

iWay

iWay Installation and Configuration
Version 5 Release 5 Service Manager (SM)

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Preface

This documentation describes how to install and configure iWay Adapters, iWay Service Manager, iWay Transformer, iWay Designer, iWay Connector for JCA, iWay Business Services Provider (iBSP), and iWay Explorer. 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	<i>iWay 5.5 SM Installation Overview</i>	Provides a brief overview of iWay 5.5 SM products and components.
2	<i>Installing iWay 5.5 SM Components</i>	Provides requirements and instructions for running the installation program.
3	<i>Preparing Adapters</i>	Provides requirements for and information to prepare iWay adapters.
4	<i>Configuring iWay Components</i>	Provides instructions for configuring iWay Service Manager, Transformer, and iWay Designer.
5	<i>Configuring iWay Explorer</i>	Provides instructions for configuring the different versions of iWay Explorer.
A	<i>Deploying iWay Application Server Components</i>	Provides instructions for running iWay Connector for JCA, Servlet iBSP, and Servlet iWay Explorer through third party application servers.
B	<i>Configuring Servlet iWay Business Services Provider</i>	Provides instructions for configuring the servlet implementation of iWay Web services components.
C	<i>Configuring the iWay Repository</i>	Provides information on changing the default RDBMS for iWay Service Manager and on using a RDBMS with iWay Connector for JCA or Servlet iBSP.

Documentation Conventions

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

Convention	Description
THIS TYPEFACE or <i>this typeface</i>	Denotes syntax that you must enter exactly as shown.
<i>this typeface</i>	Represents a placeholder (or variable) in syntax for a value that you or the system must supply.
<u>underscore</u>	Indicates a default setting.
<i>this typeface</i>	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, please be prepared to provide specifications and sample files and to answer questions about errors and problems.

The following tables list the environment information our consultants require.

Platform	
Operating System	
OS Version	
JVM Vendor	
JVM Version	

The following table lists the deployment information our consultants require.

Adapter Deployment	For example, JCA, Business Services Engine, iWay Service Manager
Container	For example, WebSphere
Version	
Enterprise Information System (EIS) - if any	
EIS Release Level	
EIS Service Pack	
EIS Platform	

The following table lists iWay related information needed by our consultants.

iWay Adapter	
iWay Release Level	
iWay Patch	

The following table lists the types of Application Explorer. Specify the version (and platform, if different than listed previously) in the columns provided.

Application Explorer Type	Version	Platform
Swing		
Servlet		
ASP		
Embedded in Service Designer		
Eclipse		

The following table lists additional questions to help us serve you better.

Request/Question	Error/Problem Details or Information
Did the problem arise through a service or event.	
Provide usage scenarios or summarize the application that produces the problem.	
When did the problem start?	
Can you reproduce this problem consistently?	
Describe the problem .	
Describe the steps to reproduce the problem.	
Specify the error message(s).	
Any change in the application environment : software configuration, EIS/ database configuration, application, and so forth?	
Under what circumstance does the problem <i>not</i> occur?	

The following table lists error/problem files that might be applicable.

Input documents (XML instance, XML schema, non-XML documents)
Transformation files
Error screen shots
Error output files
Trace files
Service Manager package to reproduce problem
Custom functions and agents in use

Diagnostic Zip
Transaction log

See the *iWay Service Manager User's Guide* for information on tracing.

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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CHAPTER 1

iWay 5.5 SM Installation Overview

Topics:

- iWay 5.5 SM Products and Components
- Installation and Configuration Overview

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

iWay 5.5 SM Products and Components

This manual explains the installation and initial configuration of iWay 5.5 SM components. The topics that follow briefly summarize some of the iWay 5.5 SM 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:

- AS1
- AS2
- Baan
- BroadVision
- CICS Transaction Adapter (XML)
- ClarifyCRM (Amdoc ClarifyCRM)
- CORBA
- DB2 Net Driver (iWay Adapter for RDBMS)
- eMail
- Emulation (for 3270/5250)
- ESRI (GEOLoad)
- FIX
- HIPAA
- HL7
- IMS
- Informix (iWay Adapter for RDBMS)
- iWay/WebFOCUS (EDA Server (iWay Adapter for RDBMS)
- J.D. Edwards EnterpriseOne (OneWorld)
- J.D. Edwards WorldSoft
- JMS
- Lawson
- Lotus Notes
- Manugistics
- MFG/PRO
- Microsoft .NET
- Microsoft Message Queueing (MSMQ)
- Microsoft SQL Server (iWay Adapter for RDBMS)
- MQ Series (IBM WebSphere MQ)
- MySAP
- Oracle (iWay Adapter for RDBMS)
- Oracle Applications (E-Business Suite)
- Oracle AQ
- PeopleSoft
- RDBMS
- SAP R/3
- Siebel
- SWIFT
- Sybase (iWay Adapter for RDBMS)
- TIBCO Rendezvous
- Transora
- Tuxedo (Transaction Adapter for BEA Tuxedo)
- UCCnet
- VSAM

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

iWay Service Manager

iWay Service Manager is a highly scalable enterprise service bus, with fully integrated service design-time workbench and web services creation/deployment capabilities. It provides a hosting environment for adapters and includes components for integrating data, applications, systems, and protocols. It provides a Web-based configuration tool called the Web Console.

iWay Service Manager is a stand-alone Java application and requires only a Java Virtual Machine to run.

Note: The iWay Service Manager was previously know as iWay Adapter Manager.

iWay Extensions

iWay Extensions supplement iWay Service Manager by adding or extending capabilities for servicing messages. The extension services integrate with the Service Manager's native services during execution and configuration. Extensions can be installed along with iWay or as packages after iWay Service Manager is installed. The following extensions can be installed along with iWay:

- **Proxy.** Links two or more iWay Service Managers into a message receiver/message executor relationship.
- **Enterprise Index.** Provides indexing services through the Google Search Appliance.
- **FTP Server.** Provides an FTP daemon service designed to further the processing purposes of iWay components.
- **LDAP High Water Mark Listener.** Provides the ability to read records from an LDAP if an attribute is defined with increasing values, such as a timestamp of the last change.
- **RDBMS High Water Mark Listener.** Provides the ability to read records from an RDBMS if a column or set of columns is defined with increasing values, such as a timestamp of the last change.
- **Trading Manager.** Provides trading partners the ability to integrate through iWay Service Manager as well as offering them audit trails, correlation management, partner-specific agreements, and profiles.

iWay Transformer

iWay Transformer is a Graphical User Interface (GUI) tool for specifying how records and fields map to one another. Transformer supports one-to-one mapping relationships as well as one-to-many, or many-to-one relationships. The documents created by Transformer are characterized as transformation templates and can be used throughout iWay.

iWay Designer

iWay Designer is a GUI tool that builds workflows for use with iWay. Workflows model business processes and control tasks in a correct sequence. A workflow definition serves to control the sequence in which external program modules are executed.

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, instead of iWay Service Manager.

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

Two versions of iWay Connector for JCA are available:

- The JCA 1.5 Connector runs in JCA 1.5 compliant application servers, such as Sun Java System Application Server 8.
- The JCA 1.0 Connector runs in JCA 1.0 or JCA 1.5 compliant application servers.

If you use iWay Connector for JCA, iWay Service Manager is not required. After the connector is deployed on your application server, adapters are available and the connector provides integration capabilities.

Configuration and deployment information for iWay Connector for JCA is provided in the *iWay Connector for J2EE Connector Architecture Server User's Guide*. This document only covers the initial configuration and adapter requirements.

iWay Business Services Provider

iWay Business Services Provider (iBSP) 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. There are two ways to run iBSP:

- **Service Manager iBSP.** Runs as a component of iWay Service Manager.
- **Servlet iBSP.** Runs as a Web application deployed through a J2EE compliant application server or servlet container. After you deploy Servlet iBSP, you have access to adapters installed with iWay.

Which version you use depends on deployment preferences and third party considerations.

Note: iWay Business Services Provider (iBSP) was formerly known as iWay Business Services Engine (iBSE). Some references, files, and prompts may still use the older name.

iWay Explorer

iWay Explorer is a GUI tool that uses iWay adapters to create schemas and Web services for use with iWay components 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 Enterprise Resource Planning (ERP) systems, without requiring in-depth knowledge of the object or system.

Several versions of iWay Explorer are available:

- **Swing iWay Explorer** is an independent Java application.
- **iWay Designer iWay Explorer** is imbedded in iWay Designer.
- **Eclipse Rich Client (Standalone) iWay Explorer** runs as a standalone Java application based on the Eclipse platform.
- **Eclipse Plugin iWay Explorer** can be embed in the open source Eclipse development environment using iWay Integration Tools for Eclipse.
- **Servlet iWay Explorer** is a Web application accessible through a Web browser. It must be deployed through an application server.
- **ASP.NET iWay Explorer** is an ASP application accessible through a Web browser. It must be deployed through Microsoft Internet Information Server (IIS) and requires .NET components.

Note: All versions of the iWay Explorer are functionally equivalent, however, ASP.NET iWay Explorer and iWay Designer iWay Explorer are not supported with iWay Connector for JCA.

Installation and Configuration Overview

The following are steps for installing and configuring iWay components. Follow the steps for the components you wish to use:

- 1.** Review the requirements and install any required third party components. (Chapter 2, *Installing iWay 5.5 SM Components*)
- 2.** Run the installation program to install iWay 5.5 SM components. (Chapter 2, *Installing iWay 5.5 SM Components*)
- 3.** Copy third party adapter-related files into the iWay 5.5 SM directory structure. (Chapter 3, *Preparing Adapters*)
- 4.** Start and configure iWay Service Manager. (Chapter 4, *Configuring iWay Components*)
- 5.** Register iWay 5.5 SM. (Chapter 4, *Configuring iWay Components*)
- 6.** To use Servlet iBSP or the iWay Connector for JCA, deploy the connector and JCA Test Tool on your application server. (Appendix A, *Deploying iWay Application Server Components*)
- 7.** Configure a version of iWay Explorer. (Chapter 5, *Configuring iWay Explorer*)
- 8.** To change the default Service Manager repository or to use Servlet iBSP or iWay Connector for JCA with a RDBMS repository, optionally set up a database repository as explained in Appendix C, *Configuring the iWay Repository*.
- 9.** Refer to the documentation for your adapter.

CHAPTER 2

Installing iWay 5.5 SM Components

Topics:

- Installation Requirements
- Installing iWay 5.5 SM
- Upgrading to a New Release of iWay 5.5 SM
- Installing iWay 5.5 SM with iWay 5.5
- Post-Installation Topics and Tasks
- Registering iWay Software
- Configuration Steps

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

Installation Requirements

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

Hardware Requirements

Minimum requirements for Windows:

- 1 gigahertz (GHz) or higher Intel® Pentium® compatible CPU.
- 512 megabytes (MB) of RAM.
- 300 MB of disk space after installation. (500 MB during installation)

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

Operating System Requirements

At this time, iWay 5.5 SM is supported on the following operating systems:

- Microsoft Windows 2000 with SP2 and Windows 2003
- Linux
- Solaris 8 and 9
- HP/UX 11
- AIX 5
- i5/OS (under QSH)
- z/OS (under UNIX System Services)

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

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.

Java Requirements

Java 2 Standard Edition (J2SE™) SDK 1.4.2 or higher is required for iWay components. For Windows, Linux, and Solaris™, you can download and install the latest supported SDK at no charge from:

<http://java.sun.com/j2se/1.4.2/download.html>

For other platforms, contact the appropriate vendor.

After installing the Java SDK, the Java command must be in your search PATH to install and run iWay. 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.

To determine if Java is properly installed and in your search PATH, execute the following at a command prompt or shell:

`java -version`

Information on the Java build appears, for example:

```
java version "1.4.2_12"
Java(TM) 2 Runtime Environment, Standard Edition (build 1.4.2_12-b02)
Java HotSpot(TM) Client VM (build 1.4.2_12-b02, mixed mode)
```

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

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 directory structure after you install iWay. More information is available in Chapter 3, *Preparing Adapters*.

Installing iWay 5.5 SM

The initial iWay installation procedure installs all iWay components and a set of adapters. These components and adapters are available for a 90-day trial. To receive a permanent license after you have installed iWay 5.5SM, register the software using the instructions found in *Registering iWay Software* on page 2-29.

Additional procedures are found throughout this manual to explain how to activate and configure the components of iWay 5.5 SM.

iWay 5.5 SM Installation

Follow the procedure for your platform:

- For **Windows**, see *How to Install iWay 5.5 SM on Windows* on page 2-4.
- For **UNIX and OS/400**, see *How to Install iWay 5.5 SM on UNIX and OS/400* on page 2-6.
- For **z/OS**, contact Customer Support.

Procedure: How to Install iWay 5.5 SM on Windows

You must be an administrator for the local machine to run the installation.

1. Start the installation by executing the installation program. The name of the installation program may vary, for example:

`iway55SM.exe`

The installation begins by temporarily copying files and analyzing your environment. This may take some time. When this completes, the Welcome window opens.

Note: If you receive an error, ensure you are installing as an administrator and ensure there is at least 2 GB of free space on your operating system drive.

2. Click *Next* at the Welcome window.

The License Agreement appears.

3. Review the information, and click *Yes* if you agree to the terms.

The Customer Information window opens.

4. Provide your *User Name*, *Company Name*, and *Site Code*.

Important: The site code is a unique company identifier associated with a specific machine. Be sure to enter a valid and accurate site code in this step because this entry is used when generating your permanent license during the registration process. If you need assistance with the site code, contact your iWay Software sales representative.

5. Click *Next*.

The Setup Type window appears allowing you to choose the type of installation to perform. You have three options:

- **Typical.** Installs all components.
- **Runtime.** Installs runtime components. This option should be used when installing multiple instances that will not require iWay SM design tools.
- **Custom.** Lets you choose which components to install.

6. Select the setup type and click *Next*.

The Choose Destination Location window opens.

7. Accept the default or click *Browse* to specify a new location. Then, click *Next*.

A Window appears in which you select the adapters and components you want to install. **Be sure to expand all folders to see the available sub-components.**

- For a Typical or Runtime installations, you can check or uncheck the adapters.
- For a Custom installation, you can check or uncheck both adapters and other components. Be sure to expand all the options to see which sub options are selected by default. Information on the other components appears in Chapter 1, *iWay 5.5 SM Installation Overview*.

8. Check the adapters and/or components you wish to install and click *Next*.

For a Typical or Runtime installation, you can choose which extensions to install. Information on the extensions appears in Chapter 1, *iWay 5.5 SM Installation Overview*.

9. Check the extensions to install if prompted.

You are prompted to specify the ports that iWay Service Manager uses.

Name	Default Port	Purpose
Console Listener	9999	HTTP listener for the Service Manager Console.
SOAP Listener	9000	SOAP listener for iBSP and iWay Explorers.

10. Accept the defaults or specify new values and then click *Next*.

Note: Be sure to specify ports that are not being used by other programs or by another instance of iWay. If necessary, contact your system administrator for assistance in identifying available TCP ports.

The Start Copying Files window opens.

11. Click *Next* to start the installation.

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

You have the option to start the Service Manager when installation completes. If you choose this option, the Web Console launches in your default Web browser. You can logon to the Web Console using the default user name "admin" and password "admin." You can change the user name and password as explained in Chapter 4, *Configuring iWay Components*.

12. Click *Finish* to complete the installation Wizard.

13. Proceed to *Post-Installation Topics and Tasks* on page 2-23.

Procedure: How to Install iWay 5.5 SM on UNIX and OS/400

For UNIX users, installing as root is not recommended.

For OS/400 users, your user ID must have *ALLOBJ, *JOBCTL, and *SAVSYS authority.

1. Use FTP in binary mode to transfer the installation file to your UNIX or OS/400 machine. For OS/400, place the file in a directory under QSH.
2. Navigate to the directory containing the installation file. On OS/400, you should be under QSH.
3. Ensure the installation file is executable, for example:

```
chmod 755 iw*
```

4. Start the installation by executing the installation program for your platform and version of iWay 5.5 SM. The name of the installation program may vary:
 - On **OS/400**, execute the installation file from the QSH prompt by entering the following command line:

```
java -cp ./iway55sm.jar run
```

- On **UNIX** platforms, there are two options:

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:

```
./iway55SM.linux.sh -console
```

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

```
./iway55SM.linux.sh
```

This procedure follows the text installation, but the GUI installation prompts for the same information.

The installation initializes, which may take some time. When initialization is complete, a Welcome prompt appears:

```
The InstallShield Wizard will install iWay Service Manager on your  
computer.
```

```
To continue, choose Next.
```

```
iWay Service Manager  
iWay Software  
http://www.iwaysoftware.com
```

```
Press 1 for Next, 3 to Cancel or 5 to Redisplay [1]
```

Note: If the installation does not launch, ensure that `/JAVA_HOME/bin` is in your `$PATH` variable. See *Java Requirements* on page 2-3 for information on setting up your Java environment.

5. Press Enter to continue.

A license agreement appears.

6. Review the agreement and press Enter until you see the following prompt:

```
Please choose from the following options:  
[ ] 1 - I accept the terms of the license agreement.  
[X] 2 - I do not accept the terms of the license agreement.
```

```
To select an item enter its number, or 0 when you are finished: [0]
```

7. If you accept the terms, type 1 and press Enter.

The prompt repeats showing the new value.

```
[X] 1 - I accept the terms of the license agreement.  
[ ] 2 - I do not accept the terms of the license agreement.  
To select an item enter its number, or 0 when you are finished: [0]
```

8. Press Enter again.

A navigation prompt appears.

```
Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1]
```

9. Press Enter again.

The Customer Information prompts appear:

```
Customer Information  
Please enter your information.
```

```
User Name: []
```

10. Enter a user name for the product registration and then press Enter. This user name does not affect product operations.

```
Company Name: []
```

11. Enter your company name for the product registration and then press Enter.

```
Site Code: []
```

12. Enter your site code and press Enter.

Important: The site code is a unique company identifier associated with a specific machine. Be sure to enter a valid and accurate site code in this step because this entry is used when generating your permanent license during the registration process. If you need assistance with the site code, contact your Information Builders sales representative.

The Navigation prompt appears:

```
Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1]
```

13. Press Enter to continue.

The installation directory prompt appears:

```
iWay Service Manager Install Location  
Please specify a directory or press Enter to accept the default  
directory.
```

```
Destination Directory [/home/userID/iWay55sm]
```

Note: On Linux systems, you may need to change the default directory that appears. The default directory normally should be named iWay55sm, but some Linux environments do not follow this default.

14. Specify where to install iWay on your system and then press Enter. Ensure this is a directory to which you have write access.

A navigation prompt appears.

```
Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1]
```

15. Press Enter.

You are prompted for the iWay port assignments and User ID. You can accept the default value listed with each prompt or type a new value appropriate for your installation, and press Enter.

```
Setup allows users to customize the default resource assignments for  
port definitions and Service UserID.
```

```
Console Listener [9999]
```

```
SOAP Listener [9000]
```

```
Service Userid [root]
```

```
Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1]
```

16. Press Enter.

The installation type prompt appears:

Choose the setup type that best suits your needs.

1 - Typical

The typical setup installs iWay Service Manager with its supported toolsets. This option is recommended for most users.

2 - Runtime

The runtime setup installs iWay Service Manager with its runtime components and adapters. Use this option when deploying multiple server instances of iWay Service Manager.

3 - Custom

The custom setup allows you to control the selection of iWay Service Manager components, adapters, and toolsets. This option is recommended for advanced users.

17. Press Enter.

Select the features and iWay Adapters you wish to install:

iWay Service Manager

To select/deselect a feature or to view its children, type its number:

1. iWay Service Manager
2. iWay Adapters
3. iWay Transformer
4. Application Explorers

Other options:

0. Continue installing

Enter command [0]

You can optionally enter 3 or 4 if you do not wish to install iWay Transformer or iWay Explorer.

18. Enter 2, to select which adapters to install.

1. Deselect 'iWay Adapters'
 2. View 'iWay Adapters' subfeatures
- Enter command [1]

- 19.** Enter 2 to view the iWay Adapters you can install.

```
iWay Service Manager
```

```
- iWay Adapters
```

```
To select/deselect a feature or to view its children, type its number:
```

1. +[x] Technology Adapters
2. +[] ERP Adapters
3. +[] Format Adapters
4. +[] Legacy Adapters

```
Other options:
```

- 1. View this feature's parent
0. Continue installing

- 20.** To install ERP Adapters, Format Adapters, or Legacy Adapters select their corresponding numbers.

You receive a response similar to the following:

1. Select 'ERP Adapters' for installation
2. View 'ERP Adapters' subfeatures

```
Enter command [1]
```

- 21.** Select 1 to install all the adapters. You can select 2 if you want to select only specific adapters.

You are returned to the main adapter selection prompt.

```
To select/deselect a feature or to view its children, type its number:
```

1. +[x] Technology Adapters
2. +[x] ERP Adapters
3. +[] Format Adapters
4. +[] Legacy Adapters

```
Other options:
```

- 1. View this feature's parent
0. Continue installing

- 22.** Select 1 to choose which Technology Adapters are selected. By default, not all Technology Adapters are selected.

1. Deselect 'Technology Adapters'
2. View 'Technology Adapters' subfeatures

```
Enter command [1]
```

23. Select 2 to view all the Technology Adapters.

To select/deselect a feature or to view its children, type its number:

- 1. iWay
- 2. RDBMS
- 3. CORBA
- 4. ESRI
- 5. MSMQ

Other options:

24. Select the number for the adapter you wish to install.

The prompt returns showing your selection.

