready for use. If you wish, you can change to a database repository after verifying Servlet iBSE.

Verifying Servlet iBSE

When applications, such as Application Explorer, access Servlet iBSE, they can use one of the following URLs:

```
http://hostname:port/ibse/IBSEServlet/
```

```
http://hostname:port/ibse/IBSEServlet/XDSOAPAdapterFactory
```

Procedure How to Verify Servlet iBSE

You verify iBSE from the iBSE home page. This page should automatically open when you click *Save* on the configuration page.

1. If it is not open, open the following page in your browser:

   ```
   http://hostname:port/ibse/IBSEServlet/
   ```

   where:

   hostname

   Is the hostname of the application server machine.

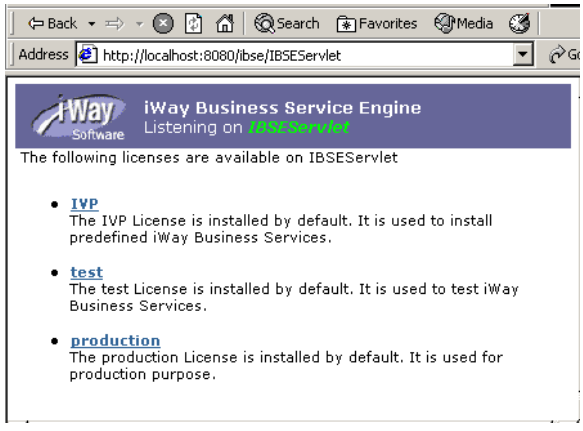
   port

   Is the port for the domain you are using for iWay. The port for the default domain is 7001.

   For example:

   ```
   http://localhost:7001/ibse/IBSEServlet/
   ```

The iBSE home page opens.



This page enables you to test the sample Web service installed with iWay 5.5.

When you create Web services using Application Explorer, you can also test them from this page.

2. Click *IVP*.
3. Click *iwayivp*.
4. Click *ivp*.
5. Click *Invoke*.

   An XML response like the following appears in your browser:

```
  <?xml version="1.0" encoding="UTF-8" ?>
- <SOAP-ENV:Envelope xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:SOAP-
  ENV="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
   - <SOAP-ENV:Body>
   - <ivpResponse xmlns="urn:iwaysoftware:ibse:jul2003:ivp:response"
     cid="A0328ED84ABFA055C4F64B8039C991AA">
     <CurrentTime>2004-01-05T19:15:48Z</CurrentTime>
     <Version>IWAY5.5</Version>
    </ivpResponse>
   </SOAP-ENV:Body>
  </SOAP-ENV:Envelope>
```

For more information on iBSE, see the *iWay Business Services Engine User Guide*.

Enabling Tracing for Servlet iBSE

iWay provides tracing functionality for troubleshooting problems with Web services. Only enable this for troubleshooting as it can affect performance.

Procedure How to Enable Tracing for Servlet iBSE

To enable tracing:

1. Open the Servlet iBSE configuration page:

   `http://hostname:port/ibse/IBSEConfig`

   where:

   hostname

   Is the hostname of the application server machine.

   port

   Is the port for the domain you are using for iWay. The port for the default domain is 7001.

   For example:

   `http://localhost:7001/ibse/IBSEConfig`

2. In the top *System* area, specify the level of tracing from the *Debug* drop-down list.
3. Click *Save*.

The default location for the trace information on Windows is:

`C:\Program FIles\bea\ibse\ibselogs`

On other platforms, use the corresponding location.

Creating and Configuring the iBSE Repository

iBSE requires a repository in which to store transactions and metadata needed for the delivery of Web services. In addition, a second repository can be used for information needed to monitor services and events. iWay Software recommends using a JDBC-compliant database for repositories, but file system repositories are available and configured by default. To use database repositories, the SQL required to create the repository tables is installed with iWay 5.5.

To set up repositories, you must:

- Create the 5.5 repositories and tables.
- Configure iBSE to access the repositories.

Creating the iBSE Repository

Follow the steps for your type of repository:

- For a **File System** repository, see *Configuring a File System Repository* on page 4-12.
- For **Microsoft SQL Server 2000**, see *How to Configure a Microsoft SQL Server 2000 Repository* on page 4-13.
- For **Oracle**, see *How to Configure an Oracle Repository on page 4-15*.
- For **Sybase**, see *How to Configure a Sybase Repository* on page 4-16.
- For **DB2**, see *How to Configure a DB2 Repository* on page 4-16.

Reference

Configuring a File System Repository

If you do not have access to a database for the repository, you can store repository information in an XML file on your local machine. However, a file system repository is less secure and efficient than a database repository. When iBSE is first installed, it is automatically configured to use a file system repository.

For Servlet iBSE, the default location is the root directory of the ibse Web application. On Windows, this default location is:

```
C:\Program Files\bea\ibse\ibserepo.xml
```

On other platforms, use the corresponding location.

If you wish to use the iBSE monitoring information, a second repository is required. The default file for the monitoring repository on Winows is:

```
C:\Program Files\bea\ibse\ibsemrepo.xml
```

On other platforms, use the corresponding location.

For a file system repository, no additional configuration is needed. You can proceed to Chapter 5, *Configuring Application Explorer*.

Procedure **How to Configure a Microsoft SQL Server 2000 Repository**

To configure a Microsoft SQL Server 2000 repository:

1. Create a SQL Server database to use as the iBSE repository.
2. Ensure that SQL Server authentication is supported.

   You can do this from the SQL Server Enterprise Manager by right-clicking your SQL Server, choosing *Properties*, and clicking the *Security* tab. If Authentication is set to *Windows only*, change it to *SQL Server and Windows*, and then restart SQL Server.

   Note: SQL Server has two authentication modes, Windows and SQL Server. Windows Authentication uses the same IDs as the Windows operating system. SQL Server Authentication uses IDs defined within SQL Server. iWay 5.5 uses the Microsoft SQL Server 2000 JDBC driver, and this driver requires SQL Server authentication.
3. Create a SQL Server ID and grant it db_owner rights to the iBSE repository database.
4. Open a command prompt and navigate to the iWay setup directory. The default location on Windows is:

   ```
   C:\Program Files\iWay55\etc\setup
   ```

   This directory contains SQL to create the repository tables in the following file:

   ```
   iwse.sql
   ```

   Once the database exists, you can use iwse.sql to create the database tables.

   Note: If SQL Server is not on the same machine as iWay 5.5, copy the iwse.sql file to the SQL Server machine. From a command prompt on the SQL Server machine, navigate to the directory containing the iwse.sql file.

5. Issue the following command:

   ```
   osql -S hostname -d databasename -U loginID -P password -i iwse.sql
   ```

   where:

   hostname

   Is the name of the machine where SQL Server is running.

   databasename

   Is the database you created in step 1 on page 4-13.

   loginID

   Is the SQL Server ID with db_owner rights from step 3 on page 4-13.

   password

   Is the password for the SQL Server ID.

   The tables should be created in your database.

   If you wish to use the iBSE monitoring features, the SQL to create monitoring tables is in the following file:

   ```
   C:\Program Files\iWay55\etc\setup\monitoring.sql
   ```

   You can create these tables in the same database as the regular repository, or create a new database for the monitoring information. Creating a new database is recommended. Repeat the steps above, but submit monitoring.sql instead of iwse.sql when executing osql.

6. Proceed to *Configuring iBSE to Use a Repository Database* on page 4-17.

Procedure How to Configure an Oracle Repository

To configure an Oracle repository:

1. Contact your database administrator to obtain an Oracle user ID and password to create the iBSE repository.

   This user ID should have rights to create and modify tables as well as the ability to create and execute stored procedures.

2. Open a command prompt and navigate to the iWay setup directory. Its default location on Windows is:

   ```
   C:\Program Files\iWay55\etc\setup
   ```

   For other platforms, see the corresponding location.

   This directory contains SQL to create the repository tables in the following file:

   ```
   iwse.ora
   ```

   Note: If Oracle is not on the same machine as iWay 5.5 copy the iwse.ora file to the Oracle machine. Then, from a command prompt on the Oracle machine, navigate to the directory containing the iwse.ora file.

3. Issue the following command:

   ```
   sqlplus userid/password @database @ iwse.ora
   ```

   If you wish to use the iBSE monitoring features, the SQL to create monitoring tables is in the following file on Windows:

   ```
   C:\Program Files\iWay55\etc\setup\monitoring.ora
   ```

   For other platforms, see the corresponding location.

   The monitoring tables are separate from the other iBSE tables, so you can create them in a different instance or tablespaces if you wish. To create an iBSE monitoring repository, submit the monitoring.ora SQL.

4. Proceed to *Configuring iBSE to Use a Repository Database* on page 4-17.

Procedure How to Configure a Sybase Repository

SQL needed to create the repository is installed in the following file on Windows:

```
C:\Program Files\iWay55\etc\setup\sybase-iwse.sql
```

For other platforms, see the corresponding location.

A Sybase DBA should submit this SQL to create the repository tables and structure.

If you wish to use the iBSE monitoring features, the SQL to create monitoring tables is in the following file on Windows:

```
C:\Program Files\iWay55\etc\setup\sybase-monitoring.sql
```

For other platforms, see the corresponding location.

A Sybase DBA should submit this SQL to create the monitoring tables and structure.

Procedure How to Configure a DB2 Repository

SQL needed to create the repository is installed in the following file on Windows:

```
C:\Program Files\iWay55\etc\setup\db2-iwse.sql
```

For other platforms, see the corresponding location.

A DB2 DBA should submit this SQL to create the repository tables and structure.

If you wish to use the iBSE monitoring features, the SQL to create monitoring tables is in the following file on Windows:

```
C:\Program Files\iWay55\etc\setup\db2-monitoring.sql
```

For other platforms, see the corresponding location.

A DB2 DBA should submit this SQL to create the monitoring tables and structure. You can create monitoring tables in the same database as the regular repository, or create a new database for the monitoring information. Creating a new database is recommended.

Configuring iBSE to Use a Repository Database

After creating the repository database, you must provide the connection information that iBSE requires to access the repository.

Procedure How to Enter Connection Information for Servlet iBSE

To enter connection information for Servlet iBSE:

1. Copy the JDBC driver for your database into the ibse\WEB-INF\lib directory where the iBSE Web application is deployed. For example:

   C:\Program Files\iWay55\bea\ibse\WEB-INF\lib

   The required driver files depend on your database and driver. For example:

SQL Server 2000 (three files): **msbase.jar** **mssqlserver.jar** **msutil.jar**
Oracle: **classes12.zip** or **ojdbc14.zip** (SDK 1.4.x and higher)
Sybase: jconn.jar
DB2 Type2 App driver: db2j2classes.zip iWay recommends using the DB2 Type2 App driver. For the Type2 driver, you must install DB2 Client on the iWay machine. For other DB2 drivers, see your driver documentation.

2. Add the JDBC driver to your domain's CLASSPATH:

   CLASSPATH is set in different places depending on the server release and type of domain. It is often set in one of the following files:

   Windows:

   ```
   BEA_HOME\bea\user_projects\domains\your_domain\startWebLogic.cmd
   BEA_HOME\bea\user_projects\domains\your_domain\setDomainEnv.cmd
   BEA_HOME\bea\user_projects\domains\your_domain\startManagedWebLogic.cm
   d
   BEA_HOME\bea\weblogic81\common\bin\commEnv.cmd
   ```

   UNIX:

   ```
   BEA_HOME/bea/user_projects/domains/your_domain/startWebLogic.sh
   BEA_HOME/bea/user_projects/domains/your_domain/setDomainEnv.sh
   BEA_HOME/bea/user_projects/domains/your_domain/startManagedWebLogic.sh
   BEA_HOME/bea/weblogic81/common/bin/commEnv.sh
   ```

   It may be set by a line similar to the following:

   Windows:

   ```
   set CLASSPATH=%WEBLOGIC_CLASSPATH%;%POINTBASE_CLASSPATH%;%JAVA_HOME%\j
   re\lib\rt.jar;%WL_HOME%\server\lib\webservices.jar;%CLASSPATH%
   ```

   UNIX:

   ```
   CLASSPATH="${WEBLOGIC_CLASSPATH}:${POINTBASE_CLASSPATH}:${JAVA_HOME}/j
   re/lib/rt.jar:${WL_HOME}/server/lib/webservices.jar:${CLASSPATH}"
   ```

   Append your driver's file or files to the CLASSPATH setting by adding the full paths of any JDBC files, including file names. If you are not sure where to set CLASSPATH, consult BEA WebLogic documentation.

3. Restart the domain.

4. Log on to the Servlet iBSE Configuration page at:

   ```
   http://hostname:port/ibse
   ```

   Note: This page was introduced in *Configuring Servlet iBSE* on page 4-7.

5. At the bottom of the page, provide the repository connection information by completing the following fields:

Field	Description
Repository Type	Specify the type of repository you are using.
Repository URL	Provide a JDBC URL to connect to the database. Examples follow this table.

Repository Driver	Provide the JDBC Class to connect to the database.
	For SQL Server:
	`com.microsoft.jdbc.sqlserver.SQLServerDriver`
	For Oracle:
	`oracle.jdbc.driver.OracleDriver`
	For Sybase:
	`com.sybase.jdbc2.jdbc.SybDriver`
	For the DB2 Type2 App driver:
	`COM.ibm.db2.app.DB2Driver`
	For other DB2 drivers, see your driver documentation.

Repository User	Provide the user ID to access the repository database.
Repository Password	Provide the password to access the repository database.

The repository URLs have the following forms:

SQL Server	`jdbc:microsoft:sqlserver://`*`hostname:port`*`;DatabaseName=`*`dbname`*`;SelectMethod=cursor`
Oracle	`jdbc:oracle:thin:@`*`hostname:port;SID`*
Sybase	`jdbc:sybase:Tds:`*`hostname:port`*
DB2 Type2 Driver	`jdbc:db2:`*`dbname`*`@driverType=APP` For other DB2 drivers, see your driver documentation.

where:

`hostname`

Is the name of the machine for the database server.

port

Is the port number for the database server. The SQL Server default is 1433. The Oracle default is 1521.

dbname

Is the database name or DB2 database alias or location name.

SID

Is the ORACLE SID.

