

# iWay

iWay Adapter for JMS User's Guide  
Version 5 Release 5

Updated for J2EE CA 1.5

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## Preface

This document is intended for system integrators who develop client-server interfaces to various message-oriented middleware applications that have adopted the JMS standard.

## How This Manual Is Organized

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The following table lists the titles and numbers of the chapters for this manual with a brief description of the contents of each chapter.

Chapter		Contents
1	Introducing the iWay Adapter for JMS	Provides an overview of the adapter and how it works.
2	Creating Connections and Business Services	Describes how to generate XML schemas and business services (or Web services) for your JMS-enabled application.
3	Listening for JMS Events	Describes how to use the adapter to listen, react, and dispose of event data coming from a JMS queue.
4	Using Web Services Policy-Based Security	Describes how to configure Web services policy-based security.
5	Management and Monitoring	Describes how you can use managing and monitoring tools provided by the iWay Business Services Engine (iBSE) and the iWay Connector for JCA to measure the performance of your run-time environment.

## Documentation Conventions

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The following table lists and describes the conventions that apply in this manual.

Convention	Description
<b>THIS TYPEFACE</b> 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.
<b>this typeface</b>	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.
[ ]	Indicates a group of optional parameters. None are required, but you may select one of them. Type only the parameter in the brackets, not the brackets.
	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.

## What You Need to Know

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This document is intended for system integrators who develop client-server interfaces to various message-oriented middleware applications that have adopted the JMS standard.

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

- Experience using Enterprise Information System (EIS) and integration products and an understanding of the JMS products with which this software integrates.
- Knowledge of EIS concepts.
- General knowledge of JMS concepts and configuration options.
- Specific business application knowledge of the target schema.
- Knowledge of integration processes and data models for the required application area.
- General knowledge of XML concepts.

## Customer Support

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Do you have questions about iWay Adapter for JMS?

If you bought the product from a vendor other than iWay Software, contact your distributor.

If you bought the product directly from iWay Software, call Information Builders Customer Support Service (CSS) at (800) 736-6130 or (212) 736-6130. Customer Support Consultants are available Monday through Friday between 8:00 a.m. and 8:00 p.m. EST to address all your iWay Adapter for JMS questions. Information Builders consultants can also give you general guidance regarding product capabilities and documentation. Please be ready to provide your six-digit site code number (xxxx.xx) when you call.

You can also access support services electronically, 24 hours a day, with InfoResponse Online. InfoResponse Online is accessible through our World Wide Web site, <http://www.informationbuilders.com>. It connects you to the tracking system and known-problem database at the Information Builders support center. Registered users can open, update, and view the status of cases in the tracking system and read descriptions of reported software issues. New users can register immediately for this service. The technical support section of [www.informationbuilders.com](http://www.informationbuilders.com) also provides usage techniques, diagnostic tips, and answers to frequently asked questions.

To learn about the full range of available support services, ask your Information Builders representative about InfoResponse Online, or call (800) 969-INFO.

## Help Us to Serve You Better

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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 specifications our consultants require.

Specification	Comments
Platform	
Operating System	
OS Version	
Product List	
Adapters	
Adapter Deployment	For example, JCA, Business Services Engine, iWay Adapter Manager
Container Version	

The following table lists components. Specify the version in the column provided.

Component	Version
iWay Adapter	
EIS (DBMS/APP)	
HOTFIX / Service Pack	

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		

In the following table, specify the JVM version and vendor in the columns provided.

Version	Vendor

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

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

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

<b>File</b>	<b>Error/Problem</b>
XML schema	
XML instances	
Other input documents (transformation)	
Error screen shots	
Error output files	
Trace and log files	
Log transaction	

## **User Feedback**

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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.

## **iWay Software Training and Professional Services**

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Interested in training? Our Education Department offers a wide variety of training courses for iWay Software and other Information Builders products.

For information on course descriptions, locations, and dates, or to register for classes, visit our World Wide Web site, <http://www.iwaysoftware.com> or call (800) 969-INFO to speak to an Education Representative.

Interested in technical assistance for your implementation? Our Professional Services department provides expert design, systems architecture, implementation, and project management services for all your business integration projects. For information, visit our World Wide Web site, <http://www.iwaysoftware.com>.



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# Contents

<b>1. Introducing the iWay Adapter for JMS</b> .....	<b>1-1</b>
Introducing JMS .....	1-2
Introducing the Adapter .....	1-3
Features of the Adapter .....	1-3
Information About the Adapter .....	1-4
Deployment Information Roadmap .....	1-5
The iWay Business Services Engine (iBSE) .....	1-5
The iWay Enterprise Connector for J2EE Connector Architecture (JCA) .....	1-6
<b>2. Creating Connections and Business Services</b> .....	<b>2-1</b>
Starting Servlet iWay Application Explorer .....	2-2
Creating and Managing a Connection .....	2-3
Disconnecting From a Defined Target .....	2-9
Editing a Defined Target .....	2-10
Deleting a Defined Target .....	2-11
Creating Schemas for Services .....	2-11
Understanding iWay Business Services .....	2-14
Testing a Business Service .....	2-16
Generating WSDL From a Web Service .....	2-17
<b>3. Listening for JMS Events</b> .....	<b>3-1</b>
Understanding iWay Event Functionality .....	3-2
Creating, Editing, or Deleting an Event Port .....	3-3
Creating an Event Port From the iWay Event Adapters Tab .....	3-3
Editing and Deleting an Event Port .....	3-16
Creating, Editing, or Deleting an Event Channel .....	3-17
Creating a Channel .....	3-17
Editing and Deleting a Channel .....	3-27
<b>4. Using Web Services Policy-Based Security</b> .....	<b>4-1</b>
iWay Business Services Policy-Based Security .....	4-2
Configuring iWay Business Services Policy-Based Security .....	4-3
<b>5. Management and Monitoring</b> .....	<b>5-1</b>
Managing and Monitoring Services and Events Using iBSE .....	5-2
Managing and Monitoring Services and Events Using the JCA Test Tool .....	5-16
Setting Engine Log Levels .....	5-21

## Contents

Migrating Repositories .....	5-22
File Repositories .....	5-22
iBSE Repositories .....	5-22
JCA Repositories .....	5-27
Migrating Event Handling Configurations .....	5-27
Exporting or Importing Targets .....	5-32
Retrieving or Updating Web Service Method Connection Information .....	5-36
Starting or Stopping a Channel Programmatically .....	5-39

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## CHAPTER 1

# Introducing the iWay Adapter for JMS

### Topics:

- Introducing JMS
- Introducing the Adapter
- Features of the Adapter
- Information About the Adapter

The following topics provide an overview of the iWay Adapter for JMS, and how it works, including descriptions of key features and functionality.

## Introducing JMS

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Enterprise messaging is recognized as an essential tool for building enterprise applications and e-commerce systems. Java Message Service (JMS) provides a common way for Java programs to create, send, receive, and read an enterprise messaging system's messages. The JMS application programming interface (API) is a Java technology API for inter-client communication among distributed applications.

JMS provides a common interface that wraps around the underlying message delivery system, which can be provided by any number of vendors. JMS is a service-oriented API specification. That is, the JMS API prescribes messaging functionality in terms of interfaces, which JMS vendors then implement. Therefore, programmers work with JMS through these interfaces. JMS is a set of interfaces and associated semantics that define how a JMS client accesses the facilities of an enterprise-messaging product. Rather than communicate directly with each other, the components in an application, based around a message service, send messages to a message server. The message server, in turn, delivers the messages to the specified recipients.

The following J2EE™ technology licenses offer JMS API product implementations:

- BEA® Systems, Inc.
- Fujitsu® Interstage
- Hewlett-Packard®
- IBM®
- iPlanet™
- Macromedia®
- Oracle® Corporation
- Pramati®
- SilverStream® Software, Inc.
- Sonic Software™
- SpiritSoft™ Inc.
- Talarian® Corporation
- TIBCO™ Software, Inc.

## Introducing the Adapter

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The iWay Adapter for JMS integrates your JMS messages with Sun Java System Application Server in a fast, easy, and reliable way. You can use the adapter to exchange XML, non-XML, ASCII, and custom data formats between your JMS servers and Sun Java System Application Server to provide a tightly integrated and reliable application infrastructure.

The iWay Adapter for JMS provides:

- Guaranteed asynchronous, bidirectional message interactions between Sun Java System Application Server and native JMS destinations.
- Data transfer between a business process running within Sun Java System Application Server and a JMS server.
- Service and event adapter integration operations providing end-to-end business process management using XML schemas.
- Support for many formats including:
  - XML
  - Comma Separated Variable (CSV)
  - Excel
  - Custom Data Formats (CDF)

The adapter converts non-XML files into XML formats.

Delimited, fixed length, and variable length file formats are supported.

## Features of the Adapter

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The iWay Adapter for JMS provides a means to exchange real-time business data between JMS systems and other application, database, or external business partner systems. The adapter allows interaction between an XML application and JMS. The adapter enables external applications for inbound and outbound processing with JMS.

The adapter accepts XML messages to enable non-JMS applications to communicate and exchange transactions with JMS using services and events.

- **Services:** Applications use this capability to initiate a JMS business event.
- **Events:** Applications use this capability to access JMS data only when a JMS business event occurs.

## Information About the Adapter

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The iWay Adapter for JMS is a generic listener/emitter that provides an interface to various message-oriented middleware applications that have adopted the JMS standard.

The adapter works with iWay Application Explorer in conjunction with one of the following components:

- iWay Business Services Engine (iBSE)
- iWay Enterprise Connector for J2EE™ Connector Architecture (JCA)

iWay Application Explorer, used to configure JMS connections and create Web services and events, can be configured to work in a Web services environment in conjunction with the iWay Business Services Engine or with the iWay Enterprise Connector for J2EE Connector Architecture (JCA). When working in a JCA environment, the connector uses the Common Client Interface (CCI) to provide fast integration services using iWay Adapters instead of using Web services.

Both iBSE and the iWay Connector for JCA are deployed to the Sun Java System environment with Application Explorer and the adapters.

## Deployment Information Roadmap

The following table lists the location of deployment information for the adapter. A description of the iWay Business Services Engine (iBSE) and the iWay Enterprise Connector for J2EE Connector Architecture (JCA) follow the table.

Deployed Component	For more information, see
iWay Application Explorer	Chapters 2 and 3 of this guide <i>iWay Installation and Configuration</i> <i>iWay Application Explorer (Java Servlet Version) User's Guide</i>
iWay Business Services Engine (iBSE)	<i>iWay Installation and Configuration</i>
iWay Enterprise Connector for J2EE Connector Architecture (JCA)	<i>iWay Connector for JCA User's Guide</i> <i>iWay Installation and Configuration</i>

## The iWay Business Services Engine (iBSE)

The iWay Business Services Engine (iBSE) exposes—as Web services—enterprise assets that are accessible from adapters regardless of the programming language or the particular operating system.

iBSE simplifies the creation and execution of Web services when running:

- Custom and legacy applications
- Database queries and stored procedures
- Packaged applications
- Terminal emulation and screen-based systems
- Transactional systems

Web services is a distributed programming architecture that solves Enterprise Application Integration (EAI) hurdles that other programming models cannot. It enables programs to communicate with one another using a text-based but platform and language independent message format called XML.

Coupled with a platform and language independent messaging protocol called SOAP (Simple Object Access Protocol), XML enables application development and integration by assembling previously built components from multiple Web services.

## **The iWay Enterprise Connector for J2EE Connector Architecture (JCA)**

The iWay Enterprise Connector for J2EE Connector Architecture (JCA) enables developers of JCA-compliant applications to deploy iWay adapters as JCA resources.

The connector is supported on the Sun Java System Application Server.

The iWay Connector for JCA is distributed as a standard Resource Adapter Archive (RAR) for deployment to the application server. Thus, the connector can be used in systems that are non-compliant, although services such as pooled connections are not available.

Two connectors are distributed in the iWay installation package. One conforms to the JCA 1.0 specification, with extensions that allow for the consumption of events. The other conforms to the JCA 1.5 specification. The JCA 1.0 connector provides for event functionality through the configuration of ports and channels. When using the adapter in conjunction with a JCA 1.5 connector, there is no need to create event ports to dispose of event data. However, you must create a channel to enable event listening capabilities. For more information on event capabilities of the iWay JCA connectors, see Chapter 3, *Listening for JMS Events*.

For more information on installing and deploying both connectors, see *iWay Installation and Configuration*.



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## CHAPTER 2

# Creating Connections and Business Services

### Topics:

- Starting Servlet iWay Application Explorer
- Creating and Managing a Connection
- Creating Schemas for Services
- Understanding iWay Business Services

The iWay Adapter for JMS uses XML documents to communicate with applications using the JMS standard. The format of these XML documents is determined by schemas you generate using Application Explorer. You can also use Application Explorer to create business services (or Web services) for your JMS-enabled application.

## Starting Servlet iWay Application Explorer

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Before you can use Application Explorer, you must start the server where Application Explorer is running.

### Procedure: How to Start Application Explorer

To start Application Explorer:

1. Ensure the server is started where Application Explorer is running.
2. Enter the following URL in your browser window

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

where:

*hostname*

Is the machine where Application Explorer is installed.

*port*

Is the port number for Application Explorer. The default port is 80.

Application Explorer opens.

The Available Hosts drop-down list appears in the upper-right corner. Three tabs appear near the top of the Application Explorer screen. From left to right they are:

- iWay Adapters, where you create and manage connections to your JMS-enabled application.
- iWay Events, where you configure event listening for your JMS-enabled application.
- iWay Business Services, where you create and view business services.

The left pane of the window contains an expandable list of adapter nodes (based on the iWay adapters installed), events, or business services, depending on the tab that is selected. The right pane provides the details of the selected adapter, event, or service, and is the work area where you will define and modify adapter functions and services.

The Available Hosts drop-down list specifies to which Servlet iBSE instance or JCA instance you connect.

For more information on accessing different instances of a JCA installation or a Servlet iBSE, see the *iWay 5.5 Installation and Configuration* documentation.

You are now ready to define a new target to JMS.

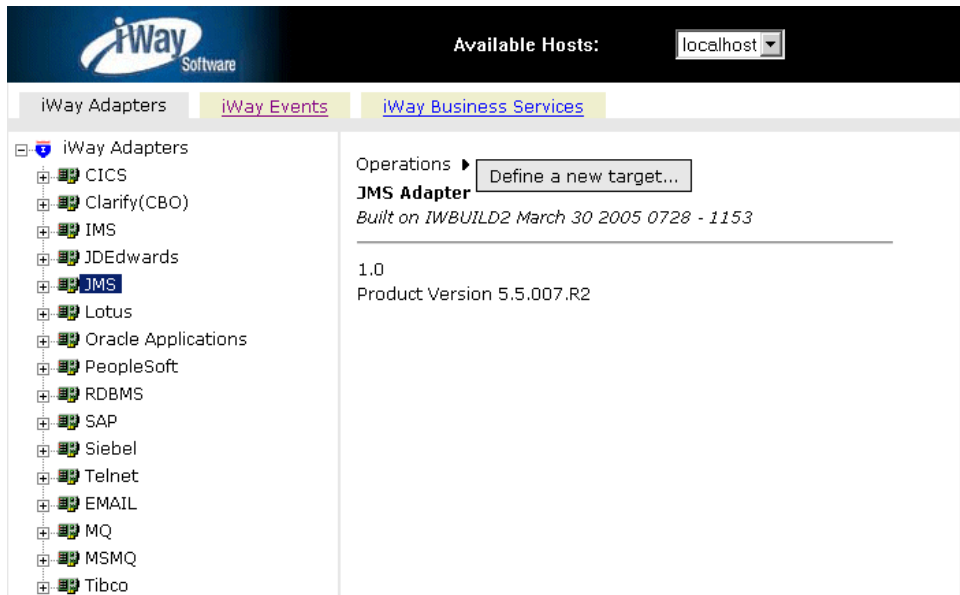
## Creating and Managing a Connection

To access an adapter, you must define a target that connects to the adapter. After the defined target is created, it automatically is saved. You must establish a connection to the defined target every time you start Application Explorer or after disconnecting.