To select/deselect a feature or to view its children, type its number:

- 1. iWay
- 2. RDBMS
- 3. CORBA
- 4. ESRI
- 5. MSMQ

Other options:

- 1. View this feature's parent
- 0. Continue installing

25. If you do not wish to install a Technology Adapter, press Enter. If you wish to install an additional Technology Adapter, select its number.

A navigation prompt appears.

Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1]

26. Press Enter.

A summary appears.

27. Press Enter if the summary spans more than one page.

A navigation prompt appears.

Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1]

28. Press Enter to install iWay Service Manager.

Files are copied to your system and configured. When this completes, a message similar to the following displays:

```
The InstallShield Wizard has successfully installed iWay Service
Manager.
```

```
Choose Finish to exit the wizard.
```

```
Press 3 to Finish or 5 to Redisplay [3]
```

29. Press Enter.

A message reminding you to reapply your profile appears.

```
The wizard requires that you wlogout and log back in.
```

```
Press 3 to Finish or 5 to Redisplay [3]
```

30. Press Enter.

31. Log off and then log back on to apply your profile.

32. Proceed to *Post-Installation Topics and Tasks* on page 2-23.

Upgrading to a New Release of iWay 5.5 SM

To upgrade from iWay 5.5 Service Manager first release (prod. 3595) to SM SP1 (smsp1.7105), follow the procedure for your platform:

- For **Windows**, see *How to Upgrade iWay 5.5 SM on Windows* on page 2-13.
- For **UNIX and OS/400**, see *How to Upgrade iWay 5.5 SM on UNIX and OS/400* on page 2-15.
- For **z/OS**, contact Customer Support.

Important: Installing iWay 5.5 SM on a machine containing an iWay 5.5 installation will not result in an upgrade to iWay 5.5 SM, since SM is a new major release. You may choose to have both products installed, as discussed in *Installing iWay 5.5 SM with iWay 5.5* on page 2-22.

When you upgrade to a new release of iWay 5.5 SM you must re-register the software to obtain a new license file.

Upgrade Options and Cautions

The upgrade process offers all of the options that the installation process does, with respect to choice of directory and components. For example, you may take this opportunity to change the iWay 5.5 SM directory by entering a new installation path. You should do this only if necessary, as it may adversely affect other dependent software. To keep iWay 5.5 SM installed in the same location, enter the correct current installation path when prompted.

Similarly, the full choice of adapters and features is presented during the upgrade process. Generally, you should choose the same set of adapters that were initially installed. Since you may add and remove adapters at this time, do so (especially removal) with discretion. Adding a new adapter should pose no problems, but removing an adapter that is required by your application will cause it to fail after the upgrade.

Note: The default choices in the upgrade dialog may not reflect the adapters that are currently installed, so review and adjust them according to your requirements.

Procedure: How to Upgrade iWay 5.5 SM on Windows

You must be an administrator for the local machine to run the installation.

1. Start the installation by executing the installation program. The name of the installation program may vary, for example:

`iway55SM.exe`

The upgrade begins by temporarily copying files and analyzing your environment. This may take some time. When this completes, the Welcome window opens.

Note: If you receive an error, ensure you are installing as an administrator and ensure there is at least 2 GB of free space on your operating system drive.

2. Click *Next* at the Welcome window.
The License Agreement appears.
3. Review the information, and click *Yes* if you agree to the terms.
The Customer Information window opens.
4. Provide your *User Name*, *Company Name*, and *Site Code*.

Important: The site code is a unique company identifier associated with a specific machine. Be sure to enter a valid and accurate site code in this step because this entry is used when generating your permanent license during the registration process. If you need assistance with the site code, contact your Information Builders sales representative.

5. Click *Next*.

The Setup Type window appears allowing you to choose the type of installation to perform. You have three options:

- **Typical.** Installs all components.
- **Runtime.** Installs runtime components and should be used when installing multiple instances.
- **Custom.** Lets you choose which components to install.

6. Select the setup type and click *Next*.

The Choose Destination Location window opens.

7. Accept the default or click *Browse* to specify a new location. Then, click *Next*.

A Window appears in which you select the adapters and components you want to install. **Be sure to expand all folders to see the available sub-components.**

- For a Typical or Runtime installations, you can check or uncheck the adapters.
- For a Custom installation, you can check or uncheck both adapters and other components. Be sure to expand all the options to see which sub options are selected by default. Information on the other components appears in Chapter 1, *iWay 5.5 SM Installation Overview*.

8. Check the adapters and/or components you wish to install and click *Next*.

For a Typical or Runtime installation, you can choose which extensions to install. Information on the extensions appears in Chapter 1, *iWay 5.5 SM Installation Overview*.

9. Check the extensions to install if prompted.

10. Accept the defaults or specify new values and then click *Next*.

The Start Copying Files window opens.

11. Click *Next* to start the installation.

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

You have the option to start the Service Manager when installation completes. If you choose this option, the Web Console launches in your default Web browser. You can logon to the Web Console using the default user name "admin" and password "admin." You can change the user name and password as explained in Chapter 4, *Configuring iWay Components*.

12. Click *Finish* to complete the installation Wizard.

13. Proceed to *Post-Installation Topics and Tasks* on page 2-23.

14. Register for your permanent license using the instructions found in *Registering iWay Software* on page 2-29.

Procedure: How to Upgrade iWay 5.5 SM on UNIX and OS/400

1. Stop your iWay Service Manager, as follows:

If you are running iWay as a service, execute the `iway55ShutDown.sh` script.

If you are running iWay through a UNIX command line, at the iWay prompt type `stop` and then `quit`.

2. Create a new, temporary directory and copy the following iWay 5.5 SM files and directory sub-trees to this new directory:

```
[IWAYHOME]/config/*
```

```
[IWAYHOME]/etc/manager/packages/*
```

```
[IWAYHOME]/etc/repository/*
```

```
[IWAYHOME]/licence.xml
```

```
[IWAYHOME]/bin/install.xml
```

3. Use FTP in binary mode to transfer the installation file to your UNIX or OS/400 machine. For OS/400, place the file in a directory under QSH.
4. Navigate to the directory containing the installation file. On OS/400, you should be under QSH.

5. Ensure the installation file is executable, for example:

```
chmod 755 iw*
```

6. Start the installation by executing the installation program for your platform and version of iWay 5.5 SM. The name of the installation program may vary:

- On **OS/400**, execute the installation file from the QSH prompt by entering the following:

```
java -cp ./iway55sm.jar run
```

- On **UNIX** platforms, there are two options:

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:

```
./iway55SM.linux.sh -console
```

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

```
./iway55SM.linux.sh
```

This procedure follows the text installation, but the GUI installation prompts for the same information.

The installation initializes, which may take some time. When initialization is complete, a Welcome prompt appears:

```
The InstallShield Wizard will install iWay Service Manager on your
computer.
```

```
To continue, choose Next.
```

```
iWay Service Manager
iWay Software
http://www.iwaysoftware.com
```

```
Press 1 for Next, 3 to Cancel or 5 to Redisplay [1]
```

Note: If the installation does not launch, ensure that `/JAVA_HOME/bin` is in your `$PATH` variable. See *Java Requirements* on page 2-3 for information on setting up your Java environment.

7. Press Enter to continue.

A license agreement appears.

8. Review the agreement and press Enter until you see the following prompt:

```
Please choose from the following options:
```

```
[ ] 1 - I accept the terms of the license agreement.
```

```
[X] 2 - I do not accept the terms of the license agreement.
```

```
To select an item enter its number, or 0 when you are finished: [0]
```

9. If you accept the terms, type 1 and press Enter.

The prompt repeats showing the new value.

```
[X] 1 - I accept the terms of the license agreement.
```

```
[ ] 2 - I do not accept the terms of the license agreement.
```

```
To select an item enter its number, or 0 when you are finished: [0]
```

10. Press Enter again.

A navigation prompt appears.

```
Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1]
```

11. Press Enter again.

The Customer Information prompts appear:

```
Customer Information
Please enter your information.
```

```
User Name: []
```

12. Enter a user name for the product registration and then press Enter. This user name does not affect product operations.

```
Company Name: []
```

13. Enter your company name for the product registration and then press Enter.

```
Site Code: []
```

Important: The site code is a unique company identifier associated with a specific machine. Be sure to enter a valid and accurate site code in this step because this entry is used when generating your permanent license during the registration process. If you need assistance with the site code, contact your iWay Software sales representative.

14. Enter you site code and press Enter.

The Navigation prompt appears:

```
Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1]
```

15. Press Enter to continue.

The installation directory prompt appears:

```
iWay Service Manager Install Location
Please specify a directory or press Enter to accept the default
directory.
```

```
Destination Directory [/home/userID/iWay55sm]
```

Note: On Linux systems, you may need to change the default directory that appears. The default directory normally should be named iWay55sm, but some Linux environments do not follow this default.

16. Specify where to install iWay on your system and then press Enter. Ensure this is a directory to which you have write access.

A navigation prompt appears.

```
Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1]
```

17. Press Enter.

You are prompted for the iWay port assignments and User ID. You can accept the default value listed with each prompt or type a new value appropriate for your installation, and press Enter.

Note: iWay port settings made during this step are overwritten when you restore your saved configuration files in Step 35. If you want to change the port settings after the installation, see *iWay TCP Ports* on page 2-24.

Setup allows users to customize the default resource assignments for port definitions and Service UserID.

Console Listener [9999]

SOAP Listener [9000]

Service Userid [root]

Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1]

18. Press Enter.

The installation type prompt appears:

Choose the setup type that best suits your needs.

1 - Typical

The typical setup installs iWay Service Manager with its supported toolsets. This option is recommended for most users.

2 - Runtime

The runtime setup installs iWay Service Manager with its runtime components and adapters. Use this option when deploying multiple server instances of iWay Service Manager.

3 - Custom

The custom setup allows you to control the selection of iWay Service Manager components, adapters, and toolsets. This option is recommended for advanced users.

19. Press Enter.

Select the features and iWay Adapters you wish to install:

iWay Service Manager

To select/deselect a feature or to view its children, type its number:

1. iWay Service Manager
2. iWay Adapters
3. iWay Transformer
4. Application Explorers

Other options:

```
0. Continue installing
Enter command [0]
```

You can optionally enter 3 or 4 if you do not wish to install iWay Transformer or iWay Explorer.

20. Enter 2, to select which adapters to install.

```
1. Deselect 'iWay Adapters'
2. View 'iWay Adapters' subfeatures
Enter command [1]
```

21. Enter 2 to view the iWay Adapters you can install.

```
iWay Service Manager
```

```
- iWay Adapters
```

```
To select/deselect a feature or to view its children, type its
number:
```

```
1. +[x] Technology Adapters
2. +[ ] ERP Adapters
3. +[ ] Format Adapters
4. +[ ] Legacy Adapters
```

```
Other options:
```

```
-1. View this feature's parent
0. Continue installing
```

22. To install ERP Adapters, Format Adapters, or Legacy Adapters select their corresponding numbers.

You receive a response similar to the following:

```
1. Select 'ERP Adapters' for installation
2. View 'ERP Adapters' subfeatures
```

```
Enter command [1]
```

23. Select 1 to install all the adapters. You can select 2 if you want to select only specific adapters.

You are returned to the main adapter selection prompt.

```
To select/deselect a feature or to view its children, type its
number:
```

```
1. +[x] Technology Adapters
2. +[x] ERP Adapters
3. +[ ] Format Adapters
4. +[ ] Legacy Adapters
```

Other options:

- 1. View this feature's parent
- 0. Continue installing

24. Select 1 to choose which Technology Adapters are selected. By default, not all Technology Adapters are selected.

- 1. Deselect 'Technology Adapters'
- 2. View 'Technology Adapters' subfeatures

Enter command [1]

25. Select 2 to view all the Technology Adapters.

To select/deselect a feature or to view its children, type its number:

- 1. iWay
- 2. RDBMS
- 3. CORBA
- 4. ESRI
- 5. MSMQ

Other options:

26. Select the number for the adapter you wish to install.

The prompt returns showing your selection.

To select/deselect a feature or to view its children, type its number:

- 1. iWay
- 2. RDBMS
- 3. CORBA
- 4. ESRI
- 5. MSMQ

Other options:

- 1. View this feature's parent
- 0. Continue installing

27. If you do not wish to install a Technology Adapter, press Enter. If you wish to install an additional Technology Adapter, select its number.

A navigation prompt appears.

Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1]

28. Press Enter.

A summary appears.

29. Press Enter if the summary spans more than one page.

A navigation prompt appears.

Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1]

30. Press Enter to install iWay.

Files are copied to your system and configured. When this completes, a message similar to the following displays:

```
The InstallShield Wizard has successfully installed iWay Service
Manager.
```

```
Choose Finish to exit the wizard.
```

```
Press 3 to Finish or 5 to Redisplay [3]
```

31. Press Enter.

A message reminding you to reapply your profile appears.

```
The wizard requires that you logout and log back in.
```

```
Press 3 to Finish or 5 to Redisplay [3]
```

32. Press Enter.

33. Log off and then log back on to apply your profile.

34. Proceed to *Post-Installation Topics and Tasks* on page 2-23.

35. Copy the files saved in Step 2 back to their respective source locations listed below. You should overwrite the newly installed iWay 5.5 SM SP1 files with your saved configuration files.

```
[IWAYHOME]/config/*
```

```
[IWAYHOME]/etc/manager/packages/*
```

```
[IWAYHOME]/etc/repository/*
```

```
[IWAYHOME]/licence.xml
```

```
[IWAYHOME]/bin/install.xml
```

36. Log off, then log back on when instructed to do so by the installer.

37. Register for your permanent license using the instructions found in *Registering iWay Software* on page 2-29.

Note: If you have installed iWay 5.5 SM SP1 to a new directory, you can delete your previous iWay 5.5 SM directory after verifying the new installation.

Installing iWay 5.5 SM with iWay 5.5

iWay 5.5 SM SP1 can be installed onto a system that has iWay 5.5 already installed, however, there are some caveats. This section discusses the strategies for setting up a mixed iWay installation on Windows and on the UNIX variant operating systems. The primary difference between the two cases is the presence of the iWay 5.5 SM GUI tools in the Windows distribution, and their inability to coexist with the iWay 5.5 GUI tools.

Considerations for All Platforms

For all machines and operating systems, it is critical that you choose an iWay 5.5 SM installation directory that is different from the existing iWay 5.5 directory. If you attempt to install both to the same directory, portions of your iWay 5.5 configuration and executable components will be overwritten.

Most likely, the default directory path presented during the iWay 5.5 SM installation (ending in `iway55sm`) will be unique on your system, but if it is not, be sure to specify a directory path different than that of iWay 5.5.

For example, on UNIX you may have installed your iWay 5.5 to:

```
/opt/iway/iway55
```

When installing iWay 5.5 SM you could specify the following path to avoid a conflict:

```
/opt/iway/iway55sm
```

Note: iWay 5.5 and iWay 5.5 SM use different environment variables to record their install directories, thus preventing ambiguity at runtime.

Considerations for Windows

The iWay Windows GUI tools (Designer, Transformer, and so on) make extensive use of Windows resources, such as the Windows Registry. If two versions of the iWay GUI tools attempt to utilize the same system resource, results can be unpredictable. In other words, you may have two versions of the iWay Server installed (specifically iWay 5.5 and SM), but you may only have one version of the GUI tools installed. You must use the iWay 5.5 SM GUI tools in order to take full advantage of the new features provided in iWay 5.5 SM.

To properly install iWay 5.5 SM to a Windows machine that will host iWay 5.5 and iWay 5.5 SM server software only (that is, no GUI tools), use the wizard to deselect the GUI tools during iWay 5.5 SM installation.

If GUI tools are required, you must first uninstall the iWay 5.5 GUI tools before installing iWay 5.5 SM. Continue with the normal iWay 5.5 SM installation, including the GUI tools and other components your application requires.

Post-Installation Topics and Tasks

After installation, review the following topics and perform the steps needed for your environment.

iWay 5.5 SM Directory Structure

After installation, an iWay55sm directory is created and contains the following subdirectories:

bin

Contains files required to start and access iWay Service Manager.

config

Contains configuration files for iWay components. Schemas and some Web services information are written to subdirectories.

User IDs used to run iWay components must have full permissions to the config directory.

Note: You can run more than one instance of Service Manager by defining multiple configurations using the Web Console. The Web Console is introduced in Chapter 4, *Configuring iWay Components*. By default, two configurations are defined, base and raw. The base configuration sets up everything you require to get started and includes SOAP and HTTP listeners. The raw configuration contains no listeners and provides a useful template to define additional configurations.

etc

Contains documentation, 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 and your library path must be set to this location. For details, see *Environment Variables* on page 2-27.

tools

Contains additional iWay components like iWay Designer, iWay Transformer, and iWay Explorer.

Note: Some GUI tools are only available on Windows.

iWay TCP Ports

iWay Service Manager uses two TCP ports for system communication. The following table lists the function and default values of these ports.

Listener	Default Port	Purpose
Console	9999	HTTP listener for the Service Manager Web Console.
SOAP	9000	SOAP listener for iBSP.

During iWay SM installation, you can select values other than the default for either or both of these ports (for security or in case of a port conflict).

Under certain circumstances, it may be necessary to change the iWay Service Manager system port assignments after installation is completed. This section describes the procedures to change the Console and SOAP and iBSP port assignments.

Procedure: How to Change the iWay Service Manager Console Port Assignment

- From the Service Manager console home page, click *Managed Servers*.
The Server Management page appears. This page contains the list of defined server configurations. The configuration called "base" contains the master configuration information for your iWay Service Manager installation. If you have created other server configurations, you will see them listed on this page as well. Although only the master ("base") port is used for the web console, each configuration must have a unique, functional port for inter-server communication.
- Click the link for the base configuration.
The page of attributes for the server named 'base' appears.
- Locate the edit box for Port under Console Attributes (it will read 9999 if it is still set to the default value) and enter the new port number. This value must be an integer, within the range of valid port numbers, and currently not assigned to another process.
Note: If necessary, contact your system administrator for assistance in choosing an available TCP port.
- Click *Finish*.
The Server Management page is displayed, confirming your new choice of console port.
- To make the console port change effective, click on *Restart Server* located in the upper right of the console page.
The message "Server's master configuration is restarting..." appears.

6. Because of the nature of this change, you will need to point your browser to the new URL. Wait ten to fifteen seconds and then reenter the server address with the new port number in the address bar.
7. When prompted, enter your login credentials. The iWay Service Manager Console home page will display as usual, though served from the new port number.

Note: If you have installed iWay using an occupied port, or accidentally set your master (that is, "base") console port to one that is occupied, it will be impossible to access the iWay Service Manager Web Console. For information on how to correct this situation, contact iWay Technical Support.

Procedure: How to Set Up the SOAP Listener to Follow the *ibse-port* Special Register

The SOAP listener port is set to the integer value literal entered during iWay Service Manager installation, with the default being 9000. This is not ideal for situations where the SOAP port will be changed after installation, since the *ibse-port* Special Register and the SOAP port must always be changed in tandem.

1. Navigate to the iWay Adapter Manager console by clicking the gen number that appears in the upper right of the iWay Service Manager console. The text of this link will be *prod.3595* for the iWay 5.5 SM first release or *smsp1.7105* for iWay 5.5 SM SP1.
The iWay Service Manager console (colored blue) appears.
2. From the Available Configurations drop-down list, select the server configuration you want to modify. In most cases this will be the single, master configured server named 'base'.
3. Click *Go* to switch your administration context to the chosen server.
4. In the left pane, navigate to *Configuration, Listeners*.
The list of defined listeners for the configuration appears on the right.
5. Click the SOAP1 Listener to access its listener configuration page.
6. In the Port Property Value field, enter *SREG(ibse-port)*.
The value you are replacing should be an integer port number, its value being 9000 if the default was accepted during installation. Do not change any of the other properties of the SOAP1 listener.
7. Click *Save* to save the change. The SOAP port will not change until the *ibse-port* Special Register is updated (see *How to Set the ibse-port Special Register* on page 2-26) and the iWay Service Manager server is restarted.
8. To return to the iWay Service Manager console, click the iWay Software banner located at the top of the iWay Adapter Manager console page.

Note: You only need to add the `ibse-port` Special Register in the SOAP1 Listener Port field once. After this has been set up, future changes to the `ibse-port` Special Register will automatically update the iWay Service Manager SOAP port.

Procedure: How to Set the `ibse-port` Special Register

Once you have successfully completed setting up the SOAP listener value to follow that of the `ibse-port` Special Register, changing the `ibse-port` register will automatically change the iWay Service Manager SOAP listener port, as well.

1. Navigate to the iWay Service Manager home page by clicking the Server menu link in the upper left.
2. Select the server configuration you want to change from the Managed Server drop-down list. In most cases this will be the single, master configured server named 'base'.

The console refreshes with the General Properties of the selected server.

3. In the left pane, select *Register Settings*.

A list of special registers appears in the right pane.

4. Click on the link for `ibse-port` to display its Special Register Definition information.
5. In the Value field, enter a new value for the `ibse-port` register.

Note: This value must be an integer, within the range of valid port numbers, and currently not used by any other process on the machine. If necessary, contact your system administrator for assistance in choosing an available TCP port.

6. Click *Update* to accept the change.

The Register Settings page is displayed so you can confirm the new `ibse-port` value.

As with all iWay Service Manager Special Register settings, you must restart the server for the new `ibse-port` setting to take effect.

7. To restart the server, click *Restart* in the upper right of the console.

The following message appears in your browser:

`Server's master configuration is restarting...`

When restart is complete, the iWay Service Manager Console home page appears.