6. Click *Save*.

   You should be redirected to the Servlet iBSE home page where you can test the sample Web service.

   If you receive an error, ensure CLASSPATH is properly set and redeploy the iBSE Web application. Then, test Servlet iBSE by going to the home page at:

   `http://hostname:port/ibse/IBSEServlet`

7. If you wish to use the iBSE monitoring, return to the Servlet iBSE Configuration page:

   `http://hostname:port/ibse`

8. At the bottom of the page, click *More configuration....*

9. Specify the information to connect to the monitoring repository. If it is the same database as the regular iBSE repository, enter the same information as you did in step 5 on page 4-19. If you set up a different database, provide the information for the monitoring database.

10. Click *Save Configuration*.

11. Click *Start Monitoring*.

CHAPTER 5

Configuring Application Explorer

Topic:

This section explains how to configure Application Explorer. Two versions of Application Explorer are available when using iWay with BEA WebLogic Server:

- The **Swing Application Explorer** is a window accessible within BEA WebLogic Workshop.

  For Swing Application Explorer, see *Configuring Swing Application Explorer* on page 5-2

- The **Servlet Application Explorer** is a Web application accessible through a Web browser.

  For Servlet Application Explorer, see *Configuring Servlet Application Explorer* on page 5-5.

Configuring Swing Application Explorer

iWay Swing Application Explorer is a GUI tool that uses adapters to create schemas and business services for use with iWay Connector for JCA, iBSE, or other XML or Web services-based programs. It enables you to generate and publish a Web service from objects and procedures in many different systems, without requiring in-depth knowledge of the object or system.

For Servlet Application Explorer, see *Configuring Servlet Application Explorer* on page 5-5.

Accessing Swing Application Explorer

If BEA WebLogic Workshop is installed, Swing Application Explorer is installed automatically with iWay and accessible from within BEA WebLogic Workshop.

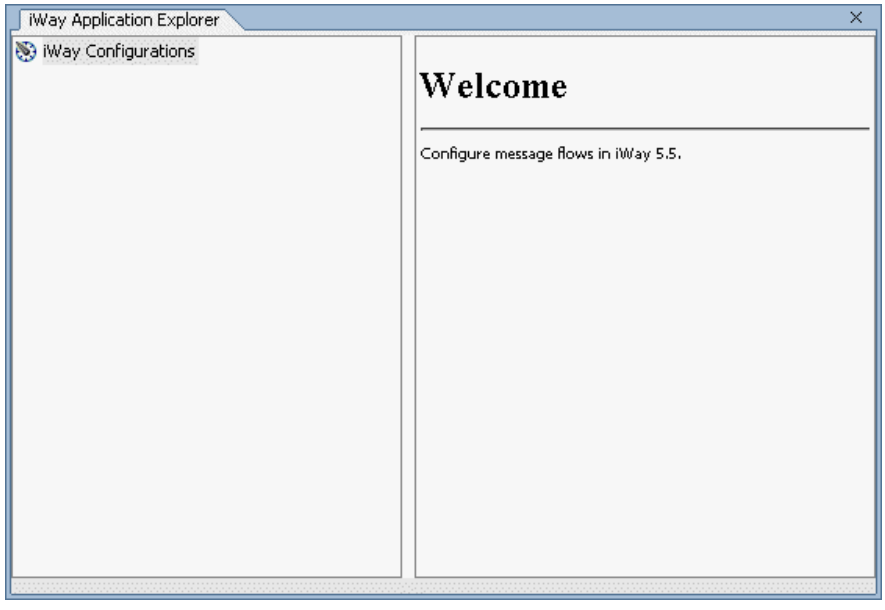
Note: Java SDK 1.4.1 or higher is required to use Swing Application Explorer.

Procedure How to Access Swing Application Explorer

To access Swing Application Explorer:

1. Ensure the domain into which you deployed iBSE is started and iBSE is deployed.
2. Start BEA WebLogic Workshop.
3. Open Application Explorer by clicking *View, Windows*, and then *iWay Application Explorer.*

The Application Explorer appears in BEA WebLogic Workshop.



4. Right-click *iWay Configurations* and select *New*.

You are prompted to name the configuration. A configuration specifies an instance of iBSE or a JCA configuration. For iBSE, you can choose any name you wish. For Connector for JCA, the name should match the configuration, base, by default.

5. Name the configuration and click *OK*.

You must set up the connection to iBSE or a JCA Configuration.

- For iBSE, specify the iBSE URL. This is the URL to access iBSE and depends upon the port on which your domain is listening. The URL is:

  `http://hostname:port/ibse/IBSEServlet`

  where:

  hostname

  Is the hostname of the application server machine.

  port

  Is the HTTP port for the domain where iBSE is deployed. The port for the default domain is 7001.

- For JCA, specify where iWay is installed. For example:

  `C:\Program Files\iWay55`

6. Specify the connection information and click *OK*.

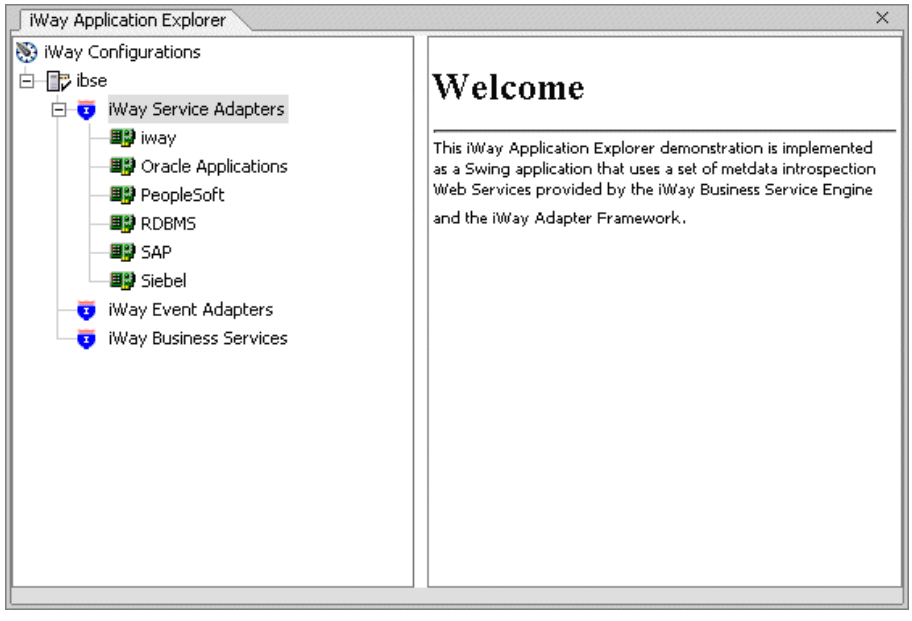
   Your configuration appears on the left under iWay Configurations.

7. Right-click the configuration you created and select *Connect*.

   A connection is made.

8. Expand *iWay Service Adapters* and *iWay Event Adapters* to see available adapters.

   Available adapters appear.



The available adapters vary depending on the version of iWay you install and which files are in the iWay55\lib directory. If your adapter requires third party drivers or libraries, they must be in the lib directory or your adapter may not appear.

When you create a Web service using Swing Application Explorer a complete XML response is not available within Swing Application Explorer. To fully test, Web services created using the Swing Application Explorer, use the Servlet iBSE home page:

`http://hostname:port/ibse/IBSEServlet`

where:

hostname

Is the hostname of the application server machine.

port

Is the port on which your server is listening.

For example:

```
http://localhost:7001/ibse/IBSEServlet
```

Configuring Servlet Application Explorer

iWay Servlet Application Explorer is a GUI tool that uses adapters to create schemas and business services for use with iWay Connector for JCA, iBSE, or other XML or Web services based programs. It enables you to generate and publish a Web service from objects and procedures in many different systems, without requiring in-depth knowledge of the object or system.

Servlet Application Explorer is a Web application installed as an expanded directory with iWay 5.5. The default location on Windows is:

```
C:\Program Files\iWay55\bea\iwae
```

For other platforms, see the corresponding location.

Configuring Servlet Application Explorer Communications

Servlet Application Explorer communications are defined in the Web application's web.xml file. The default location on Windows is:

```
C:\Program Files\iWay55\bea\iwae\WEB-INF\web.xml
```

For other platforms, see the corresponding location.

Communications vary depending on whether you access iBSE or iWay Connector for JCA:

- To create business services or schemas for iBSE, Application Explorer connects to iBSE. Therefore, Application Explorer must know the correct URL to access it.
- For iWay Connector for JCA, Application Explorer handles schema generation and target configuration itself. Application Explorer then writes information to the configuration directories that iWay Connector for JCA uses. Therefore, Application Explorer must know the location of the configuration directories.

By default Application Explorer is set to connect to both Servlet iBSE and the iWay Connector for JCA base configuration. If you are not using Servlet iBSE, you provided the wrong Base Url during the installation, or you wish to access a different connector configuration, you must edit web.xml as explained below. If you are confident that default settings are sufficient, proceed to *Deploying Servlet Application Explorer* on page 5-7.

Procedure How to Configure Application Explorer Communications

To configure Application Explorer communications:

1. Open the web.xml file for the iwae Web application. The default location on Windows is:

   ```
   C:\Program Files\iWay55\bea\iwae\WEB-INF\web.xml
   ```

   For other platforms, see the corresponding location.

2. Find the "<service..." lines which define the connections. For example:

   ```
   <explorer>
      <service displayName="ibse configuration" url="http://localhost:700
   1/ibse/IBSEServlet"/>
      <service displayName="ijca configuration" provider="com.ibi.adapter
   .jspae.CustomJCAIWAEConnection" url=C:\Program Files\iWay55#base"/>
   </explorer>
   ```

3. If you are using Servlet iBSE but not iWay Connector for JCA, remove the iWay Connector for JCA line:

   ```
   <service displayName="ijca configuration" provider="com.ibi.adapter.js
   pae.CustomJCAIWAEConnection" url=C:\Program Files\iWay55#base"/>
   ```

4. If you are using iWay Connector for JCA but not Servlet iBSE, remove the Servlet iBSE line:

   ```
   <service displayName="ibse configuration" url="http://localhost:7001/i
   bse/IBSEServlet"/>
   ```

5. Optionally add or edit “<service...” lines to define connections.

   You can define as many connections as you wish. When you access Application Explorer in a browser, you choose the connections to access, and you can switch between them.

   - For **Servlet iBSE**, ensure the correct port appears. If you wish to access Servlet iBSE installed on a different host, modify the hostname as well. The URL is as follows:

     ```
     url="http://hostname:port/ibse/IBSEServlet/"
     ```

     For example:

     ```
     <service displayName="ibse configuration" url="http://localhost:22
     001/ibse/IBSEServlet"/>
     ```

- For **iWay Connector for JCA**, if you wish to use different configurations, edit or copy the existing JCA line and change the URL to indicate your configuration. The URL has the following form

  `url="IWAY_HOME#IWAY_CONFIG"`

  where:

  IWAY_HOME

  Is the directory where iWay 5.5 is installed.

  IWAY_CONFIG

  Is the iWay Connector for JCA configuration instance. By default, a base configuration exists.

  For example:

```
<service displayName="ijca configuration" provider="com.ibi.adapter.jspae.CustomJCAI
WAEConnection" url="C:\Program Files\iWay55#test"/>
```

6. Save and exit the web.xml file.

Deploying Servlet Application Explorer

Use BEA WebLogic Console to deploy the Servlet Application Explorer.

Procedure How to Configure Servlet Application Explorer for BEA WebLogic

This procedure refers to the directory where BEA WebLogic is installed as *BEA_HOME*. Substitute the absolute path on your system for *BEA_HOME*.

To deploy the Servlet Application Explorer:

1. Access the BEA WebLogic console through a browser at:

   `http://hostname:port/console`

   where:

   hostname

   Is the name of the machine where BEA WebLogic is running.

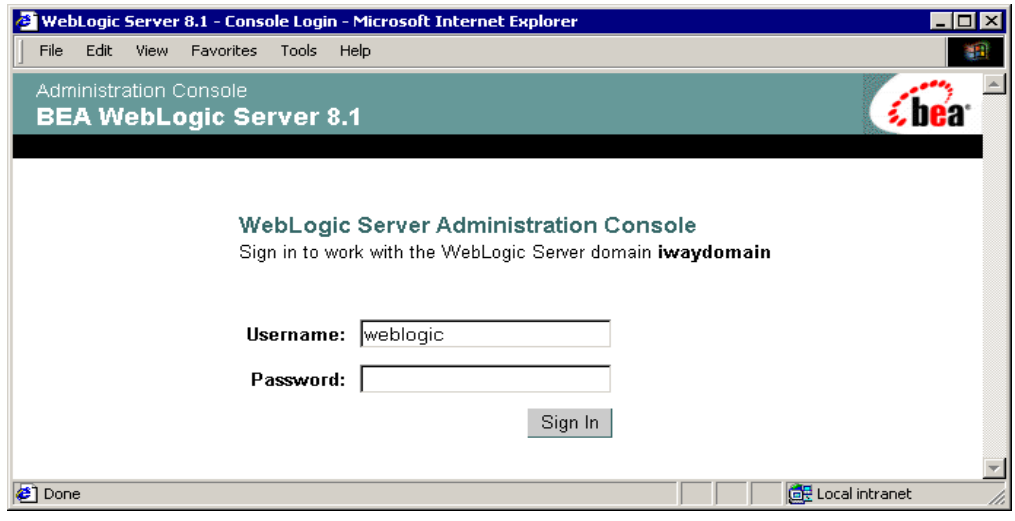
   port

   Is the port for the domain you are using for iWay. The port for the default domain is 7001.