### Procedure: How to Define a New Target

To define a new target:

1. In the left pane of Application Explorer, expand the *iWay Adapters* node.
2. Click the *JMS* node.



3. In the right pane, move the pointer over *Operations* and select *Define a new target*.

The Add a new JMS target dialog box opens in the right pane, as shown in the following image, where you enter the Target Name and Description, and select the Target Type from a drop-down list.

#### Add a new JMS target

---

Targets represent configured connections to instances of backend systems. Choose a name and description for the new target that you wish to create.

Target Name:

Description:

Target Type:



- a. In the Target Name field, type a descriptive name for the target, for example, JMS.
  - b. In the Description field, type a brief description for the connection.
  - c. In the Target Type field, specify *JMS Service*.
4. Click *Next*.

The following image shows the Set connection info dialog box containing fields for the connection parameters and three action (Back, Finish, and Cancel) buttons.

**Set connection info**

---

Connection
Headers
Properties

JNDI Queue/Topic Name:

Connection Type:

JNDI Connection Factory:

Use Local Context:

Initial Factory:

JNDI URL:

Username:

Password:

Message Type:

Delivery Mode:

- Specify the parameters in the Set connection info dialog box.

The following table lists and describes the parameters for connecting to your JMS target.

Parameter	Description
JNDI Queue/Topic Name	JNDI name of a queue to which a response is sent.

Parameter	Description
Connection Type	Select queue (the default) or topic: <ul style="list-style-type: none"> <li>• Queue is for a QueueSession in the PTP domain.</li> <li>• Topic is for a TopicSession in the Publish and Subscribe domain.</li> </ul>
JNDI Connection Factory	Resource that contains information about the JMS Server. You must create the context factor, for example, sampleQCF.  Name of the JNDI factory, in the form JNDI context.INITIAL_CONTEXT_FACTORY; provided by the JNDI service provider.  For Sun Java System Application Server, this is:  <a href="#">com.sun.jndi.cosnaming.CNCtxFactory</a>
Use Local Context	Select this option to use a local context.
Initial Factory	The name of your initial factory.
JNDI URL	URL to use to contact the JNDI provider. The syntax of this URL depends on the JNDI provider being used. This value corresponds to the standard JNDI property,  <a href="#">java.naming.provider.url</a> .  The URL of the Sun Java System Application Server is  <a href="#">iiop://localhost:3700</a>  where:  <a href="#">3700</a>  Is a default port.
Username	Valid user name required to access a JMS server.
Password	Valid password required to access a JMS server.

Parameter	Description
Message Type	Select from the following options: <ul style="list-style-type: none"> <li>• TextMessage (default)</li> <li>• BytesMessage.</li> </ul>
Delivery Mode	Select from the following options: <ul style="list-style-type: none"> <li>• Persistent (default)</li> <li>• Non_Persistent.</li> </ul>

6. Click the Headers tab.

The following image shows the Set connection info dialog box containing fields for the header parameters and three action (Back, Finish, and Cancel) buttons.

**Set connection info**

---

Connection
Headers
Properties

Correlation ID:

Reply To:

Priority:  ▼

Expire:

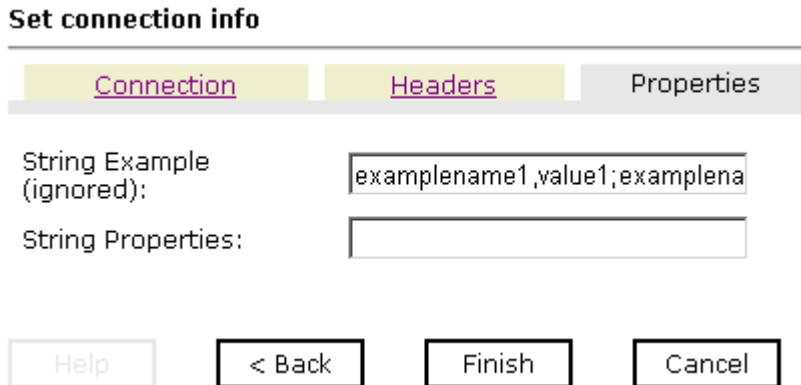
The following table lists and describes the header parameters for connecting to your JMS target.

Parameter	Description
Correlation ID	Specify the correlation ID you want to use for the header.
Reply To:	Specify a reply to value.

Parameter	Description
Priority	Select a value from 0 to 9. By default, a priority value of 4 is selected.
Expire	By default, the value is 0.

- Click the Properties tab.

The following image shows the Set connection info dialog box containing fields for the properties parameters and three action (Back, Finish, and Cancel) buttons.



The following table lists and describes the property parameters for connecting to your JMS target.

Parameter	Description
String Properties	Specify your string properties using the following format: <code>examplename1,value1;examplename2,value2</code>

- Click *Finish*.

In the left pane, the target name appears under the node where you created the new target. You have finished creating the new target.

### Procedure: How to Connect to a Defined Target

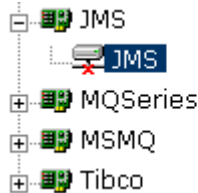
To connect to a defined target:

- In the left pane of Application Explorer, expand the *iWay Adapters* node.



- Expand the *JMS* node and select the defined target (for example, *JMS*) to which you want to connect.

The following image shows how a *JMS* target appears when it is not connected.



- In the right pane, move the pointer over *Operations* and select *Connect*.

The connection dialog box opens displaying the connection information.

- Verify your connection parameters and then click *OK*.

If the parameters are correct and the *JMS* component is available, the node under the *JMS* node displays a plus sign indicating that you are connected to the defined target. Otherwise, an error message appears in the right pane.

## Disconnecting From a Defined Target

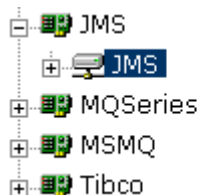
Although you can maintain multiple open connections, iWay Software recommends disconnecting from targets that are not in use.

### Procedure: How to Disconnect From a Defined Target

To disconnect from a defined target:

- In the left pane of Application Explorer, expand the *iWay Adapters* node.
- Expand the *JMS* node and select the defined target (for example, *JMS*) from which you want to disconnect.

The following image shows how a *JMS* target appears when it is connected.



- In the right pane, move the pointer over *Operations* and select *Disconnect*.

Disconnecting from the application closes the connection, but the connection still appears in the left pane so that you can re-open it. The connection node now has an x icon, indicating that it is closed, as shown in the following image.



When you want to re-establish a connection, Connect is available from the pop-up menu.

## Editing a Defined Target

After you create a defined target using Application Explorer, you can edit any information that you provided during the creation process.

### Procedure: How to Edit a Defined Target

To edit a defined target:

1. In the left pane of Application Explorer, expand the *iWay Adapters* node.
2. Expand the *JMS* node and select the defined target (for example, *JMS*) you want to edit.
3. In the right pane, move the pointer over *Operations* and select *Edit*.

The following image shows the Edit JMS target pane with its current connection settings for Target Name, Description, and Target Type.

#### Edit JMS target JMSTarget

---

Targets represent configured connections to instances of backend systems. Choose a name and description for the new target that you wish to create.

Target Name:

Description:

Target Type:

Help

< Back

Next >

Cancel

4. Modify the target information as required and then click *Next*.

The Set connection info dialog box opens in the right pane containing the connection parameters and three action buttons (Back, Finish, and Cancel).

5. Modify the connection information as required and then click *Finish*.

## Deleting a Defined Target

You can delete a target, rather than just disconnecting and closing it. When you delete the target, the node disappears from the list of JMS targets in the left pane of the explorer.

### Procedure: How to Delete a Defined Target

To delete a defined target:

1. In the left pane of Application Explorer, expand the *iWay Adapters* node.
2. Expand the *JMS* node to view the list of connections.
3. Click the defined target you want to delete.
4. In the right pane, move the pointer over *Operations* and select *Delete*.  
A message appears, prompting you to confirm the deletion of the node.
5. Click *OK*.

The node disappears from the list of available connections.

## Creating Schemas for Services

---

Application Explorer creates schemas for services that interact directly with your target JMS system. Each service the adapter uses must be defined by an XML schema. In order to use services, you must generate XML schemas for service requests and service responses. These schemas are dependent upon the application listening for the document being posted by the service.

When deployed to the Sun Java System Application Server and used in conjunction with an iBSE configuration, Application Explorer stores the schemas it creates in subdirectories under the Sun directory structure on the machine where the Sun Java System Application Server is installed. When used in conjunction with an iWay JCA configuration, Application Explorer stores schemas in a subdirectory of the iWay home directory.

When using the adapter with an iBSE configuration, the schemas are stored under a \schemas subdirectory in the Sun Java System Application Server installation directory, for example,

```
C:\SUN\AppServer7\domains\domain1\MyInstance\applications\j2ee-apps\
ibse_1\ibse_war\wsdl\schemas\service\JMS\JMS
```

where:

*MyInstance*

Is the name of the server instance to which iBSE and Application Explorer are deployed.

*JMS*

Is the name of the connection to the JMS system as defined in Application Explorer.  
Under this directory, Application Explorer creates subdirectories containing schemas.

When using the adapter with a JCA configuration, the schemas are stored under a \schemas subdirectory of the iWay home directory, for example,

`C:\Program Files\iWay55\config\base\schemas\JMS\JMS`

where:

*JMS*

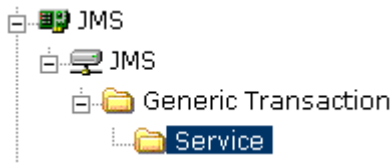
Is the name of the connection to the JMS system as defined in Application Explorer.  
Application Explorer stores the schemas in this directory.

## Procedure: How to Create Schemas for Services

To create schemas for services:

1. If you are not connected to a JMS target, connect to one, as described in *How to Connect to a Defined Target* on page 2-8.
2. Click the service for which you want to generate a schema.

The following image shows the Service folder selected under the JMS target node.



3. In the right pane, move the pointer over *Operations* and select *Generate Schema*.

A table that lists the available schemas appears in the right pane. A schemas table similar to the following image contains three columns labeled Part, Root Tag, and Schema. The Schema column provides hyperlinks to the different schemas.

Schemas		
Part	Root Tag	Schema
Request	JMS	<a href="#">...</a>
Response	emitStatus	<a href="#">...</a>
Event	N/A	N/A
EventReply	N/A	N/A

Help      OK      Cancel

- To view the request schema, click the ellipsis symbol that is located in the third column of the Request row.

The following image shows an example of a request schema.

```
<?xml version="1.0" encoding="UTF-8" ?>
<!-- Generated by the iBSE 2004-07-28T19:39:38Z -->
- <xs:schema
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  xmlns:eb="http://www.ebxml.org/namespaces/messa"
  elementFormDefault="qualified"
  attributeFormDefault="unqualified">
- <xs:element name="JMS">
- <xs:complexType>
- <xs:sequence>
  <xs:any minOccurs="0"
    maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>
</xs:element>
</xs:schema>
```

5. To view the response schema, click the ellipsis symbol that is located in the third column of the Response row.

The following image shows an example of a response schema.

```
<?xml version="1.0" encoding="UTF-8" ?>
<!-- Generated by the iBSE 2004-07-28T19:45:01Z
-->
- <xs:schema
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  xmlns:eb="http://www.ebxml.org/namespaces/messa"
  elementFormDefault="qualified"
  attributeFormDefault="unqualified">
- <xs:element name="emitStatus">
- <xs:complexType>
  - <xs:sequence>
    <xs:any minOccurs="0"
      maxOccurs="unbounded" />
    </xs:sequence>
  </xs:complexType>
</xs:element>
</xs:schema>
```

6. To create the schema, click OK.

## Understanding iWay Business Services

---

Application Explorer provides Web developers with a simple, consistent mechanism for extending the capabilities of the adapter. The iWay Business Services Engine exposes functionality as Web services. It serves as a gateway to heterogeneous back-end applications and databases.

A Web service is a self-contained, modularized function that can be published and accessed across a network using open standards. It is the implementation of an interface by a component and is an executable entity. For the caller or sender, a Web service can be considered as a “black box” that may require input and delivers a result. A Web service integrates within an enterprise as well as across enterprises on any communication technology stack, whether asynchronous or synchronous, in any format.

**Note:** In a J2EE Connector Architecture (JCA) implementation of iWay adapters, Web services are not available. When the adapters are deployed to use the iWay Connector for JCA, the Common Client Interface provides integration services using the iWay adapters. For more information, see the *iWay Installation and Configuration* manual and the *iWay Connector for JCA User's Guide*.

## Procedure: How to Generate a Business Service

To generate a business service:

1. If you are not connected to a defined target, connect to one, as described in *Connect to a Defined Target* on page 2-8.
2. Click the node containing the service (for example, Add) for which you want to create a business service.
3. In the right pane, move the pointer over *Operations* and select *Create iWay Business Service*.

The Create Web Service information appears in the right pane.

4. Choose whether to create a new service or use an existing service.

If you select **Use an existing service**, a drop-down list appears from which you must select the service.

If you select **Create a new service**, the Create Web Service pane opens on the right, as shown in the following image.

The image shows a dialog box titled "Create Web Service for Service". It contains three input fields: "Service Name" (a text box), "Description" (a text area), and "License" (a list box with "production" selected and "test" below it). At the bottom are four buttons: "Help", "< Back", "Next >", and "Cancel".

- a. In the Service Name field, type a name to identify the Web service (under the Service node in the left pane of the iWay Business Services tab).
- b. In the Description field, type a brief description of the Web service.

- c. In the License field, select the license(s) with which you want to associate this business service. To select more than one, hold down the *Ctrl* key and click the licenses.
5. After you select an existing service or you create a new service, click *Next*.  
Another dialog box with the Method Name and Description fields opens.
  - a. In the Method Name field, type a name to specify the name of the SQL statement or stored procedure to be added to the business service.
  - b. In the Description field, type a brief description of the method.
6. Click *Finish*.

Application Explorer switches the view to the iWay Business Services tab, and the new business service appears in the left pane.

## Testing a Business Service

After a business service is created, test it to ensure that it functions properly. iWay provides a test tool for testing the business service.

### Procedure: How to Test a Business Service

To test a business service:

1. If you are not on the iWay Business Services tab of Application Explorer, click the tab to access business services.
2. If it is not expanded, expand the list of business services under iWay Business Services.
3. Expand the *Services* node.
4. Select the name of the business service you want to test.

The business service name appears as a hyperlink in the right pane.

5. In the right pane, click the named business services hyperlink.

The test option appears in the right pane. This pane provides a text field in which to paste the XML input or browse to a file that can be uploaded. Below the text field is the browse field and three action buttons.

6. Provide the appropriate XML input.
7. Click *Invoke*.

The result appears in the right pane.



## Generating WSDL From a Web Service

Generating Web Services Description Language (WSDL) from a Web service enables you to make the Web service available to other services within a host server such as Sun Java System Application Server.

### Procedure: How to Generate WSDL From a Web Service

To generate WSDL from a Web service:

1. If you are not already in the iWay Business Services tab, click the tab to access business services.
2. In the left pane, expand the list of services to display the Web service for which you want to generate WSDL.
3. Click the Web service.

The hyperlink for the service appears in the right pane.

4. Right-click the *Service Description* hyperlink and choose *Save Target As*.
5. Choose a location for the file and specify *.wsdl* for the extension.

**Note:** The file extension must be *.wsdl*.

6. Click *Save*.



---

---

## CHAPTER 3

# Listening for JMS Events

### Topics:

- Understanding iWay Event Functionality
- Creating, Editing, or Deleting an Event Port
- Creating, Editing, or Deleting an Event Channel

Application Explorer, deployed to a Sun Java System Application Server, enables you to listen for events posted to a JMS queue. This section describes how to use the iWay Adapter for JMS to listen, react, and dispose of event data coming from the JMS queue.