Environment Variables

After installation, environment variables are required to use iWay adapters and 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 `IWAY55SM` environment variable described below is added to your `.profile` (or `.bash_profile`) in your home directory. All user IDs that run iWay components (either within iWay Service Manager or a third party application server) must have these environment variables set in their profiles. Be sure the profiles are executed before running iWay components.
- On **z/OS and OS/400**, you must manually set the appropriate variables for all user IDs that run iWay components.

Note: If you plan to run multiple installations of iWay components, the environment variables must be set up appropriately for each installation.

Procedure: How to Set Environment Variables on UNIX Systems

The following environment variable settings are required to use iWay adapters and components on a UNIX system:

1. The following variable must be defined and set to the location of the `iWay55` directory:

```
IWAY55SM
```

For example:

```
IWAY55SM=/home/userID/iWay55sm/  
export IWAY55SM
```

Note: Be sure to include the trailing slash.

2. The `PATH` variable must contain the `iWay55sm/lib` directory, for example:

```
PATH=$PATH:/home/userID/iWay55sm/lib  
export PATH
```

3. On UNIX, the shared library variable must contain the iWay55sm/lib directory. This variable varies depending on your platform. The following table lists platforms and their associated variables.

Platform	Variable
AIX	LIBPATH
HP-UX	SHLIB_PATH
Other UNIX Platforms	LD_LIBRARY_PATH

For example:

```
LD_LIBRARY_PATH=/home/userID/iWay55sm/lib:$LD_LIBRARY_PATH
export LD_LIBRARY_PATH
```

Uninstalling iWay

If you wish to remove iWay from your system, do the following:

1. Copy any files you wish to save out of the iWay directory structure. Most user files are stored with the configuration, for example:

```
C:\Program Files\iWay55sm\config
```

2. Stop Service Manager if it is running.
3. If you have deployed iWay components to an Application Server, undeploy them.
4. Uninstall components using the provided utility.
 - On **Windows**, open the *Control Panel* and then use the *Add/Remove Programs* option to remove iWay components. The main uninstall component is listed as:

```
iWay 5.5 Service Manager
```

You can also delete any iWay installation files in subdirectories of the following:

```
C:\WINNT\Downloaded Installations\
```

```
C:\WINDOWS\Downloaded Installations\
```

If you ran the deploy tool to configure components for an application server, run its uninstall utility as well, for example:

```
E:\Program Files\iWay55sm\etc\uninstall\deploy\uninstaller.exe
```

- On **UNIX and OS/400**, run the uninstall utility in the `uninstall/iway55` directory, for example:

```
/home/userID/iWay55sm/etc/uninstall/iway55
```

To run the utility, navigate to its directory and enter:

```
./uninstaller.bin -console
```

If you ran the deploy tool to configure components for an application server, run its uninstall utility, for example:

```
java -jar /home/userID/iWay55sm/etc/uninstall/deploy/uninstall.jar
-silent
```

- On **z/OS**, delete the iWay directories and remove the environment variables.

Registering iWay Software

A default license file, provided when you install iWay 5.5 SM, allows you to use all features of iWay, including adapters, for 90 days. In order to receive a permanent license file that allows you to use the iWay features you purchased beyond this trial period, you must register your software.

Note: Once you receive your permanent license, you will also receive a 90-day trial extension for all non-purchased iWay features.

Tip: To view the features you have purchased, log onto the Web Console and click *Licenses* in the top right corner. The features that are currently in effect are displayed.

An iWay software license is associated with a specific site and a specific machine. When you register your software, your license file is generated based on information provided during the installation (Site Code) and registration (email address). Therefore, the site code you provide during installation must be accurate. The license files are sent to you through email. The process validates the email address supplied during registration and matches it to the domain name associated with the site code. License files cannot be sent to other domain names.

iWay 5.5 SM uses a software-based license management technology that verifies that the site code is valid and that the software has been activated on the eligible machine(s).

The license file (`license.xml`) contains one or more license keys required to activate specific features of iWay 5.5 SM. Do not attempt to edit this file.

When Should You Register iWay Software

You must register iWay software for each machine on which iWay is installed. The registration process will generate a separate license file for each specific machine.

You must re-register iWay software when you:

- install a new major release of iWay
- install iWay in a new directory on the same machine
- upgrade or replace the computer iWay resides on
- replace the operating system of the computer iWay resides on

How to Register iWay Software

There are three methods available to register iWay 5.5 SM. If you have email or Internet access from the machine where the iWay software resides, then you can use the Web Console to register through either email or the Internet. If you do not have email or Internet access from the machine where the iWay software resides, we provide an alternate method of registration.

This section explains how to register your software using the three methods.

Procedure: How to Register iWay Using the Web Console

1. Start Service Manager and log on to the Web Console if you have not already done so.
2. At the top right of the Web Console, click *Licenses*.
A page appears with information about your current licenses.
3. Click the *register the software* hyperlink.
A form appears.
4. Provide the requested information.
5. Click either *Web* or *EMail*.
 - *Web* sends the form using HTTP.
 - *EMail* opens your default email client and creates an email with the form contents in the message body. Use the email client Send button to submit the registration form.

Once the registration request is processed, you will receive an email with a license file (license.xml) containing the license key(s) for your site and details on how to install the file.

6. Copy the license file onto your computer and place it in the root directory of your iWay 5.5 SM installation.

7. Restart iWay Service Manager to activate the registration.

Procedure: How to Register iWay Using an Alternate Method

If you do not have email or Internet service on the machine where iWay is installed, use the following steps to register the iWay software.

1. Send the install.xml file, located in the *iWay55SM\bin* directory, to feedback@iwaysoftware.com with the following information in the body of the email:
 - Company Name
 - Your Full Name
 - Email Address
 - City, Province, Postal Code, and Country
 - Phone Number

Once the registration request is processed, you will receive an email at the address you provided that contains the license file (license.xml) and details on how to install the file.

2. Copy the license file onto your computer and place it in the root directory of your iWay 5.5 SM installation.
3. Restart iWay Service Manager to activate the registration.

Registration Help

If you do not receive your license file email within five business days, verify that you provided the correct site code and email address (either by registering from the machine on which iWay resides or sending it in the alternate registration method). If you are sure you provided accurate information, contact iWay Customer Support and provide the following information:

- site code
- host name
- email address used to register the software

If you have licensing issues after receiving your license file, contact iWay Customer Support and provide them with the following information:

- license file you received
- install.xml file located in the *iWay55SM\bin* directory
- any license error messages found in the iWay Service Manager Console

Configuration Steps

Now that you have installed and registered iWay 5.5 SM, review the following configuration steps for iWay components.

1. Prepare your adapter by reviewing the information in Chapter 3, *Preparing Adapters*.
2. Start iWay Service Manager as explained in Chapter 4, *Configuring iWay Components*.
3. To use application server components like Servlet iBSP or iWay Connector for JCA, prepare and deploy them as explained in Appendix A, *Deploying iWay Application Server Components*.
4. Configure a version of iWay Explorer as explained in Chapter 5, *Configuring iWay Explorer*.
5. To change the default Service Manager repository or to use Servlet iBSP or iWay Connector for JCA with a RDBMS repository, optionally set up a database repository as explained in Appendix C, *Configuring the iWay Repository*.
6. Refer to your adapter documentation.

CHAPTER 3

Preparing Adapters

Topics:

- Preparing Adapters

This section explains steps that are needed after installing iWay, but before using adapters.

Preparing Adapters

Some iWay adapters require additional steps or files before they can be used. Your adapter may not be available and may not appear in iWay Explorer until these steps are performed. In many cases this involves copying third party libraries or JDBC drivers into the iWay lib directory, for example:

`C:\Program Files\iWay55sm\lib`

After performing the steps for your adapter, you will need to restart Service Manager if it is currently running. If you deployed components to an application server, you will need to restart the application server.

Note: This document 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.

Review the topics that follow. If you do not see your adapter listed, check the iWay Web site or contact a Customer Service representative.

Note: If your adapter uses MQ Series as a transport, your system must meet the requirements for MQ Series.

Adapters with no Requirements

iWay Adapters for the following data sources, systems, or protocols do not require third party files or initial configuration:

- CICS Transaction Adapter (XML)
- eMail
- Flat Files
- HIPAA
- HL7
- IMS
- IMS Database (iWay Adapter for RDBMS)
- IMS Transaction Manager
- ISO15022
- iWay/WebFOCUS (EDA) Server (iWay Adapter for RDBMS)

- Lawson
- Microsoft Message Queuing (MSMQ)
- SWIFT
- Transora
- UCCnet

Legacy Mainframe Adapters with iWay Server Requirement

Access to the following legacy mainframe data sources is provided through an iWay (EDA) Full Function 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 is accomplished by first connecting to the iWay Server. Adapters for other legacy data sources do not require an iWay Server.

To configure legacy data adapters for use with iWay 5.5 SM:

1. Install an iWay Server on the mainframe containing the data sources you wish to access.

For Information on iWay Server installation and configuration, see the *WebFOCUS and iWay Server Installation* manual and refer to the *Server for z/OS* chapter.

2. Configure the iWay Server to access the data source using the iWay Server Full Function Server Web Console. The Web Console help explains the required steps. These steps also appear in the *Data Adapter Administrator User's Guide* and the *Server Administration for UNIX, Windows NT OpenVMS, OS/400, & z/OS manual*.
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 iWay Explorer.

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

AS1 and AS2

BouncyCastle files are required. The name varies depending on your Java SDK release:

`bcmail-jdk14-xxx`

`bcprov-jdk14-xxx`

Copy these files into the iWay lib directory, for example:

`C:\Program Files\iWay55sm\lib`

CORBA

Your ORB provider's API JAVA libraries are required and should be copied into the iWay lib directory, for example:

`C:\Program Files\iWay55sm\lib`

For ORBACUS, these are the following files:

`OB.jar`

`OBnaming.jar`

Note: If you use a third party application server, you should add these files to its CLASSPATH.

DB2 Net Driver (iWay Adapter for RDBMS)

The DB2 JDBC driver (db2java.zip) is required. This is installed as part of the DB2 server. The default location on Windows is similar to the following:

`C:\Program Files\IBM\SQLLIB\java\db2java.zip`

Copy this file into the iWay lib directory, for example:

`C:\Program Files\iWay55sm\lib`

For DB2 7, you may need to 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. To run the usejdbc2 procedure, you must stop the DB2 instance.

ESRI (GEOLoad)

The following files installed with ArcSDE software are required:

`\ArcGIS\ArcSDE\lib\jpe90_sdk.jar`

`\ArcGIS\ArcSDE\lib\jsde90_sdk.jar`

Copy these files into the iWay lib directory, for example:

`C:\Program Files\iWay55sm\lib`

In addition, binary files may be needed in PATH. On Windows, the following should normally be in C:\WINNT\system32 or C:\WINDOWS\system32:

`mmaxwus3.dll`

`usgeo.dll`

`usattr.dll`

FIX

No third party files are required. However, be sure to download the FIX package from the iWay Web site using Internet Explorer:

<http://iwse.ibi.com/ebiz>

Informix (iWay Adapter for RDBMS)

The JDBC driver for Informix is required:

`ifxjdbc.jar`

You can download this driver from the Informix Web site as an archive. Copy the driver into the iWay lib directory, for example:

`C:\Program Files\iWay55sm\lib`

J.D. Edwards EnterpriseOne (OneWorld)

J.D. Edwards EnterpriseOne (OneWorld) Java-based ThinNet API is required.

This is normally distributed as JAR files with the J.D. Edwards installation media. These files may vary depending on the J.D. Edwards release. They usually consist of the following:

`Kernel.jar`

`Connector.jar`

`jdeutil.jar`

`log4j.jar`

Note: The Kernel.jar and Connector.jar files are for version B7333.

The Kernel.jar, Connector.jar, jdeutil.jar, and log4j.jar files are for EnterpriseOne Version 8.10.

These files are located in the `\\system\classes` folder on the JDE Client and the Deployment Server.

Copy the JAR files into the iWay lib directory, for example:

`C:\Program Files\iWay55sm\lib`

J.D Edwards WorldSoft

The DB2/400 JDBC driver is required. Copy the driver into the iWay lib directory, for example:

`C:\Program Files\iWay55sm\lib`

JMS

The JMS listener requires the JMS specific JAR files supplied by the JMS vendor. Copy the JAR files into the iWay lib directory, for example:

`C:\Program Files\iWay55sm\lib`

For TIBCO Enterprise for JMS software, this is:

`Tibjms.jar`

`Tibjmsnaming.jar`

`jms.jar`

`tibjmsadmin.jar`.

When running components through BEA WebLogic Server, this is `weblogic.jar`.

Lotus Notes

Lotus Domino driver for JDBC is required. The following file is needed:

`JdbcDomino.jar`

Copy this file into the iWay lib directory, for example:

`C:\Program Files\iWay55sm\lib`

Manugistics

The Oracle JDBC driver is required. This is typically

`classes12.jar`

Copy this file into the iWay lib directory, for example:

`C:\Program Files\iWay55sm\lib`

MFG/PRO

The Progress JDBC Type 2 driver is required. The following files are needed:

`jdbc.jar`

`progress.jar`

`JdbcProgress.dll`

`Procli92.dll`

Copy these files into the iWay lib directory, for example:

`C:\Program Files\iWay55sm\lib`

Microsoft .NET

Microsoft .NET Framework should be installed on the iWay machine. 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>

MQ Series (IBM WebSphere MQ)

The following JAR file is needed:

`com.ibm.mq.jar`

Copy these files into the iWay lib directory, for example:

`C:\Program Files\iWay55sm\lib`

When running components through an application server, also add these files to the application server CLASSPATH.

Also ensure that one of the following MQ Series directories is in the search PATH of any user ID that runs iWay components.

`MQSeries\Java\lib`

or

`WebSphereMQ\Java\lib`

Oracle Applications (E-Business Suite)

Oracle JDBC drivers (thin type4 or OCI type2) and/or Oracle Client NET8 or NET9 are required. Copy the require JAR files into the iWay lib directory, for example:

`C:\Program Files\iWay55sm\lib`

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

The following JAR files are required:

`aqapi12.jar`

`ons.jar`

As well as the Oracle JDBC driver:

`classes12.jar`

Copy these files into the iWay lib directory, for example:

`C:\Program Files\iWay55sm\lib`

Oracle (iWay Adapter for RDBMS)

The Oracle JDBC driver is required:

`classes12.jar`

Copy this files into the iWay lib directory, for example:

`C:\Program Files\iWay55sm\lib`

You can download this driver from the Oracle Web site at:

http://www.oracle.com/technology/software/tech/java/sqlj_jdbc/index.html

For more information on Oracle JDBC issues, see the Oracle JDBC FAQ at:

http://www.oracle.com/technology/tech/java/sqlj_jdbc/htdocs/jdbc_faq.htm

PeopleSoft

The PeopleSoft Java Object Adapter is required. This file provides a low level interface between client applications and PeopleSoft. It is normally installed with PeopleSoft under:

`PS_HOME\web\PSJOA\psjoa.jar`

where:

`PS_HOME`

Is the PeopleSoft home directory.

Copy this file into the iWay lib directory, for example:

`C:\Program Files\iWay55sm\lib`

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.

For PeopleSoft 8.1, the following file also must be copied into the iWay lib directory:

`PS_HOME\web\jmac\pstools.properties`

For more information, see the *iWay Adapter for PeopleSoft User's Guide*.

RDBMS (XML Adapter for RDBMS)

See requirements in for specific target data sources. For example, DB2, Oracle, SQL Server, and so forth.

SAP R/3

SAP Java connector 2.15 or above is required. This is typically:

`sapjco.jar`

For the current release status of the SAP Java Connector, refer to SAP Note #549268 in the SAP Service Marketplace Web site. 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.

When using an application server, if you run into problems with the adapter for SAP, add sapjco.jar to your application server CLASSPATH.

Siebel

For Siebel 6.3.x and higher, Siebel Java Data Bean API is required. This is distributed as JAR files with the Siebel Thin Client.

Copy the required JAR files into the iWay lib directory, for example:

`C:\Program Files\iWay55sm\lib`

The required files 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`
- Siebel 7.7 - 7.8.2
 - `SiebelJI_enu.jar`
 - `Siebel.jar`

The Siebel COM-based API (Windows only) requires the Siebel Thin Client to be installed and accessible to the adapter.

The following files 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 files for *MQ Series (IBM WebSphere MQ)* on page 3-7.

SQL Server (iWay Adapter for RDBMS)

The SQL Server JDBC driver is required. The required files vary depending on driver release.

- For SQL Server 2000, there are three files:
 - `msbase.jar`
 - `mssqlserver.jar`
 - `msutil.jar`
- For SQL Server 2005, there is one file:
 - `sqljdbc.jar`

Copy the driver file or files into the iWay lib directory, for example:

`C:\Program Files\iWay55sm\lib`

You can download the driver free of charge from:

<http://microsoft.com>

Terminal Emulation Adapter (3270/5250) (Telnet)

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. The two client components are:

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

To run the Emulation Adapter on a UNIX system, you need the Emulation Adapter client components on the UNIX system and *also* the adapter's client components on a Windows system. This enables you to use the Telnet Designer, which is supported on Windows only.

The iWay Emulation Adapter requires client components, including the Telnet Designer, that are configured when you install iWay 5.5 SM. Depending on the options you chose during the iWay installation, they may already be installed.

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

Sybase (iWay Adapter for RDBMS)

The JDBC driver for Sybase servers (jConnect for JDBC) is required.

You can download the driver (jconn2.jar) from the Sybase downloads Web site:

<http://www.sybase.com/downloads>

In the What's New, Product/Solutions drop-down list, select *jConnect for JDBC* and review the information.

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.

Copy the JDBC driver files into the iWay lib directory, for example:

`C:\Program Files\iWay55sm\lib`

TIBCO Rendezvous

The following file is required.

`tibrvj.jar`

Copy this file into the iWay lib directory, for example:

`C:\Program Files\iWay55sm\lib`

In addition to the Java file, tibrvj.jar, the iWay Adapter for TIBCO requires several TIBCO binary files. These files are stored in the following TIBCO directory:

`C:\tibco\tibrv\bin`

This directory must be added to the search PATH variable of any user ID that runs iWay components.

CHAPTER 4

Configuring iWay Components

Topics:

- Configuring and Verifying iWay Service Manager
- Verifying iWay Transformer
- Verifying iWay Designer
- Configuring iWay Application Server Components

This section explains how to configure and verify iWay components.

Configuring and Verifying iWay Service Manager

iWay Service Manager is a highly scalable enterprise service bus. It contains fully integrated service design-time workbench and web services creation and deployment capabilities, and it provides a hosting environment for adapters.

Note: Adapters can also be hosted through third party application servers using iWay Connector for JCA and Servlet iBSP.

This section explains how to start and stop iWay Service Manager, configure and create additional instances of Service Manager, configure the Java memory size, and verify the iWay Business Services Provider (iBSP).

At this time, you are ready to start iWay Service Manager and access its Web Console.

Starting and Stopping iWay Service Manager on Windows

If you are not on a Windows system, proceed to *Starting and Stopping iWay Service Manager on Non-Windows Platforms* on page 4-3.

The following procedure explains how to start and stop iWay Service Manager on Windows. If you copied third party files for your adapters into the `iWay55sm\lib` directory, you should restart it at this time. If it is not started, start it as explained below.

Procedure: How to Start and Stop Service Manager on Windows

By default, Service Manager runs as a Windows Service and there are two ways to start and stop it.

- Use the Windows start menu to select *Programs, iWay 5.5 SM, base, and Start Service Manager - base* or *Stop Service Manager - base*.

or

- Open the Services window (Control Panel, Administrative Tools, Services), right-click *iWay Service Manager -base*, and select *Start, Restart, or Stop*.

Note: By default, Service Manager starts with Windows. To prevent it from starting with Windows, open the Services window, right-click *iWay Service Manager -base*, choose *Properties*, and change the *Startup type* to *Manual*.

Windows users can proceed to *Configuring Service Manager* on page 4-5

Starting and Stopping iWay Service Manager on Non-Windows Platforms

For non-Windows systems, you can run Service Manager as a service (daemon) or as a non-service.

Windows users can proceed to *Configuring Service Manager* on page 4-5

Procedure: How to Start Service Manager on Non-Windows Platforms as a Non-Service

To start Service Manager as a non-service:

1. Navigate to the directory where iWay 5.5 SM is installed, for example:

```
/home/userID/iWay55sm
```

2. Type the following:

```
./iway55.sh base
```

When you start Service Manager, you specify which configuration to use. The base configuration is available by default and includes SOAP and HTTP listeners. You can run more than one instance of Service Manager by defining multiple configurations using the Web Console.

When iWay has started, you receive the following prompt:

```
Enter command:>
```

Procedure: How to Stop Service Manager on Non-Windows Platforms as a Non-Service

To stop Service Manager when it runs as a non-service:

1. Go to the Service Manager prompt:

```
Enter command:>
```

2. At the Service Manager prompt, enter the following to stop listeners:

```
stop
```

3. When listeners have stopped, enter the following:

```
quit
```

Procedure: How to Start Service Manager on Non-Windows Platforms as a Service

To start Service Manager as a service (daemon):

1. Navigate to the iWay55sm/bin directory, for example:

```
/home/userID/iWay55sm/bin
```

2. Edit the following file.

Note: This step is only required the first time you start Service Manager.