   For example:

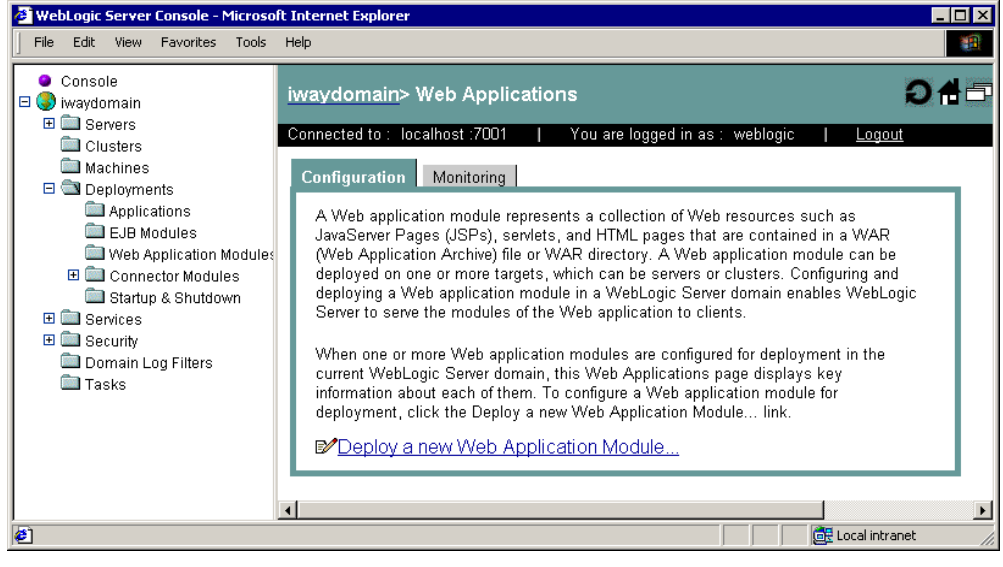
   `http://localhost:7001/console`

A logon page appears. If the page does not open, ensure your domain is started, and you used the correct port.



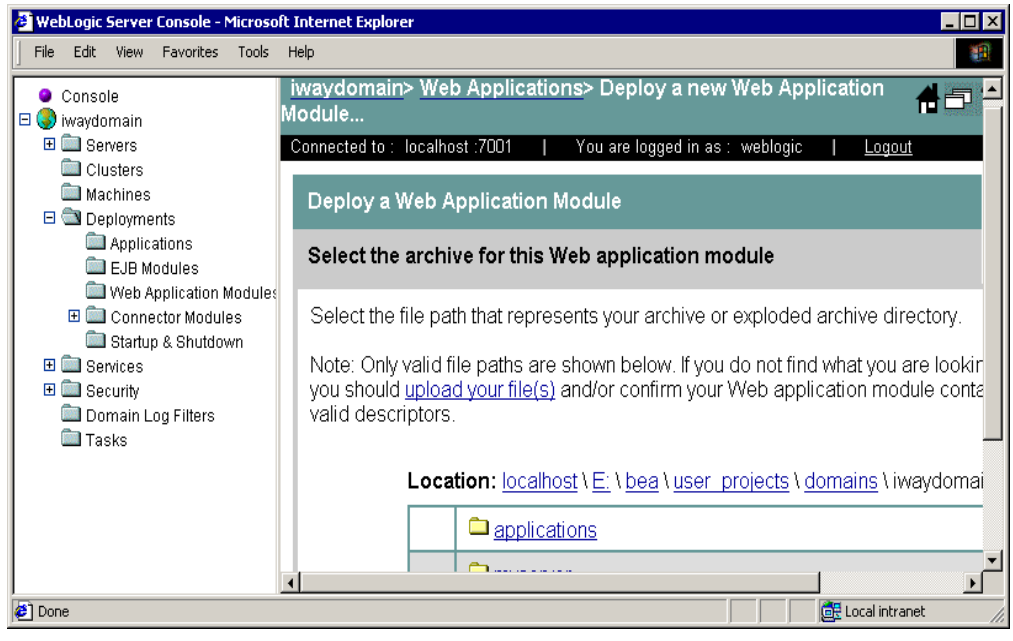
2. Log on to WebLogic.
3. In the left pane, expand the *Deployments* folder and then, click *Web Application Modules*.

   A page appears for deploying and controlling Web applications. If other applications are already deployed, they appear.

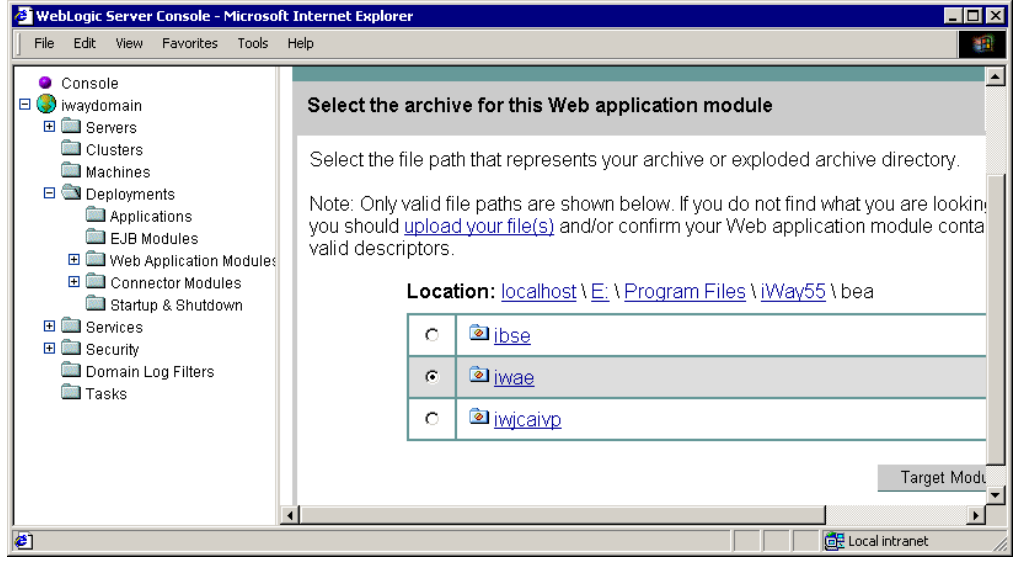


4. Click *Deploy a new Web Application Module.*

A page appears for you to specify where the Web application is located.



5. Click the links next to *Location* to view and specify the location of the Servlet Application Explorer files.

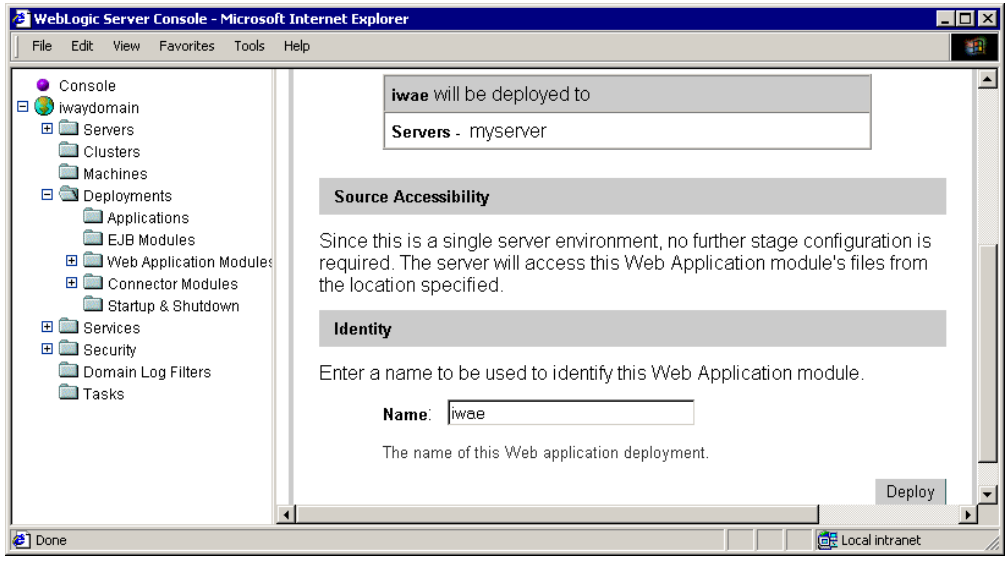


6. Select the option button next to the *iwae* directory and then, click *Target Module*.

   If there are multiple servers in your domain, you are prompted to specify into which server or servers to deploy.

7. If prompted, check which servers to deploy to and click *Continue*.

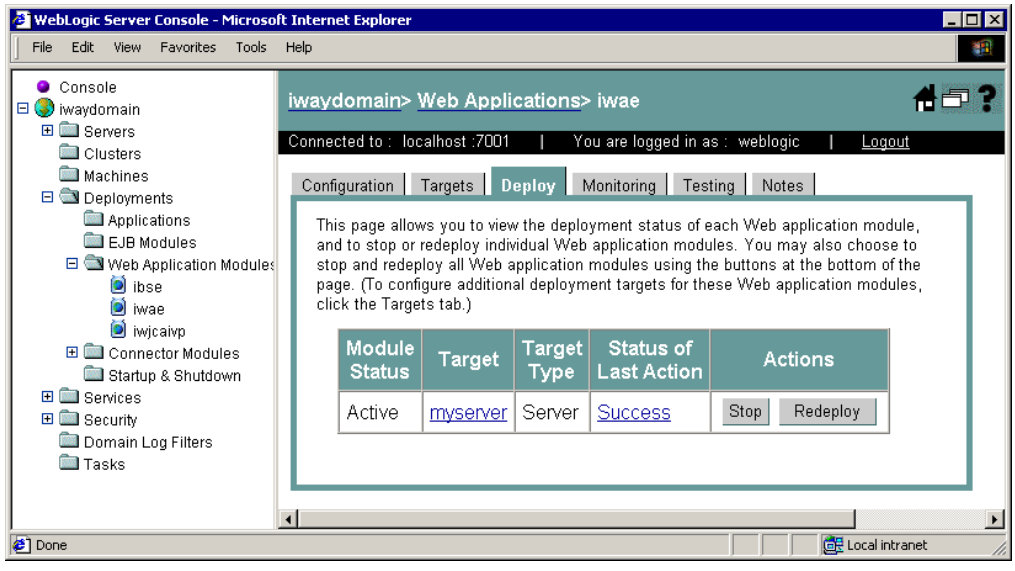
   If you are deploying into a single server, information about the server displays.



   If you are deploying into multiple servers, you are prompted to copy the module to each server.

8. Click *Deploy*.

When deployment completes, *iwae* appears on the left below *Web Application Modules*.



Note: You may need to expand the *Web Application Modules* folder to see *iwae*.

Accessing Servlet Application Explorer

After Servlet Application Explorer is deployed through your application server, you can access it.

Note: You may receive errors if you use Internet Explorer 5.5 or earlier. Before using Application Explorer, update to Internet Explorer 6 or higher.

Procedure How to Access Servlet Application Explorer

After Servlet Application Explorer is deployed through your application server, you can access it as follows:

1. Go to the following URL in a browser:

   `http://hostname:port/iwae/index.html`

   where:

   hostname

   Is the hostname for the application server machine.

   port

   Is the port for the domain you are using for iWay. The port for the default domain is 7001.

For example:

```
http://localhost:7001/iwae/index.html
```

The Servlet Application Explorer opens in your browser.

2. Expand *iWay Adapters* to see available adapters.

Available adapters vary depending on the version of iWay you install and which files are in the iWay55\lib directory. If your adapter requires third party drivers or libraries, they must be in the lib directory or your adapter may not appear.

The *Available Hosts* drop-down list in the upper right determines which iWay Connector for JCA configuration or Servlet iBSE instance you access. If one of them is not available, you receive an error if it is selected in the *Available Hosts* drop-down menu. You can remove, add, or modify connections by editing web.xml.

When you configure adapters, Web services, settings, or schemas, information is generated. This information is then stored in the repository and directories corresponding to what is selected in the *Available Hosts* drop down list.

For example, for file system repositories with the default base configuration:

- For iWay Connector for JCA, information is created in the repository.xml file for the configuration. For example:

  ```
  C:\Program Files\iway55\config\base\repository.xml
  ```

  Additional information, such as schemas, is created in subdirectories of base.

- For Servlet iBSE, information is created in ibserepo.xml under the ibse Web application's root. For example:

  ```
  C:\Program Files\iWay55\bea\ibse\ibserepo.xml
  ```

  Additional information, such as schemas and wsdl, is created in subdirectories beneath the ibserepo.xml file.

For more information on Servlet Application Explorer, see the *iWay Application Explorer (Java Servlet Version) User's Guide*.

You should now review the appendixes to see if any information appears for your adapters. If your adapters are not discussed in the appendixes, proceed to the documentation for your adapters.

APPENDIX A

Configuring the iWay Emulation Adapter (3270/5250)

Topic:

- Installing the iWay Emulation Adapter Client Components

This section provides post-installation steps for the iWay Emulation Adapter (3270/5250).

The iWay Emulation Adapter was formerly known as the iWay Adapter for Telnet.

Installing the iWay Emulation Adapter Client Components

The iWay Emulation Adapter (3270/5250) links new business applications to mainframe-based business logic through IBM 3270 and 5250 terminal screens and data streams. It enables you to transform your 3270 or 5250 mainframe screens into HTML pages or to create a remote procedure request (RPC) to transform the output of screens into an answer set. The adapter provides a simple, lightweight, and scalable way to reuse the business logic and data of terminal applications.

The iWay Emulation Adapter (3270/5250) requires client components that you must configure after installing iWay 5.5. The two client components are:

- The **run-time component**, which is supported on:
  - Microsoft Windows 2000 with SP2 and Windows 2003.
  - UNIX.
  - OS/390 and z/OS (under UNIX System Services (USS)).
- The **Telnet Designer**, which is supported on:
  - Microsoft Windows 2000 with SP2, Windows 2003, and Windows XP SP1.

UNIX note: if you plan to run the Emulation Adapter on a UNIX system, you must install iWay 5.5 and the Emulation Adapter client components on the UNIX system and *also* install the adapter's client components on a Windows system. This enables you to use the Telnet Designer, which is supported on Windows only.

Procedure How to Install the iWay Emulation Adapter Client Components on Windows

The iWay Emulation Adapter requires client components, including the Telnet Designer, that must be configured after installing iWay 5.5.