## Understanding iWay Event Functionality

---

Events are generated as a result of a document arriving on a JMS queue. For example, an update to an application (for example, Siebel) results in a document being posted to a JMS queue. If your integration application must perform an act upon this event, your integration application is the consumer of the event.

After you create a connection to your application system, you can add events using Application Explorer. To create an iWay Event, you must create a port and a channel.

**Important:** When using the adapter in conjunction with the iWay Connector for JCA 1.5, there is no need to create event ports to dispose of event data. However, you must create a channel to enable event listening capabilities.

The following is a description of how ports and channels work:

- Port

A port associates a particular business object exposed by an adapter with a particular disposition. A disposition defines the protocol and resulting location of the event data. The port defines the end point of the event consumption. For more information, see *Creating, Editing, or Deleting an Event Port* on page 3-3.

- Channel

A channel represents configured connections to particular instances of back-end systems or protocols. A channel binds one or more event ports to a particular listener managed by an adapter. For more information, see *Creating, Editing, or Deleting an Event Channel* on page 3-17.

## Creating, Editing, or Deleting an Event Port

---

The following topics describe how to create, edit, or delete an event port using Application Explorer.

### Creating an Event Port From the iWay Event Adapters Tab

The following procedures describe how to create an event port from the iWay Event Adapters tab for various dispositions. You can switch between an iBSE and a JCA deployment by using the drop-down menu in the upper right of Application Explorer.

The following dispositions are available when using Application Explorer in conjunction with an iBSE deployment:

- File
- iBSE
- MSMQ
- JMSQ
- SOAP
- HTTP
- MQ Series
- MAIL

**Note:** The MAIL disposition option will be supported in a future release.

The following dispositions are available when using Application Explorer in conjunction with a JCA connector deployment.

- File
- JMSQ
- HTTP
- MQ Series

## Procedure: How to Create an Event Port for File

1. Click the *iWay Events* tab.  
The iWay Event Adapters window opens.
2. In the left pane, expand the *JMS* node.
3. Select the *ports* node.
4. In the right pane, move the pointer over *Operations* and select *Add a new port*.

The following image shows the Create New Port dialog box in the right pane containing fields to enter a name, description, disposition protocol, and disposition.

**Create New Port**

Choose parameters of the port that you wish to create.

Port Name:

Description:

Disposition Protocol:

Disposition:

- a. Type a name and a brief description for the event port.
- b. From the Disposition Protocol drop-down list, select *FILE*.
- c. In the Disposition field, specify a destination file to which the event data is written.

When pointing Application Explorer to an **iBSE** deployment, specify the destination file using the following format:

```
ifile://[location];errorTo=[pre-defined port name or another disposition url]
```

When pointing Application Explorer to a **JCA** deployment, specify the full path to the directory.

**Important:** When using the adapter in conjunction with the iWay Connector for JCA 1.5, there is no need to create event ports to dispose of event data. However, you must create a channel to enable event listening capabilities.

The following table lists and defines the parameters for the File disposition.

Parameter	Description
location	Destination and file name of the document where event data is written. For example, D:\in\x.txt
errorTo	Predefined port name or another disposition URL to which error logs are sent. Optional.

5. Click *OK*.

The port appears under the ports node in the left pane. In the right pane, a table appears that summarizes the information associated with the event port you created.

You are ready to associate the event port with a channel. For more information, see *Creating, Editing, or Deleting an Event Channel* on page 3-17.

### Procedure: How to Create an Event Port for iBSE

1. Click the *iWay Events* tab.  
The iWay Event Adapters window opens.
2. In the left pane, expand the *JMS* node.
3. Select the *ports* node.
4. In the right pane, move the pointer over *Operations* and select *Add a new port*.

The following image shows the Create New Port dialog box in the right pane containing fields to enter a name, description, disposition protocol, and disposition.

- a. Type a name and a brief description for the event port.
- b. From the Disposition Protocol drop-down list, select *IBSE*.
- c. In the Disposition field, type an iBSE destination using the following format:

```
ibse:svcName.mthName;responseTo=[pre-defined port name or another
disposition url];errorTo=[pre-defined port name or another
disposition url]
```

The following table lists and defines the parameters for the iBSE disposition.

Parameter	Description
svcName	Name of the service created with iBSE.
mthName	Name of the method created for the Web service.
responseTo	Location where responses to the Web service are posted. A predefined port name or another full URL. Optional.
errorTo	Location where error documents are sent. A predefined port name or another full URL. Optional.

5. Click *OK*.



The port appears under the ports node in the left pane. In the right pane, a table appears that summarizes the information associated with the event port you created.

You are ready to associate the event port with a channel. For more information, see *Creating, Editing, or Deleting an Event Channel* on page 3-17.

### Procedure: How to Create an Event Port for MSMQ

1. Click the *iWay Events* tab.  
The iWay Event Adapters window opens.
2. In the left pane, expand the *JMS* node.
3. Select the *ports* node.
4. In the right pane, move the pointer over *Operations* and select *Add a new port*.

The following image shows the Create New Port dialog box in the right pane containing fields to enter a name, description, disposition protocol, and disposition.

**Create New Port**

Choose parameters of the port that you wish to create.

Port Name:

Description:

Disposition Protocol:

Disposition:

- a. Type a name and a brief description for the event port.
- b. From the Disposition Protocol drop-down list, select *MSMQ*.
- c. In the Disposition field, type an MSMQ destination using the following format:  

```
msmq:/machineName/private$/qName;errorTo=[pre-defined port name or another disposition url]
```

**Note:** This syntax is for a private queue. Private queues are queues that are not published in Active Directory. They appear only on the local computer that contains them. Private queues are accessible only by Message Queuing applications that recognize the full path name or format name of the queue.

The following table lists and defines the parameters for the MSMQ disposition.

Parameter	Description
machineName	Machine name where the Microsoft Queuing system is running.
qName	Name of the private queue where messages are placed.
errorTo	Predefined port name or another disposition URL to which error logs are sent. Optional.

5. Click *OK*.

The port appears under the ports node in the left pane. In the right pane, a table appears that summarizes the information associated with the event port you created.

You are now ready to associate the event port with a channel. For more information, see *Creating, Editing, or Deleting an Event Channel* on page 3-17.

### **Procedure: How to Create an Event Port for JMSQ**

1. Click the *iWay Events* tab.  
The iWay Event Adapters window opens.
2. In the left pane, expand the *JMS* node.
3. Select the *ports* node.
4. In the right pane, move the pointer over *Operations* and select *Add a new port*.

The following image shows the Create New Port dialog box in the right pane containing fields to enter a name, description, disposition protocol, and disposition.

**Create New Port**

Choose parameters of the port that you wish to create.

Port Name:

Description:

Disposition Protocol:

Disposition:

- a. Type a name and a brief description for the event port.
- b. From the Disposition Protocol drop-down list, select *JMSQ*.
- c. In the Disposition field, type a JMS destination.

When pointing Application Explorer to an **ibSE** deployment, specify the destination using the following format:

```
jmsq:myQueueName@myQueueFac;jndiurl=[myurl];jndifactory=[myfactory];user=[user];password=[xxx];errorTo=[pre-defined port name or another disposition url]
```

When pointing Application Explorer to a **JCA** deployment, specify the destination using the following format:

```
jms:jmsqueue@jmsfactory;jndiurl=;jndifactory=;
```

**Important:** When using the adapter in conjunction with the iWay Connector for JCA 1.5, there is no need to create event ports to dispose of event data. However, you must create a channel to enable event listening capabilities.

The following table lists and defines the parameters for the JMSQ disposition.

Parameter	Description
myQueueName or jmsqueue	JNDI name of a queue to which events are emitted.
myQueueFac or jmsfactory	Resource that contains information about the JMS Server. You must create the connection factory; for example, sampleQCF.
jndiurl	URL to use to contact the JNDI provider. The syntax of this URL depends on the JNDI provider being used. This value corresponds to the standard JNDI property, <code>java.naming.provider.url</code> . The URL of the Sun Java System Application Server is <code>iiop://localhost:3700</code> where: <code>3700</code> Is a default port.
jndifactory	Is JNDI context.INITIAL_CONTEXT_FACTORY and is provided by the JNDI service provider. For Sun Java System Application Server, this is: <code>com.sun.jndi.cosnaming.CNCTXFactory</code>
user	Valid user name required to access a JMS server.
password	Valid password required to access a JMS server.
errorTo	Predefined port name or another disposition URL to which error logs are sent. Optional.

5. Click OK.

The port appears under the ports node in the left pane. In the right pane, a table appears that summarizes the information associated with the event port you created.

You are now ready to associate the event port with a channel. For more information, see *Creating, Editing, or Deleting an Event Channel* on page 3-17.

### Procedure: How to Create a Port for SOAP

1. Click the *iWay Events* tab.  
The iWay Event Adapters window opens.
2. In the left pane, expand the *JMS* node.
3. Select the *ports* node.
4. In the right pane, move the pointer over *Operations* and select *Add a new port*.

The following image shows the Create New Port dialog box in the right pane containing fields to enter a name, description, disposition protocol, and disposition.

**Create New Port**

Choose parameters of the port that you wish to create.

Port Name:

Description:

Disposition Protocol: SOAP

Disposition: soap:[wsdl-url];soapaction=[mya...

Help OK Cancel

- a. Type a name and a brief description for the event port.
- b. From the Disposition Protocol drop-down list, select *SOAP*.
- c. In the Disposition field, type a SOAP destination using the following format:

```
soap:[wsdl-url];soapaction=[myaction];responseTo=[pre-defined port
name or another disposition URL];errorTo=[pre-defined port name or
another disposition url]
```

The following table lists and defines the parameters for the SOAP disposition.

Parameter	Description
wSDL-url	URL to the WSDL file that is required to create the SOAP message.
soapaction	Method that will be called by the disposition.
responseTo	Predefined port name or another disposition URL to which response documents are sent. Optional.
errorTo	Predefined port name or another disposition URL to which error logs are sent. Optional.

5. Click *OK*.

The port appears under the ports node in the left pane. In the right pane, a table appears that summarizes the information associated with the port you created.

You are now ready to associate the event port with a channel. For more information, see *Creating, Editing, or Deleting an Event Channel* on page 3-17.

### **Procedure: How to Create an Event Port for HTTP**

1. Click the *iWay Events* tab.  
The *iWay Event Adapters* window opens.
2. In the left pane, expand the *JMS* node.
3. Select the *ports* node.
4. In the right pane, move the pointer over *Operations* and select *Add a new port*.

The following image shows the Create New Port dialog box in the right pane containing fields to enter a name, description, disposition protocol, and disposition.

**Create New Port**

---

Choose parameters of the port that you wish to create.

Port Name:

Description:

Disposition Protocol:

Disposition:

- a. Type a name and a brief description for the event port.
- b. From the Disposition Protocol drop-down list, select *HTTP*.
- c. In the Disposition field, type an HTTP destination.

When pointing Application Explorer to an **iBSE** deployment, specify the destination using the following format:

```
ihttp://[myurl];responseTo=[pre-defined port name or another disposition url];
```

The following table lists and defines the parameters for the HTTP disposition when using an **iBSE** deployment.

Parameter	Description
myurl	URL target for the post operation, for example, <a href="http://myhost:1234/docroot">http://myhost:1234/docroot</a>
responseTo	Predefined port name or another disposition URL to which response documents are sent. Optional.

When pointing Application Explorer to a **JCA** deployment, specify the destination using the following format:

<http://host:port/uri>

**Important:** When using the adapter in conjunction with the iWay Connector for JCA 1.5, there is no need to create event ports to dispose of event data. However, you must create a channel to enable event listening capabilities.

The following table lists and defines the parameters for the HTTP disposition when using a **JCA** deployment.

Parameter	Description
host:port	Combination of the name of the host on which Sun Java System Application Server resides and the port on which the server is listening for the post operation.
uri	Universal resource identifier that completes the URL specification.

5. Click *OK*.

The port appears under the ports node in the left pane. In the right pane, a table appears that summarizes the information associated with the event port you created.

You are now ready to associate the event port with a channel. For more information, see *Creating, Editing, or Deleting an Event Channel* on page 3-17.

### Procedure: How to Create an Event Port for MQ Series

1. Click the *iWay Events* tab.  
The iWay Event Adapters window opens.
2. In the left pane, expand the *JMS* node.
3. Select the *ports* node.
4. In the right pane, move the pointer over *Operations* and select *Add a new port*.



The following image shows the Create New Port dialog box in the right pane containing fields to enter a name, description, disposition protocol, and disposition.

**Create New Port**

---

Choose parameters of the port that you wish to create.

Port Name:

Description:

Disposition Protocol:

Disposition:

- a. Type a name and a brief description for the event port.
- b. From the Disposition Protocol drop-down list, select *MQ Series*.
- c. In the Disposition field, type an MQ Series destination.

When pointing Application Explorer to an **ibSE** deployment, specify the destination using the following format:

```
mqseries:/qManager/qName;host=[hostname];port=[port];channel=[channelname];errorTo=[pre-defined port name or another disposition url]
```

When pointing Application Explorer to a **JCA** deployment, specify the destination using the following format:

```
mq:qmanager@respqueue;host=;port=;channel=
```

**Important:** When using the adapter in conjunction with the iWay Connector for JCA 1.5, there is no need to create event ports to dispose of event data. However, you must create a channel to enable event listening capabilities.

The following table lists and defines the parameters for the MQ Series disposition.

Parameter	Description
qManager	Name of the queue manager to which the server must connect.
qName or respqueue	Name of the queue where messages are placed.
host	Host on which the MQ server is located (for the MQ Client only).
port	Number to connect to an MQ server queue manager (for the MQ client only).
channel	Case-sensitive name of the channel that connects with the remote MQ server queue manager (for the MQ client only). SYSTEM.DEF.SVRCONN is the default channel name for MQSeries.
errorTo	Predefined port name or another disposition URL to which error logs are sent. Optional.

5. Click *OK*.

The port appears under the ports node in the left pane. In the right pane, a table appears that summarizes the information associated with the event port you created.

You are now ready to associate the event port with a channel. For more information, see *Creating, Editing, or Deleting an Event Channel* on page 3-17.

## Editing and Deleting an Event Port

The following procedures describe how to edit and delete an event port.

### Procedure: How to Edit an Event Port

1. In the left pane, select the event port you want to edit.
2. In the right pane, move the pointer over *Operations* and select *Edit*.  
The Edit Port dialog box opens.
3. Make the required changes and click *OK*.

**Procedure: How to Delete an Event Port**

1. In the left pane, select the event port you want to delete.
2. In the right pane, move the pointer over *Operations* and select *Delete*.  
A confirmation dialog box opens.
3. To delete the event port you selected, click *OK*.  
The event port disappears from the list in the left pane.

**Creating, Editing, or Deleting an Event Channel**

---

The following topics describe how to create, edit, or delete a channel for your iWay Event. All defined event ports must be associated with a channel.