- a. Open the following file in a text editor:

```
iway55Service.sh
```

- b. Edit the IWAY55 line to specify where iWay is installed. Be sure to include the final trailing slash, for example:

```
IWAY55sm=/home/userID/iWay55sm/
```

- c. Edit the IWAYUSER line so that it specifies the user ID that you want Service Manager to run under, for example:

```
IWAYUSER=userID
```

This user ID requires full permissions to the iWay55sm directory structure. For security reasons, it is not a good idea to run Service Manager as root.

- d. Save and exit the file.

3. Execute the startup service file, for example:

```
./iway55Service.sh
```

If you are not logged on as root, you are prompted for the password of the user ID under which Service Manager runs.

```
Password:
```

4. Enter the password for this user ID.

The base configuration of Service Manager is started in the background and includes SOAP and HTTP listeners. A serviceOut.txt file appears in the iWay55sm directory and contains log information.

Procedure: How to Stop Service Manager on Non-Windows Platforms as a Service

To stop Service Manager running as a service (daemon):

1. Navigate to the iWay55sm/bin directory, for example:

```
/home/userID/iWay55sm/bin
```

2. Edit the shutdown file.

Note: This step is only required the first time you stop Service Manager.

- a. Open the following file in a text editor:

```
iway55ShutDown.sh
```

- b. Edit the IWAY55 line to specify where iWay is installed. Be sure to include the final trailing slash, for example:

```
IWAY55sm=/home/userID/iWay55sm/
```

- c. Edit the IWAYUSER line so that it specifies the user ID you are using to run Service Manager, for example:

```
IWAYUSER=userID
```

- d. Save and exit the file.

3. Execute the shutdown file, for example:

```
./iway55ShutDown.sh
```

If you are not logged on as root, you are prompted for the password of the user ID under which Service Manager runs.

Password:

4. Enter the password for this user ID.

Note: If you receive an error, ensure the user ID is defined in the shutdown file.

Configuring Service Manager

The installation program automatically installs and configures Service Manager. The initial base configuration sets up SOAP and HTTP listeners. You can modify the base configuration, set up additional listeners, or create a new configuration using a Web-based configuration tool called the Web Console.

Procedure: How to Configure and Secure Service Manager

To access the Web Console:

1. Open the following page in your Web browser:

```
http://hostname:9999
```

where:

```
hostname
```

Is the hostname where you installed iWay.

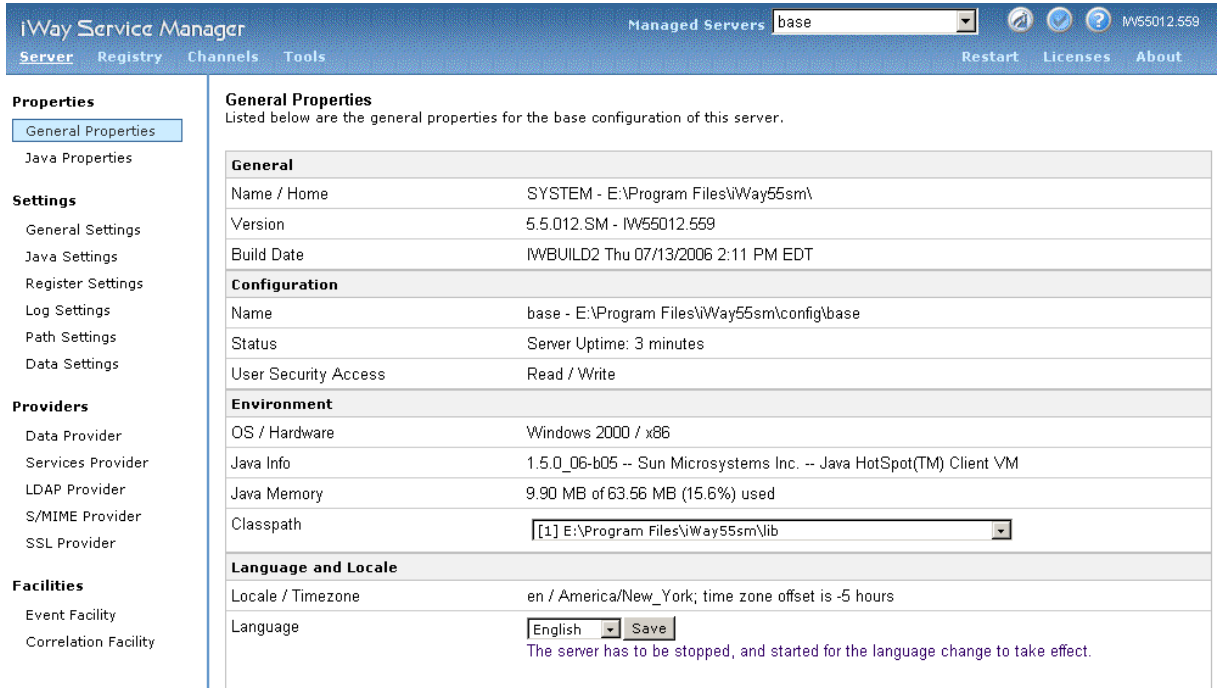
If you changed the default port, substitute accordingly.

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

User Name admin

Password admin

The Web Console opens:



Full information on using this console is in the *iWay Service Manager User's Guide*.

For security purposes, you should change the default passwords used to access the console as follows.

3. At the top of the console, click *Managed Servers*.

The Server Management page opens.

The bottom of the page shows a list of existing users. By default there are two user IDs:

[admin](#)

for administration.

[iway](#)

for general usage.

4. In the *Name* column, click *iway* to change this user's password.
5. Type a new password in the *Password* field, confirm the password, and click *Finish*.
6. In the *Name* column, click *admin* to change this user's password.

7. Type a new password in the *Password* field, confirm the password, and click *Finish*.
You are prompted to log on with the new password.
8. Log on with the new password and click *OK*.

Getting Started With iWay

After iWay starts, review the iWay Welcome pages. These pages are part of the iWay Console and accessible at:

<http://hostname:9999/ism/welcome>

where:

[hostname](#)

Is the hostname where you installed iWay. If you changed the default port, substitute accordingly.

These pages provide an excellent way to become familiar with iWay functionality and features.

Additional Configurations

You can create a new configuration if you wish to run more than one instance of Service Manager. Most iWay documentation assumes you are using the default base configuration. If you create a new configuration, substitute accordingly when reading iWay documentation.

Creating a new configuration is not normally required and most users can skip ahead to *Configuring the Java Memory Size Settings* on page 4-11.

Procedure: How to Create an Additional Configuration

1. If it is not already open, access the Web Console and log on as an administrator.
2. On top of the console, click *Managed Servers*.
The Server Management page opens.
3. Under the Configurations area, click *Add*.
A form appears to define the new configuration.

4. Complete the form as explained in the following table:

Field Name	Value
Name	Enter a name for the configuration. A directory with this name will be created under iWay55sm\config, for example: <code>C:\Program Files\iWay55sm\config\myconf</code> This name is case sensitive, even on Windows.
Description	Optionally enter a description for this configuration.
Based On	Select a configuration or use a template for the new configuration. You can use one of the two defaults: <ul style="list-style-type: none"> The raw configuration contains no listeners and provides a blank template for defining additional configurations. The base configuration includes the default SOAP listener. If you use the base configuration as your template, you will need to later change the SOAP port of the new configuration so it does not conflict between instances. <p>Note: If you have added additional listeners to the base configuration, those listeners will also be part of the new configuration.</p>
Port	Enter a port number that the new configuration will use for its console processing.
Bind Address	Optionally enter an address for multi-homed hosts.
Secure	Optionally click the <i>On</i> check box to enable SSL.

5. After completing the form, click *Finish*.

The new configuration is created. A directory for the configuration is added to the file system under the config directory. On Windows this is:

`C:\Program Files\iWay55sm\config`

Procedure: How to Run Additional Configurations on Windows

If you are not using Windows, proceed to *How to Run Additional Configurations on Non-Windows Platforms* on page 4-10.

On Windows, to create and run a new Windows service for the configuration:

1. Open a command prompt and navigate to the iWay55sm\bin directory:

```
C:\Program Files\iWay55sm\bin
```

2. Enter the following to create the service.

```
iwsrv config_name -s install
```

where:

```
config_name
```

Is the name of the new configuration. This is case sensitive, even on Windows.

The following should display:

```
iWay Service Manager - config_name  
Service Installed Successfully.
```

For details on iWay Service Manager, see the *iWay Service Manager User's Guide*.

3. Start and stop the configuration from the Windows Services window (Control Panel --> Administrative Tools --> Services). The service appears as:

```
iWay Service Manager - config_name
```

If you want to remove the service, ensure the service is stopped and then enter the following in a command prompt at the iWay55sm\bin directory:

```
iwsrv config_name -s remove
```

4. Proceed to *How to Configure an Additional Configuration* on page 4-10.

Procedure: How to Run Additional Configurations on Non-Windows Platforms

On other platforms, you can run the new configuration as a service (daemon) or as a non-service.

- To run as a **non-service**, navigate to the directory where you installed iWay and enter the following:

```
eway55.sh config_name
```

where:

```
config_name
```

Is the name of the new configuration.

- To run as a **service**, you must copy, edit, and then execute the default startup and stop files in the iWay55sm/bin directory:

```
eway55Service.sh
```

```
eway55ShutDown.sh
```

Copy and rename these files and then edit them to replace "base" with the name of your configuration. Also be sure to change the log file names "serviceOut.txt" and "serviceShutdown.txt" so they are unique to this configuration. After copying and editing the startup file, execute it. The exact names of these files may vary depending on your platform.

Procedure: How to Configure an Additional Configuration

1. After the configuration has started, return to the Web Console home page for the default configuration:

```
http://hostname:9999
```

Note: Although each configuration has a Web Console port, the Web Console port for an additional configuration is not normally used. If you do use the Web Console port for an additional configuration, you still need to select that configuration from the *Manager Servers* drop-down list.

2. In the *Managed Servers* drop-down list, select your configuration.
3. Use the Web Console to configure the new configuration.
4. If you used the base configuration as a template, change the SOAP port so it does not conflict with the default base configuration. Then restart the configuration.

Configuring the Java Memory Size Settings

Although most users can skip ahead to *Verifying Service Manager iBSP* on page 4-12, it is a good idea to review this information should you need to troubleshoot.

Setting some Java VM (JVM) options can improve performance or correct problems with Service Manager. The most common settings involve the size of the Java heap and stack, which determine memory availability for Java programs and the JVM. Errors can occur if not enough memory is available, and the heap size impacts performance, since it determines how often garbage collection occurs.

If you run into performance problems or receive out of memory exceptions, you can adjust these sizes. The following are the most common JVM options related to memory settings. Replace the ### with the size you wish to set:

`-Xmx###M`

Sets the maximum Java heap size.

`-Xms###M`

Sets the initial Java heap size.

`-Xss###M`

Sets the Java thread stack size.

The size is normally set in Megabytes, for example:

`-Xmx512M`

Optimum sizes vary depending on your total memory, the needs of your application, how many other processes require memory, the type of Java VM, and other considerations.

Where to set these and other JVM options, depends on your operating system:

- On **Windows**, set JVM options using the Web Console. On the Web Console home page, under Settings, click *Java Settings*, specify your JVM options in the *Startup Options* box, and click *Update*. Then completely stop Service Manager and start Service Manager again. An example of these options is:

`-Xmx512M -Xms256M`

- On **non-Windows** platforms, you must manually modify the script you use to start Service Manager:
 - If you run Service Manager as a **service** (daemon), edit the script you use to start the service (e.g., `iway55Service.sh`) and add JVM options to the line that calls the `java` command, for example:

```
su $IWAYUSER -c "java -Xmx512M -Xms256M $REMDBG -cp $CLASSPATH -DIWAY55=$IWAY55SM
com.ibi.service.edaqlmSilentService -config $IWAYCONFIG >> $IWAY55/serviceOut.txt &"
```

- If you run Service Manager as a **non-service** edit the script you use to start Service Manager (e.g., `iway55.sh`) and add JVM options to the line that calls the java command, for example:

```
java -Xmx512M -Xms256M $REMDBG -cp $CLASSPATH -DIWAY55=$IWAY55SM edaqm -config $SCRIPT $2 $3 $4 $5 $6
```

Verifying Service Manager iBSP

iWay Business Services Provider (iBSP) is a transformation and integration engine for processing XML files and SOAP messages for exchange with Web services applications and other systems. There are two versions of iBSP:

- **Service Manager iBSP.** Runs as a component of iWay Service Manager and no steps are needed for its initial setup.
- **Servlet iBSP.** Runs as a Web application deployed through an application server or servlet container such as Apache Tomcat, BEA WebLogic, IBM WebSphere, Oracle 9iAS, SAP J2EE Engine, or Sun Java System (Sun One) AS. For more information, see Appendix A, *Deploying iWay Application Server Components*.

When first installed, iWay Service Manager is configured for iBSP and its default SOAP listener is on port 9000. You can verify the installation by accessing a sample Web service.

Note: iWay Business Services Provider (iBSP) was formerly known as iWay Business Services Engine (iBSE). Some references, files, and prompts may still use the older name.

Procedure: How to Verify Service Manager iBSP

1. Ensure Service Manager is started.
2. Go to the following page in your browser:

<http://hostname:9000>

where:

[hostname](#)

Is the hostname where you installed iWay.

If you changed the default port, substitute accordingly.

The iBSP home page opens as shown below. Three hyperlinks are available by default for the three default licenses, IVP, test, and production.



- [IVP](#)
The IVP License is installed by default. It is used to install predefined iWay Business Service Provider Services.
- [production](#)
The production License is installed by default. It is used for production purpose.
- [test](#)
The test License is installed by default. It is used to test iWay Business Service Provider Services.

This page allows you to test the sample Web service installed with iWay 5.5 SM. When you create Web services using iWay Explorer, you can also test them from this page.

3. Click *IVP*.
4. Click *ipayivp*.
5. Click *ivp*.
6. Click *Invoke*.

An XML response that is similar to 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:iBSP:jul2003:ivp:response"
    cid="A0328ED84ABFA055C4F64B8039C991AA">
    <CurrentTime>2007-04-08T19:14:03Z</CurrentTime>
    <Version>IWAY5.5 Service Manager (smspl.7105)</Version>
  </ivpResponse>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

Verifying iWay Transformer

iWay Transformer is a GUI tool for specifying how records and fields map to one another. It supports one-to-one, one-to-many, or many-to-one mapping relationships. Documents created by iWay Transformer are characterized as transformation templates and can be used throughout iWay. After being created, the templates are stored as XML documents, so they can be maintained and managed with or without iWay Transformer.

Data domain experts can use iWay Transformer to create sophisticated transformation templates without programming assistance. Both transformations for XML and non-XML, input and output document types can be created.

If you chose a typical installation or chose the iWay Transformer option in a custom installation, it is installed with iWay 5.5 SM.

Procedure: How to Access iWay Transformer

To start iWay Transformer:

- On Windows, use the *Start* menu by selecting *Programs*, *iWay 5.5 SM*, *tools*, and *iWay Transformer*.
- On UNIX, navigate to its bin directory. For example:

```
/home/userID/iWay55sm/tools/transformer/bin/transformer.sh
```

Enter the following:

```
./transformer.sh
```

The first time you open iWay Transformer, a wizard may appear to help you set up a project. If the wizard does not appear, select *File* and *Project Wizard*. For information on using Transformer, see the online help and Transformer documentation.

Note: If iWay Transformer does not launch and you get an exception related to "com/iwaysoftware/transform/workbench/IxteWorkbench" open a Command Prompt, clear the CLASSPATH variable ("Set CLASSPATH="), and start Transformer from the Command Prompt (iWay55sm\tools\transformer\bin\transformer.exe).

Verifying iWay Designer

iWay Designer is a GUI tool that builds workflows for use with iWay. Workflows model business processes and control tasks in a correct sequence. A workflow definition serves to control the sequence in which external program modules are executed. A version of iWay Explorer is imbedded as part of iWay Designer.

iWay Designer is supported on Windows. If you chose a typical installation or chose the iWay Designer option in a custom installation, it is installed with iWay 5.5 SM on Windows.

Procedure: How to Access iWay Designer

After installing iWay 5.5 SM, you can start iWay Designer through the Windows *Start* menu by selecting *Programs, iWay 5.5 SM, tools, and iWay Designer*.

For information on using iWay Designer, see the iWay Designer documentation.

Configuring iWay Application Server Components

iWay provides several components that can be deployed and run in J2EE Application Servers:

- iWay Business Services Provider (iBSP) 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. The servlet implementation of iBSP runs as a Web application. After you deploy Servlet iBSP, you have access to adapters installed with iWay 5.5 SM.
- 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. iWay Connector for JCA provides XML transformation, adapter hosting, and integration capabilities. After you deploy iWay Connector for JCA, you have access to adapters installed with iWay.
- iWay Explorer uses iWay adapters to create schemas and Web services for use with iWay components 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 object or system. The servlet implementation of iWay Explorer is a Web application that you can deploy to your application server.

Appendix A, *Deploying iWay Application Server Components* explains how to configure these components. The following steps are involved:

1. Ensure your application server is properly installed and configured.
2. Perform any pre-requisites to configure the application server for iWay components.

Configuring iWay Application Server Components

- 3.** Prepare iWay application server components to be deployed. For certain application servers, this can be automated by running the iWay deploy tool.
- 4.** Deploy your application server components.
- 5.** If needed, create a database repository.

CHAPTER 5

Configuring iWay Explorer

Topic:

- Configuring iWay Explorer
- Configuring Swing iWay Explorer
- Configuring iWay Designer iWay Explorer
- Configuring Eclipse iWay Explorer
- Configuring Servlet iWay Explorer
- Configuring ASP.NET iWay Explorer

This section explains how to configure iWay Explorer.

If you are planning to use Servlet iBSP or iWay Connector for JCA, you should first review Appendix A, *Deploying iWay Application Server Components* and then return to this section.

Configuring iWay Explorer

iWay Explorer is a GUI tool that uses iWay Adapters to create schemas and Web services for use with iWay components or other XML or Web services based programs. It allows you to quickly generate and publish a Web service from objects and procedures in many different systems, without requiring in-depth knowledge of the object or system.

There are several versions of iWay Explorer. You only need to use one:

- **Swing iWay Explorer** is an independent Java application. See *Configuring Swing iWay Explorer* on page 5-3 for configuration information.
- **iWay Designer iWay Explorer** is imbedded in iWay Designer. See *Configuring iWay Designer iWay Explorer* on page 5-5 for configuration information.
- **Eclipse Rich Client (Standalone) iWay Explorer** is an independent Java application based on the Eclipse platform. See *Configuring Eclipse iWay Explorer* on page 5-9 for configuration information.
- **Eclipse Plugin iWay Explorer** can be embed in the open source Eclipse development environment using iWay Integration Tools for Eclipse. See *Configuring Eclipse iWay Explorer* on page 5-9 for configuration information.
- **Servlet iWay Explorer** is a Web application accessible through a Web browser. It must be deployed through an application server. This is sometimes referred to as the JSP iWay Explorer. See *Configuring Servlet iWay Explorer* on page 5-12 for configuration information.
- **ASP.NET iWay Explorer** is an ASP application accessible through a Web browser. It must be deployed through Microsoft Internet Information Server (IIS) and requires .NET components. See *Configuring ASP.NET iWay Explorer* on page 5-16 for configuration information.

There is normally no reason to configure more than one iWay Explorer. If you are using iWay Designer then you can use the iWay Explorer imbedded in iWay Designer. If you are not on Windows and do not have an X Server, use Servlet iWay Explorer.

If you are planning to use Servlet iBSP or iWay Connector for JCA, you should first review Appendix A, *Deploying iWay Application Server Components* and then return to this section.

Note: iWay Connector for JCA is not supported with the ASP.NET iWay Explorer or iWay Designer iWay Explorer.

Configuring Swing iWay Explorer

Java Swing iWay Explorer is an independent Java application installed with iWay.

Note: Swing iWay Explorer requires Java SDK 1.4.2.

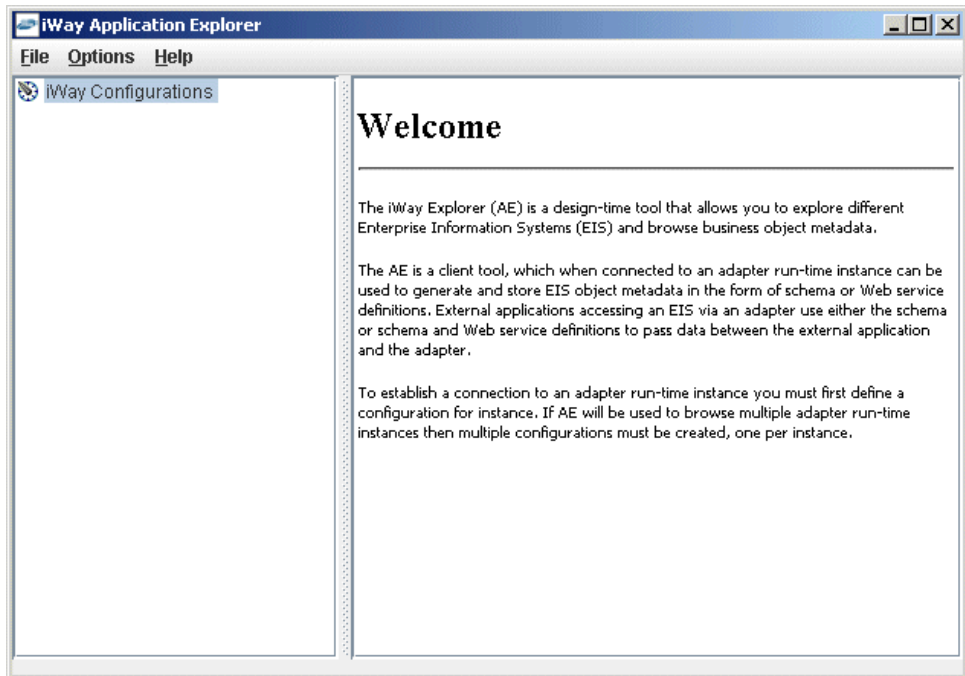
Procedure: How to Access Swing iWay Explorer

1. Start Swing iWay Explorer:

- On Windows, use the Windows *Start* menu to select *Programs, iWay 5.5 SM, tools, and iWay Explorer - SWING*.
- On UNIX platforms with an X Server, you can execute the following:

```
/home/userID/tools/iwae/bin/iwae.sh
```

Swing iWay Explorer should open.