To configure the client components on Windows:

1. Run the following utility installed with iWay 5.5.

   ```
   C:\Program Files\iway55\etc\setup\iwtelnetwin32.exe
   ```

2. Follow the installation windows to install the adapter's client components.

Procedure How to Install the iWay Emulation Adapter Client Components on UNIX

To configure the client components on Linux:

1. Navigate to the following directory:

   ```
   $IWAY55/etc/setup
   ```

2. Use chmod to ensure the installation utility is executable. The name of the utility varies depending on your platform. For example:

   ```
   chmod 555 iwtelnetlinux.bin
   ```

3. Execute the installation utility. For example:

   ```
   $IWAY55/etc/setup/iwtelnetlinux.bin -console
   ```

4. Respond to the prompts.

For information about using the adapter, including the Telnet Designer, see the *iWay Emulation Adapter (3270/5250) User's Guide*.

APPENDIX B

Configuring Legacy Adapters

Topic:

- Legacy Adapter Configuration

This section provides information on the steps and documentation required to configure legacy data adapters.

Legacy Adapter Configuration

Access to the following legacy mainframe data sources is provided through an iWay Server component that must be installed and configured on the mainframe.

- Adabas
- BULL GCOS
- Datacom
- Flat Files
- CA-IDMS/DB
- CA-IDMS/SQL
- Millennium
- MODEL 204
- Supra
- Teradata
- Total
- VSAM

Access to and from these data sources using iWay Connector for JCA, Servlet iBSE, or Application Explorer is accomplished by first connecting to the iWay Server.

Adapters for other legacy data sources do not require an iWay Server.

Procedure How to Configure Legacy Data Adapters for use With iWay 5.5

To configure legacy data adapters for use with iWay 5.5:

1. Install an iWay Server on the mainframe containing the data sources you wish to access.
   a. For Information on iWay Server installation and configuration, see the *iWay Server Installation* Manual.
   b. Install the Server for OS/390 and z/OS, not the Server for MVS.
2. Configure the iWay Server to access the data source as explained in the following manuals:
   - *iWay Data Adapter Administrator User's Guide*
   - *iWay Server Administration for UNIX, Windows NT OpenVMS, OS/400, OS/390 & z/OS*
3. Install the iWay Data Management Administration Tools (DMAT) Suite on a Windows machine as explained in the *iWay Data Management Administration Tools Suite Installation Guide*.
4. Use the Catalog Administrator (installed with iWay DMAT) to add stored procedures to the iWay Server's catalog so the procedures are accessible from Application Explorer.

   For information on adding stored procedures, see the *iWay Catalog Administrator* manual.

APPENDIX C

Configuring the iWay Adapter for PeopleSoft

Topics:

- Specifying the PeopleSoft Version
- Installing the Adapter Component Interfaces
- Installing the TCP/IP Message Router for the iWay Adapter for PeopleSoft 8
- Copying PeopleSoft Files Into the iWay lib Directory

This section describes how to set up the iWay Adapter for PeopleSoft 8. This involves the following:

- Specifying which version of PeopleSoft you are using
- Installing the adapter's Component interfaces.
- Installing the adapter's TCP/IP message router.
- Copying the psjoa.jar file (and, for PeopleSoft release 8.1, the pstools.properties file) into the iWay55\lib directory.

Specifying the PeopleSoft Version

The iWay Adapter for PeopleSoft 8 supports multiple versions of PeopleSoft. However, certain versions are incompatible with each other, and the adapter must recognize the version you are using.

After installation, files for both PeopleSoft versions appear in the iWay55\lib directory. The default location for this directory on Windows is:

```
C:\Program Files\iWay55\lib
```

Use the corresponding location on non-Windows systems.

To ensure the adapter functions properly, remove the file that does not correspond to your release:

- For PeopleSoft 8.4x releases, remove the following file:

  ```
  iwpsci81.jar
  ```

- For PeopleSoft 8.1x releases, remove the following file:

  ```
  iwpsci84.jar
  ```

After changing the contents of the lib directory, restart all iWay components.

Installing the Adapter Component Interfaces

The iWay Adapter for PeopleSoft 8 includes two custom iWay component interfaces. iWay Application Explorer uses these component interfaces to create schemas for events and services.

To configure component interfaces for use by the iWay Adapter for PeopleSoft 8:

1. Import and build the component interfaces.
2. Configure component interface security.
3. Test the component interfaces.

Step 1. Importing and Building the Component Interfaces

The component interfaces supplied with the iWay Adapter for PeopleSoft 8 are delivered via a PeopleSoft project:

- For PeopleSoft Release 8.4, it is the IWY_CI_84 project, packaged in iwpsci84.zip.
- For PeopleSoft Release 8.1, it is the IWY_CI_81 project, packaged in iwpsci81.zip.

These files are installed with iWay 5.5. On Windows, their default location is:

```
C:\Program Files\iWay55\etc\misc\peoplesoft
```

Use the corresponding location on non-Windows systems.

If this location does not exist, contact iWay Software for copies of the relevant files.

To import the IWY_CI_81 or IWY_CI_84 project to PeopleSoft 8:

1. Unzip iwpsci81.zip or iwpsci84.zip to a directory of your choice.

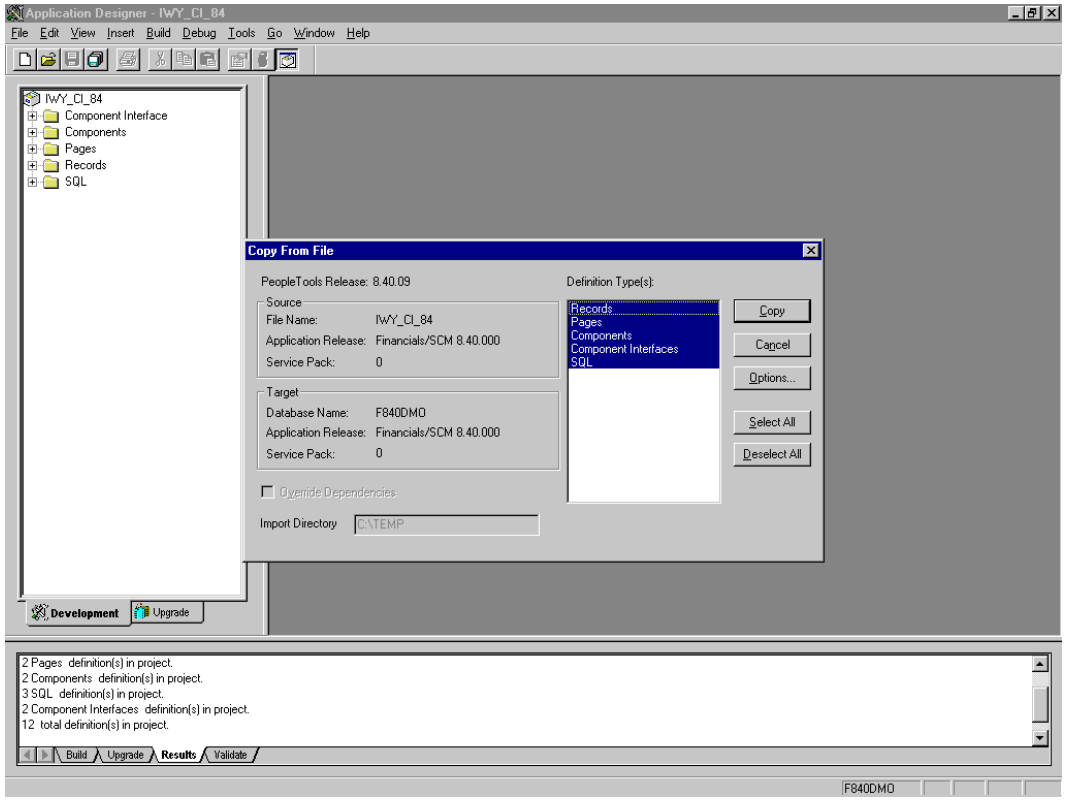
   The unzip process creates its own subdirectory. For example, if you extract the file to c:\temp, it creates c:\temp\IWY_CI_81 or c:\temp\IWY_CI_84.
2. Launch the PeopleSoft 8 Application Designer in two-tier mode.
3. Open the Copy From File: Select Project dialog box as follows:

   - In PeopleSoft 8.4, choose *Copy Project* from the *Tools* menu, and then choose *From File*.
   - In PeopleSoft 8.1, choose *Copy Project from File* from the *File* menu.

   The Copy Project From File dialog box opens.
4. Navigate to the original directory to which you unzipped the file.

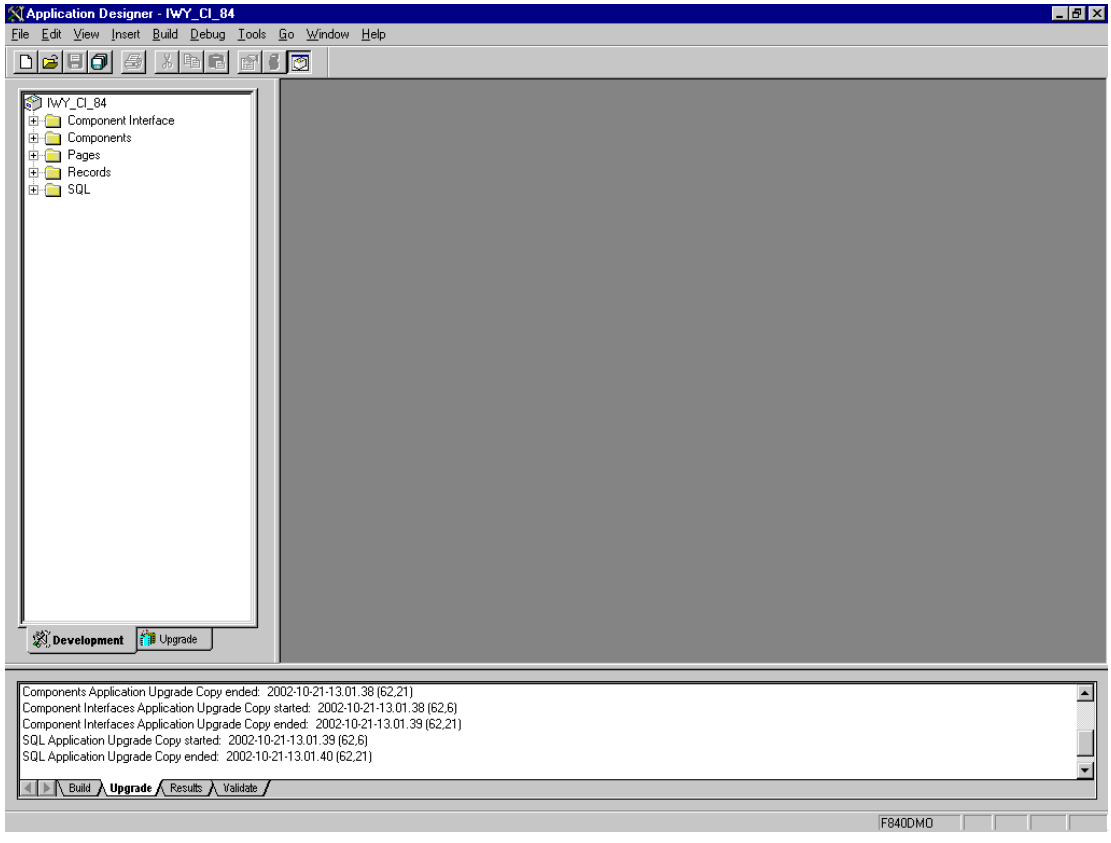
5. Click *Open* (in release 8.4) or *Copy* (in release 8.1) to open the Copy From File dialog box.

Note: Although the following figures illustrate PeopleSoft release 8.4, the corresponding instructions are accurate for releases 8.1 and 8.4.



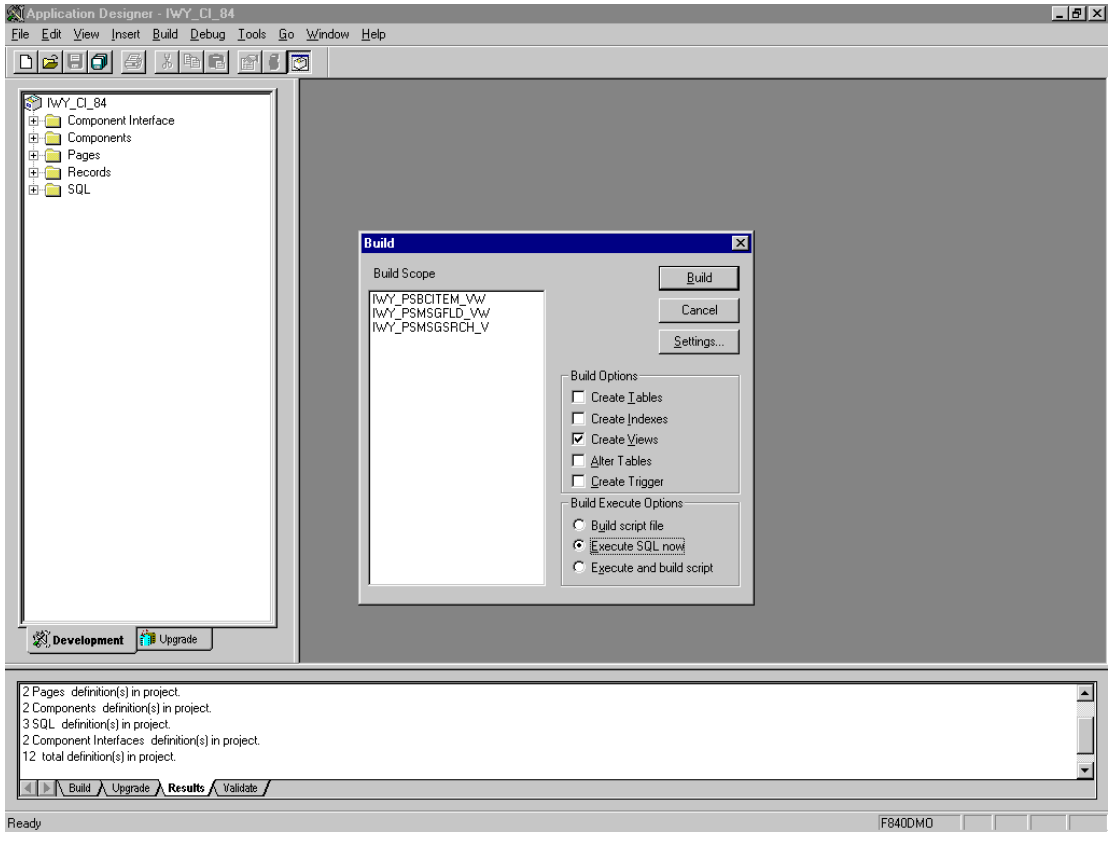
6. Make sure all objects listed under *Object Types* are highlighted and click *Copy*.