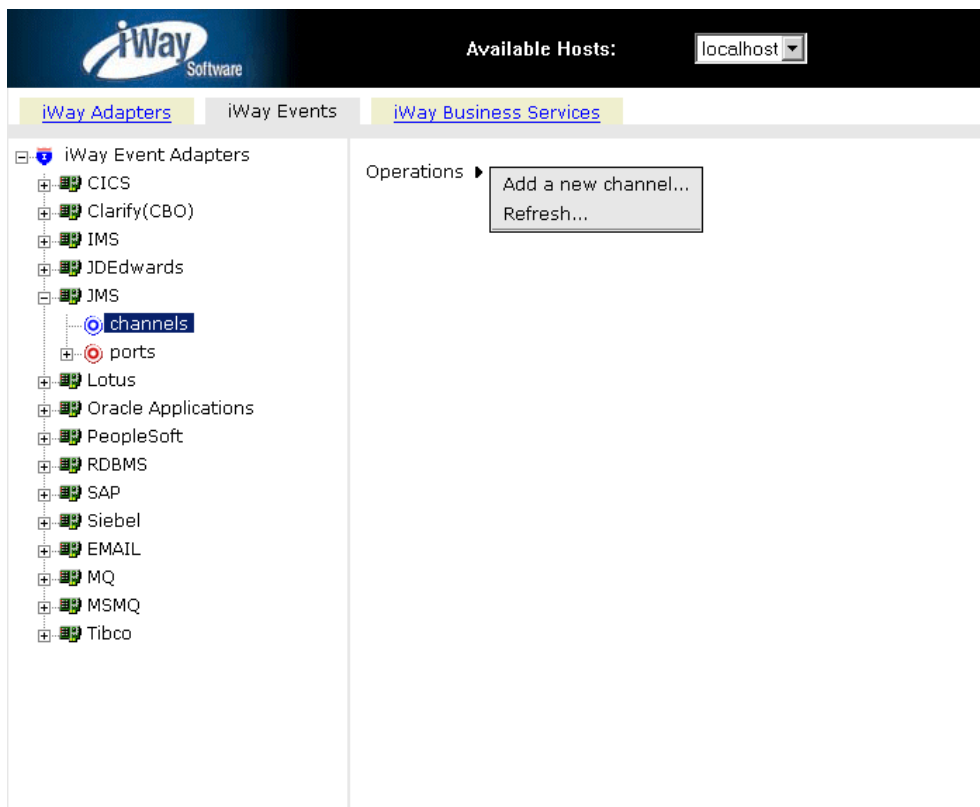
**Creating a Channel**

The following procedure describes how to create a channel using Application Explorer.

**Procedure: How to Create a Channel**

1. Click the *iWay Events* tab.  
The iWay Event Adapters window opens. The iWay Adapters that appear in the left pane support events.
2. In the left pane, expand the *JMS* node.  
The ports and channels nodes appear in the left pane.
3. Select the *channels* node.

The Operations menu opens in the right pane as shown in the following image.



4. In the right pane, move the pointer over *Operations* and select *Add a new channel*.

The following image shows the Add a new JMS channel dialog box in the right pane containing fields to enter a name, description, and channel type.

**Add a new JMS channel**

Choose a name and description for the new channel that you wish to create.

Channel Name:

Description:

Channel Type:

- a.** In the Channel Name field, type a descriptive name for the channel, for example, NewChannel.
  - b.** In the Description field, type a brief description for the channel.
  - c.** In the Channel Type field, specify JMS Listener.
- 5.** Click *Next*.

The Edit channels pane opens on the right with the Connection tab active as shown in the following image. The Connection tab includes connection parameter fields and three action buttons (Back, Finish, and Cancel).

### Edit channels

Connection   [Reception](#)   [Message Headers](#)   [Message Properties](#)

JNDI Queue/Topic Name:

Connection Type:

JNDI Connection Factory:

Use Local Context:

Initial Factory:

JNDI URL:

Username:

Password:

Message Type:

The following table lists and describes the parameters for connecting to your JMS target.

Parameter	Description
JNDI Queue/Topic Name	JNDI name of a queue to which a response is sent.
Connection Type	Select queue (the default) or topic: <ul style="list-style-type: none"> <li>Queue is for a QueueSession in the PTP domain.</li> <li>Topic is for a TopicSession in the Publish and Subscribe domain.</li> </ul>
JNDI Connection Factory	Resource that contains information about the JMS Server. You must create the context factor, for example, sampleQCF.
Use Local Context	Select this option to use a local context.
Initial Factory	The name of your initial factory.
JNDI URL	URL to use to contact the JNDI provider. The syntax of this URL depends on the JNDI provider being used. This value corresponds to the standard JNDI property, <code>java.naming.provider.url</code> . The URL of the Sun Java System Application Server is <code>iiop://localhost:3700</code> where: <code>3700</code> Is a default port.
Username	Valid user name required to access a JMS server.
Password	Valid password required to access a JMS server.

Parameter	Description
Message Type	Select from the following options: <ul style="list-style-type: none"><li>• TextMessage (default)</li><li>• BytesMessage.</li></ul>

6. Click the Reception tab.

The following image shows the Reception tab active. The Reception tab includes the Ack, Message Selector, and Error Destination fields.

### Edit channels

[Connection](#) Reception [Message Headers](#) [Message Properties](#)

Ack:

Message Selector:

Error Destination:

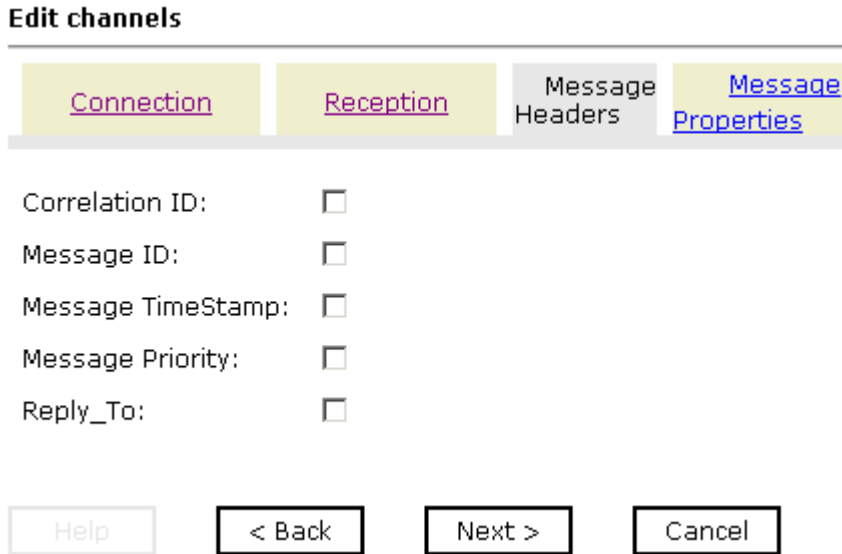


The following table lists and describes the reception parameters for connecting to your JMS target.

Parameter	Description
Ack	<p>Select from the following options:</p> <ul style="list-style-type: none"> <li>• Auto_Acknowledge. The session automatically acknowledges the client's receipt of a message by successfully returning from a call to receive (synchronous mode) or when the session message listener successfully returns (asynchronous mode). The last message can be redelivered. Auto Acknowledge is the default option.</li> <li>• Duplicates_OK. The session "lazily" acknowledges the delivery of messages to consumers, possibly allowing some duplicate messages after a system outage</li> <li>• Client_Acknowledge. An explicit acknowledge on a message acknowledges the receipt of all messages that have been produced and consumed by the session that gives the acknowledgement. When a session is forced to recover, it restarts with its first unacknowledged message.</li> </ul>
Message Selector	Specify a statement using a subset of SQL92 to retrieve messages based on selection criteria.
Error Destination	Specify a JMS queue where to direct errors during transactions.

**7.** Click the Message Headers tab.

The following image shows the Message Headers tab active. The Message Headers tab includes options to select for the response. These are described in the table that follows the image.



The following table lists and describes the message header parameters for connecting to your JMS target.

Parameter	Description
Correlation ID	Select this option if you want to include a correlation ID in the response.
Message ID	Select this option if you want to include a message ID in the response.
Message TimeStamp	Select this option if you want to include a message timestamp in the response.
Message Priority	Select this option if you want to include a message priority indicator in the response.
Reply_To	Select this option if you want to include a reply to in the response.

8. Click the Message Properties tab.

The following image shows the Message Properties tab active. The Message Properties tab includes a string example and a field to enter string properties.

### Edit channels

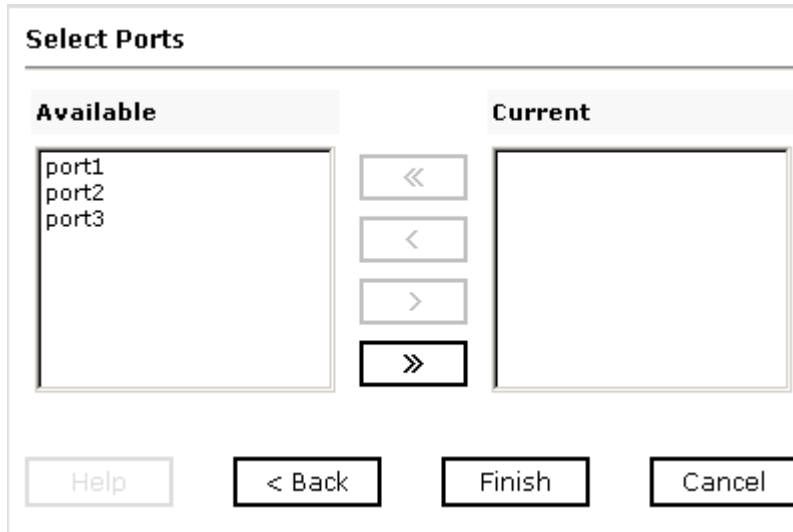
The screenshot shows a dialog box titled "Edit channels" with four tabs: "Connection", "Reception", "Message Headers", and "Message Properties". The "Message Headers" tab is currently selected. Below the tabs, there are two input fields. The first is labeled "String Example (ignored):" and contains the text "examplename1,examplename2,e". The second is labeled "String Properties:" and is empty. At the bottom of the dialog, there are four buttons: "Help", "< Back", "Next >", and "Cancel".

The following table lists and describes the message property parameter for connecting to your JMS target.

Parameter	Description
String Properties	Specify your string properties using the following format:  <code>examplename1,value1;examplename2,value2</code>

9. Click Next.

The following image shows the Select Ports pane that opens on the right containing lists for available and current ports and buttons to enable you to move ports from one list to the other.



- a. Select an event port from the list of available ports. To select more than one, hold down the *Ctrl* key and click the ports.
- b. Click the single right arrow button to transfer the selected port(s) to the list of current ports. To transfer all event ports, click the double right button.

**10.** Click *Finish*.

As shown in the following image, the summary information appears in the right pane providing the channel description, channel status, and current ports. All the information is associated with the channel you created.

Operations ▶	
<b>Channel Description</b>	NewChannel
<b>Channel Status</b>	Disconnected
<b>Ports</b>	[port1, port2]

The created channel also appears under the channels node in the left pane, as shown in the following image, with an X over the icon indicating that the channel is currently disconnected.



You must start the channel to activate your event configuration.

### Procedure: How to Start and Stop a Channel

1. Expand the *iWay Events* node.
2. Expand the *JMS* node.
3. Select the channel you want to start or stop.
4. To start the channel, move the pointer over *Operations* and select *Start the channel*.

The following image shows the created channel active and the X over the icon has disappeared.



5. To stop the channel, move the pointer over *Operations* and select *Stop the channel*.

### Editing and Deleting a Channel

The following procedures describe how to edit and delete a channel.

#### Procedure: How to Edit a Channel

1. Expand the *iWay Events* node.
2. Expand the *JMS* node.
3. In the left pane, select the channel you want to edit.
4. In the right pane, move the pointer over *Operations* and select *Edit*.

The Edit channels dialog box opens.

5. Make the required changes to the channel configuration and click *Finish*.

**Procedure: How to Delete a Channel**

1. Expand the *iWay Events* node.
2. Expand the *JMS* node.
3. In the left pane, select the channel you want to delete.
4. In the right pane, move the pointer over *Operations* and select *Delete*.  
A confirmation dialog box opens.
5. To delete the channel you selected, click *OK*.  
The channel disappears from the list in the left pane.

---

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## CHAPTER 4

# Using Web Services Policy-Based Security

### Topics:

- iWay Business Services Policy-Based Security
- Configuring iWay Business Services Policy-Based Security

Servlet Application Explorer provides a security feature called iWay Business Services policy-based security. The following topics describe how this feature works and how to configure it.

## iWay Business Services Policy-Based Security

---

iWay Business Services provide a layer of abstraction between the back-end business logic they invoke and the user or application running the business service. This enables easy application integration but raises the issue of controlling the use and execution of critical and sensitive business logic that is run as a business service.

Servlet Application Explorer controls the use of business services that use adapters with a feature called policy-based security. This feature enables an administrator to apply *policies* to iWay Business Services (iBS) to deny or permit their execution.

A *policy* is a set of privileges associated with the execution of a business service that can be applied to an existing or new iBS. When you assign specific rights or privileges inside a policy, you need not recreate privileges for every iBS that has security issues in common with other iWay Business Services. Instead, you can use one policy for many iWay Business Services.

The goal is to secure requests at both the transport and the SOAP request level that is transmitted on the wire. Some policies do not deal with security issues directly but affect the run-time behavior of the business services to which they are applied.

The iBSE administrator creates an instance of a policy type, names it, associates individual users and/or groups (a collection of users), and then applies the policy to one or more business services.

You can assign a policy to an iBS or to a method within an iBS. If a policy is applied only to a method, other methods in that iBS are not governed by it. However, if a policy is applied to the iBS, all methods are governed by it. At run time, the user ID and password that are sent to iBSE in the SOAP request message are checked against the list of users for all policies applied to the specific iBS. The Resource Execution policy type is supported and dictates who can or cannot execute the iBS.

When a policy is not applied, the default value for an iBS is to “grant all.” For example, anyone can execute the iBS until the Resource Execution policy is associated to the iBS. At that time, only users granted execution permission, or those who do not belong to a group that was denied execution permissions, have access to the iBS.



## Configuring iWay Business Services Policy-Based Security

Before you create instances of policies, you must have a minimum of one user or one group to associate to an instance. You can create users and groups using Servlet Application Explorer. For more information, see *How to Create a User to Associate With a Policy* on page 4-3 or *How to Create a Group to Associate With a Policy* on page 4-5.

An execution policy governs who can execute the business service to which the policy is applied. For more information, see *How to Create an Execution Policy* on page 4-7.

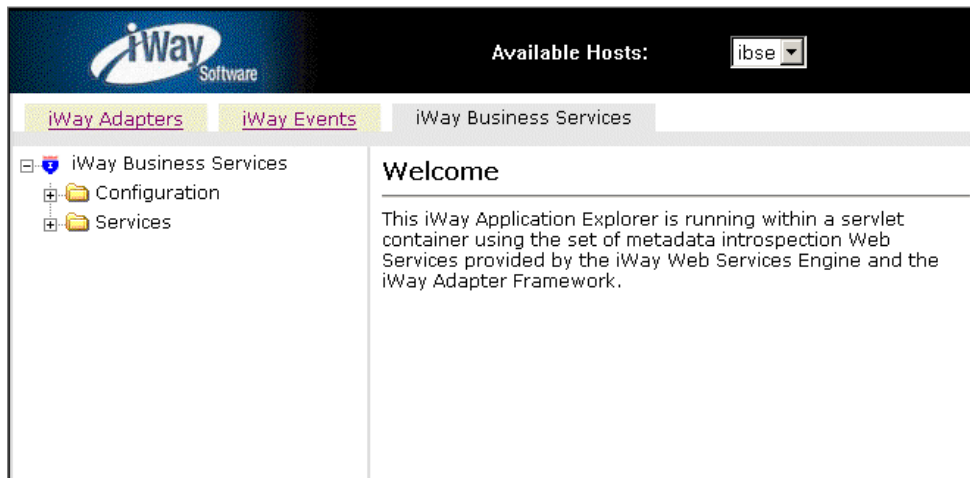
You configure the IP and Domain Restriction policy type slightly differently from other policy types. The IP and Domain Restriction policy type controls connection access to iBSE and therefore, need not be applied to an individual business service. You need not create a policy, however, you must enable the Security Policy option in Servlet Application Explorer. For more information, see *How to Configure IP and Domain Restrictions* on page 4-11.

### **Procedure** How to Create a User to Associate With a Policy

To create a user to associate with a policy:

1. Open Servlet Application Explorer.

The following image shows the window that opens and includes three tabs corresponding to iWay Adapters, iWay Events, and iWay Business Services. The iWay Business Services tab is active and displays a Welcome screen on the right. The image shows the iWay Business Services node expanded in the left pane.