Note: If Swing iWay Explorer does not launch and you get an exception related to "com/ibi/bse/gui/BseFlashScreen," open a Command Prompt, clear the CLASSPATH variable ("Set CLASSPATH="), and start iWay Explorer from the Command Prompt (iWay55sm\tools\iwae\bin\iaexplorer.exe). Alternatively, you can use the Eclipse iWay Explorer as explained in *Using Eclipse iWay Explorer* on page 5-10.

2. Right-click *iWay Configurations* and choose *New*.

You are prompted to name the configuration. A configuration specifies an instance of Service Manager, Servlet iBSP, or iWay Connector for JCA. For Connector for JCA, the name should match the configuration, base, by default. For Service Manager and Servlet iBSP, you can choose any name you wish.

3. Name the configuration and click *OK*.

You are prompted for the URL to access Service Manager. This is normally:

`http://hostname:9000`

where:

`hostname`

Is the hostname where iWay is installed.

Note: If you changed the default SOAP port, substitute accordingly.

You are prompted for connection information. This varies depending on whether you access Service Manager, Servlet iBSP, or iWay Connector for JCA.

- For **Service Manager**, specify the URL for the Service Manager hostname and SOAP port, for example:

`http://hostname:9000`

where:

`hostname`

Is the hostname where iWay is installed.

If you changed the default SOAP port, substitute accordingly.

- For **Servlet iBSP**, specify the iBSP URL. This is the URL to access iBSP and depends upon the port on which your application server listens, for example:

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

where:

`hostname`

Is the hostname of the application server machine.

`port`

Is the HTTP port for your application server.

- For **Connector for JCA**, specify where iWay is installed, for example:

`C:\Program Files\iWay55sm`

4. Specify the connection information and click *OK*.
Your configuration appears on the left under iWay Configurations.
5. Right-click the configuration you created and select *Connect*.
A connection is made.
6. Expand *iWay Adapters* and *iWay Events* to see available adapters.

The available adapters vary depending on which version of iWay you install and which files are in the `iWay55sm\lib` directory. If your adapter requires third party drivers or libraries, they must be in the `lib` directory or your adapter may not appear. See Chapter 3, *Preparing Adapters* for information on required files.

To configure your adapter, right-click it, choose *Add Target*, and provide the request connection information.

For more information on using iWay Explorer, see the documentation for your adapter.

Configuring iWay Designer iWay Explorer

iWay Designer is an independent Java application installed with iWay on Windows systems. If iWay Designer is installed, you can use its imbedded iWay Explorer.

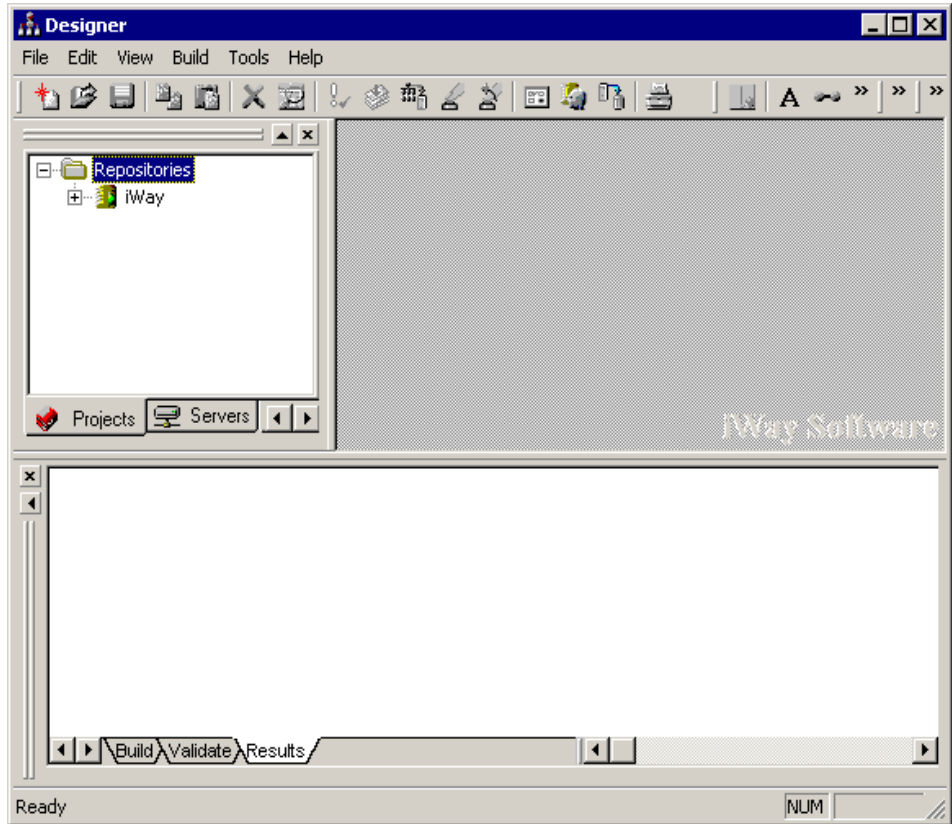
Note: iWay Connector for JCA is not supported with iWay Designer.

Procedure: How to Configure iWay Designer iWay Explorer

When iWay Designer is installed, you can access its iWay Explorer as follows:

1. Start iWay Designer from the Windows *Start* menu by selecting *Programs, iWay 5.5 SM, tools, and iWay Designer*.

iWay Designer opens and the Projects tab displays in the top left pane.



By default, a connection to the default base configuration of Service Manager on your local machine is defined with the name *iWay*. Different tabs connect at different ports. The tabs that connect at the Web Console port (9999 by default) require authentication.

If you changed the default password, you need to update iWay Designer's connection information. The user IDs and passwords are discussed in Chapter 4, *Configuring iWay Components*.

2. Right click the *iWay* connection in the upper left in the Projects tab.
3. Choose *Properties* and click the *Connection* tab.
4. Provide the correct password for the *eway* user and click *OK*.
5. In the top left pane, click the right arrow to display additional tabs.

6. Select the *Explorer* tab.

iWay Explorer connects to Service Manager at the SOAP port (9000 by default). If it is not connected, right-click iWay and choose *Connect*.

7. Expand the folder beneath iWay to browse its default content.

The default adapters depend on your environment.

8. Right-click the *iWay* connection and choose *Properties*.

9. Click *Adapter Settings* to view all installed adapters.

10. To show all adapters, click the top >> button. To show only a specific adapter, select it on the left and click the >.

11. Click *OK* to close the *Properties* window.

12. Under the *Services* and *Events* folders, you can click your adapter and choose *Add Target* to set up a connection.

The available adapters vary depending on which version of iWay you install and which files are in the iWay55sm\lib directory. If your adapter requires third party drivers or libraries, they must be in the lib directory or your adapter may not appear. See Chapter 3, *Preparing Adapters* for information on required files.

Procedure: How to Configure iWay Designer iWay Explorer Communications

iWay Designer iWay Explorer connects to Service Manager or Servlet iBSP instances. You can change the default connection or add additional connections if you wish. To add a new connection

1. Right-click *Repositories* in the upper left of the Explorer tab.

2. Select *New*.

You are prompted to name the configuration. A configuration specifies an instance of Service Manager or Servlet iBSP. You can choose any name you wish.

3. Name the configuration and click *Next*.

You are prompted for the URL to access Service Manager. This is normally:

<http://hostname:9000>

where:

[hostname](#)

Is the hostname where iWay is installed.

Note: If you changed the default SOAP port, substitute accordingly.

You are prompted for connection information. This varies depending on whether you access Service Manager or Servlet iBSP.

- For **Service Manager**, specify the URL for the Service Manager hostname and SOAP port, for example:

`http://hostname:9000`

where:

`hostname`

Is the hostname where iWay is installed.

If you changed the default SOAP port, substitute accordingly.

- For **Servlet iBSP**, specify the iBSP URL. This is the URL to access iBSP and depends upon the port on which your application server listens, for example:

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

where:

`hostname`

Is the hostname of the application server machine.

`port`

Is the HTTP port for your application server.

4. Specify the connection information and click *Finish*.
The name of the configuration appears on the left under *Repositories*.
5. Right-click the configuration choose *Properties*.
6. Click *Adapter Settings* to view all installed adapters.
7. To show all adapters, click the top >> button. To show only a specific adapter, select it on the left and click the >.
8. Click OK to close the *Properties* window.
9. Select the configuration name.
A connection is made.
10. Expand *Services* and *Events* to see available adapters.

Configuring Eclipse iWay Explorer

Two Eclipse versions of iWay Explorer are available:

- **Eclipse Rich Client (Standalone) iWay Explorer** runs on Windows as a standalone Java application based on the Eclipse platform. For the rich client (standalone) Eclipse iWay Explorer, proceed to *Using Eclipse iWay Explorer* on page 5-10.
- **Eclipse Plugin iWay Explorer** can be embedded in the open source Eclipse development environment using iWay Integration Tools for Eclipse. In addition to iWay Explorer, these tools allow you to start and stop Service Manager and view schemas within Eclipse.

Note: Java SDK 1.4.1 or higher is required.

Installing iWay Integration Tools for Eclipse

For the rich client (standalone) Eclipse iWay Explorer, proceed to *Using Eclipse iWay Explorer* on page 5-10.

For the Eclipse plugin iWay Explorer, Eclipse 3.1 or higher must be installed and configured on your system. Earlier Eclipse releases are not supported. You can download Eclipse from:

<http://www.eclipse.org/>

Note: You can embed iWay Integration Tools into Eclipse, using the Eclipse update manager as explained in the following procedure. The update manager makes it easy to add additional features and plug-ins to an Eclipse based product. You can also manually embed the tools by unzipping the iWay55sm\etc\setup\iweclipse.zip file into the Eclipse installation directory.

Procedure: How to Install iWay Integration Tools for Eclipse

1. Open Eclipse.
Note: If Eclipse is already open, ensure any active projects have been saved.
2. On the *Help* menu, select *Software Updates* and then *Find and Install ...*.
A wizard launches.
3. Change the radio button to *Search for new features to install* and then click *Next*.
A window appears where you can add plugins and features.
4. Select *New Local Site*.
5. Navigate to and select the eclipse folder under etc\setup, for example:
`C:\Program Files\iWay55sm\etc\setup\eclipse`
6. Click *OK*.

7. Click *OK* again.

The setup/eclipse option appears in the window.

8. Click *Finish*.

Another updates window appears.

9. Check *setup/eclipse* and click *Next*.

10. Review the license agreement, and if you agree, then select the *I accept ...* radio button and click *Next*.

11. Click *Finish*.

12. Click *Install All*.

Note: Be sure to click *Install All* and not just *Install*.

When the installation completes, Eclipse must restart.

13. Click *Yes* to restart Eclipse.

14. When Eclipse restarts, select the *Window* menu and choose *Show View* and then *Other*.

The Show View dialog opens.

15. Expand *iWay Integration Tools* and select *iWay Explorer* and *Complex Properties*.

16. Click *OK*.

An *iWay Explorer* tab appears in Eclipse.

Note: If Service Manager is installed on the same machine as Eclipse, you can start and stop it in console mode using buttons that appear on the menu bar.

Using Eclipse iWay Explorer

Using the Eclipse iWay Explorer is the same whether you run the plugin or rich client version.

Procedure: How to Access Eclipse iWay Explorer

1. Start the Eclipse iWay Explorer.

- For the plugin version, start Eclipse, open a project, and select the iWay Explorer tab.
- For the rich client version, use the start menu to select *Programs, iWay 5.5 SM, tools,* and *iWay Explorer - Eclipse*.

Initially, no connections are defined. You must define a connection between iWay Explorer and an iWay component such as Service Manager, Servlet iBSP, or iWay Connector for JCA.

2. Click the new iWay connection button (the blue shield) to define a connection.



3. Select *iWay Configuration* and click *Next*.
4. Name the connection.
 - For Service Manager or Servlet iBSP, this is your choice.
 - For iWay Connector for JCA, this should match the configuration name.
5. Specify the *Connection Type*.
 - For Service Manager or Servlet iBSP, choose HTTP Connection.
 - For iWay Connector for JCA, choose JCA Connection.
6. Click *Next*.
7. Enter the connection information if the default is not correct.
 - For **Service Manager**, the *URL* is the Service Manager hostname and SOAP port, for example:
`http://hostname:9000`
 where:
`hostname`
 Is the hostname where iWay is installed. Use the actual hostname and not localhost.

 If you changed the default SOAP port, substitute accordingly. You can click the *Local Connection* button to see the default.
 - For **Servlet iBSP**, the *URL* depends on your application server port and is normally:
`http://hostname:port/ibse/IBSEServlet`
 where:
`hostname`
 Is the hostname of the application server machine. Use the actual hostname and not localhost.

`port`
 Is the HTTP port for your application server.
 - For **Connector for JCA**, the File Path is where iWay is installed and the Configuration Name is "base" by default. You can create a new configuration by entering it here.

Note: Technically, iWay Explorer does not communicate directly with the connector. Instead, iWay Explorer handles schema generation and target configuration itself. iWay Explorer then writes information to the configuration directories from which the connector reads.

8. Click *Next*.
9. Check or uncheck the adapters you wish to appear and click *Finish*.

Your connection appears in the iWay Explorer tab. You can expand it to see adapters and Web services. Double click *Application Explorer* to see service adapters and double click *Event Explorer* to see event adapters. To configure an adapter, right-click it and select *Add Target*.

The available adapters vary depending on which version of iWay you install and which files are in the iWay55sm\lib directory. If your adapter requires third party drivers or libraries, they must be in the lib directory or your adapter may not appear. See Chapter 3, *Preparing Adapters* for information on required files.

For more information on using iWay Eclipse Explorer, see the Eclipse documentation available from iWay Software.

Configuring Servlet iWay Explorer

Java Servlet iWay Explorer is installed with iWay as an iwaewar file. This must be deployed through an application server or servlet container.

Deploying Servlet iWay Explorer

This section explains how to deploy Servlet iWay Explorer with Apache Tomcat. For other application servers, see Appendix A, *Deploying iWay Application Server Components*.

iWay provides a tool to prepare the iwaewar and other application server components for deployment to certain application servers. This tool and deployment steps are provided in Appendix A, *Deploying iWay Application Server Components*.

Procedure: How to Configure Servlet iWay Explorer for Apache Tomcat

This procedure refers to the directory in which Tomcat is installed as *TOMCAT_HOME*. The default location of *TOMCAT_HOME* on Windows is:

```
C:\Program Files\Apache Software Foundation\Tomcat 5.0
```

Substitute *TOMCAT_HOME* with the absolute path on your system. This procedure lists Windows paths. If you are on a UNIX system, substitute accordingly.

1. Copy the iwaewar file from the iWay etc/setup directory, for example:

```
C:\Program Files\iWay55sm\etc\setup\iwaewar
```

Into the following Tomcat directory.

`TOMCAT_HOME\webapps`

2. Start (or restart) Tomcat.

The `iwae.war` file is expanded and a new directory called `iwae` appears under `webapps`:

`TOMCAT_HOME\webapps\iwae`

3. Edit the following file

`TOMCAT_HOME\webapps\iwae\WEB-INF\web.xml`

Find the following line:

```
<service displayName="localhost" url="http://localhost:9000/" />
```

And change the url to indicate the hostname for Tomcat rather than localhost.

4. Restart Tomcat.

Accessing Servlet iWay Explorer

After Servlet iWay Explorer is deployed through your application server, you can access it. For deployment information (other than Apache Tomcat), see Appendix A, *Deploying iWay Application Server Components*.

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

Procedure: How to Access Servlet iWay Explorer

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.

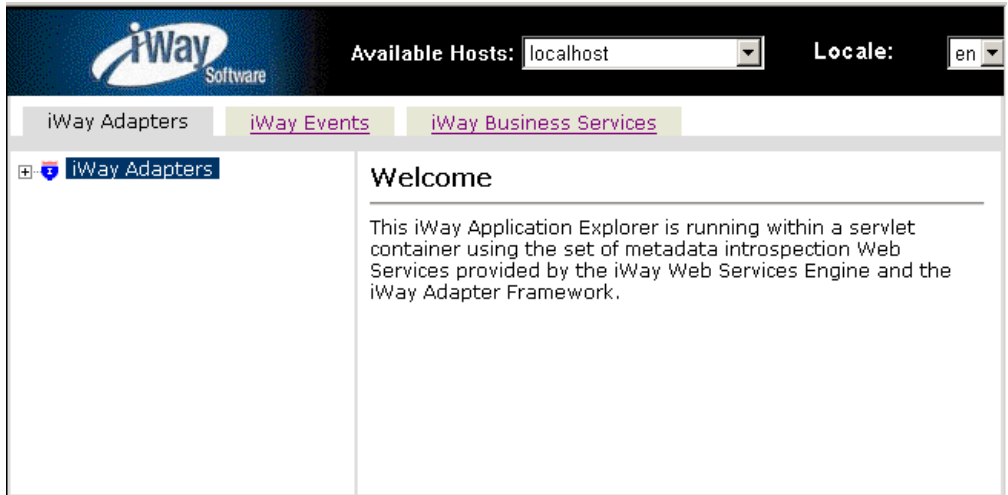
`port`

Is the HTTP port for the application server.

For example:

`http://localhost:8080/iwae/index.html`

Servlet iWay Explorer opens in your browser as shown in the image that follows.



The *Available Hosts* drop-down list in the upper right determines which Service Manager, iWay Connector for JCA configuration, or Servlet iBSP instance you access. It also has a Manage Configurations option that lets you define and edit the connections. The default settings vary depending on whether or not you ran the iWay deployment configuration utility (for example., `deploy.win32.exe`). See *Configuring Servlet iWay Explorer Communications* on page 5-15 if you wish to change the connection settings.

The default settings connect to Service Manager on your localhost at SOAP port (9000). These settings are accessible through the *Available Hosts* drop-down list. If you wish to change or add connections, see *Configuring Servlet iWay Explorer Communications* on page 5-15.

Tabs representing service adapters, event adapters, and business services appear above the lower two-thirds of the window that is divided into two panes. The supported adapters appear in the left pane. A Welcome pane appears on the right.

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

Available adapters may vary depending on the version you install and which files are in the `iWay55sm\lib` directory. If your adapter requires third party drivers or libraries, they must be in the `lib` directory or your adapter may not appear. See Chapter 3, *Preparing Adapters* for information on required files.

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

Configuring Servlet iWay Explorer Communications

Servlet iWay Explorer connects to Service Manager instances, iWay Connector for JCA configurations, or Servlet iBSP instances. You can define these connections using the Manage Configurations option.

Procedure: How to Configure Servlet iWay Explorer Communications

1. Open Servlet iWay Explorer in a Web browser.
2. In the Available Hosts drop-down list, choose *Manage Configurations*.
3. On the left, expand *Configurations* and *Hosts*.
4. To edit or delete an existing host, click its name on the left, click *Operations* on the right, and choose the relevant operation.
5. To create a new host, click *Hosts* on the left, click *Operations* on the right, and choose *Add a new host*.
6. In the *Name* field, enter the name that you wish to appear in the Available Hosts drop-down list.
7. In the *URL* field, enter the connection information. This varies depending on whether you access Service Manager, iWay Connector for JCA, or Servlet iBSP.

- For **Service Manager**, specify the URL including the Service Manager hostname and SOAP port, for example:

`http://hostname:9000`

where:

`hostname`

Is the hostname where iWay is installed. Use the actual hostname and not localhost.

If you changed the default SOAP port, substitute accordingly.

- For **Servlet iBSP**, specify the iBSP URL. This is the URL to access iBSP and depends upon the port on which your application server listens, for example:

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

where:

`hostname`

Is the hostname of the application server machine. Use the actual hostname and not localhost.

`port`

Is the HTTP port for your application server.

- For **Connector for JCA**, specify where iWay is installed and the configuration name, for example:

`C:\Program Files\iWay55#base`

where:

`base`

Is the configuration name.

Note: Technically, iWay Explorer does not communicate directly with the connector. Instead, iWay Explorer handles schema generation and target configuration itself. iWay Explorer then writes information to the configuration directories from which the connector reads.

8. Click *Finish* after you specify the URL.

You can define as many connections (hosts) as you wish and switch between them using the Available Hosts drop-down list.