The Application Designer displays a copy ended message to indicate successful completion.



7. Build the views in the project by choosing the *Build* menu and then *Project*.

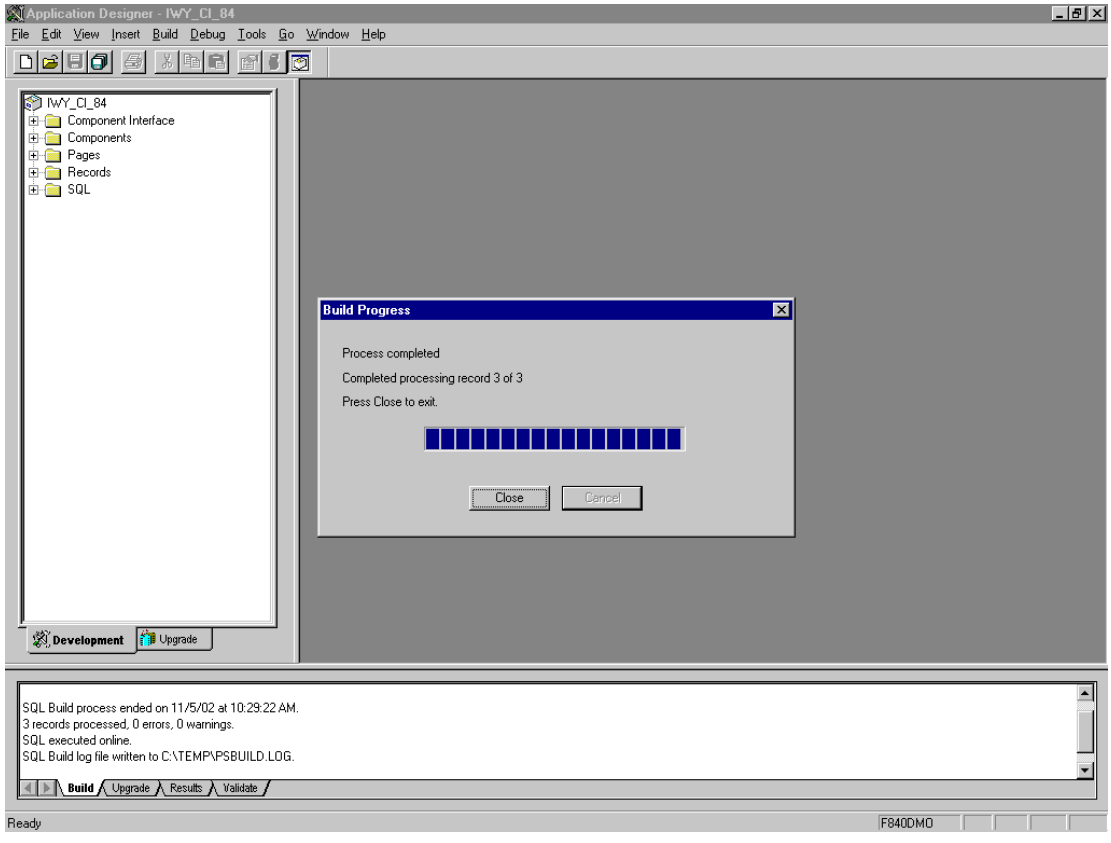
The Build dialog box opens.



8. Select *Create Views* in Build Options. Select your site's customary option in Build Execute Options. (In the previous figure, we have selected Execute SQL now.)

9. Click *Build*.

The Application Designer displays a Build Progress status window.

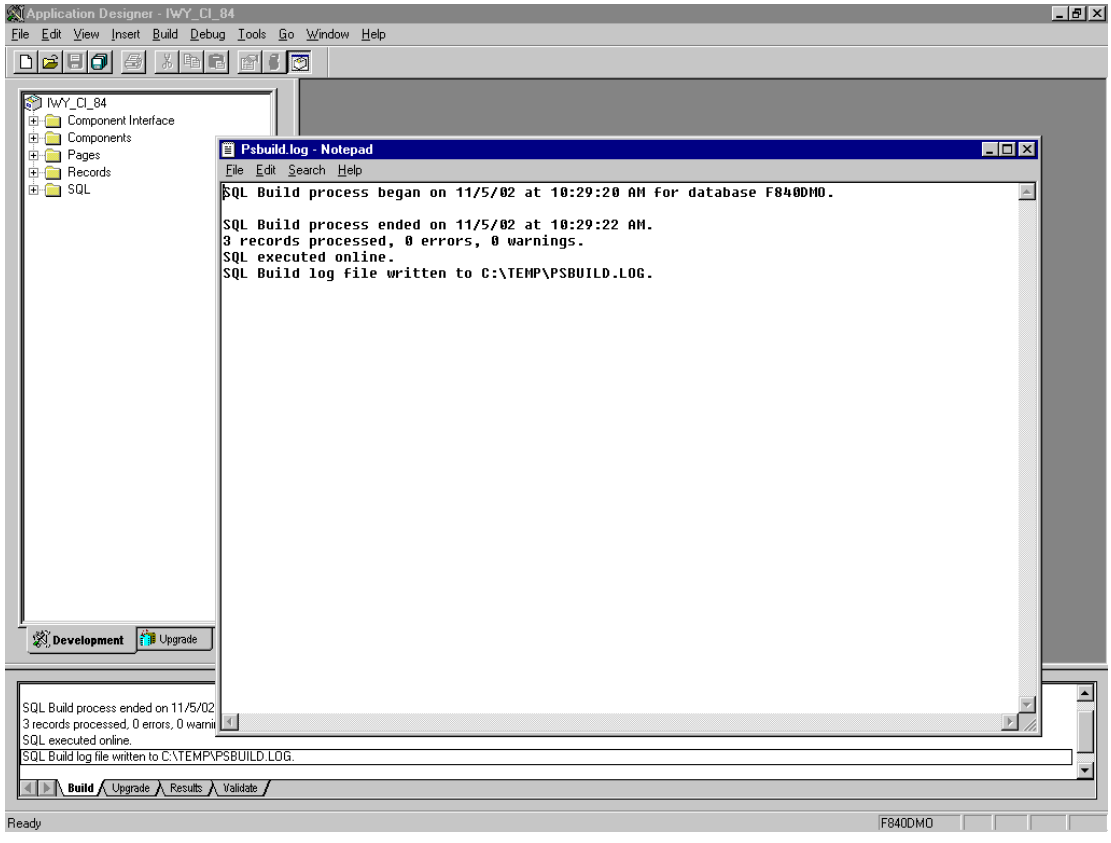


Notice that there are zero errors and zero warnings.

You may use your native SQL Tool to view the records from the generated view to ensure that they have been created correctly.

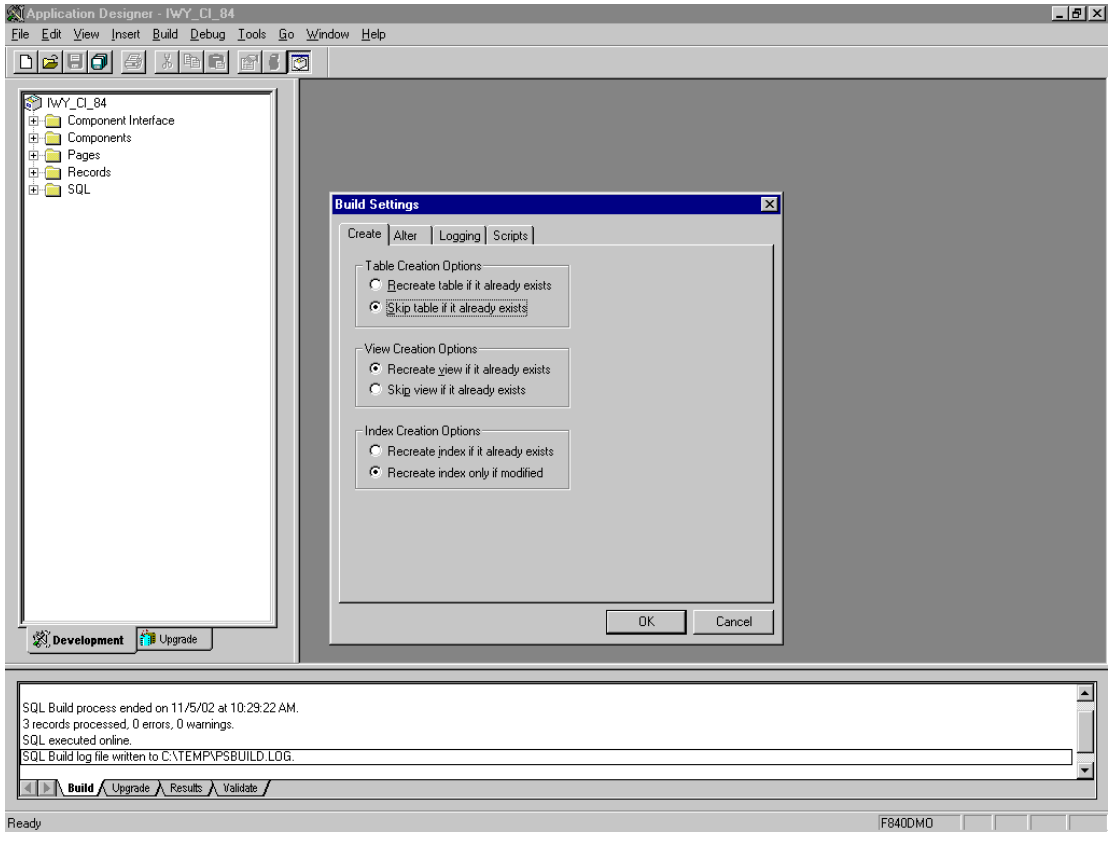
10. If the view has not been generated correctly, click *Close* and double-click the SQL Build log statement.

The PSBUILD log file displays.



11. If you encounter problems, check the Build settings options by choosing the *Build* menu and then *Settings*.

The Build Settings dialog box displays.



Depending on the application server database for PeopleSoft 8, some databases may require the Tablespace name. Consult your PeopleSoft 8 database administrator for more information regarding this function.

You have now finished importing and building the component interfaces. To configure security for them, see *Step 2. Configuring Component Interface Security* on page C-9.

Step 2. Configuring Component Interface Security

iWay Application Explorer requires the custom component interfaces that you imported and built in the previous step, so you need to ensure that all iWay Application Explorer users have access to these component interfaces. As with all PeopleSoft objects, security is assigned at the Permission List level. Review your site security requirements to determine which users are going to work with iWay Application Explorer, and then set component interface security for each distinct Permission List belonging to those users.

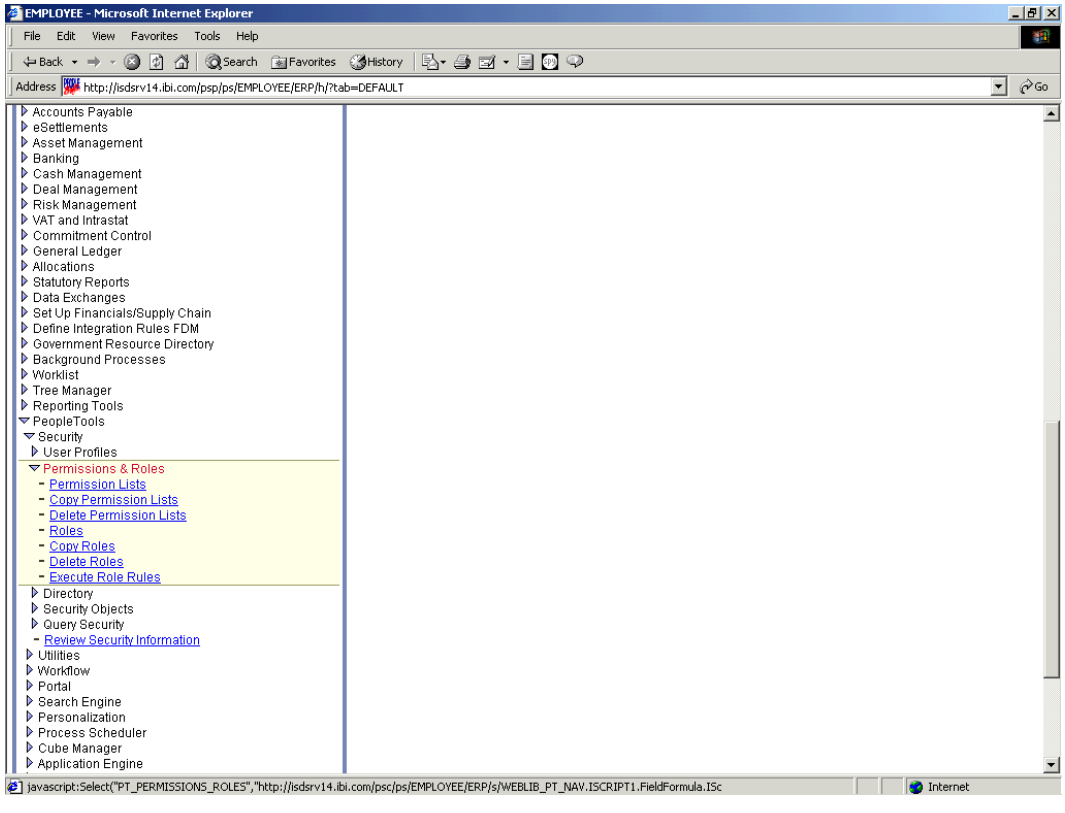
Note that these component interfaces are required for creating schemas and Web services, and they are utilized at run time for using the Find method. They have only Get and Find access and cannot be used to update your PeopleSoft database; this minimizes any possible security exposure.

In PeopleSoft release 8.1, you may set security in 2, 3, or 4-tier mode; in release 8.4 and higher, you may set security 4-tier mode only.

The following steps describe how to configure security for all supported releases of PeopleSoft in all supported modes. The figures shown in the steps reflect PeopleSoft release 8.4 in 4-tier mode.