- a. Click the *iWay Business Services* tab.
- b. Expand the *Configuration* node.

- c. Expand the *Security* node.
  - d. Expand the *Users and Groups* node.
  - e. Select *Users*.
2. In the right pane, move the pointer over *Operations* and select *Add*.

The following image shows the Add a new user pane that opens and includes fields where you enter a user name, a password, and a description of the user. The pane includes a Help button, an OK button to instruct the system to accept inputs, and a Cancel button to escape from the pane.

---

**Add a new user**

---

Name:

Password:

Description:

- a. In the Name field, type a user ID.
  - b. In the Password field, type the password associated with the user ID.
  - c. In the Description field, type a description of the user (optional).
3. Click *OK*.

The following image opens and shows a new user added to the configuration. It includes a definition of a user and a user ID and description.

Operations ▸



## Users

A user is an object that can be granted or denied permissions to run iWay Business Services. A user can belong to one or more groups. Policies that specify particular rights can be associated with user.

User Id	Description
<input type="checkbox"/> bse1	

### **Procedure** How to Create a Group to Associate With a Policy

To create a group to associate with a policy:

1. Open Servlet Application Explorer.
  - a. Click the *iWay Business Services* tab.
  - b. Expand the *Configuration* node.
  - c. Expand the *Security* node.
  - d. Expand the *Users and Groups* node.
  - e. Select *Groups*.
2. In the right pane, move the pointer over *Operations* and click *Add*.

The following image shows the Add new group pane that opens with fields where you enter a name and a description for the group. To continue after typing inputs, click the *Next* button. The pane also includes a *Help* button, a *Back* button to return to the previous screen, and a *Cancel* button to escape from the pane.

**Add new group**

Name:

Description:

- a. In the Name field, type a name for the group.
  - b. In the Description field, type a description for the group (optional).
3. Click *Next*.

The following image shows the Modify Group Membership pane where you can move users to or from a group using the arrow keys to move them between the *Current* and *Available* lists and then clicking the *Finish* button. The pane includes a *Help* button, a *Back* button to return to the previous screen, and a *Cancel* button to escape from the pane.

**Modify Group Membership**

**Current** **Available**

You can either highlight a single user in the list of available users and add it to the current list by clicking the left arrow, or you can click the double left arrow to add all users in the list of available users to the group.

4. After you select a minimum of one user, click *Finish*.

The new group is added.

The following image shows a pane with a new group added to the configuration. It includes a definition of a group and the group name and description.

Operations ▶



## Groups

A group is an object that can be granted or denied permissions to run iWay Business Services. A group is used as a container for one or more users. Policies that specify particular rights can be associated with a group.

Group name	Description
<input type="checkbox"/> newgroup	

### **Procedure** How to Create an Execution Policy

To create an execution policy:

1. Open Servlet Application Explorer.
  - a. Click the *iWay Business Services* tab.
  - b. Expand the *Configuration* node.
  - c. Select *Policies*.

The following image shows the Policies pane on the right where you apply a policy. The Operations menu becomes available with three options, Build/Rebuild, Add, and Refresh.



2. Move the pointer over *Operations* and click *Add*.

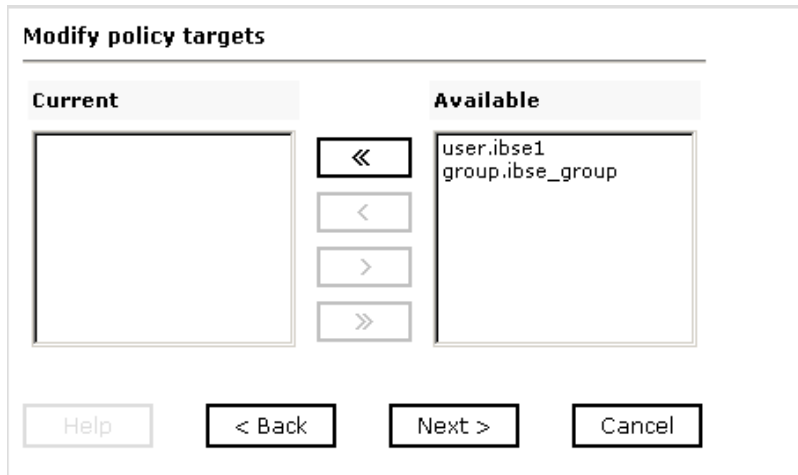
The following image shows the Add a new policy pane that opens with fields for entering the name, type, and description of the policy. To continue, click the *Next* button. The pane includes a *Help* button, a *Back* button to return to the previous screen, and a *Cancel* button to escape from the pane.

The dialog box is titled 'Add a new policy'. It contains three input fields: 'Name:' with a text box, 'Type:' with a drop-down menu showing 'Execution', and 'Description:' with a text area. At the bottom, there are four buttons: 'Help', '< Back', 'Next >', and 'Cancel'. The 'Next >' button is highlighted with a black border.

- a. In the Name field, type a a name for the policy.
- b. From the Type drop-down list, select *Execution*.
- c. In the Description field, type a description for the policy (optional).

3. Click *Next*.

The following image shows the Modify policy targets pane that opens and includes a list of current and available targets and arrow buttons to move targets from one list to the other. The pane also includes a Help button, a Back button to return to the previous screen, a Next button to continue to the next screen, and a Cancel button to escape from the pane.



4. Select a minimum of one user or group from the Available pane.

**Note:** This user ID is checked against the value in the user ID element of the SOAP header sent to iBSE in a SOAP request.

5. Click *Next*.

The following image shows the Modify policy permissions pane that opens and includes drop-down lists where you can select to grant or deny permission to members and then click a button to finish. The pane also includes a Help button, a Back button to return to the previous screen, and a Cancel button to escape from the pane.

Member Id	Permission
user.ibse1	Deny
group.ibse_group	Deny

Buttons: Help, < Back, Finish, Cancel

6. To assign whether users or groups may execute the iBSE, select *Grant* to permit execution or *Deny* to restrict execution from a Permission drop-down list.
7. Click *Finish*.

The following image shows the pane that summarizes your configuration. It includes a definition of policies and the name, type, and description of the policies.

Operations ▶

Policies

You can configure policies for the iWay Business Services Engine to manage resource execution, service routing, data restrictions and failover/recovery actions.

Name	Type	Description
<input type="checkbox"/> ibse_policy	Execution	



## Procedure How to Configure IP and Domain Restrictions

To configure IP and domain restrictions:

1. Open Servlet Application Explorer.
  - a. Select the *iWay Business Services* tab.
  - b. Expand the *Configuration* node.
  - c. Expand the *Security* node.
  - d. Select *IP and Domain*.
2. In the right pane, move the pointer over *Operations* and click *Add*.

The following image shows the Add a new IP/Domain pane that opens where you enter information for the IP/Domain in four fields. You must select a type of restriction from a drop-down list before you can enter information in the IP(Mask)/Domain field. The pane also includes a Help button, an OK button to instruct the system to accept inputs, and a Cancel button to escape from the pane.

The image shows a dialog box titled "Add a new IP/Domain". It contains the following fields and controls:

- IP(Mask)/Domain:** A text input field.
- Type:** A dropdown menu with "Single" selected.
- Access Control:** A dropdown menu with "Deny" selected.
- Description:** A text area.
- Buttons:** "Help", "OK", and "Cancel" buttons are located at the bottom of the dialog.

- a. From the Type drop-down list, select the type of restriction.
- b. In the IP(Mask)/Domain field, type the IP or domain name using the following guidelines.

If you select Single (Computer) from the Type drop-down list, you must provide the IP address for that computer. If you only know the DNS name for the computer, click *DNS Lookup* to obtain the IP Address based on the DNS name.

If you select Group (of Computers), you must provide the IP address and subnet mask for the computer group.

If you select Domain, you must provide the domain name, for example, yahoo.com.

3. From the Access Control drop-down list, select *Grant* to permit access or *Deny* to restrict access for the IP addresses and domain names you are adding.
4. Click OK.

The following image shows the pane that opens and summarizes your configuration including the domain name, whether access is granted or denied, and a description (optional).

Operations ▶



## IP and Domain

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You can configure the iWay Business Services Engine to use policies that control access from a single IP address, a group of IP addresses, or all addresses within a particular domain.

IP(Mask) / Domain	Access	Description
<input type="checkbox"/> test	Deny	

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## CHAPTER 5

# Management and Monitoring

### Topics:

- Managing and Monitoring Services and Events Using iBSE
- Managing and Monitoring Services and Events Using the JCA Test Tool
- Setting Engine Log Levels
- Migrating Repositories
- Exporting or Importing Targets
- Retrieving or Updating Web Service Method Connection Information
- Starting or Stopping a Channel Programmatically

After you create services and events using Servlet Application Explorer, you can use managing and monitoring tools provided by the iWay Business Services Engine (iBSE) and the iWay Connector for JCA to measure the performance of your run-time environment. This section describes how to configure and use these features.

## Managing and Monitoring Services and Events Using iBSE

---

iWay Business Services Engine (iBSE) provides a console to manage and monitor services and events currently in use and to display resource usage and invocation statistics. These indicators can help you adjust your environment for optimum efficiency.

The following monitoring levels are available for services:

- System
- Service
- Method

The following monitoring levels are available for events:

- System
- Channel
- Port

### Procedure: How to Configure Monitoring Settings

To configure monitoring settings:

1. Ensure that your application server is started.
2. To access the monitoring console, enter the following URL in your Web browser:

`http://localhost:port/ibse/IBSEConfig`

where:

`localhost`

Is the machine where the application server is running.

`port`

Is the HTTP port for the application server.

The following image shows the iBSE Settings window that opens. It lists property names and includes fields where you can enter values for each property. To configure system settings, the System pane contains drop-down lists for selecting language, encoding, the debug level, and the number of asynchronous processors. It also contains a field where you can enter a path to the adapters lib directory.

To configure security settings, the Security pane contains fields for typing the Admin User name and the associated password and a check box for specifying policy.

To configure repository settings, the Repository pane contains a drop-down list for selecting the repository type, fields to type information for the repository URL, driver, user, and password, and a check box where you can enable repository pooling. In the upper and lower right of the window is a Save button. In the lower left of the window is an option to click to access more configuration settings.

iBSE Settings:		Save
Property Name	Property Value	
<b>System</b>		
Language	English ▾	
Adapter Lib Directory	C:\Program Files\iWay55\lib	
Encoding	UTF-8 ▾	
Debug Level	NONE ▾	
Number of Async. Processors	0 ▾	
<b>Security</b>		
Admin User	iway	
Admin Password	****	
Policy	<input type="checkbox"/>	
<b>Repository</b>		
Repository Type	File System ▾	
Repository Url	file://C:\Program Files\iWay55\bea\ibe	
Repository Driver		
Repository User		
Repository Password		
Repository Pooling	<input type="checkbox"/>	
<a href="#">More configuration...</a>		Save

3. Click *More configuration*.

**Tip:** To access the monitoring console directly, enter the following URL in your Web browser:

<http://localhost:port/ibse/IBSEStatus>

where:

*localhost*

Is the machine where the application server is running.

*port*

Is the HTTP port for the application server.

The following image shows the iBSE Monitoring Settings window that opens. It lists property names and includes a corresponding field where you can enter values for each property. The Monitoring pane contains a drop-down list for selecting the repository type, fields to type information for the repository URL, driver, user, and password, and a check box where you can enable repository pooling. The Auditing pane contains an option button to click to specify whether to store a message and a drop-down list where you can select the maximum messages to store. At the bottom of the window is a row of buttons that you can click to save your configuration, view events, or view services. The Save History button is inactive. After you enter properties and choose whether to save or view, you can click the Start Monitoring button.

Property Name	Property Value
<b>Monitoring</b>	
Repository Type	File System
Repository Url	file://C:\Program Files\Way55\bec
Repository Driver	
Repository User	
Repository Password	
Repository Pooling	<input type="checkbox"/>
<b>Auditing</b>	
Store Message	<input type="radio"/> yes <input checked="" type="radio"/> no
Max Message Stored	10,000
Save Configuration Save History View Events View Services	
Start Monitoring	

- a. In the Monitoring pane, from the Repository Type drop-down list, select the type of repository you are using.
- b. To connect to the database in the Repository Url field, type a JDBC URL.
- c. To connect to the database in the Repository Driver field, type a JDBC Class.
- d. To access the monitoring repository database, type a user ID and password.
- e. To enable pooling, click the *Repository Pooling* check box.
- f. In the Auditing pane, select *yes* if you want to store messages.

This option is disabled by default.

**Note:** You must start and then, stop monitoring to enable this option.

- g. Select the maximum number of messages you want to store.

By default, 10,000 is selected.

**Note:** Depending on your environment and the number of messages that are exchanged, storing a large number of messages may affect system performance. If you need more information about your system resources, consult your system administrator.

- h. Click *Save Configuration*.
4. Click *Start Monitoring*.  
iBSE begins to monitor all services and events currently in use. If you selected the option to store messages, iBSE stores messages.
5. To stop monitoring, click *Stop Monitoring*.

### Procedure: How to Monitor Services

To monitor services:

1. Ensure that your application server is started.
2. From the iBSE Monitoring Settings window, click *Start Monitoring*.
3. Click *View Services*.

The following image shows the System Level Summary (Service Statistics) window that opens. The Web Service Methods pane contains a drop-down list where you select a service. On the right, space is reserved for a drop-down list of methods that will appear. The Statistics pane contains a table with a summary of service statistics and two drop-down lists where you can select a successful or failed invocation to view more information about that service. At the bottom of the window is a home button to click to return to the iBSE Monitoring Settings window.

The screenshot shows a window titled "Service Statistics". It is divided into two main sections: "Web Service Methods" and "Statistics".

**Web Service Methods**

Service	Method
all	

**Statistics**

Total Time	55 min
Total Request Count	1
Total Success Count	1
Total Error Count	0
Average Request Size	409.0 bytes
Average Response Size	665.0 bytes
Average Execution Time	656 ms
Last Execution Time	828 ms
Average Back End Time	530 ms
Last Back End Time	765 ms
Successful Invocations	select a correlation id
Failed Invocations	select a correlation id

At the bottom right of the window is a button labeled "< home".

The system level summary provides services statistics at a system level.



The following table consists of two columns, one that lists the name of each statistic and the other that describes the corresponding service statistic.

<b>Statistic</b>	<b>Description</b>
Total Time	Total amount of time iBSE monitors services. The time starts after you click Start Monitoring in the iBSE Monitoring Settings window.
Total Request Count	Total number of services requests that were made during the monitoring session.
Total Success Count	Total number of successful service executions.
Total Error Count	Total number of errors that were encountered.
Average Request Size	Average size of an available service request.
Average Response Size	Average size of an available service response size.
Average Execution Time	Average execution time for a service.
Last Execution Time	Last execution time for a service.
Average Back End Time	Average back end time for a service.
Last Back End Time	Last back end time for a service.
Successful Invocations	A list of successful services arranged by correlation ID. To retrieve more information for a service, you can select the service from the drop-down list.
Failed Invocations	A list of failed services arranged by correlation ID. To retrieve more information for a service, you can select the service from the drop-down list.

4. Select a service from the drop-down list.

The following image shows the System Level Summary (Service Statistics) window that opens. The Web Service Methods pane contains a drop-down list on the left where you select a service and a drop-down list on the right where you select a service method. The Statistics pane contains a table with a summary of service statistics and two drop-down lists. To view more information about that service, you can select it from the Successful Invocations or Failed Invocations drop-down list. To suspend or resume a service, you can click a button in the lower right. To return to the iBSE Monitoring Settings window, you click the home button (also located in the lower right).

The screenshot shows a window titled "Service Statistics". It is divided into two main sections: "Web Service Methods" and "Statistics".

**Web Service Methods:** This section contains two drop-down menus. The first is labeled "Service" and has the value "E0100033" selected. The second is labeled "Method" and has the value "all methods" selected.