Configuring ASP.NET iWay Explorer

ASP.NET iWay Explorer runs as part of IIS and requires .NET components. Therefore, note the following requirements:

- Microsoft IIS 5 or 6.
- Microsoft .NET Framework Version 1.X (1.1 or higher, but not 2.0)

This is normally installed along with Visual Studio .NET, ASP.NET, or other applications that require the .NET Framework. If you do not have any of these products installed, you can download it from the iWay Web site at:

<http://iwse.ibi.com/iWay55sm/redist/dotnetfx.exe>

or the Microsoft Web site:

<http://download.microsoft.com>

On the Microsoft Web site, search for:

`Microsoft .NET Framework Version 1.1`

to download the installation file. After downloading dotnetfx.exe, execute it.

ASP.NET iWay Explorer is installed with iWay on Windows under the tools directory, for example:

`C:\Program Files\iWay55sm\tools\iwae.NET`

If IIS and the .Net Framework are installed, the iWay installation may have configured the default IIS Web Site for you as well.

Procedure: How to Access ASP.NET iWay Explorer

If the iWay installation configured the ASP.NET iWay Explorer, you can access iWay Explorer from a Web browser on your local machine using the following URL:

<http://localhost/iwae>

Ensure IIS is started. If this page does not load or loads with an error, you need to configure it as follows.

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

Available adapters may vary depending on the version you install and which files are in the iWay55sm\lib directory. If your adapter requires third party drivers or libraries, they must be in the lib directory or your adapter may not appear. See Chapter 3, *Preparing Adapters* for information on required files.

Procedure: How to Configure the ASP.NET iWay Explorer

1. If .Net Framework 2.0 is installed, uninstall it.
2. If IIS is not installed, install IIS.
3. Install .Net Framework 1.0 if it is not installed.
4. Open the Internet Services Manager from Control Panel and Administrative Tools.
5. Expand and select your hostname on the left side.
6. On Windows 2000 on the left, select *Default Web Site* or the site you are using. On Windows 2003 on the left, expand *Web Sites* and then select *Default Web Site* or the site you are using.
7. Right-click your Web site, choose *New*, and *Virtual Directory*.
A wizard launches.
8. Use the wizard to create the following virtual directory if it does not already exist.

Alias	iwae
Directory	C:\Program Files\iWay55sm\tools\iwae.NET\iwae
Access Permissions	Ensure that <i>Read</i> , <i>Run scripts</i> , and <i>Execute</i> are all selected. <i>Execute</i> is probably not selected by default.

9. Right-click your Web site, choose *New*, and *Virtual Directory*.
A wizard launches.

10. Use the wizard to create the following virtual directory if it does not already exist:

Alias	<code>UrsaCtrl_Client</code>
Directory	<code>C:\Program Files\iWay55sm\tools\iwaec.NET\UrsaCtrl_Client</code>
Access Permissions	Ensure that <i>Read</i> , <i>Run scripts</i> , and <i>Execute</i> are all selected. <i>Execute</i> is probably not selected by default.

11. Right-click your Web site, choose *New*, and *Virtual Directory*.

A wizard launches.

12. Use the wizard to create the following virtual directory if it does not already exist:

Alias	<code>webctrl_client</code>
Directory	<code>C:\Program Files\iWay55sm\tools\iwaec.NET\webctrl_client</code>
Access Permissions	Ensure that <i>Read</i> , <i>Run scripts</i> , and <i>Execute</i> are all selected. <i>Execute</i> is probably not selected by default.

13. Restart IIS.

14. Access iWay Explorer in Internet Explorer:

<http://localhost/iwae>

Note: If you get an error that Directory Browsing is not permitted, add `Default.aspx` to the list of default documents for the `iwae` Virtual Directory.

Procedure: How to Access Remote Service Managers and Servlet iBSP

When you open iWay Explorer, the Available Hosts drop-down list in the top right of the page determines to which Service Manager or Servlet iBSP instance you connect. By default, ASP iWay Explorer connects to the local Service Manager. To use ASP.NET iWay Explorer to access different Service Manager instances or Servlet iBSP, you must:

1. Open Windows Explorer or My Computer.
2. Open the `web.config` file in a text editor, for example:

`C:\Program Files\iWay55sm\tools\iwaec.NET\iwaec\web.config`

3. Add or edit lines to define additional connections.

For a Servlet iBSP, you connect using:

`value="http://hostname:port/ibse/IBSEServlet/XDSOAPAdapterFactory"`

APPENDIX A

Deploying iWay Application Server Components

Topics:

- Configuring iWay Components for Application Server Deployments
- Deploying iWay Components to BEA WebLogic 8
- Deploying iWay Components to Sun Java System Application Server
- Deploying iWay Components to Oracle Application Server
- Deploying iWay Components to IBM WebSphere Application Server

This section explains how to configure application servers to run iWay components.

Configuring iWay Components for Application Server Deployments

Several iWay components can be deployed and run through J2EE compliant application servers.

- iWay Business Services Provider (iBSP) 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.

Note: iWay Business Services Provider (iBSP) was formerly known as iWay Business Services Engine (iBSE). Some references, files, and prompts may still use the older name.

- 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. iWay Connector for JCA provides XML transformation, adapter hosting, and integration capabilities.
- Servlet iWay Explorer uses iWay adapters to create schemas and Web services for use with iWay components 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 object or system.

Note: iWay also has components specifically designed for SAP NetWeaver (XI and EP). However, the SAP components are not installed with iWay and not covered in this document. For SAP NetWeaver components and documentation, contact an iWay Software representative.

Configuring iWay Application Server Components

iWay provides a utility that edits and prepares the files that you then deploy to your application server. At this time the automatic configuration utility is available for the following application servers:

- Bea WebLogic 8
- Sun Java System Application Server 7 or 8 (Sun One Application Server)
- Oracle Application Server 10g
- IBM WebSphere Application Server

Note: For BEA WebLogic 9 support, contact an iWay Software representative.

For other application servers, see *Manually Configuring iWay Application Server Components* on page A-4.

Procedure: How to Run the Configuration Utility

1. Start the configuration utility for your platform. Its name and location vary depending on your platform. On Windows, the default location is:

```
C:\Program Files\iWay55sm\etc\setup\deploy.win32.exe
```

For other platforms, use the corresponding location and file. If you do not have an X Server, execute the file with the `-console` options, for example:

```
./deploy.linux.bin -console
```

If a deploy file does not appear for your platform, you may be able to download it from:

```
http://iwse.ibi.com/iway55/support/deploy/smspl
```

2. Respond to the prompts that appear.
 - You are prompted for the Base URL and should provide the hostname and HTTP port for your application server.
 - For BEA WebLogic Servers, you are also prompted for the `BEA_HOME` directory where WebLogic and other BEA software are installed. If BEA WebLogic Workshop is installed, Swing iWay Explorer and an iWay Connector for JCA (CCI) Control are added to it. If BEA WebLogic Workshop is not installed, when promoted you must check the box that says "I have entered the correct location and want to continue."

The utility updates the files you will deploy so they correctly indicate where you installed iWay and have the settings required for your application server. When the utility completes, directories are created and contain files to deploy, for example:

- For BEA WebLogic:


```
C:\Program Files\iWay55sm\bea
```
- For Sun Java System Application Server:


```
C:\Program Files\iWay55sm\sun
```
- For Oracle Application Server:


```
C:\Program Files\iWay55sm\oracle
```
- For IBM WebSphere Application Server:


```
C:\Program Files\iWay55sm\ibm
```

Be sure to deploy the files in these directories and not the files in the `etc\setup` directory. For BEA WebLogic, you deploy expanded directories rather than archives.

The utility also sets the IWAY55OEM variable. If you run, iWay components as multiple user IDs, ensure each user ID has this variable set:

- For BEA WebLogic:

`IWAY55OEM=bea`

- For Sun Java System Application Server:

`IWAY55OEM=sun`

- For Oracle Application Server:

`IWAY55OEM=oracle`

- For IBM WebSphere Application Server:

`IWAY55OEM=ibm`

3. Proceed to *Deploying iWay Components* on page A-5 unless you need to change default settings.

Manually Configuring iWay Application Server Components

If you just ran the configuration utility, proceed to *Deploying iWay Components* on page A-5.

iWay application server components are installed in the iWay etc\setup directory, for example:

`C:\Program Files\iWay55sm\etc\setup`

These files should not be used if you run the configuration utility as explained in *How to Run the Configuration Utility* on page A-3. If you run the configuration tool, use the application server components that it creates in the bea, sun, oracle, or ibm directory.

To manually edit the application server components for a different application server or to change a default setting, you edit the files within the provided or configured archives or directories. To do this, the jar utility should be in your search PATH.

- For iWay Connector for JCA (iwafjca.rar) or the JCA Test Tool (iwafjca.rar.war or iwjcavip.war), see the *iWay Connector for J2EE Connector Architecture Server User's Guide*.
- For Servlet iBSP, you may need to edit the WEB-INF/web.xml file located inside the ibse.war file. You would see the ibseroot to the base configuration directory (C:/Program Files/iWay55sm/config/base/), the iway.home to the iWay installation directory (C:/Program Files/iWay55sm/), and the iway.config to base.
- For Servlet iWay Explorer, you normally do not need to edit the underlying files. After deploying Servlet iWay Application, you can set up the connection information as explained in Chapter 5, *Configuring iWay Explorer*.

For BEA WebLogic 9 and SAP NetWeaver, contact iWay Software for specific steps.

Deploying iWay Components

Follow the deployment steps for your application server:

- For **BEA WebLogic**, see *Deploying iWay Components to BEA WebLogic 8* on page A-5.
- For **Sun Java System Application Server**, see *Deploying iWay Components to Sun Java System Application Server* on page A-11.
- For **Oracle Application Server**, see *Deploying iWay Components to Oracle Application Server* on page A-20.
- For **IBM WebSphere Application Server**, see *Deploying iWay Components to IBM WebSphere Application Server* on page A-26.

Deploying iWay Components to BEA WebLogic 8

Before deploying components, run the automatic configuration utility as explained in *How to Run the Configuration Utility* on page A-3.

The following procedure refers to the directory where BEA WebLogic is installed as *BEA_HOME*. The procedure contains paths for a Windows system. If you are on a UNIX system, substitute accordingly.

BEA WebLogic 8 Requirements

You can deploy to an existing domain or create a new domain using the Configuration wizard:

- The configuration wizard is accessible on Windows using *Start, Programs, BEA WebLogic Platform 8.1, Configuration Wizard*.
- The configuration wizard is accessible on UNIX using:

[/BEA_HOME/weblogic81/common/bin/config.sh](#)

If multiple domains run on your machines, chose a *Custom* configuration to change the default port so it does not conflict with other domains. For more information, refer to BEA WebLogic documentation.

Setting CLASSPATH for BEA WebLogic

There are cases where you may need to set the CLASSPATH variable for WebLogic. You can set the CLASSPATH at a later time if you wish, but you should be aware of where it is set in case you need to set it or troubleshoot.

It should be set in the following cases:

- If you plan to use a RDBMS repository for Servlet iBSP or iWay Connector for JCA, add the repository JDBC driver to CLASSPATH. The required files are described in Appendix C, *Configuring the iWay Repository*.
- If you use the Adapter for SAP, add the following file to CLASSPATH:
`sapjco.jar`
- If your adapter uses MQ Series as a transport, add the following file to CLASSPATH:
`com.ibm.mq.jar`
- If you run into problems running iWay components through BEA WebLogic, add JAR files in the iWay55sm/lib directory to CLASSPATH.

You can set CLASSPATH by setting the WEBLOGIC_CLASSPATH variable in the file that sets variables for all servers:

- Windows:
`BEA_HOME\weblogic81\common\bin\commEnv.cmd`
- UNIX:
`BEA_HOME/weblogic81/common/bin/commEnv.sh`

When you start a domain, variables are imported from the commEnv.sh or commEnv.cmd file. The CLASSPATH variable is set to include the WEBLOGIC_CLASSPATH variable. If you are not using clusters or managed servers, you can set CLASSPATH in the startWebLogic.sh or startWebLogic.cmd file for your domain. If you are not sure where to set CLASSPATH, consult BEA WebLogic documentation.

Procedure: How to Add Files to CLASSPATH

1. If it is started, stop the domain you are using.
2. Open the commEnv.cmd or commEnv.sh file in a text editor.
3. Add the full path to any required files required to the WEBLOGIC_CLASSPATH variable. You can add lines at the end of the file. For example,

On Windows:

```
SET WEBLOGIC_CLASSPATH=%WEBLOGIC_CLASSPATH%;C:\Program Files\iWay55sm\lib\msutil.jar
```

```
SET WEBLOGIC_CLASSPATH=%WEBLOGIC_CLASSPATH%;C:\Program Files\iWay55sm\
lib\mssqlserver.jar
```

```
SET WEBLOGIC_CLASSPATH=%WEBLOGIC_CLASSPATH%;C:\Program Files\iWay55sm\
lib\msbase.jar
```

On UNIX:

```
WEBLOGIC_CLASSPATH="${WEBLOGIC_CLASSPATH}":/opt/iWay55/lib/
classes12.jar export WEBLOGIC_CLASSPATH
```

Note: Adding directories is not sufficient. You must add the full paths including each file. On UNIX, make sure to export the variable.

4. Save and exit the file.

Connector Deployment to BEA WebLogic 8

If you are not using iWay Connector for JCA, proceed to *Web Application Deployment to BEA WebLogic 8* on page A-9.

If you use iWay Connector for JCA, you deploy it as a connector module.

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. 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, for example:
`C:\Program Files\iWay55sm\bea\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*. You may need to expand the *Connector Modules* folder to see *iwafjca*.
You should now deploy the Test Tool and iWay Explorer.

Web Application Deployment to BEA WebLogic 8

When using BEA WebLogic, iWay recommends deploying expanded directories rather than WAR files. If you ran the configuration utility as explained in *Configuring iWay Application Server Components* on page A-2, the components you need to deploy are located in the following directory by default.

`C:\Program Files\iWay\bea`

Several files can be deployed:

Component	Directory	Context Root	Purpose
iWay Business Services Provider (iBSP)	<code>ibse</code>	<code>ibse</code>	iWay Web Services engine.
iWay Explorer	<code>iwae</code>	<code>iwae</code>	Tool to browse metadata, configure target adapters, and create Web services or schemas.
iWay Connector for JCA Test Tool	<code>iwjcaivp</code>	<code>iwjcaivp</code>	Tool to test the iWay Connector for JCA. This must be deployed after the iWay Connector for JCA.

Use the following procedure to deploy the Web applications you wish to use. The steps are the same for each Web application except for the directory you specify.

Procedure: How to Deploy Web Applications to BEA WebLogic 8

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. 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 you wish to deploy. For example:

- For Servlet iBSP:

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

- For iWay Explorer:

`C:\Program Files\iWay\bea\iwaye`

- For the JCA Test Tool:

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

6. Select the option button next to the 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. Expand the *Web Application Modules* folder to see the application.

9. Repeat this procedure for each Web application you wish to deploy.

Accessing iWay Application Server Components

After you deploy iWay Components to your application server, they should be accessible.

- The JCA Test Tool is accessible at:

`http://hostname:port/iwjcaivp`

For information on the JCA Test Tool, see the *iWay Connector for J2EE Connector Architecture Server User's Guide*.

- Servlet iBSP is accessible at:

`http://hostname:port/ibse`

You should log on to the configuration page using the user name and password "iway." For more information see Appendix B, *Configuring Servlet iWay Business Services Provider*.

- Servlet iWay Explorer is accessible at:

<http://hostname:port/iwae/index.html>

For more information see Chapter 5, *Configuring iWay Explorer* and the documentation for your adapter.

Deploying iWay Components to Sun Java System Application Server

This section explains how to deploy iWay components to Sun Java System Application Server 7 or 8. Before deploying components, run the automatic configuration utility as explained in *How to Run the Configuration Utility* on page A-3.

Sun Java System Application Server Requirements

Sun application server 7 or higher is required. Ensure that Sun Java System Application Server is installed and functioning properly before deploying iWay components.

In addition to copying files into the iWay lib directory as explained in Chapter 3, *Preparing Adapters*, also copy any library files into the lib directory for your domain, for example:

`C:\Sun\AppServer\domains\domain1\lib`

Also, copy any required JDBC drivers into the lib\ext directory for your domain, for example:

`C:\Sun\AppServer\domains\domain1\lib\ext`

If you are not sure which is which, copy files into both.

If you plan to use a RDBMS repository for Servlet iBSP or iWay Connector for JCA, add the repository JDBC driver to these directories. For Sun Java System Application Server 7, add them also to the CLASSPATH variable.

If you use the iWay Adapter for Email with Sun Java System Application Server, you may need to download the latest activation.jar file. This file is included in the jaf-1_0_2-upd.zip archive that you can download from the Sun Microsystems Web site. Extract activation.jar from the archive and replace the activation.jar files in the application server's share\lib and imq\lib directories.

If you use the iWay Adapter for TIBCO, ensure that TIBCO binary files are in the search PATH used by the application server. These files are stored in a TIBCO directory such as tibco\tibrv\bin.

iWay Connector for JCA Requirements

Requirements for iWay Connector for JCA depend on whether you use the JCA 1.5 or JCA 1.0 Connector:

- The JCA 1.5 Connector requires Sun Java System Application Server 8 or higher.
- The JCA 1.0 Connector requires Sun Java System Application Server 7 or higher.

JCA 1.5 is not be automatically installed with iWay. If you require JCA 1.5, see your iWay Software representative.

Configuring Endorsed Files

iWay components rely on several files and classes that must be loaded before any of your application server's default classes. To ensure classes load in the correct order, do the follow.

Procedure: How to Configure Endorsed Files

1. Determine your application server JAVA_HOME directory. If you installed a Java SDK/JDK with your application server, the default location on Windows is normally:

```
C:\SUN\AppServer\jdk
```

On other platforms, use the corresponding location.

If you specified a different Java installation, you can determine JAVA_HOME by looking at the asenv.bat or asenv.conf file for your application server. For the default domain and server on Windows, this is:

```
C:\Sun\AppServer\config\asenv.bat
```

On other platforms, use the corresponding location.

2. If it does not exist, create an endorsed directory in the jre/lib or jdk/lib directory, for example:

```
C:\SUN\AppServer\jdk\lib\endorsed
```

or

```
C:\j2sdk1.4.2_03\jre\lib\endorsed
```

3. Copy the iwafjca.rar file installed with iWay to the endorsed directory. The default location for iwafjca.rar on Windows is:

```
C:\Program Files\iWay55sm\sun\iwafjca.rar
```

On other platforms, use the corresponding location.

4. Open a command or shell prompt and navigate to the endorsed directory.

5. Use the jar command to extract three files from iwafjca.rar.

```
jar xvf iwafjca.rar xalan.jar xercesImpl.jar xmlParserAPIs.jar
```

If you receive an error, then the jar command is probably not in your search path. You can add the jar command to your search path or execute it using its full path. The jar command is located in the Java SDK bin directory, which varies depending on your Java release, for example:

```
C:\j2sdk1.4.2_03\bin\jar xvf iwafjca.rar xalan.jar xercesImpl.jar xmlParserAPIs.jar
```

6. Confirm that the endorsed directory now contains the following three files:

```
xalan.jar
xercesImpl.jar
xmlParserAPIs.jar
```

7. Remove the iwafjca.rar file from the endorsed directory.
8. If your application server is running, restart it.

Server Security Settings

You should disable server.policy as explained below before deploying iWay components.

Procedure: How to Configure Security Settings for iWay

1. Using a text editor, open the domain.xml file for your domain. For the default domain on Windows, this is:

```
C:\Sun\AppServer\domains\domain1\config\domain.xml
```

For other platforms or domains, use the corresponding location.

2. Remove the following line from server.xml.

```
<jvm-options>-Djava.security.policy=${com.sun.aas.instanceRoot}/config/
/server.policy</jvm-options>
```

It may appear multiple times and you can remove each appearance of the line.

3. Save and exit domain.xml.
4. If your application server is running, restart it.

Configuring the Repository Connection

If you are using a database repository for iBSP or Connector for JCA, copy the JDBC driver for your database into the lib directory for your domain, for example:

```
C:\Sun\AppServer\domains\domain1\lib
```

For information on the files you need, see Appendix C, *Configuring the iWay Repository*

Connector Deployment to Sun Java System Application Server

If you are not using iWay Connector for JCA, proceed to *Web and Enterprise Application Deployment to Sun Java System Application Server* on page A-17.

Follow the steps below to deploy iWay Connector for JCA.

Procedure: How to Deploy the iWay Connector for JCA

1. Start Sun Java System Application Server.
2. Log on to the Sun Admin Console. If you kept the default port, you can use:
`https://hostname:4849`
where:
`hostname`
Is the hostname for your application server.
The Admin Console opens in your browser.
3. On the left, expand the *Applications* folder.
4. On the left, click *Connector Modules*.
5. On the right, click *Deploy*.
6. Specify the `iwafjca.rar` or `iwjca15.rar` file depending on which connector you use.

`C:\Program Files\iWay55sm\sun\iwafjca.rar`

or

`C:\Program Files\iWay55sm\sun\iwjca15.rar`

Note: This `iwjca15.rar` file is not installed with iWay by default. It is the JCA 1.5 compliant version of the iWay Connector for JCA.

7. Click *Next*.
8. Ensure the *Application Name* is one of the following depending on which connector you deploy:

`iwafjca`

or

`iwjca15`

9. If you are using the JCA 1.5 connector, under *Resource Adapter Properties*, provide values for the properties listed in the following table. The table lists the name of the property in one column and the value in a second column.

Name	Value
IWayConfig	Provide the configuration name. The default is: base
IWayRepoURL	Clear this field so it has no value.
LogLevel	Provide the LogLevel, for example: DEBUG
IWayRepoPassword	Clear this field so it has no value.
IWayRepoUser	Clear this field so it has no value.
IWayHome	Provide the directory where iWay is installed, for example: C:\Program Files\iWay55sm

10. Specify which servers you are deploying into by moving them from the *Available* to *Selected* boxes.
11. Click *OK*.