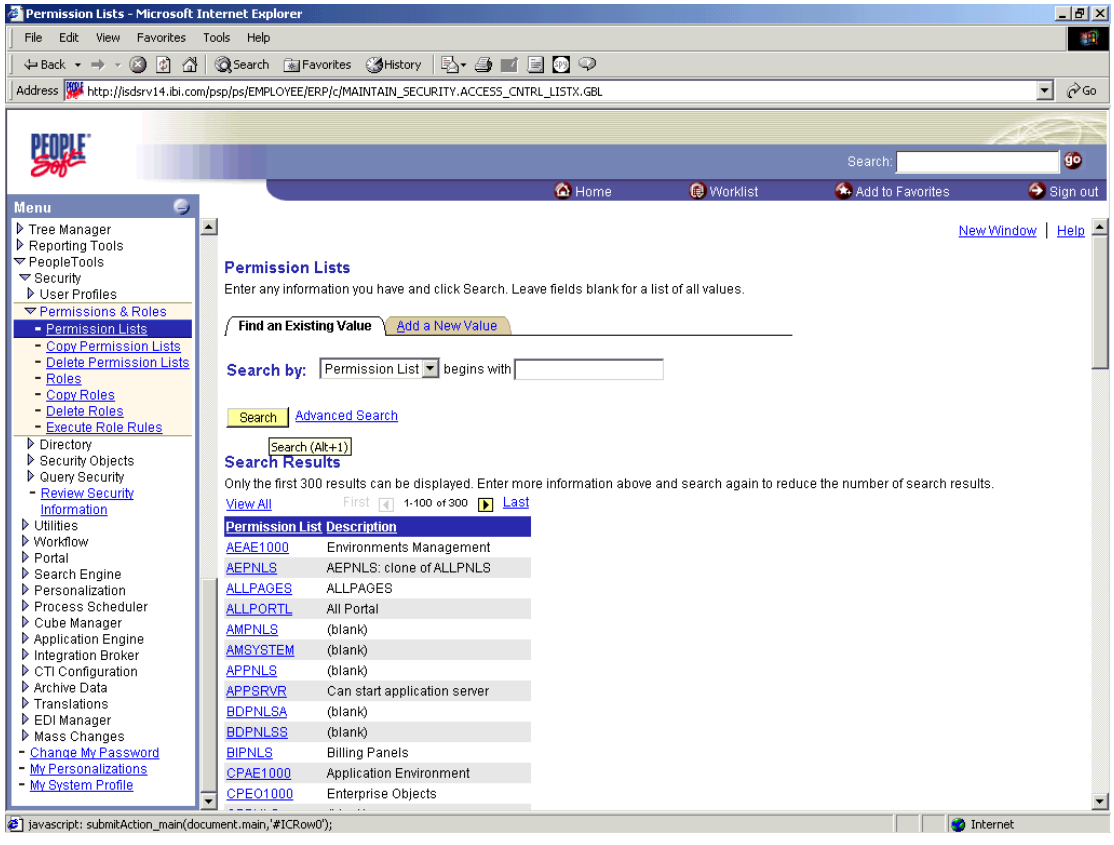
To configure security for each iWay Adapter for PeopleSoft 8 component interface:

1. Choose *PeopleTools-->Security-->User Profiles-->Permissions & Roles-->Permission Lists*.

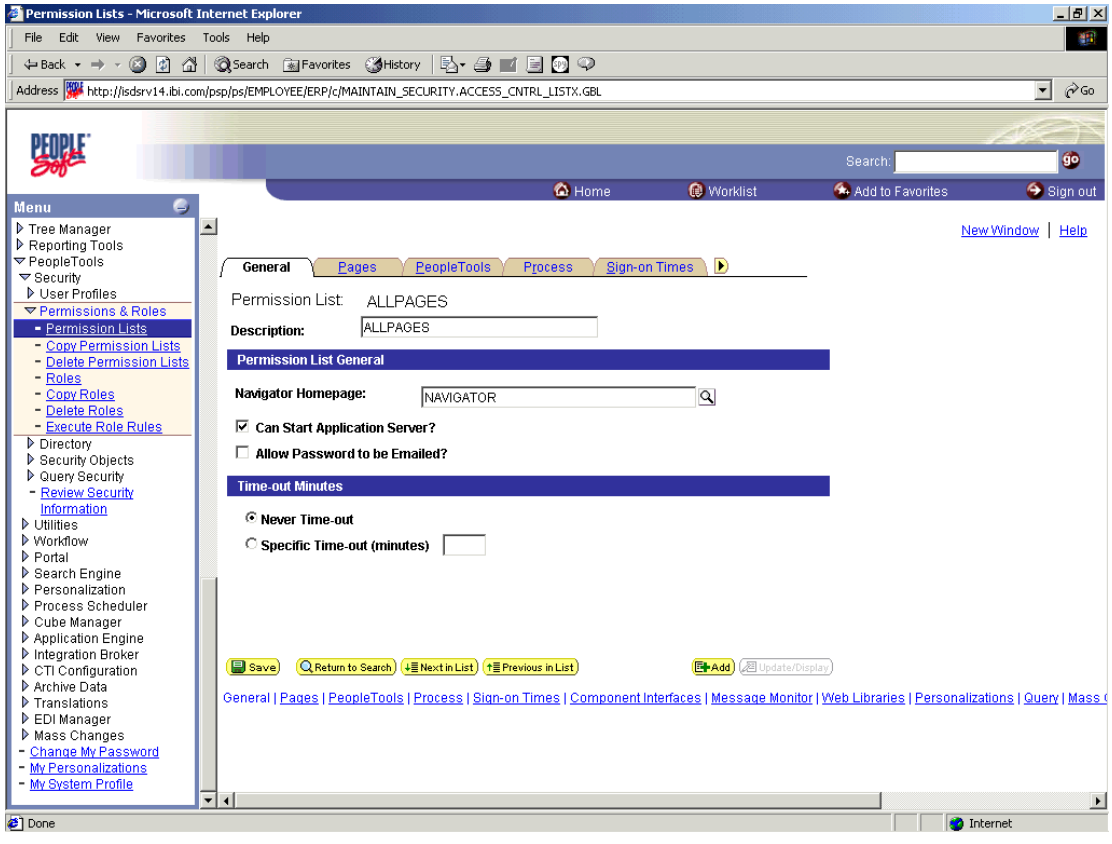


2. Click *Search* and select the relevant Permission List.

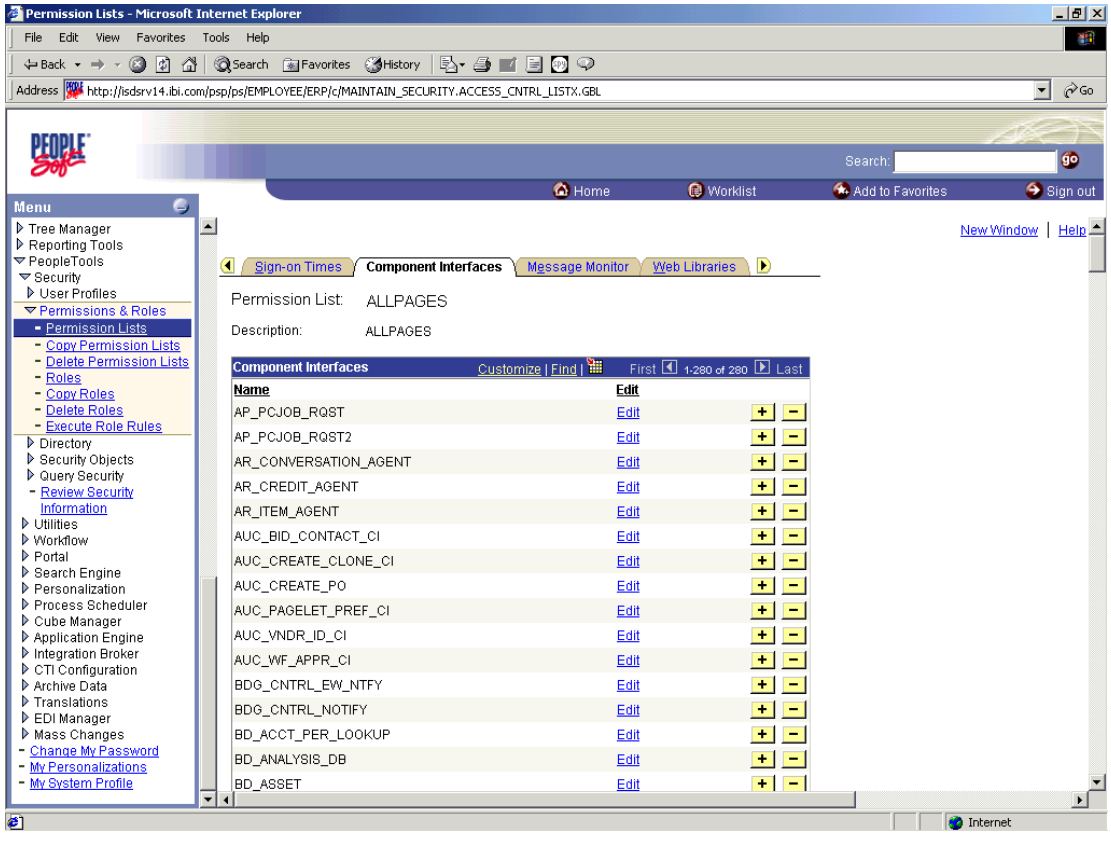
The Permission List pane opens on the right.



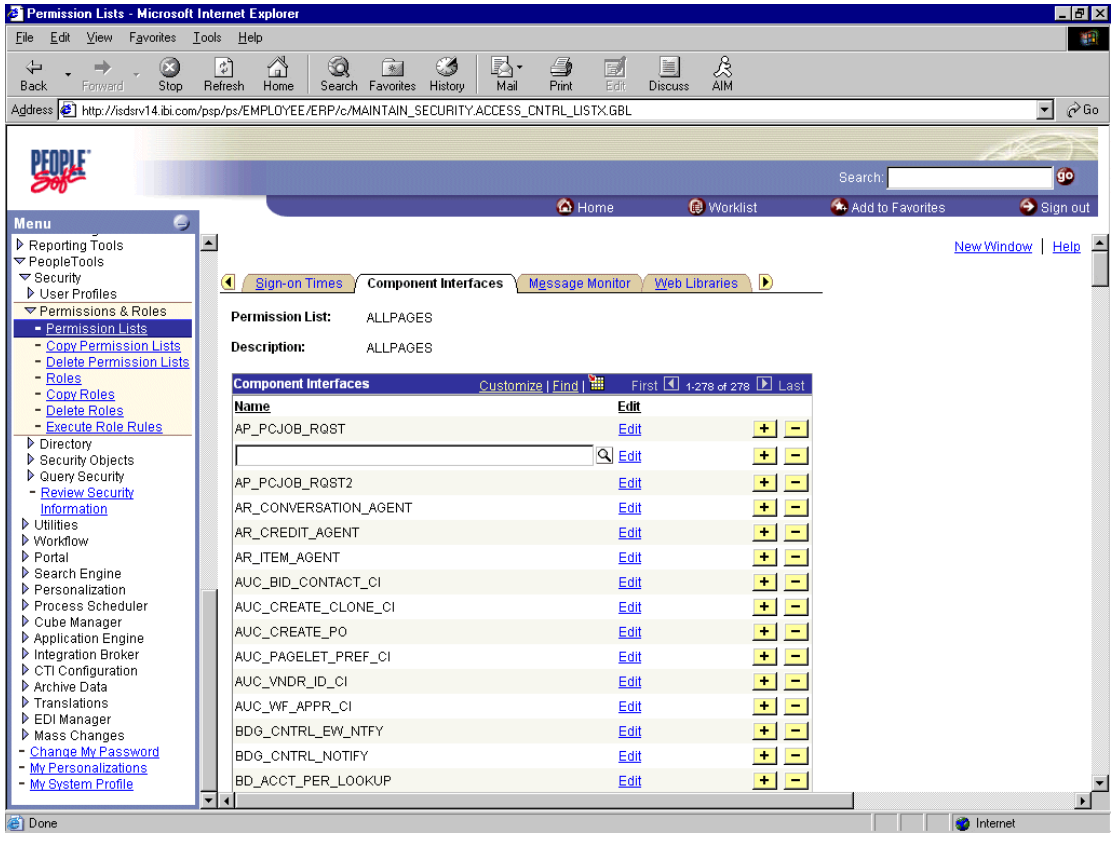
3. Click the right arrow next to the *Sign-on Times* tab to display the *Component Interfaces* tab.



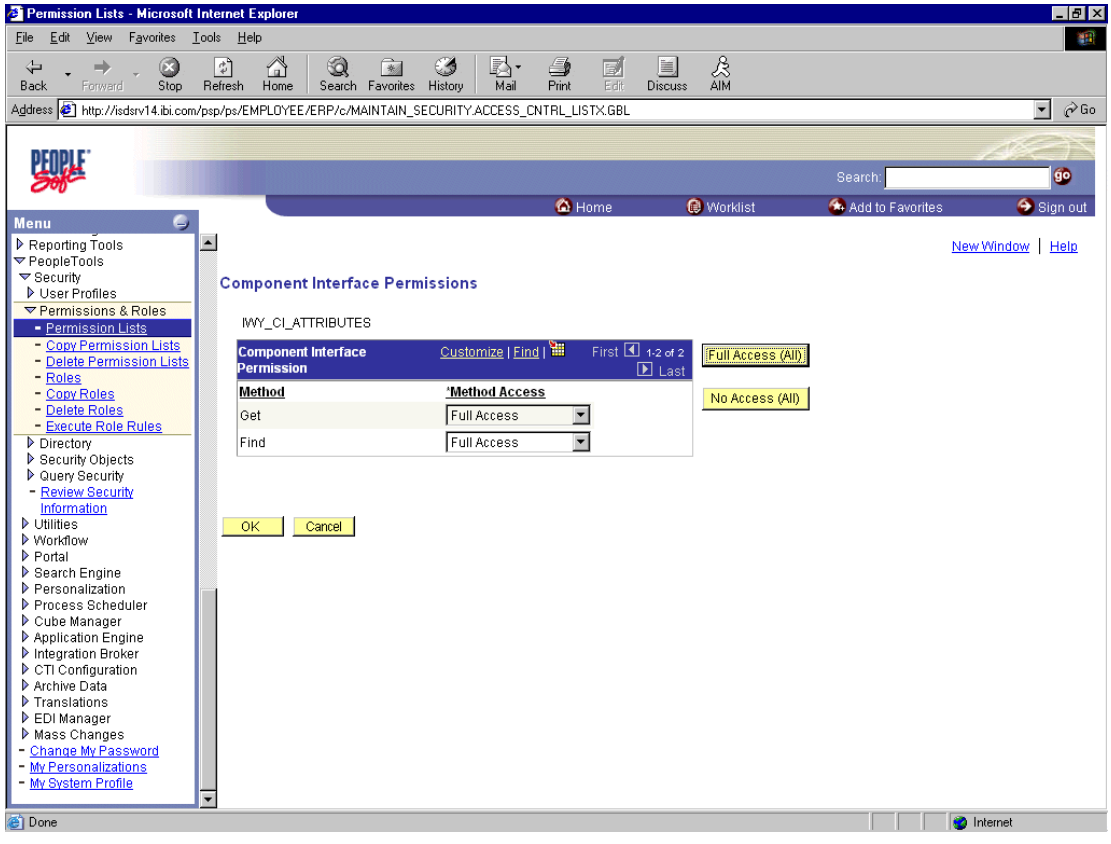
4. Click the *Component Interfaces* tab.