**Statistics:** This section contains a table with the following data:

Total Time	1 hrs
Total Request Count	1
Total Success Count	1
Total Error Count	0
Average Request Size	409.0 bytes
Average Response Size	665.0 bytes
Average Execution Time	656 ms
Last Execution Time	656 ms
Average Back End Time	530 ms
Last Back End Time	530 ms
Successful Invocations	select a correlation id
Failed Invocations	select a correlation id

At the bottom right of the window, there are two buttons: "Suspend Service" and "< home".

- a. To stop a service at any time, click *Suspend Service*.
  - b. To restart the service, click *Resume Service*.
5. Select a method for the service from the Method drop-down list.

The following image shows the Method Level Summary (Service Statistics) window that opens. The Web Service Methods pane contains a drop-down list on the left where you select a service and a drop-down list on the right where you select a service method. The Statistics pane contains a table with a summary of service statistics and two drop-down lists. To view more information about that service, you can select it from the Successful Invocations or Failed Invocations drop-down list. To suspend or resume a service, you can click a button in the lower right. To return to the iBSE Monitoring Settings window, you click the home button (also located in the lower right).

### Service Statistics

**Web Service Methods**

Service
Method

B0100033 ▾

GetEffectiveAddress ▾

---

**Statistics**

Total Time	1 hrs
Total Request Count	1
Total Success Count	1
Total Error Count	0
Average Request Size	409.0 bytes
Average Response Size	665.0 bytes
Average Execution Time	656 ms
Last Execution Time	656 ms
Average Back End Time	530 ms
Last Back End Time	530 ms

Successful Invocations

select a correlation id ▾

Failed Invocations

select a correlation id ▾

Suspend Service

< home

6. For additional information about a successful service and its method, select a service based on its correlation ID from the Successful Invocation drop-down list.

The following image shows the Invocation Level Statistics window that opens. The Message Information pane contains a table of information about the message. The Client Information pane contains a table of information about the client. The Detail pane contains a table that shows the size of the request and response messages, with options to click to view the respective XML documents. In the lower right of the window is a home button to click to return to the iBSE Monitoring Settings window.

The screenshot shows a window titled "Invocation Statistics" with three main sections: "Message Information", "Client Information", and "Detail".

**Message Information**

Received	2004-09-14 12:04:16.312
Sent to adapter	2004-09-14 12:04:16.406
Received from adapter	2004-09-14 12:04:16.936
Responded	2004-09-14 12:04:16.968
Status	SUCCESS

**Client Information**

Client IP	127.0.0.1
Client Host Name	127.0.0.1
User Name	

**Detail**

Message	Size
<a href="#">Request Message</a>	409 bytes
<a href="#">Response Message</a>	665 bytes

In the bottom right corner of the window, there is a button labeled "< home".

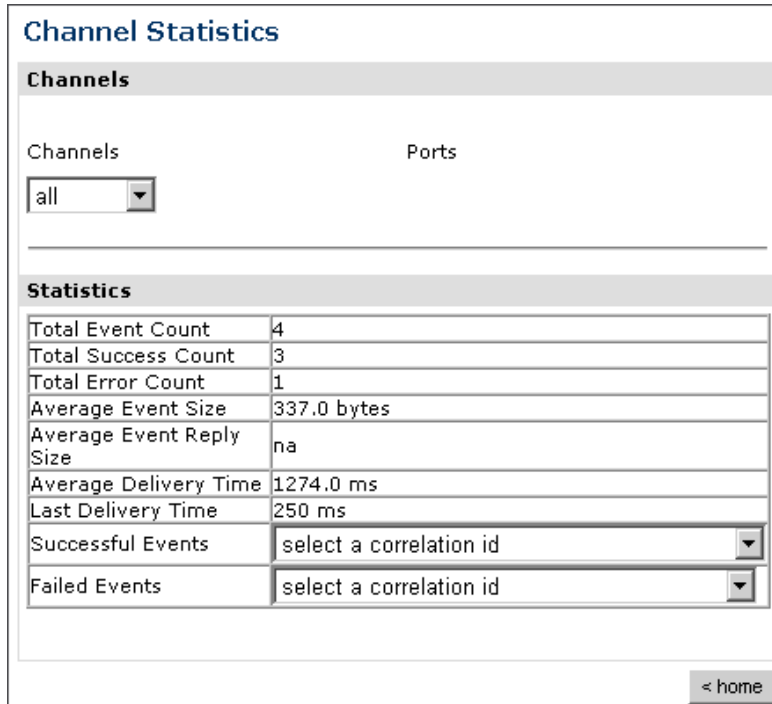
7. To view the XML request document in your Web browser, click *Request Message*.  
You can also view the XML response document for the service.
8. To return to the iBSE Monitoring Settings window, click *home*.

### Procedure: How to Monitor Events

To monitor events:

1. Ensure that your application server is started.
2. In the iBSE Monitoring Settings window, click *Start Monitoring*.
3. Click *View Events*.

The following image shows the System Level Summary (Channel Statistics) window that opens. The Channels pane contains a drop-down list on the left where you select a channel. On the right, space is reserved for a drop-down list of ports that will appear. The Statistics pane contains a table with a summary of event statistics and two drop-down lists where you can select a successful or failed event to view more information about that event. In the lower right of the window is a home button to click to return to the iBSE Monitoring Settings window.



The system level summary provides event statistics at a system level.

The following table consists of two columns, one that lists the name of each statistic and the other that describes the corresponding event statistic.

<b>Statistic</b>	<b>Description</b>
Total Event Count	Total number of events.
Total Success Count	Total number of successful event executions.
Total Error Count	Total number of errors that were encountered.
Average Event Size	Average size of an available event request.
Average Event Reply Size	Average size of an available event response.
Average Delivery Time	Average delivery time for an event.
Last Delivery Time	Last delivery time for an event.
Successful Events	List of successful events arranged by correlation ID. To retrieve more information for an event, select the event from the drop-down list.
Failed Events	List of failed events arranged by correlation ID. To retrieve more information for an event, select the event from the drop-down list.

4. Select a channel from the drop-down list.

The following image shows the Channel Level Event Summary (Channel Statistics) window that opens. The Channels pane contains a drop-down list on the left where you select a channel and a drop-down list on the right where you select a port. The Statistics pane contains a table with a summary of event statistics and two drop-down lists where you can select a successful or failed event to view more information about that event. In the lower right of the window is a button to click to suspend or resume a channel and a home button to click to return to the iBSE Monitoring Settings window.

### Channel Statistics

**Channels**

Channels: TestChan ▾      Ports: all ▾

**Statistics**

Total Event Count	3
Total Success Count	2
Total Error Count	1
Average Event Size	401.0 bytes
Average Event Reply Size	na
Average Delivery Time	1542.0 ms
Last Delivery Time	250 ms
Successful Events	<span style="border: 1px solid gray; padding: 2px;">select a correlation id ▾</span>
Failed Events	<span style="border: 1px solid gray; padding: 2px;">select a correlation id ▾</span>

Suspend Channel
Start Channel
< home

- a. To stop a channel at any time, click *Suspend Channel*.
  - b. To start the channel, click *Start Channel*.
5. From the Ports drop-down list, select a port for the channel.

The following image shows the Port Level Event Summary (Channel Statistics) window that opens. The Channels pane contains a drop-down list on the left where you select a channel and a drop-down list on the right where you select a port. The Statistics pane contains a table with a summary of event statistics and two drop-down lists where you can select a successful or failed event to view more information about that event. In the lower right of the window is a button to click to suspend or resume a channel and a home button to click to return to the iBSE Monitoring Settings window.

The screenshot shows a window titled "Channel Statistics". It is divided into two main sections: "Channels" and "Statistics".

**Channels Section:** Contains two drop-down menus. The "Channels" menu is set to "TestChan" and the "Ports" menu is set to "TestPort".

**Statistics Section:** Contains a table with the following data:

Total Event Count	2
Total Success Count	2
Total Error Count	0
Average Event Size	446.0 bytes
Average Event Reply Size	na
Average Delivery Time	2189.0 ms
Last Delivery Time	na
Successful Events	select a correlation id
Failed Events	select a correlation id

At the bottom of the window, there are three buttons: "Suspend Channel", "Start Channel", and "< home".

6. For more information about a successful event and its port, select an event based on its correlation ID from the Successful Events drop-down list.



The following image shows the Event Level Statistics (Message Statistics) window that opens. The Message Information pane contains a table of information pertaining to the event message. The Messages pane contains a table that shows the size of the event and reply messages, with an option to view an XML document of the event message. In the lower right of the window is a home button to click to return to the iBSE Monitoring Settings window.

The screenshot shows a window titled "Message Statistics". It contains two main sections: "Message Information" and "Messages".

**Message Information**

Received At	2004-09-14 12:18:20.842
Disposed At	● TestPort
Delivered At	2004-09-14 12:18:23.562

**Messages**

Detail	size
<a href="#">Event Message</a>	446 bytes
Reply Message	na

In the bottom right corner of the window, there is a button labeled "< home".

- a. To view the XML event document in your Web browser, click *Event Message*.
- b. To return to the iBSE Monitoring Settings window, click *home*.

## Managing and Monitoring Services and Events Using the JCA Test Tool

---

The JCA Test Tool, which is also known as the JCA Installation Verification Program (IVP), provides a console to manage and monitor services and events currently in use and to display resource usage and invocation statistics. These indicators can help you adjust your environment for optimum efficiency.

### Procedure: How to Manage and Monitor Services Using the JCA Test Tool

To manage and monitor services using the JCA Test Tool:

1. Open a Web browser to:

<http://localhost:port/iwjcaivp>

where:

[localhost](#)

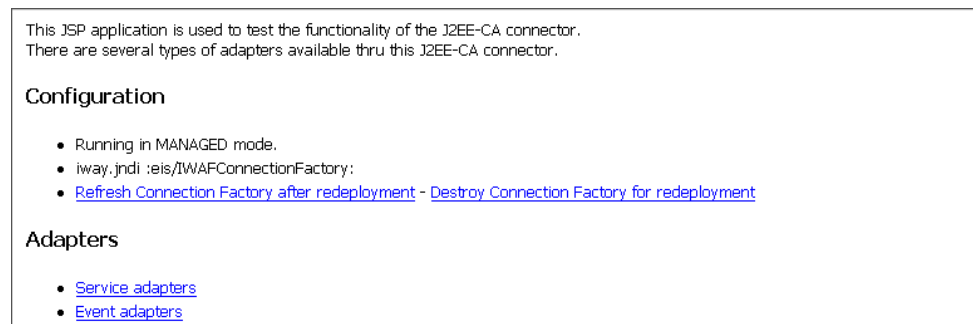
Is the name of the machine where your application server is running.

[port](#)

Is the HTTP port for the application server, for example:

<http://localhost:7001/iwjcaivp>

The following image shows the JCA Test Tool page that opens. The page contains a description of the function of the tool and configuration information, including options to change your connection settings. It also provides options for viewing service or event adapters.



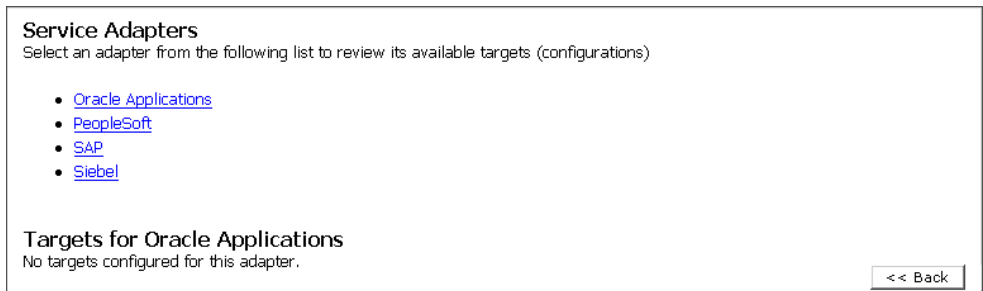
The JCA Test Tool runs in managed mode by default.

2. Perform the following steps to monitor the latest service adapter configuration.

**Note:** You must perform these steps for every new adapter target that is created using a JCA implementation of Application Explorer. In addition, you also must perform these steps for every new JCA configuration that is created using Application Explorer.

- a. Click *Destroy Connection Factory* for redeployment.
  - b. Redeploy the JCA connector.
  - c. In the JCA Test Tool, click *Refresh Connection Factory after redeployment*.
3. Click *Service adapters*.

The following image shows the Service Adapters page that opens. The page provides a live list of available service adapters and a list of targets configured for a specific adapter. In the lower right is a Back button to click to return to the previous page.



4. Select a service adapter to monitor.

The following image shows the page that opens. The left side provides a live list of available service adapters and a list of any targets configured for a specific adapter. The upper right side shows statistics for a selected target. The middle right has a User field and a Password field. The lower right contains a box where you type or paste an input document. Below the input box is a Send button to click to send a request for a test service and a Reset button to click to reset the fields. In the lower right is a Back button to click to return to the previous page.

The screenshot displays a web-based interface for testing services. It is divided into several sections:

- Service Adapters:** A section titled "Service Adapters" with the instruction "Select an adapter from the following list to review its available targets (configurations)". It contains a bulleted list of links: [Oracle Applications](#), [PeopleSoft](#), [SAP](#), and [Siebel](#).
- Targets for Siebel:** A section titled "Targets for Siebel" with a bulleted list containing [TestService](#).
- Statistics for Siebel target TestService:** A section showing performance metrics: TotalRequestCount : 0, TotalSuccessCount : 0, TotalErrorCount : 0, AverageExecutionTime : 0 msec, and LastExecutionTime : 0 msec.
- Request for Siebel target TestService:** A section with the instruction "Enter the data for this interaction. The configured user/password will be used if the User name is not provided." It includes three input fields: "User:", "Password:", and "Input Doc:". The "Input Doc:" field is a large text area with a vertical scrollbar.
- Buttons:** At the bottom, there are three buttons: "Send", "Reset", and "<< Back".

- a. Click the desired target for your service adapter.
  - b. In the Request area, enter a user name and password.
  - c. In the Input Doc area, enter a request document that was created from the request schema for your service.
5. Click *Send*.

The following image shows the updated statistics that appear for your service if the request is successful. The statistics include the total number of requests, successes, and errors and the average and last execution time in milliseconds.

TotalRequestCount	: 0
TotalSuccessCount	: 0
TotalErrorCount	: 0
AverageExcecutionTime	: 0 msec.
LastExcecutionTime	: 0 msec.

## Procedure: How to Manage and Monitor Events Using the JCA Test Tool

To manage and monitor events using the JCA Test Tool:

1. Open a Web browser to:

<http://localhost:port/iwjcaivp>

where:

*localhost*

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

*port*

Is the HTTP port for the application server, for example:

<http://localhost:7001/iwjcaivp>

The following image shows the JCA Test Tool page that opens. The page contains a description of the function of the tool and configuration information, including options to change your connection settings. It also provides options for viewing service or event adapters.

This JSP application is used to test the functionality of the J2EE-CA connector. There are several types of adapters available thru this J2EE-CA connector.

**Configuration**

- Running in MANAGED mode.
- `iway.jndi :eis/IWAFConnectionFactory:`
- [Refresh Connection Factory after redeployment](#) - [Destroy Connection Factory for redeployment](#)

**Adapters**

- [Service adapters](#)
- [Event adapters](#)

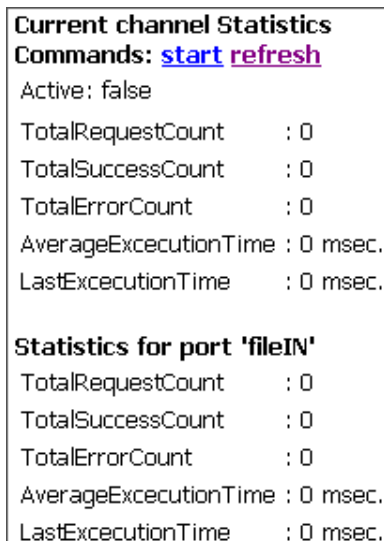
The JCA Test Tool runs in managed mode by default.