When the connector is deployed, it is expanded to a directory under the application server, for example:

[C:\Sun\AppServer\domains\domain1\applications\j2ee-modules\iwjca15](#)

or

[C:\Sun\AppServer\domains\domain1\applications\j2ee-modules\iwafjca](#)

Procedure: How to Create Connection Pools for the iWay Connector for JCA 1.5

For JCA 1.5, create a connection pool for the connector:

1. On the left of the Admin Console, expand *Resources*.
2. Under *Resources*, expand *Connectors*.
3. Click *Connector Connection Pools*.
4. On the right, click *New*.
5. In the *Name* field enter:

[eis/iWay](#)

6. For the *Resource Adapter* menu, choose:

`iwjca15`

7. Click *Next*.

8. Click *Next* again.

9. From the Transaction Support drop-down list, choose one of the following:

`NoTransaction`

or

`LocalTransaction`

Note: Leave the *Additional Properties* as they appear.

10. Click *Finish*.

11. On the left, under *Connectors*, click *Connector Resources*.

12. On the right, click *New*.

13. In the *JNDI Name* field enter:

`eis/iWay`

14. For the *Pool Name* menu, choose:

`eis/iWay`

15. In the *Targets* area, select your sever or servers in the *Available* text box and click *Add*.

16. Click *OK*.

Web and Enterprise Application Deployment to Sun Java System Application Server

When using Sun Java System Application Server, iWay recommends using the WAR files generated by the iWay application server configuration utility. See *Configuring iWay Application Server Components* on page A-2 for information on this utility. After running the utility, the components you need to deploy are located in a `iWay55sm\sun` directory, for example:

`C:\Program Files\iWay55sm\sun`

Several files can be deployed:

Component	File	Context Root	Purpose
iWay Business Services Provider (iBSP)	<code>ibse.ear</code>	<code>ibse</code>	iWay Web Services engine.
iWay Explorer	<code>iwae.war</code>	<code>iwae</code>	Tool to browse metadata, configure target adapters, and create Web services or schemas.
iWay Connector for JCA 1.0 Test Tool	<code>iwjcaivp.war</code>	<code>iwjcaivp</code>	Tool to test the iWay Connector for JCA 1.0. This must be deployed after the iWay Connector for JCA.
iWay Connector for JCA 1.5 Test Tool	<code>iwjca15ivp.war</code>	<code>iwjca15ivp</code>	Tool to test the iWay Connector for JCA 1.5. This is not installed with iWay by default.

Use the following procedures to deploy the Web or Enterprise applications.

- For Servlet iBSP, see *How to Deploy the `ibse.ear` Enterprise Application* on page A-18
- For iWay Explorer or the JCA Test Tool, see *How to Deploy Web Applications to Sun Java System Application Server* on page A-19

Procedure: How to Deploy the `ibse.ear` Enterprise Application

1. Start Sun Java System Application Server.
2. Log on to the Sun Admin Console. If you kept the default port and access it locally, you can use:

<https://localhost:4849>

The Admin Console opens in your browser.

3. On the left, expand the *Applications* folder.
4. On the left, click *Enterprise Applications*.
5. On the right, click *Deploy*.
6. Specify the `ibse.ear` file, for example:

`C:\Program Files\iWay55sm\sun\ibse.ear`

7. Click *Next*.
8. Ensure the *Application Name* is:

`ibse`

9. Click *OK* and Servlet iBSP is deployed.

The `ibsp` application is expanded into a directory under your domain, for example:

`C:\Sun\AppServer\domains\domain1\applications\j2ee-apps\ibse`

Some data generated by iBSP may be written to this directory and its subdirectories.

For application server 8, see *How to Deploy Web Applications to Sun Java System Application Server* on page A-19.

For application server 7, after iBSP is deployed, stop your application server, so you can modify some of its components. Remove the `jms.jar` file from the `WEB-INF/lib` directory of Servlet iBSP, for example:

`C:\Sun\AppServer\domains\domain1\applications\j2ee-apps\ibse\ibse_war\WEB-INF\lib\jms.jar`

Replace the `jms.jar` file with the following file available from Sun Microsystems:

`j2ee.jar`

The `j2ee.jar` file is provided with the free download of Sun Java J2EE SDK available at:

<http://java.sun.com/j2ee>

After replacing `jms.jar` with `j2ee.jar`, restart your application server.

Procedure: How to Deploy Web Applications to Sun Java System Application Server

You can use the Sun Admin Console to deploy Web applications.

1. Start Sun Java System Application Server if it is not started.
2. Log on to the Sun Admin Console. If you kept the default port and access it locally, you can use:

```
https://localhost:4849
```

The Admin Console opens in your browser.

3. On the left, expand the *Applications* folder.
4. On the left, click *Web Applications*.
5. On the right, click *Deploy*.
6. Specify the file you wish to deploy, for example:

- For iWay Explorer:

```
C:\Program Files\iWay55sm\sun\iwae.war
```

- For the JCA Test Tool 1.0:

```
C:\Program Files\iWay55sm\sun\iwjcaivp.war
```

- For the JCA Test Tool 1.5:

```
C:\Program Files\iWay55sm\sun\iwjca15ivp.war
```

This file is not be installed with iWay by default. It is the JCA 1.5 compliant version.

7. Click *Next*.
8. Ensure the *Application Name* is the name of the WAR file minus *.war*.
9. Ensure the *Context Root* is the name of the WAR file minus the *.war*.
10. Click *OK*.

When the application is deployed, it is expanded to a directory under the application server, for example:

```
C:\Sun\AppServer\domains\domain1\applications\j2ee-modules\
```

Accessing iWay Application Server Components

After you deploy iWay Components to your application server, they should be accessible.

- The JCA Test Tool is accessible at:

<http://hostname:port/iwjcaivp>

or

<http://hostname:port/iwjca15ivp>

For information on the JCA Test Tool, see the *iWay Connector for J2EE Connector Architecture Server User's Guide*.

- Servlet iBSP is accessible at:

<http://hostname:port/ibse>

You should log on to the configuration page using the user name and password "iway." For more information see Appendix B, *Configuring Servlet iWay Business Services Provider*.

- Servlet iWay Explorer is accessible at:

<http://hostname:port/iwae/index.html>

For more information see Chapter 5, *Configuring iWay Explorer* and the documentation for your adapter.

Deploying iWay Components to Oracle Application Server

This section explains how to deploy iWay Components to Oracle 10 or 9. Before deploying components, run the automatic configuration utility as explained in *How to Run the Configuration Utility* on page A-3.

Oracle Application Server Requirements

Some steps are needed before deploying iWay components.

Procedure: How to Configure the XML Parser for Oracle Application Server

Oracle Application Server is preconfigured to use the Oracle XML parser. The Oracle XML parser is fully JAXP 1.1 compatible and will serve the needs of applications which require JAXP functionality. However, iWay Adapters rely on an additional XML parser such as xerces. Therefore, you may need to start the application server such that the xerces.jar file is loaded at a level above the application server system CLASSPATH.

To do this:

1. Stop the Application Server and create an endorsed directory. This directory is located below the `jre/lib` directory, for example:

```
C:/j2sdk1.4.2_01/jdk/jre/lib/endorsed
```

2. Open a command prompt or shell and navigate to the directory containing `iwae.war`, for example:

```
C:\Program Files\iWay55sm\oracle
```

3. Use the `jar` command to extract `xalan.jar` `xercesImpl.jar` `xmlParserAPIs.jar` from the `iwae.war` archive:

```
jar xvf iwae.war WEB-INF/lib/xalan.jar WEB-INF/lib/xercesImpl.jar  
WEB-INF/lib/xmlParserAPIs.jar
```

The `jar` command is located in the Java SDK `bin` directory which might not be in your search path. If you receive an error, execute the `jar` command using its full path.

4. Copy the three extracted `jar` files into the endorsed directory you created, for example:

```
C:/j2sdk1.4.2_01/jdk/jre/lib/endorsed
```

This solves a known incompatibility problem with `xalan` in this environment.

Note: You may have to set an environment variable of `JAVA_HOME` in your environment.

Procedure: How to Configure Oracle 9iAS

If you use Oracle 9 Application Server, you may need to edit the library path in:

```
OC4J_HOME\j2ee\home\config\application.xml
```

to add a line for the path to the `tools.jar` file installed with your Java SDK. This path varies depending on the SDK, for example:

```
<library path="C:\j2sdk1.4.2_03\lib\tools.jar" />
```

This is a known Oracle 9iAS problem with compiling JSP files:

```
http://otn.oracle.com/tech/java/oc4j/90401/release\_notes/release-notes-90401.html
```

Connector Deployment to Oracle Application Server

If you do not use iWay Connector for JCA, proceed to *Web and Enterprise Application Deployment to Oracle Application Server* on page A-24.

Procedure: How to Configure the logLevel Parameter for Oracle Application Server

When using Oracle Application Server, you should have run the automatic configuration utility as explained in *How to Run the Configuration Utility* on page A-3. However, you must modify the META-INF\ra.xml file in the iwafjca.rar archive in order to change the LogLevel parameter so that the initial "l" is lowercase (LogLevel).

To do this:

1. Open a command prompt and navigate to the directory containing the connector, for example:

```
C:\Program Files\iWay55sm\oracle
```

2. Issue the following command:

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

The jar command is located in the Java SDK bin directory which might not be in your search path. If you receive an error, execute the jar command using its full path.

3. Open the extracted ra.xml file in a text editor.
4. Find the LogLevel section:

```
<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>
```

5. Change the <config-property-name> so the initial "l" is lowercase, for example:

```
<config-property-name>LogLevel</config-property-name>
```

6. Save the file and exit the editor.
7. Open a command prompt and navigate to the directory containing the connector, for example:

```
C:\Program Files\iWay55sm\oracle
```

8. Issue the following to reinsert the ra.xml file into the connector:

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

Procedure: How to Deploy iWay Connector for JCA to Oracle Application Server

You use a command line utility to deploy the connector.

1. In a shell or command prompt, navigate to the dcm or dcm\bin directory created with your application server, for example:

```
C:\Oracle\iSetup\dcm\bin
```

2. Issue the following specifying where the iwafjca.rar file is located.

```
dcmctl deployapplication -f "C:\Program Files\iWay55sm\oracle\iwafjca.rar" -a iwafjca
```

If there are no spaces in directory names in the path, you do not need the quotes.

After issuing this command, OC4J automatically unpacks iwafjca.rar in the j2ee/home/connectors/iwafjca/iwafjca directory, for example:

```
C:\oracleAS\j2ee\home\connectors\iwafjca\iwafjca
```

The j2ee/home/application-deployments/default/iwafjca directory should be created when you deploy iwafjca.rar, for example:

```
C:\oracleAS\j2ee\home\application-deployments\default\iwafjca\
```

If it does not exist, restart OC4J.

3. Open the oc4j-ra.xml file in a text editor, for example:

```
C:\oracleAS\j2ee\home\application-deployments\default\iwafjca\oc4j-ra.xml
```

4. Set the JNDI location value to eis/IWAFConnectionFactory, for example:

```
<connector-factory location="eis/IWAFConnectionFactory" connector-name="IWAFJCA10">
```

5. Ensure the logLevel parameter has the correct case, for example:

```
<config-property name="logLevel" value=""/>
```

The initial "l" must be lower case.

6. Ensure IWayHome and IWayConfig are set properly.
7. Save and exit the file.
8. Restart the application server.

iWay Connector for JCA is available to all deployed applications on the OC4J instance.

Web and Enterprise Application Deployment to Oracle Application Server

When using Oracle Application Server, iWay recommends using files generated by the iWay application server configuration utility. See *Configuring iWay Application Server Components* on page A-2 for information on this utility. After running the utility, the components you need to deploy are located in an iWay55sm\oracle directory, for example:

`C:\Program Files\iWay55sm\oracle`

Several files can be deployed:

Component	File	Context Root	Purpose
iWay Business Services Provider (iBSP)	<code>ibse.ear</code>	<code>ibse</code>	iWay Web Services engine.
iWay Explorer	<code>iwae.war</code>	<code>iwae</code>	Tool to browse metadata, configure target adapters, and create Web services or schemas.
iWay Connector for JCA Test Tool	<code>iwjcaivp.war</code>	<code>iwjcaivp</code>	Tool to test the iWay Connector for JCA. This must be deployed after the iWay Connector for JCA.

Use the following procedure to deploy the Web applications you wish to use. The steps are the same for each Web application except for the file and context root.

Note: If the JCA Test Tool is named `iwafjca.war`, rename it to `iwjcaivp.war`.

Procedure: How to How to Deploy the JCA Test Tool to Oracle Application Server

1. Log on to the Oracle Enterprise Manager console:
The default URL for the Enterprise Manager is
`http://hostname:1810`
The Enterprise Manager is displayed in your browser.
2. Select the *home* link to begin.
The OC4J:home page is displayed.
3. Towards the bottom of the page, click the *Applications* link.
A page displays any previously deployed applications.
4. Click the *Deploy WAR file* button to begin deploying a Web application

5. Click Browse and specify the file you wish to deploy, for example:
 - For Servlet iBSP:
 - `C:\Program Files\iWay\oracle\ibse.ear`
 - For iWay Explorer:
 - `C:\Program Files\iWay\oracle\iwae.war`
 - For the JCA Test Tool 1.0:
 - `C:\Program Files\iWay55sm\oracle\iwjcaivp.war`
 6. In the *Application Name* field, enter the name of the application (ibsp, iwae, or iwjcaivp).
 7. In the *Map to URL* field, enter the name of the file minus the .war or .ear.
 8. Click the *Deploy* button.
 9. Repeat this procedure for each Web application you wish to deploy.
- Tip:** The port for the Enterprise Manager is normally not the same port needed to access Web applications. The default port to access Web applications is often 8888 or 7777.

Accessing iWay Application Server Components

After you deploy iWay Components to your application server, they should be accessible.

- The JCA Test Tool is accessible at:
 - `http://hostname:port/iwjcaivp`
 - For information on the JCA Test Tool, see the *iWay Connector for J2EE Connector Architecture Server User's Guide*.
- Servlet iBSP is accessible at:
 - `http://hostname:port/ibse`
 - You should log on to the configuration page using the user name and password "iway." For more information see Appendix B, *Configuring Servlet iWay Business Services Provider*.
- Servlet iWay Explorer is accessible at:
 - `http://hostname:port/iwae/index.html`
 - For more information see Chapter 5, *Configuring iWay Explorer* and the documentation for your adapter.

Deploying iWay Components to IBM WebSphere Application Server

Before deploying to IBM WebSphere, run the automatic configuration utility as explained in *How to Run the Configuration Utility* on page A-3.

IBM WebSphere Requirements

Ensure that WebSphere is properly installed and configured on your system.

The steps that follow provide the steps to deploy iWay Components to IBM WebSphere 5. For WebSphere 6 or the Community Edition, perform the corresponding steps.

Setting CLASSPATH for IBM WebSphere

There are cases where you may need to set the CLASSPATH variable for WebSphere. You can set the CLASSPATH at a later time if you wish, but you should be aware of where it is set in case you need to set it or troubleshoot.

It should be set in the following cases:

- If you plan to use a RDBMS repository for Servlet iBSP or iWay Connector for JCA, add the repository JDBC driver to CLASSPATH. The required files are described in Appendix C, *Configuring the iWay Repository*.
- If you use the Adapter for SAP, add the following file to CLASSPATH:
`sapjco.jar`
- If you run into problems running iWay components, add JAR files in the iWay55sm/lib directory to CLASSPATH.

Procedure: How to Set CLASSPATH for WebSphere

1. Start WebSphere if it is not already running.
2. Log on to the WebSphere Administrative Console through a browser.
3. On the left, expand *Servers*.
4. On the left, click *Application Servers*.
5. Click the server where you will deploy iWay components.
Note: For WebSphere 6, under *Server Infrastructure* click *Java and Process Management*,
6. Click *Process Definition*.
7. Under *Additional Properties*, click *Java Virtual Machine*.
8. In the *Classpath* field, provide the path to the driver or other file. Be sure to include the file name and not just the directory containing the file.
9. Click *OK*.

10. On the top of the page, click *Save*.
11. On the page that appears, click *Save* to save the master configuration.
12. Restart the application server.

Connector Deployment to IBM WebSphere

If you are not using iWay Connector for JCA, proceed to *Web and Enterprise Application Deployment to IBM WebSphere* on page A-28.

Procedure: How to Deploy iWay Connector for JCA to IBM WebSphere

1. Start your WebSphere Application Server.
2. Log on to the WebSphere Administrative Console, for example:
`http://localhost:9090/admin`
3. On the left, expand *Resources*.
4. On the left, click *Resource Adapters*.
5. On the right, click *Install RAR*.
6. Click *Browse* to select the `iwafjca.rar` file or enter its path. If you used the deploy utility, the default location for this file on Windows is:
`C:\Program Files\iWay55sm\ibm\iwafjca.rar`
7. Click *Next*.
8. Click *OK*.
9. On top of the page, click *Save*.
10. Click *Save* to save the master configuration.

Web and Enterprise Application Deployment to IBM WebSphere

When using IBM WebSphere, iWay recommends using files generated by the iWay application server configuration utility. See *Configuring iWay Application Server Components* on page A-2 for information on this utility. After running the utility, the components you need to deploy are located in an iWay55sm\ibm directory, for example.

C:\Program Files\iWay55sm\ibm

Several files can be deployed:

Component	File	Context Root	Purpose
iWay Business Services Provider (iBSP)	ibse.ear	ibse	iWay Web Services engine.
iWay Explorer	iwae.war	iwae	Tool to browse metadata, configure target adapters, and create Web services or schemas.
iWay Connector for JCA Test Tool	iwjcaivp.war	iwjcaivp	Tool to test the iWay Connector for JCA. This must be deployed after the iWay Connector for JCA.

Use the following procedure to deploy the Web applications you wish to use. The steps are mostly the same for each Web application except for the file name and context root.

Procedure: How to Deploy Web and Enterprise Applications to IBM WebSphere Application Server

You can use the Administrative Console to deploy the Web Applications.

1. Start your WebSphere Application Server if it is not started.
2. Log on to the WebSphere Administrative Console, for example:
<http://localhost:9090/admin>
3. On the left, expand *Applications*.
4. Click *Install New Application*.

5. On the right, click *Browse* to select the file you wish to deploy or enter its path, for example:
 - For Servlet iBSP:
`C:\Program Files\iWay\oracle\ibse.ear`
 - For iWay Explorer:
`C:\Program Files\iWay\oracle\iwae.war`
 - For the JCA Test Tool:
`C:\Program Files\iWay55sm\oracle\iwjcaivp.war`
 6. For iWay Explorer and the JCA Test Tool, on the *Context Root* field, enter the file name minus the .war.
 7. Click *Next*.
 8. You can accept default settings in the rest of the wizard unless you created a virtual host or application server. See IBM documentation for additional information on the rest of the wizard's parameters.
 9. Click *Finish* on the last page of the wizard to complete the installation of the Web application.
 10. When the link appears, click *Save to Master Configuration*.
 11. Click *Save* to update the master configuration.

Note: If you are using an external Web server with your application server, update the Web server plugin by expanding *Environment* on the left, clicking *Update Web Server Plugin* on the left, and then clicking *OK* on the right. Then restart your Web server.
 12. In the left pane under *Applications*, click *Enterprise Applications*.

A list of installed applications appears on the right. The new Web application should appear.
 13. Check the box next to the Web application and click *Start*. The green arrow displays the status of the application.
 14. Repeat this procedure for each Web application you wish to deploy.
- Tip:** Be aware that the port for the Administrative Console is normally not the same port needed to access Web applications. The default port for the default server on Windows is 9080. If you run into problems accessing or using iWay components, restart your application server to ensure changes take effect.

Accessing iWay Application Server Components

After you deploy iWay Components to your application server, they should be accessible.

- The JCA Test Tool is accessible at:

<http://hostname:port/iwjcaivp>

For information on the JCA Test Tool, see the *iWay Connector for J2EE Connector Architecture Server User's Guide*.

- Servlet iBSP is accessible at:

<http://hostname:port/ibse>

You should log on to the configuration page using the user name and password "iway." For more information see Appendix B, *Configuring Servlet iWay Business Services Provider*.

- Servlet iWay Explorer is accessible at:

<http://hostname:port/iwae/index.html>

For more information see Chapter 5, *Configuring iWay Explorer* and the documentation for your adapter.

APPENDIX B

Configuring Servlet iWay Business Services Provider

Topics:

- Configuring Servlet iWay Business Services Provider

This section explains how to configure the servlet implementation of iWay Business Services Provider (iBSP). This is referred to as Servlet iBSP.

Note: iWay Business Services Provider (iBSP) was formerly known as iWay Business Services Engine (iBSE). Some references, files, and prompts may still use the older name.

It is assumed that you have deployed Servlet iBSP to an application server as explained in Appendix A, *Deploying iWay Application Server Components*.

Configuring Servlet iWay Business Services Provider

After you have deploy Servlet iBSP as explained in Appendix A, *Deploying iWay Application Server Components*, you can configure it using its configuration Web page.