5. Click the + button to add a new row to the Component Interfaces list.



6. Enter or select the IWY_CI_ATTRIBUTES component interface and click *Edit*.



7. Click *Full Access (All)* to set the Get and Find methods to Full Access.

8. Click *OK*.

9. Repeat steps 5 through 8 for the IWY_CI_MESSAGES component interface.

10. Scroll down to the bottom of the Component Interfaces window and click *Save*.

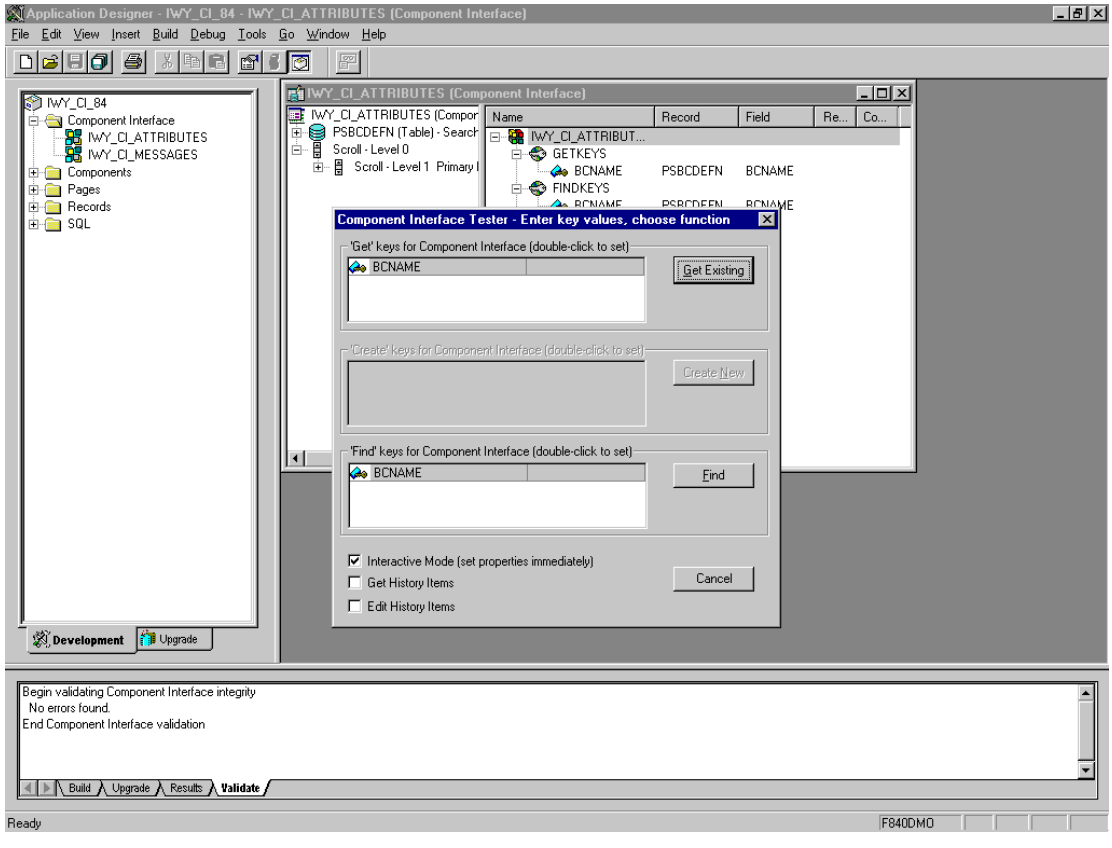
You have finished configuring security for the component interfaces delivered with iWay Adapter for PeopleSoft 8. To test these component interfaces, see *Step 3. Testing the Component Interfaces* on page C-16.

Step 3. Testing the Component Interfaces

You must test each of the iWay Adapter for PeopleSoft 8 component interfaces before using them:

1. In PeopleSoft Application Designer, open the IWY_CI_ATTRIBUTES component interface.
2. Choose *Tools-->Test Component* Interface.

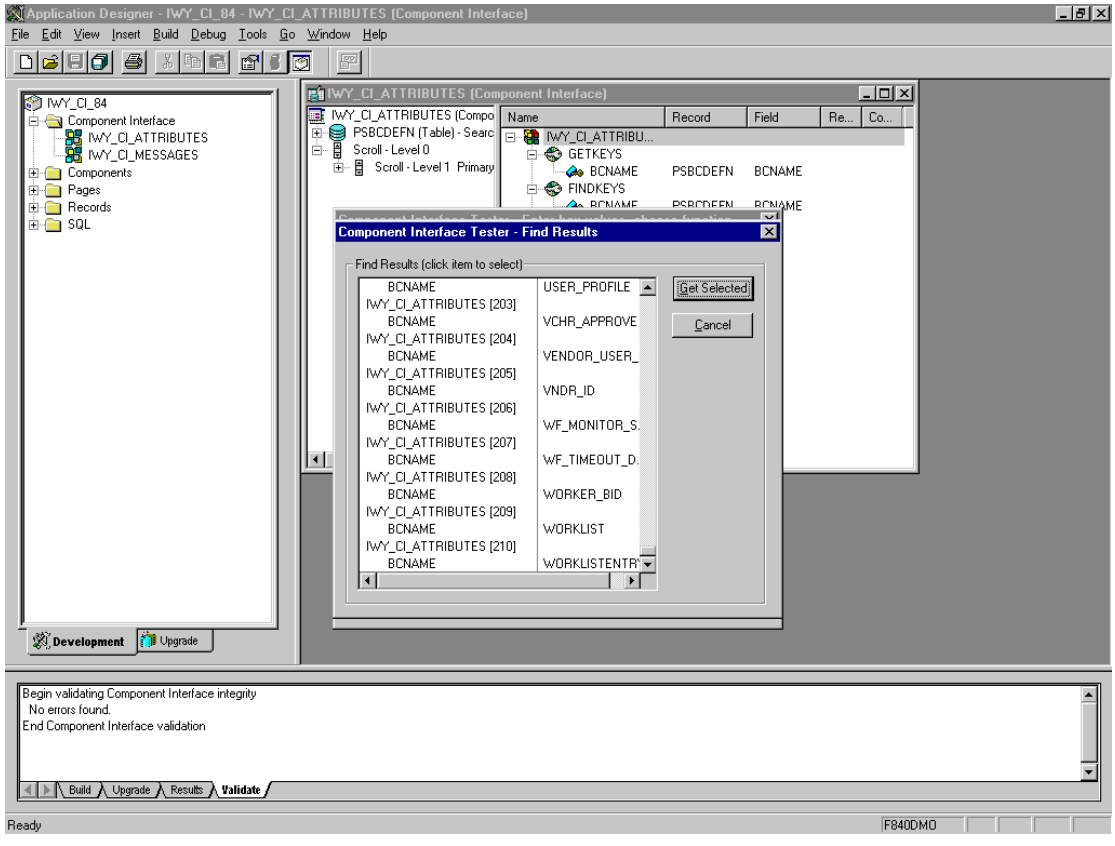
   The Component Interface Tester dialog box opens.



   Note that the Create New option is disabled. This is because the Add method is not applicable to this component interface.

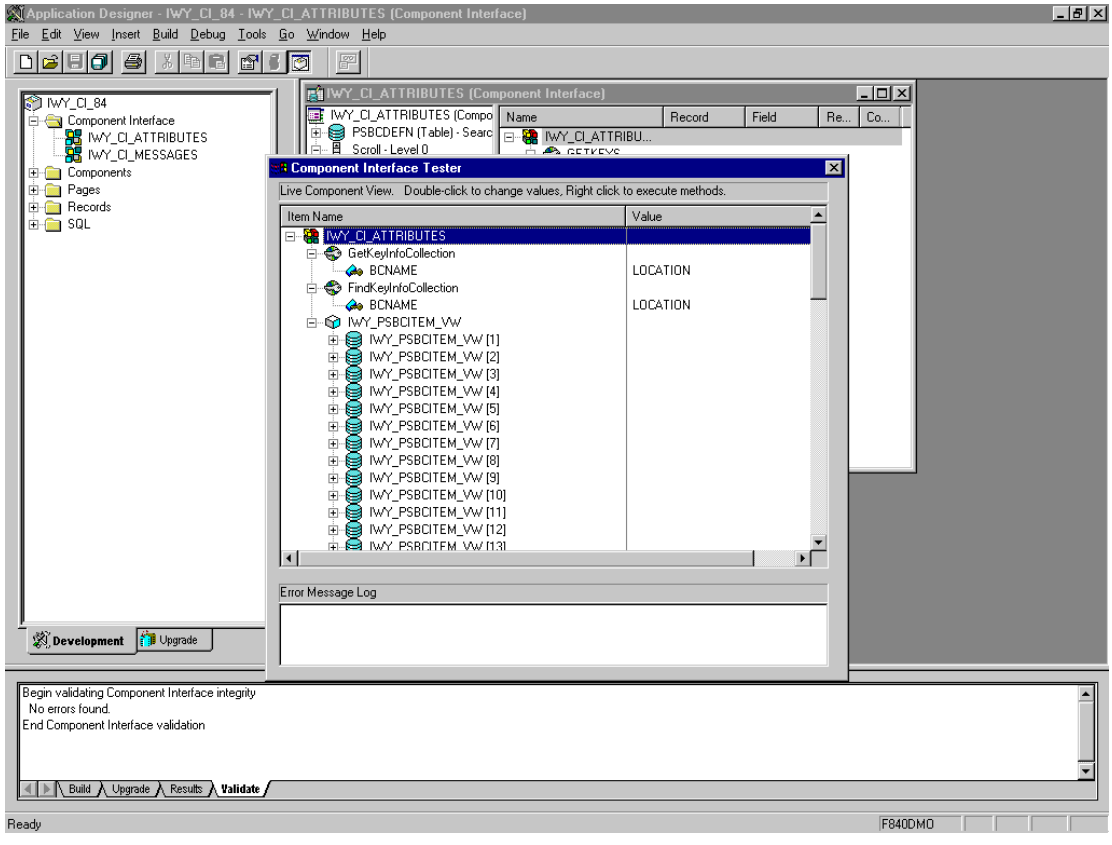
3. Click the *Find* button. Entries for the underlying component are displayed.

   A message may appear stating that display is limited to a certain number of entries; this is not a problem.



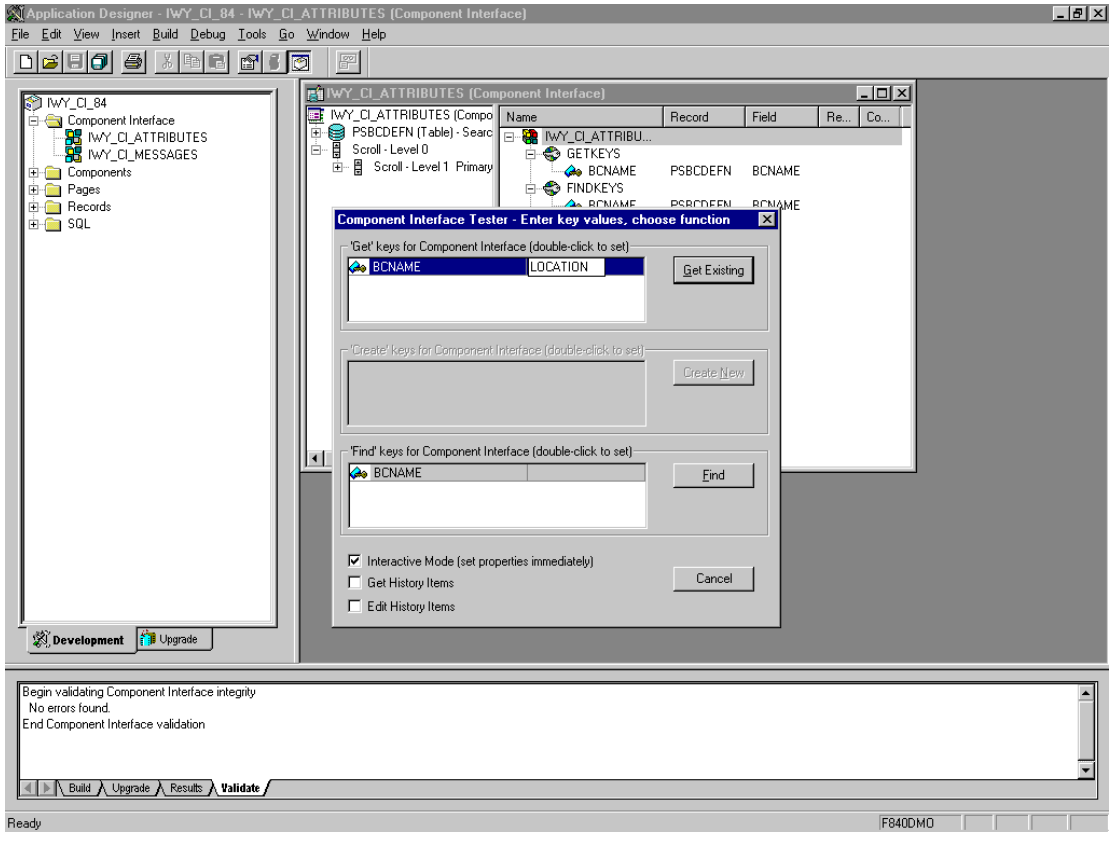
4. Highlight one of the lines with its corresponding key in the Find Results window and click the *Get Selected* button.