2. Perform the following steps to monitor the latest event adapter configuration.

**Note:** You must perform these steps for every new adapter target that is created using a JCA implementation of Application Explorer. In addition, you must also perform these steps for every new JCA configuration that is created using Application Explorer.

- a. Click *Destroy Connection Factory for redeployment*.
  - b. Redeploy the JCA connector.
  - c. In the JCA Test Tool, click *Refresh Connection Factory after redeployment*.
3. Click *Event adapters*.
- The Event Adapters page opens.
4. Select the event adapter to monitor.
  5. Click the desired channel for your event adapter.
  6. Click *start*.

The following image shows the updated statistics for your channel and the port. The statistics include the total number of requests, successes, and errors and the average and last execution time in milliseconds. There are options to click in the upper right of the page to start or refresh the channel.



## Setting Engine Log Levels

---

The following section describes how to set engine log levels for Servlet iBSE and JCA. For more information, see the documentation.

### Procedure: How to Enable Tracing for Servlet iBSE

To enable tracing for Servlet iBSE:

1. Open the Servlet iBSE configuration page at:

`http://localhost:port/ibse/IBSEConfig`

where:

`localhost`

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

`port`

Is the HTTP port for the application server, for example:

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

2. In the System pane, from the Debug drop-down list, select the level of tracing.
3. Click *Save*.

Tracing information is written to the `ibselogs` directory where your application server accesses or has expanded Servlet iBSE.

### Procedure: How to Enable Tracing for JCA

To enable tracing for JCA:

1. Open the extracted `ra.xml` file in a text editor.
2. Locate and change the following setting:

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

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

For example:

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

A directory in the configuration directory contains the logs.

- a. Review the logs generated by your application server.

- b. Leave the remainder of the previous file unchanged.
3. Save the file and exit the editor.
4. Redeploy the connector.

## Migrating Repositories

---

During design time, a repository is used to store metadata created when using Application Explorer to configure adapter connections, browse EIS objects, configure services, and configure listeners to listen for EIS events. For more information on configuring repositories, see the *iWay 5.5 Installation and Configuration* documentation.

The information in the repository also is referenced at run time. For management purposes, you can migrate iBSE and JCA repositories to new destinations without affecting your existing configuration. For example, you may want to migrate a repository from a development environment to a production environment.

### File Repositories

If you want to migrate a File repository to another destination, copy the `ibserepo.xml` file from the following path:

```
drive:\Program Files\iWay55\ibse\ibserepo.xml
```

where:

```
drive
```

Is the location of your iWay 5.5 installation.

You can place the `ibserepo.xml` file in a new location that is a root directory of the iBSE Web application, for example:

```
drive:\ProductionConfig\ibse\ibserepo.xml
```

### iBSE Repositories

The following topic describes how to migrate an iBSE repository that is configured for Oracle. You can follow the same procedure if you want to migrate an iBSE repository that is configured for Microsoft SQL Server 2000, Sybase, or DB2. However, when you are configuring a new environment, you must execute the script that creates the repository tables for your database. In addition, verify that all required files and drivers for your database are in the class path. For more information on configuring repositories, see the *iWay 5.5 Installation and Configuration* documentation.

**Note:** The following procedure allows you to migrate only Web services. If migrating event handling information is one of your requirements, you must migrate at the database level. For more information, see *Migrating Event Handling Configurations* on page 5-27.



## Procedure: How to Migrate an iBSE Repository Configured for Oracle

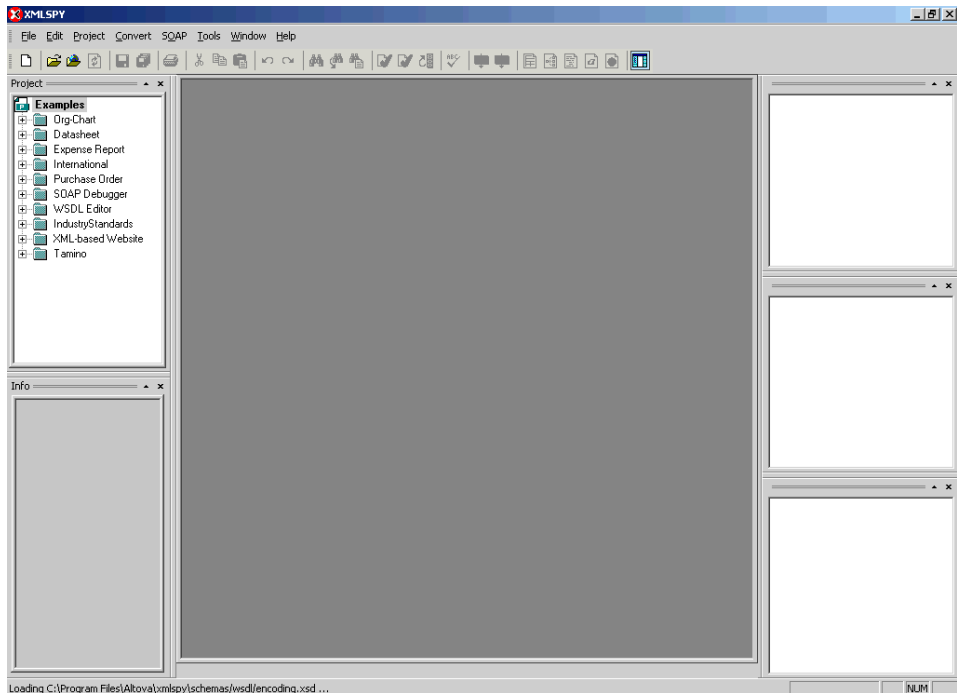
To migrate an iBSE repository that is configured for Oracle:

1. Copy the iBSE configuration service URL, for example:

<http://localhost:7777/ibse/IBSEServlet/admin/iwconfig.ibs?wsdl>

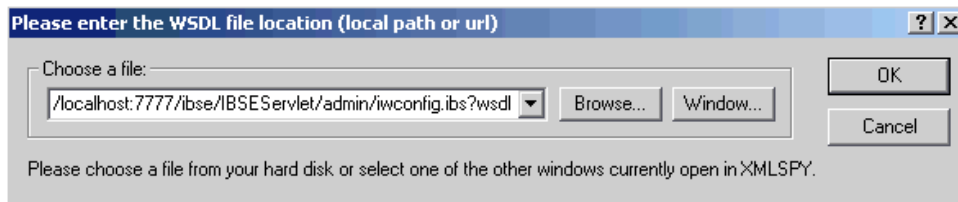
2. Open a third party XML editor, for example, XMLSPY.

The following image shows the XMLSPY window. The upper left has a Project pane that contains a tree of sample files, and the lower left has a blank Info pane. The middle pane is blank. The right side is divided into three blank panes.



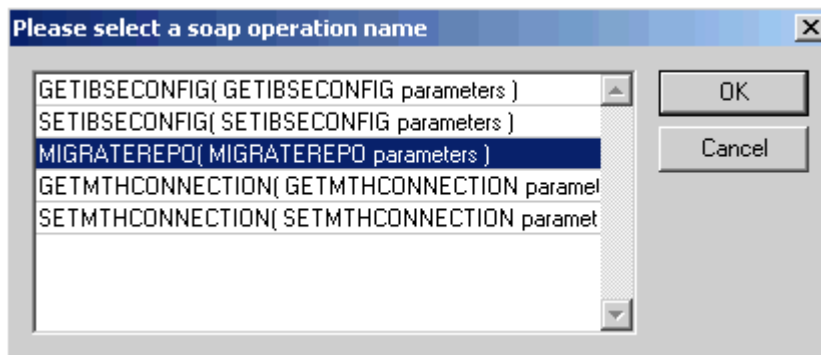
3. From the SOAP menu, select *Create new SOAP request*.

The following image shows the WSDL file location dialog box that opens, where you enter a local path or URL. The dialog includes Browse, Window, OK, and Cancel buttons.



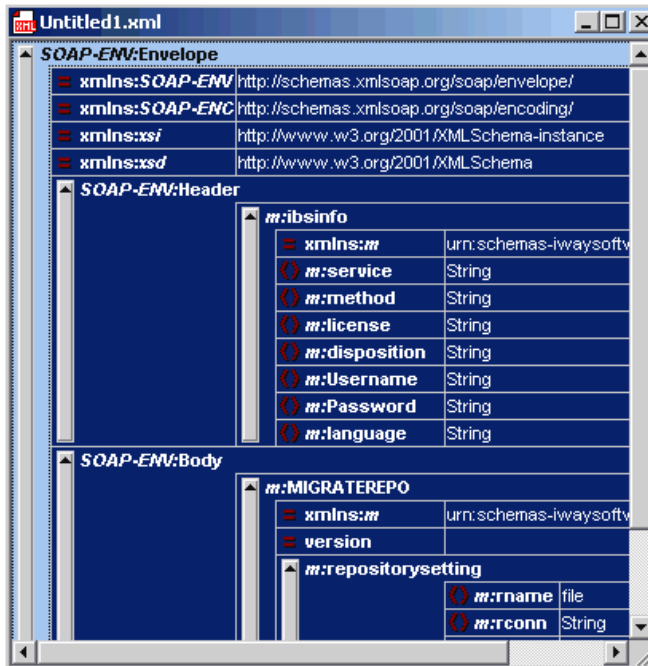
4. In the Choose a file field, paste the iBSE configuration service URL.
5. Click OK.

The following image shows the soap operation name dialog box that opens with a list of available control methods. You can select from the list and click OK or to escape from the dialog box, you can click Cancel.



6. Select the *MIGRATEREPO(MIGRATEREPO parameters)* control method and click OK.

The following image shows a portion of the window that opens with the structure of the SOAP envelope. It includes information about location and schemas.



7. Locate the *Text view* icon in the tool bar.

In the following image, the pointer points to the *Text view* icon.



8. To display the structure of the SOAP envelope as text, click the *Text view* icon.

The `<SOAP-ENV:Header>` tag is not required and can be deleted from the SOAP envelope.

9. Locate the following section:

```
<m:MIGRATEREPO
xmlns:m="urn:schemas-iwaysoftware-com:jul2003:ibse:config" version="">
<m:repositorysetting>
<m:rname>oracle</m:rname>
<m:rconn>String</m:rconn>
<m:rdriver>String</m:rdriver>
<m:ruser>String</m:ruser>
<m:rpwd>String</m:rpwd>
</m:repositorysetting>
<m:servicename>String</m:servicename>
</m:MIGRATEREPO>
```

- a. For the `<m:rconn>` tag, replace the String placeholder with the repository URL where you want to migrate your existing iBSE repository.

For example, the Oracle repository URL has the following format:

```
jdbc:oracle:thin:@[host]:[port]:[sid]
```

- b. For the `<m:rdriver>` tag, replace the String placeholder with the location of your Oracle driver.

**Note:** This is an optional tag. If you do not specify a value, the default Oracle JDBC driver is used.

- c. For the `<m:ruser>` tag, replace the String placeholder with a valid user name to access the Oracle repository.
- d. For the `<m:rpwd>` tag, replace the String placeholder with a valid password to access the Oracle repository.

10. Perform one of the following migration options.

If you want to migrate a **single** Web service from the current iBSE repository, enter the Web service name in the `<m:servicename>` tag, for example:

```
<m:servicename>Service1</m:servicename>
```

If you want to migrate **multiple** Web services from the current iBSE repository, duplicate the `<m:servicename>` tag for each Web service, for example:

```
<m:servicename>Service1</m:servicename>
<m:servicename>Service2</m:servicename>
```

If you want to migrate **all** Web services from the current iBSE repository, remove the `<m:servicename>` tag.

11. From the SOAP menu, select *Send request to server*.

Your iBSE repository and the Web services you specified migrate to the new Oracle repository URL that you specified.

## JCA Repositories

The following procedure describes how to migrate a JCA repository. For more information on configuring JCA repositories, see the *iWay 5.5 Installation and Configuration* documentation.

### Procedure: How to Migrate a JCA Repository

To migrate a JCA repository:

1. Navigate to the location of your JCA configuration directory where the repository schemas and other information is stored, for example:  
`C:\Program Files\iway55\config\base`
2. Locate and copy the *repository.xml* file.
3. Place this file in a new JCA configuration directory to migrate the existing repository.

Your JCA repository migrates to the new JCA configuration directory.

## Migrating Event Handling Configurations

This topic describes how to migrate your iBSE repositories at a database level for Microsoft SQL Server 2000, Oracle, Sybase, or DB2. You can use this information to migrate event handling information, for example, port or channel configurations.

### Procedure How to Migrate a Microsoft SQL Server 2000 Repository

To migrate a Microsoft SQL Server 2000 repository:

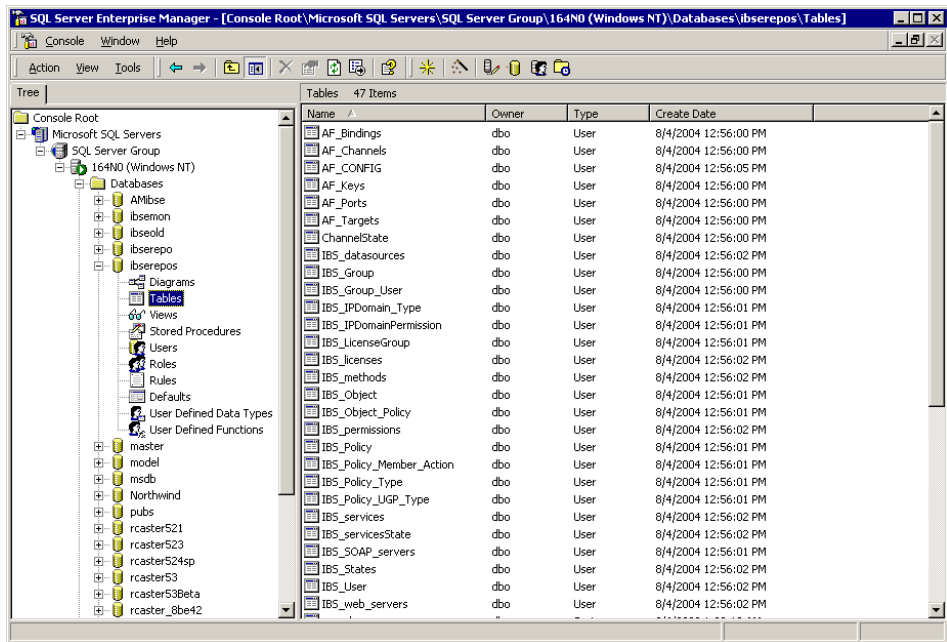
1. Open a command prompt and navigate to the iWay setup directory. The default location on Windows is:

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

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

`iwse.sql`

You can use `iwse.sql` to create the database tables that are used by iBSE. For example, the following image shows the tree in the left pane and tables in the right pane. The tables are listed by name in one column with corresponding columns for information about owner, type, and the date the table was created.



For more information on configuring the Microsoft SQL Server 2000 repository, see the *iWay 5.5 Installation and Configuration* documentation.

2. To migrate the tables that were created by the `iwse.sql` script for iBSE, use your Microsoft SQL Server 2000 database tool set. For more information, consult your database administrator.

### Procedure How to Migrate an Oracle Repository

To migrate an Oracle repository:

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

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

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

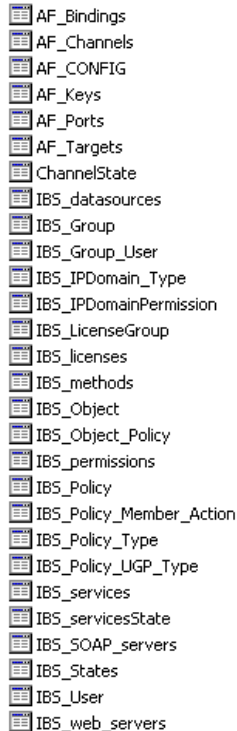
For Oracle 8:

`iwse.ora`

For Oracle 9:

[iwse.ora9](#)

2. To create the Oracle database tables that are used by iBSE, use the SQL script as shown in the example in the following image that shows a list of tables.