Procedure: How to Configure Servlet iBSP

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 HTTP port for the application server. Some defaults are the following:

Application Server	Default HTTP Port
BEA WebLogic	7001
Apache Tomcat	8080
IBM WebSphere	9080
Oracle 9iAS	8888 or 7777
SAP 6.20 J2EE Engine	80
Sun Java System Application Server 8	8080

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 normally:

User Name *ibway*

Password *ibway*

Note: For some environments, the user name and password are both "admin." For BEA WebLogic 9, the user may be "admin" and the password might be "adminwls" because 8 characters are required.

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

iBSP Settings: **Save**

Property Name	Property Value
System	
Language	English ▾
Adapter Lib Directory	E:\Program Files\iWay55sm\lib
Debug Level	DEBUG ▾
Number of Async. Processors	0 ▾
Security	
Admin User	iway
Admin Password	****
Policy	<input type="checkbox"/>
Repository	
Repository Type	File System ▾
Repository Url	file://E:\Program Files\iWay55sm\con
Repository Driver	
Repository User	
Repository Password	
Repository Pooling	<input type="checkbox"/>
More configuration...	
Save	

3. Ensure the *Adapter Lib Directory* field specifies the path to the iWay55sm/lib directory, for example:

`C:\Program Files\iWay55sm\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 iBSP.

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

The *Repository Url* field specifies where the file system repository is 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 in Appendix C, *Configuring the iWay Repository*.

5. Click *Save*.

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

Procedure: How to Verify Servlet iBSP

You verify iBSP from the iBSP 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/>

The iBSP home page opens.



The following licenses are available on IBSEServlet

- **IVP**
The IVP License is installed by default. It is used to install predefined iWay Business Services Provider Services.
- **test**
The test License is installed by default. It is used to test iWay Business Services Provider Services.
- **production**
The production License is installed by default. It is used for production purpose.

This page enables you to test the sample Web service provided with iBSP.

When you create Web services using iWay 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:ibSP:jul2003:ivp:response"
    cid="A0328ED84ABFA055C4F64B8039C991AA">
    <CurrentTime>2007-04-08T19:14:03Z</CurrentTime>
    <Version>IWAY5.5 Service Manager (smspl.7105)</Version>
  </ivpResponse>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

Note:

- If you plan to use Servlet iBSP and do not plan to use iWay Service Manager, you do not need to keep Service Manager started.
- If you use BEA WebLogic 9, you may receive error messages in the WebLogic Server log unless you add the user ID and password for accessing the iBSP Configuration page to your WebLogic Security Realm. You can do this in the WebLogic Admin Console by selecting *Security Realms, Users and Groups*, your realm (for example, myrealm), and *New*.
- When applications, such as iWay Explorer, access Servlet iBSP, they can use one of the following URLs:

<http://hostname:port/ibse/IBSEServlet/>

<http://hostname:port/ibse/IBSEServlet/XDSOAPAdapterFactory>

- If you wish to enable Servlet iBSP monitoring, return to the Servlet iBSP Configuration page:

<http://hostname:port/ibse/>

At the bottom of the page, click *More configuration...* and then click *Start Monitoring*.

APPENDIX C

Configuring the iWay Repository

Topics:

- Configuring and Creating the Repository
- Migrating Repositories

This section explains how to change the default database repository for iWay Service Manager. It also explains how to create a database repository for use with Servlet iBSP or iWay Connector for JCA. It further explains how to migrate repositories.

Configuring and Creating the Repository

iWay Service Manager, Servlet iBSP, and iWay Connector for JCA require repositories to store information about adapter targets, metadata, transactions, Web services, and other data.

- For iWay Service Manager, an HSQL database is automatically installed and configured when you install Service Manager. No steps are needed unless you wish to change to a new repository or migrate an existing repository from an earlier iWay release.
- For Servlet iBSP, a text file based repository is available by default. This is only supported in development environments. For production or test environments, you should set Servlet iBSP to use a RDBMS repository as explained in this section.
- For iWay Connector for JCA, a text file based repository is available by default. This may be sufficient depending on your needs. However, you can optionally use a RDBMS repository. This section explains how to create the RDBMS repository. The *iWay Connector for J2EE Connector Architecture Server User's Guide* explains how to configure iWay Connector for JCA to use it.

The following databases can be used for iWay Repositories:

- HSQL (default for iWay Service Manager)
- Microsoft SQL Server 2000 with SP1 or higher
- Microsoft SQL Server 2005
- Oracle
- MaxDB
- DB2
- Sybase

File System Repositories

When Servlet iBSP and iWay Connector for JCA are installed, they are configured to use file system repositories, so no steps are required. If you do not have access to a database, you can continue to store the Servlet iBSP or iWay Connector for JCA repository information in XML files on your local machine. However, file system repositories are less secure and less efficient than using a database. In addition, file system repositories for iBSP are not supported in production environments.

- For iWay Connector for JCA, the default location on Windows is:
<C:\Program Files\iWay55sm\config\base\Repository.xml>

- For Servlet iBSP, the default location is either the root directory of the iBSP Web application under the application server or a directory under iWay55sm, for example:

`C:\Program Files\iWay55sm\config\base\ibserrepo.xml`

Creating the Repository

SQL to create repository tables is installed with iWay in the ibspsql.zip file, for example:

`C:\Program Files\iWay55sm\etc\setup\ibspsql.zip`

You should extract the contents of this file to a temporary directory on the machine with your database server. To extract, you can use Winzip or the jar command (jar xvf ibspsql.zip).

Then follow the steps for your type of repository:

- For **Microsoft SQL Server**, see *How to Configure a Microsoft SQL Server Repository* on page C-3.
- For **Oracle**, see *How to Configure an Oracle Repository* on page C-4.
- For **Sybase**, see *How to Configure a Sybase Repository* on page C-5.
- For **DB2**, see *How to Configure a DB2 Repository* on page C-5.
- For **MaxDB**, see *How to Configure a MaxDB Repository* on page C-6.

Procedure: How to Configure a Microsoft SQL Server Repository

To configure a Microsoft SQL Server repository:

1. Ensure that SQL Server authentication is supported.

For SQL Server 2000, you can do this in 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.

2. Create a SQL Server user ID.
3. Create a SQL Server database to use as the repository.

To do this, you can use the Enterprise Manager to expand the servers and folders on the left, right-click the *Databases* folder, and choosing *New Database*. You can name the database anything you wish and can keep default settings.

4. Grant your SQL Server user ID db_owner rights to the repository database.

5. If you have not yet done so, extract the contents of the `ibspsql.zip` file, for example:

```
C:\Program Files\iWay55sm\etc\setup\ibspsql.zip
```

Extract the files to a directory on the machine running SQL Server. After extracting files, the SQL Server files are in an `mss` directory.

6. Open a command prompt and navigate to `mss` directory you extracted from `ibspsql.zip`. This following file contains SQL to create the repository tables:

```
iwse.sql
```

For Japanese users, the script is named `lwse-unicode.sql`.

7. Issue the following command to create the repository tables:

```
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.

```
loginID
```

Is the SQL Server ID with `db_owner` rights.

```
password
```

Is the password for the SQL Server ID.

The tables should be created in your database.

8. Proceed to *Installing the JDBC Driver* on page C-6.

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 repository.

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

2. If you have not yet done so, extract the contents of the `ibspsql.zip` file, for example:

```
C:\Program Files\iWay55sm\etc\setup\ibspsql.zip
```

Extract the files to a directory on the machine running Oracle. After extracting files, the Oracle files are in an oracle directory. This directory contains SQL to create the repository tables.

For Oracle 8 `iwse.ora`
 For Oracle 9: `iwse.ora9`
 For Oracle 10: `iwse.ora10`

3. Issue the following command while logged on as a user ID with the correct environment settings:

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

or

```
sqlplus userid/password @ iwse.ora9
```

4. Proceed to *Installing the JDBC Driver* on page C-6.

Procedure: How to Configure a Sybase Repository

SQL to create the repository is installed in the `ibspsql.zip` file, for example:

```
C:\Program Files\iWay55sm\etc\setup\ibspsql.zip
```

You should extract the contents of this file to the Sybase machine. The sybase directory you extract contains the following file to create the repository tables:

```
sybase-iwse.sql
```

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

Proceed to *Installing the JDBC Driver* on page C-6.

Procedure: How to Configure a DB2 Repository

Note: For z/OS systems, contact iWay Software to obtain the correct scripts.

SQL to create the repository is installed in the `ibspsql.zip` file, for example:

```
C:\Program Files\iWay55sm\etc\setup\ibspsql.zip
```

You should extract the contents of this file to the DB2 machine. The db2 directory you extract contains the following file to create the repository tables:

```
db2-iwse.sql
```

A DB2 DBA should submit this SQL to create the repository tables and structure. However, for OS/400 use `db2-400-iwse.sql`.

Proceed to *Installing the JDBC Driver* on page C-6.

Procedure: How to Configure a MaxDB Repository

1. Contact iWay software to obtain the SQL needed for a MaxDB repository. There are several files in maxdb-ibse-install.zip. The .bat files are used for Windows and the .sh files are used for UNIX.
2. Open install.bat (or install.sh) in a text editor. and edit it so that it contains a valid MaxDB username and password. You can optionally change the database name (iwse):

```
dbmcli db_create iwse username,password  
dbmcli -d iwse -u username,password -i install-maxdb-instance.txt
```

3. Execute install.bat.

The database should be created.

4. Open load-tables-maxdb-iwse.bat (or load-tables-maxdb-iwse.sh) in a text editor. and edit it so that it contains a MaxDB administrator username and password, not necessarily the same logon as in install.bat. In addition, make sure it contains the same database name as install.bat (iwse by default):

```
loadercli -d iwse -u dba_username,dba_password -b maxdb-iwse3.sql
```

5. Execute load-tables-maxdb-iwse.bat.

The tables should be loaded.

Note: If you need to drop the tables and start over, edit and submit maxdb-iwse-droptables.bat (or maxdb-iwse-droptables.sh).

Installing the JDBC Driver

iWay components communicate with the repository using JDBC. Therefore, a JDBC driver must be available.

Procedure: How to Install the JDBC Driver

1. Determine the JDBC driver for your repository.

The required driver files depend on your database and driver type, for example:

Database Driver	Required Driver Files
SQL Server 2000	<code>msbase.jar</code> <code>mssqlserver.jar</code> <code>msutil.jar</code>
SQL Server 2005	<code>sqljdbc.jar</code>
Oracle	<code>classes12.jar</code>

MaxDB	sapdbc-7_5_0_5.jar
Sybase	jconn2.jar
DB2 Type 4 Universal JDBC	db2jcc.jar db2jcc_license_cisuz.jar
DB2 Type 2 Legacy App	db2java.zip See your driver documentation for more information. If both iBSP and DB2 are on z/OS or OS/400, refer to IBM driver documentation.

2. Copy the repository file or files into the iWay55sm\lib directory, for example:

[C:\Program Files\iWay55sm\lib](#)

For information about third party driver files, see Chapter 3, *Preparing Adapters*.

3. Restart iWay Service Manager from outside the Web Console. On Windows, you can restart it from the Services window.
4. For Servlet iBSP or Connector for JCA, add the JDBC driver to your application server CLASSPATH. See Appendix A, *Deploying iWay Application Server Components* and refer to your application server documentation for information on setting CLASSPATH.

Tip: Depending on your application server, you may find it easier to add the driver into the `ibse\WEB-INF\lib` directory of the `ibse` Web application (`ibse.war` or `ibse.ear`).

5. Restart your application server.

Connecting iWay to the Repository

After you create the repository tables and install the JDBC driver, restart iWay Service Manager and/or your application server. Then, configure iWay components to access the new repository.

- For iWay Service Manager, see *How to Enter Connection Information for Service Manager* on page C-8.
- For Servlet iBSP, see *How to Enter Connection Information for Servlet iBSP* on page C-10.
- For iWay Connector for JCA, see the *iWay Connector for J2EE Connector Architecture Server User's Guide*.

Procedure: How to Enter Connection Information for Service Manager

1. Open the iWay Service Manager Web Console and log on:

`http://hostname:9999`

where:

`hostname`

Is the hostname where you installed iWay.

2. In the left pane, click *Service Provider*.
3. Next to the *Data Provider Name* drop-down list, click the *Add* hyperlink.
A form appears for defining the database.
4. Complete the fields as explained in the following table:

<code>Name</code>	Enter a name that you will use to refer to the connection.
<code>Driver Class</code>	Use the drop down menu or manually enter the JDBC Class.
<code>Connection URL</code>	Use the drop down menu and edit the default URL. You can also manually enter the URL. Examples are shown after this table. For SQL Server 2000, ensure the URL ends with the following: <code> ;SelectMethod=cursor</code>
<code>User</code>	Provide the user ID to access the repository database.
<code>Password</code>	Provide the password to access the repository database.

The repository URLs have the forms listed in the following table.

Database	JDBC URL
SQL Server 2000	<code>jdbc:microsoft:sqlserver://hostname:port;DatabaseName=db name;SelectMethod=cursor</code>
SQL Server 2005	<code>jdbc:sqlserver://hostname:port;databaseName=dbname</code>
Oracle	<code>jdbc:oracle:thin:@hostname:port;SID</code>
MaxDB	<code>jdbc:sapdb://hostname[:port]/DatabaseName[options]</code>
Sybase	<code>jdbc:sybase:Tds:hostname:port</code>

Database	JDBC URL
DB2	<p>For DB2 Type 4 Universal JDBC driver:</p> <p><code>jdbc:db2://hostname:port/dbname</code></p> <p>For DB2 Type2 App driver:</p> <p><code>jdbc:db2:dbname</code></p> <p>See your driver documentation for more information. If both iBSE and DB2 are on z/OS or OS/400, refer to IBM driver documentation.</p>

where:

hostname

Is the hostname of the database server machine.

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.

5. Click *Test*.

You should receive a response that says:

`The JDBC data provider test completed successfully.`

If you receive an error, troubleshoot accordingly. Ensure the driver is in the `iWay55sm\lib` directory as explained in *How to Install the JDBC Driver* on page C-6.

6. Click *Update* if the test is successful.

Your connection appears on the Data Provider page. If you need to change its parameters, you can click its link.

7. Click *Services Provider* on the left.

8. Change the *Data Store Type* to the type of repository you wish to use.

9. Set the connection you just defined as the *Data Provider Name*.

Note: *Connection Pooling* is not supported for SQL Server 2005.

10. Click *Update*.

11. Restart Service Manager from outside of the Web Console to ensure it completely restarts. On Windows use the services Window.

When Service Manager restarts, you should reverify iBSP using the sample Web service at:

<http://hostname:9000>

Note: Use iWay Service Monitor to monitor iWay Service Manager events. Monitoring is implemented using AmberPoint components and can be enabled through the Web Console. For details, see the *iWay Service Manager User's Guide*.

To migrate a repository, see *Migrating Repositories* on page C-13.

Procedure: How to Enter Connection Information for Servlet iBSP

To enter connection information for Servlet iBSP:

1. Ensure you have added your JDBC driver to your application server CLASSPATH as explained in *How to Install the JDBC Driver* on page C-6.
2. Log on to the Servlet iBSP Configuration page at:

<http://hostname:port/ibse>

3. At the bottom of the page, provide the repository connection information.

The following table lists and describes the fields.

Field	Description
Repository Type	Specify the type of repository you are using. Note: <i>Data Source</i> is not supported.
Repository URL	Edit the provide JDBC URL to connect to the database. Examples follow this table.

Field	Description
Repository Driver	<p>Provide the JDBC Class to connect to the database.</p> <p>For SQL Server 2000: com.microsoft.jdbc.sqlserver.SQLServerDriver</p> <p>For SQL Server 2005: com.microsoft.sqlserver.jdbc.SQLServerDriver</p> <p>For MaxDB: com.sap.dbtech.jdbc.DriverSapDB</p> <p>For Oracle: oracle.jdbc.driver.OracleDriver</p> <p>For Sybase: com.sybase.jdbc2.jdbc.SybDriver</p> <p>For DB2 Type 4 Universal JDBC driver: com.ibm.db2.jcc.DB2Driver</p> <p>For DB2 Type2 App driver: COM.ibm.db2.app.DB2Driver</p> <p>See your driver documentation for more information. If both iBSE and DB2 are on z/OS or OS/400, refer to IBM driver documentation.</p>
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 forms listed in the following table.

Database	JDBC URL
SQL Server 2000	jdbc:microsoft:sqlserver://hostname:port;DatabaseName=db name;SelectMethod=cursor
SQL Server 2005	jdbc:sqlserver://hostname:port;databaseName=dbname
Oracle	jdbc:oracle:thin:@hostname:port;SID

Database	JDBC URL
MaxDB	<code>jdbc:sapdb://hostname[:port]/DatabaseName[options]</code>
Sybase	<code>jdbc:sybase:Tds:hostname:port</code>
DB2	<p>For DB2 Type 4 Universal JDBC driver: <code>jdbc:db2://hostname:port/dbname</code></p> <p>For DB2 Type2 App driver: <code>jdbc:db2:dbname</code></p> <p>See your driver documentation for more information. If both iBSE and DB2 are on z/OS or OS/400, refer to IBM driver documentation.</p>

where:

hostname

Is the hostname of the database server machine.

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.

Note: For SQL Server 2005, do not check *Repository Pooling*.

4. Click *Save*.

You should be redirected to the Servlet iBSP home page where you can test the sample Web service. However, until you redeploy or restart the server, the new repository is not actually used.

5. Restart the application server.

After the server restarts or the application is redeployed, test it by going to the Servlet iBSP home page at:

<http://hostname:port/ibse/IBSEServlet>

If you receive an error, confirm the settings at the configuration page:

<http://hostname:port/ibse>

If you receive an error, ensure CLASSPATH is properly set and redeploy the ibse Web application.

Migrating Repositories

You can migrate repositories using the iWay Service Manager Web Console. They can be repositories for iWay Service Manager, the older iWay Adapter Manager, Servlet iBSP, or iWay Connector for JCA. The structure of the repository has not changed.

Some of the things you can migrate include:

- Migrate the data in the default iWay SM HSQL database to another database repository.
- Migrate an older iWay Adapter Manager repository into the default iWay SM HSQL database.
- Migrate a Servlet iBSP or iWay Connector for JCA database repository.

In this section:

- *Source* repository refers to the older existing repository you want to migrate.
- *Target* repository refers to the new repository you want to use.

Migration Steps

To migrate a repository, perform the following steps.

1. Ensure you have created the new repository tables as explained in *Creating the Repository* on page C-3.
2. Ensure the JDBC driver for both your target and source repositories are in the iWay55sm/lib directory. See *Installing the JDBC Driver* on page C-6 for more information.
3. Define the source and target repositories as Data Providers through the Web Console as explained in *How to Define the Source and Target Repositories* on page C-13.
4. Start the migration as explained in *How to Start the Migration* on page C-15.

Procedure: How to Define the Source and Target Repositories

You should perform this procedure if you did not yet define the target repository or if you are migrating from a different source repository than the default HSQL repository,

If you are migrating the default HSQL repository into a new repository, the source repository is already defined for you. If you performed the steps in *How to Enter Connection Information for Service Manager* on page C-8, then you probably already defined the target repository. If you do not need to define the source or the target, proceed to *How to Start the Migration* on page C-15.

To define the source and target repositories as Data Providers:

1. Open the iWay Service Manager Web Console and log on:

`http://hostname:9999`

where:

`hostname`

Is the hostname where you installed iWay.

2. In the left pane, click *Data Provider*.
3. Click *Add* under the JDBC Connections box.

A form appears for defining the database. Define the source or target repository.

4. Complete the fields as explained in the following table:

<code>Name</code>	Enter a name that you will use to refer to the connection.
<code>Driver Class</code>	Use the drop down menu or manually enter the JDBC Class.
<code>Connection URL</code>	Use the drop down menu and edit the default URL. You can also manually enter the URL. For examples, see <i>How to Enter Connection Information for Service Manager</i> on page C-8. For SQL Server 2000, ensure the URL ends with the following: <code> ;SelectMethod=cursor</code>
<code>User</code>	Provide the user ID to access the repository database.
<code>Password</code>	Provide the password to access the repository database.

5. Click *Test*.

You should receive a response that says:

`The JDBC data provider test completed successfully.`

If you receive an error, troubleshoot accordingly. Ensure the driver is in the `iWay55sm\lib` directory as explained in *How to Install the JDBC Driver* on page C-6.

6. Click *Update* if the test is successful.

Your connection appears on the Data Provider page. If you need to change its parameters, you can click its link.

7. If you need to define both the target and source repositories, repeat this procedure to define another repository.

Procedure: How to Start the Migration

1. If it is not open, open the iWay Service Manager Web Console and log on:
2. On left click *Services Provider*.

The currently selected Data Store Type and Data Provider Name determine the source repository.

3. If it is not already selected, set the source repository by changing the *Data Store Type* and *Data Provider Name* and clicking *Update*. The *Data Provider Name* is the name you used when you defined the source repository.
4. Set the target repository by changing the Data Store Type and Data Provider Name.
5. Then click the *Migrate* hyperlink.

A page displays information about the migration. If the source and destination (target) are not correct, click *Services Provider* on the left to correct them. If your new database had data in it that you wish to delete, you can select the *Reset/Clean Destination* option.

6. Click *Migrate* if the source and destination (target) are correct.

Information about the migration appears. Ensure there are no critical errors.

After the migration completes, iBSP is set to use the source repository. You should set it to use the target repository instead.

7. Click *Services Provider* on the left.
8. Change the *Data Store Type* to the type of repository you wish to use.
9. Set the connection you just defined as the *Data Provider Name*.

Note: *Connection Pooling* is not supported with SQL Server 2005.

10. Restart iWay Service Manager.

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