The relevant data for the selected key is displayed.

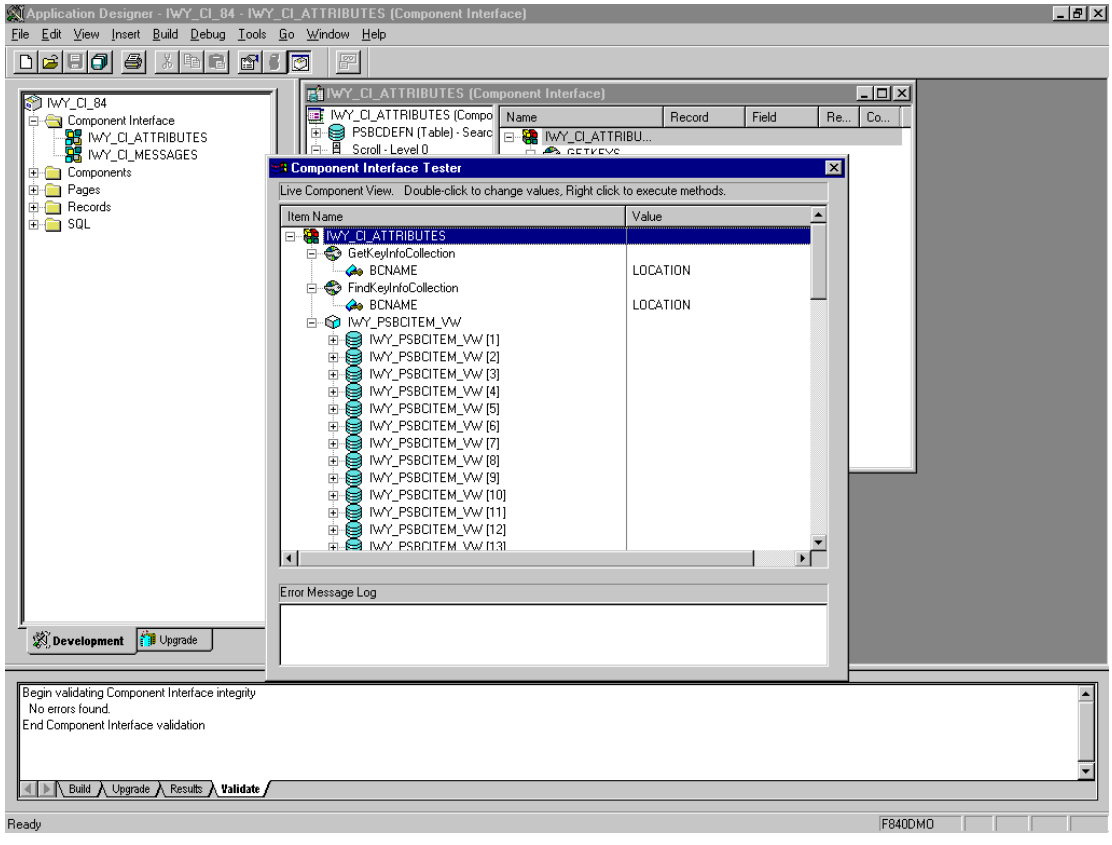


If this window is displayed, the component interface has been successfully tested for the Find method.

5. Click the *Get* button. For the Get method, an existing key must be entered.


Application Designer - IWY_CI_84 - IWY_CI_ATTRIBUTES (Component Interface)
File Edit View Insert Build Debug Tools Go Window Help
IWY_CI_84
Component Interface
IWY_CI_ATTRIBUTES
IWY_CI_MESSAGES
Components
Pages
Records
SQL
Development
Upgrade
IWY_CI_ATTRIBUTES (Component Interface)
IWY_CI_ATTRIBUTES (Compo
PSBCDEFN (Table) - Searc
Scroll - Level 0
Scroll - Level 1 Primary
Name
Record
Field
Re...
Co...
IWY_CI_ATTRIBU...
GETKEYS
BCNAME
PSBCDEFN
BCNAME
FINDKEYS
Component Interface Tester - Enter key values, choose function
'Get' keys for Component Interface (double-click to set)
BCNAME
LOCATION
Get Existing
'Create' keys for Component Interface (double-click to set)
Create New
'Find' keys for Component Interface (double-click to set)
BCNAME
Find
Interactive Mode (set properties immediately)
Get History Items
Edit History Items
Cancel
Begin validating Component Interface integrity
No errors found.
End Component Interface validation
Build
Upgrade
Results
Validate
Ready
F840DMO

The exposed properties for the key that is entered are returned.



If this window is displayed, the component interface has been successfully tested for the Get method.

6. Repeat this process for the IWY_CI_MESSAGES component interface.

You have finished testing the component interfaces.

Installing the TCP/IP Message Router for the iWay Adapter for PeopleSoft 8

To enable PeopleSoft 8 to send an XML event document to iWay components using TCP/IP, you must install the type of TCP/IP message router required for your PeopleSoft release:

- For Release 8.4, install the TCP/IP target connector. (*Installing the TCP/IP Target Connector for PeopleSoft Release 8.4* on page C-21)
- For Release 8.1, install the TCP/IP handler. (*Installing the TCP/IP Handler for PeopleSoft Release 8.1* on page C-22)

Note: If you are not using PeopleSoft messages for event handling, you may skip this section.

Installing the TCP/IP Target Connector for PeopleSoft Release 8.4

The TCP/IP target connector for PeopleSoft release 8.4 is installed with iWay55. The default location on Windows is:

```
C:\Program Files\iWay55\etc\misc\peoplesoft\iwpsevent84.jar
```

Use the corresponding location on non-Windows systems.

If this location does not exist, contact iWay Software for copies of the relevant files.

1. Extract TCPIPTARGET84.class from iwpsevent84.jar. Use any extraction utility appropriate for your platform.
2. Port TCPIPTARGET84.class to the platform where the PeopleSoft 8 gateway Web server is located.
3. Place TCPIPTARGET84.class in the PeopleSoft server target connector directory. This may vary by Web or application server.
   - BEA WebLogic is usually:

     ```
     c:\bea\wlserver6.1\config\peoplesoft\applications\PSIGW\Web-inf\classes\com\peoplesoft\pt\integrationgateway\targetconnector
     ```

Installing the TCP/IP Handler for PeopleSoft Release 8.1

The TCP/IP target connector for PeopleSoft release 8.1 is installed with iWay55. The default location on Windows is:

```
C:\Program Files\iWay55\etc\misc\peoplesoft\iwpsevent81.jar
```

Use the corresponding location on non-Windows systems.

If this location does not exist, contact iWay Software for copies of the relevant files.

To install the TCP/IP Handler for PeopleSoft release 8.1:

1. Port iwpsevent81.jar to the platform on which the PeopleSoft 8 gateway Web server is located.
2. Place iwpsevent81.jar in the servletclasses directory under the PeopleSoft Web server.
3. Extract the embedded class files.

Example Installing the TCP/IP Handler on a UNIX System

To install the TCP/IP handler for PeopleSoft release 8.1 on a UNIX system:

1. Log on to the UNIX system with the proper PeopleSoft 8 ID and permissions.
2. Navigate to the PeopleSoft 8 Web servlets directory. This may vary by release and by Web server, but usually is:

   ```
   $PS_HOME/webserv/servletclasses
   ```

3. Issue the jar command to extract the class files required by PeopleSoft.

   This is a sample command:

   ```
   jar -xvf /tmp/iwpsevent81.jar
   ```

   It displays the following output on a Sun/Solaris system:

   ```
   $ jar -xvf /tmp/iwpsevent81.jar
   created: META-INF/
   extracted: META-INF/MANIFEST.MF
   extracted: psft/pt8/tcphandler/TCPIPHandler81$Entry.class
   extracted:
   psft/pt8/tcphandler/TCPIPHandler81$HandlerEntry.class
   extracted:
   psft/pt8/tcphandler/TCPIPHandler81$PublicationHandler.class
   extracted: psft/pt8/tcphandler/TCPIPHandler81.class
   $
   ```

   Notice that the files are placed in a new directory, tcphandler, under psft/pt8.

Copying PeopleSoft Files Into the iWay lib Directory

The iWay Application Explorer creates XSD schemas and Web services from PeopleSoft component interfaces, and creates XSD schemas from PeopleSoft messages. To do this, the file(s) below must be in the iWay55\lib directory. The default location for this directory on Windows is:

```
C:\Program Files\iWay55\lib
```

Use the corresponding location on non-Windows systems.

Ensure the following is in the lib directory:

- PeopleSoft Java Object Adapter (psjoa.jar)

  This file provides a low level interface between client applications and PeopleSoft. This file is provided with PeopleSoft and can be found in the following directory:

  ```
  PS_HOME\web\PSJOA
  ```

  where:

  PS_HOME

  Is the PeopleSoft home directory.

  The psjoa.jar file is different for every version of PeopleSoft. When you upgrade your Peopletools release, be sure to copy the new release's psjoa.jar file into the iWay55\lib directory and restart all components.

- pstools.properties (for PeopleSoft 8.1.x)

  PeopleSoft release 8.1x requires an additional file, pstools.properties found in the following directory:

  ```
  PS_HOME\web\jmac
  ```

APPENDIX D

Configuring J.D. Edwards OneWorld for Outbound Transaction Processing

Topics:

- Specifying Outbound Functionality for a Business Function
- Modifying the OneWorld jde.ini File

J.D. Edwards OneWorld enables you to specify outbound functionality for Master Business Functions (MBFs).

The following topics describe how to enable outbound transaction processing in OneWorld and how to modify the jde.ini file for XML support.

Specifying Outbound Functionality for a Business Function

You can specify outbound functionality for business functions and manage the flow of data. You enable outbound transaction processing using a processing option that controls how a transaction is written.

Outbound Transaction Processing

To process outbound data, you use the:

- Data Export Control table
- Processing Log table

The Data Export Control table manages the flow of the outbound data to third-party applications. The Processing Log table contains all the information about the OneWorld event.

For more information on configuring J.D. Edwards OneWorld for outbound processing, see *Detailed Tasks for OneWorld Operations* in the *J.D. Edwards Interoperability Guide for OneWorld Xe*.

Procedure How to Enable Outbound Transaction Processing

To enable outbound transaction processing:

1. Right-click the application that contains the processing options for the Master Business Functions of the transaction.

   For a list of these options, see Appendix B of the *J.D. Edwards Interoperability Guide for OneWorld Xe*.

2. From the shortcut menu, select *Prompt for Values*.
3. Click either the *Outbound* tab or the *Interop* tab.
4. Enter the transaction type.

   The OneWorld Event listener processes only the *after* image for the business function.

   You are not required to set the *before* image function.

The Data Export Control Table and the Processing Log Table

The Data Export Control table manages the flow of the outbound data to third-party applications. OneWorld allows for the subscription of multiple vendor-specific objects for an interoperability transaction.

The records in the Data Export Control table are used to determine the vendor-specific objects to call from the Outbound Subsystem batch process (R00460) or the Outbound Scheduler batch process (R00461).

The Processing Log table contains all the information about the OneWorld event including the transaction type, order type, and sequence number from the Data Export Control table.

Procedure How to Use the Data Export Controls

To use the data export controls:

1. On the Work With Data Export Controls pane, click *Add*.
2. Type values in the Transaction Type and Order Type fields.
3. For each detail row, enter either a batch process name or version or a function name and the library.
4. To launch the vendor-specific object for an add or insert, type *1*.
5. For the update, delete, and inquiry actions, type *1*.
6. In the Launch Immediately column, type *1*.
7. Click *OK*.

Modifying the OneWorld jde.ini File

Because the iWay Adapter for J.D. Edwards OneWorld uses XML for the transfer of information to and from J.D. Edwards OneWorld, you must configure the OneWorld environment to support XML. You can do this easily by modifying the OneWorld jde.ini file.

Example **Modifying a jde.ini File for XML Support**

The following is a sample of the modifications required to implement XML support.

1. Add the following blocks:

```
[JDENET_KERNEL_DEF6]
;krnlName=CALL OBJECT KERNEL
;dispatchDLLName=jdekrnl.dll
;dispatchDLLFunction=_JDEK_DispatchCallObjectMessage@28
;maxNumberOfProcesses=10
;numberOfAutoStartProcesses=0
krnlName=CALL OBJECT KERNEL
dispatchDLLName=XMLCallObj.dll
dispatchDLLFunction=_XMLCallObjectDispatch@28
maxNumberOfProcesses=10
numberOfAutoStartProcesses=0

[JDENET_KERNEL_DEF15]
krnlName=XML TRANSACTION KERNEL
dispatchDLLName=XMLTransactions.dll
dispatchDLLFunction=_XMLTransactionDispatch@28
maxNumberOfProcesses=1
numberOfAutoStartProcesses=1
```

2. Change the following block:

```
[JDENET]
serviceNameListen=6009
serviceNameConnect=6009
maxNetProcesses=5
maxNetConnections=400
maxKernelProcesses=50
maxKernelRanges=15
netTrace=1
ServiceControlRefresh=5
MonitorOption=0 0 0 0 0 0 0 0
```

Note: Change maxKernelRanges to 15.

For more information on establishing your J.D. Edwards OneWorld environment for XML support, see *Setting the jde.ini File for XML* in the *J.D. Edwards Interoperability Guide for OneWorld Xe*.

1.Reader Comments

In an ongoing effort to produce effective documentation, the Documentation Services staff at Information Builders welcomes any opinion you can offer regarding this manual.

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