A screenshot of a database table list showing various tables used by iBSE. The tables are listed in a vertical column, each with a small icon to its left. The tables are:

- AF\_Bindings
- AF\_Channels
- AF\_CONFIG
- AF\_Keys
- AF\_Ports
- AF\_Targets
- ChannelState
- IBS\_datasources
- IBS\_Group
- IBS\_Group\_User
- IBS\_IPDomain\_Type
- IBS\_IPDomainPermission
- IBS\_LicenseGroup
- IBS\_licenses
- IBS\_methods
- IBS\_Object
- IBS\_Object\_Policy
- IBS\_permissions
- IBS\_Policy
- IBS\_Policy\_Member\_Action
- IBS\_Policy\_Type
- IBS\_Policy\_UGP\_Type
- IBS\_services
- IBS\_servicesState
- IBS\_SOAP\_servers
- IBS\_States
- IBS\_User
- IBS\_web\_servers

For more information on configuring the Oracle repository, see the *iWay 5.5 Installation and Configuration* documentation.

3. To migrate the tables that were created by the SQL script for iBSE, use your Oracle database tool set. For more information, consult your database administrator.

## Procedure How to Migrate a Sybase Repository

To migrate a Sybase repository:

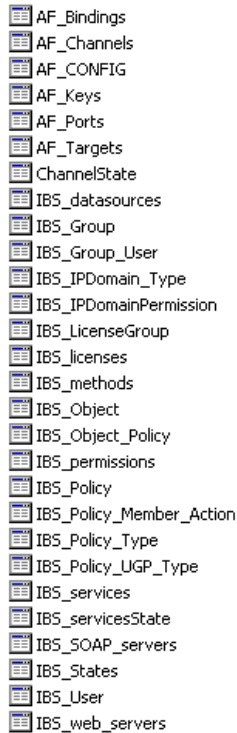
1. Open a command prompt and navigate to the iWay setup directory. The default location on Windows is:

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

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

`sybase-iwse.sql`

2. To create the Sybase database tables that are used by iBSE, use the SQL script as shown in the example in the following image that shows a list of tables.



- AF\_Bindings
- AF\_Channels
- AF\_CONFIG
- AF\_Keys
- AF\_Ports
- AF\_Targets
- ChannelState
- IBS\_datasources
- IBS\_Group
- IBS\_Group\_User
- IBS\_IPDomain\_Type
- IBS\_IPDomainPermission
- IBS\_LicenseGroup
- IBS\_licenses
- IBS\_methods
- IBS\_Object
- IBS\_Object\_Policy
- IBS\_permissions
- IBS\_Policy
- IBS\_Policy\_Member\_Action
- IBS\_Policy\_Type
- IBS\_Policy\_UGP\_Type
- IBS\_services
- IBS\_servicesState
- IBS\_SOAP\_servers
- IBS\_States
- IBS\_User
- IBS\_web\_servers

For more information on configuring the Sybase repository, see the *iWay 5.5 Installation and Configuration* documentation.

3. To migrate the tables that were created by the SQL script for iBSE, use your Sybase database tool set. For more information, consult your database administrator.

## Procedure How to Migrate a DB2 Repository

To migrate a DB2 repository:

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

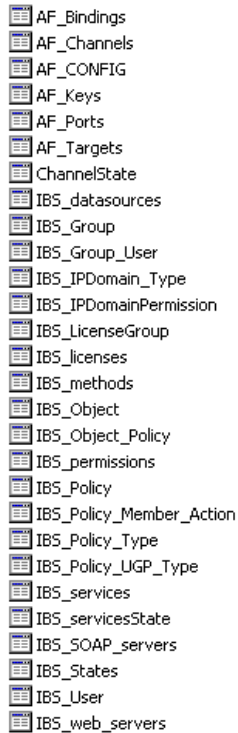
```
C:\Program Files\iWay55\etc\setup
```

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

```
db2-iwse.sql
```



2. To create the DB2 database tables that are used by iBSE, use the SQL script as shown in the example in the following image that shows a list of tables.



- AF\_Bindings
- AF\_Channels
- AF\_CONFIG
- AF\_Keys
- AF\_Ports
- AF\_Targets
- ChannelState
- IBS\_datasources
- IBS\_Group
- IBS\_Group\_User
- IBS\_IPDomain\_Type
- IBS\_IPDomainPermission
- IBS\_LicenseGroup
- IBS\_licenses
- IBS\_methods
- IBS\_Object
- IBS\_Object\_Policy
- IBS\_permissions
- IBS\_Policy
- IBS\_Policy\_Member\_Action
- IBS\_Policy\_Type
- IBS\_Policy\_UGP\_Type
- IBS\_services
- IBS\_servicesState
- IBS\_SOAP\_servers
- IBS\_States
- IBS\_User
- IBS\_web\_servers

For more information on configuring the DB2 repository, see the *iWay 5.5 Installation and Configuration* documentation.

You can migrate the tables that were created by the SQL script for iBSE using your DB2 database toolset. For more information, consult your database administrator.

## Exporting or Importing Targets

---

After you migrate your repository, you can export or import targets with their connection information and persistent data between repositories.

### Procedure: How to Export a Target

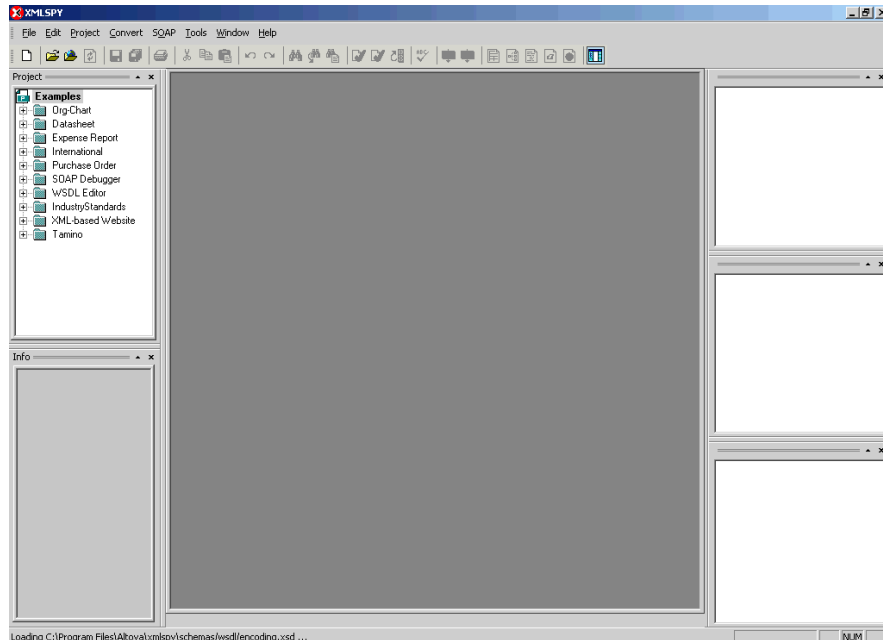
To export a target:

1. Copy the iBSE administrative services for Application Explorer URL, for example:

<http://localhost:7777/ibse/IBSEServlet/admin/iwae.ibs?wsdl>

2. Open a third party XML editor, for example, XMLSPY.

The following image shows the XMLSPY window. The upper left has a Project pane that contains a tree of sample files, and the lower left has a blank Info pane. The middle pane is blank. The right side is divided into three blank panes.



3. From the SOAP menu, select *Create new SOAP request*.

The WSDL file location dialog box opens.

4. In the Choose a file field, paste the iBSE administrative services for Application Explorer URL.
5. Click *OK*.

The soap operation name dialog box opens and lists the available control methods.

6. Select the *EXPORTTARGET*(*EXPORTTARGET parameters*) control method and click *OK*.  
A window opens that shows the structure of the SOAP envelope.

7. Locate the *Text view* icon in the tool bar.

In the following image, the pointer points to the Text view icon.



8. To display the structure of the SOAP envelope as text, click the *Text view* icon.

The `<SOAP-ENV:Header>` tag is not required and can be deleted from the SOAP envelope.

9. Locate the following section:

```
<m:EXPORTTARGET
xmlns:m="urn:schemas-iwaysoftware-com:dec2002:iwse:af">
<m:target>String</m:target>
<m:name>String</m:name>
</m:EXPORTTARGET>
```

- a. For the `<m:target>` tag, replace the String placeholder with the EIS target system name as it appears in Application Explorer and verify whether this value is case sensitive.
  - b. For the `<m:name>` tag, replace the String placeholder with the name of the target you want to export.
10. From the SOAP menu, select *Send request to server*.

A response is returned that contains the `<m: exporttime>` and `<m: contents>` elements. You must use these elements when importing your target.

## Procedure: How to Import a Target

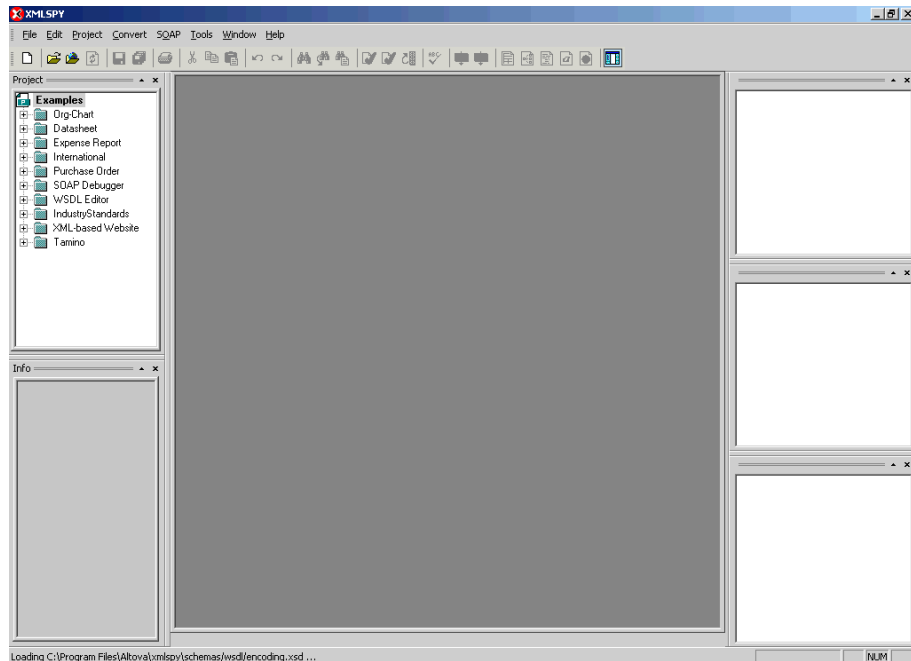
To import a target:

1. Copy the iBSE administrative services for Application Explorer URL, for example:

<http://localhost:7777/ibse/IBSEServlet/admin/iwae.ibs?wsdl>

2. Open a third party XML editor, for example, XMLSPY.

The following image shows the XMLSPY window. The upper left has a Project pane that contains a tree of sample files, and the lower left has a blank Info pane. The middle pane is blank. The right side is divided into three blank panes.



3. From the SOAP menu, select *Create new SOAP request*.

The WSDL file location dialog box opens.

4. In the Choose a file field, paste the iBSE administrative services for Application Explorer URL and click *OK*.

The soap operation name dialog box opens and lists the available control methods.

5. Select the *IMPORTTARGET(IMPORTTARGET parameters)* control method and click *OK*.

A window opens, which shows the structure of the SOAP envelope.

6. Locate the *Text view* icon in the toolbar.

In the following image, the pointer points to the Text view icon.



7. To display the structure of the SOAP envelope as text, click the *Text view* icon.

The <SOAP-ENV:Header> tag is not required and can be deleted from the SOAP envelope.

8. Locate the following section:

```
<m:IMPORTTARGET
xmlns:m="urn:schemas-iwaysoftware-com:dec2002:iwse:af">
<m:targetinstance>
<m:target>String</m:target>
<m:name>String</m:name>
<m:description>String</m:description>
<m:repositoryid>String</m:repositoryid>
<m:exporttime>2001-12-17T09:30:47-05:00</m:exporttime>
<m:contents>R0lGODlhcgGSALMAAAQCAEMmCZtuMFQxDS8b</m:contents>
</m:targetinstance>
</m:IMPORTTARGET>
```

- a. For the <m:target> tag, replace the String placeholder with the EIS target system name.
  - b. For the <m:name> tag, replace the String placeholder with the new name of the target you want to import.
  - c. For the <m:description> tag, replace the String placeholder with a description of the target.
  - d. For the <m:repositoryid> tag, copy and paste the contents of the <m:repositoryid> tag that was returned when you exported your target.
  - e. For the <m:exporttime> tag, copy and paste the contents of the <m:exporttime> tag that was returned when you exported your target.
  - f. For the <m:contents> tag, copy and paste the contents of the <m:contents> tag that was returned when you exported your target.
9. From the SOAP menu, select *Send request to server*.

## Retrieving or Updating Web Service Method Connection Information

After you migrate your repository, you can retrieve or update connection information for your Web service methods.

### Procedure: How to Retrieve Web Service Method Connection Information

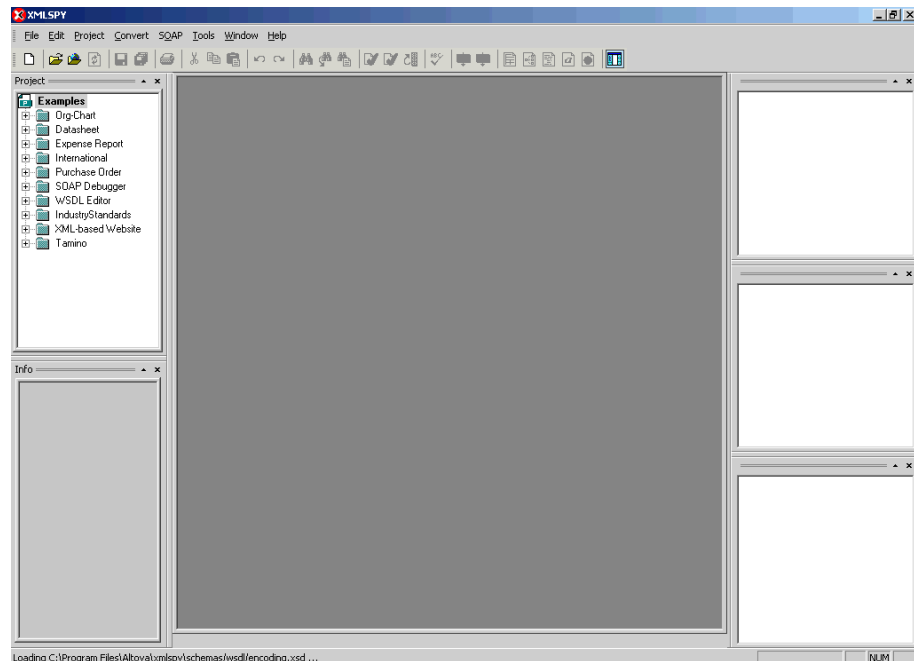
To retrieve Web service method connection information:

1. Copy the iBSE configuration service URL, for example:

<http://localhost:7777/ibse/IBSEServlet/admin/iwconfig.ibs?wsdl>

2. Open a third party XML editor, for example, XMLSPY.

The following image shows the XMLSPY window. The upper left has a Project pane that contains a tree of sample files, and the lower left has a blank Info pane. The middle pane is blank. The right side is divided into three blank panes.



3. From the SOAP menu, select *Create new SOAP request*.

The WSDL file location dialog box opens.

4. In the Choose a file field, paste the iBSE configuration service URL, and click *OK*.

The soap operation name dialog box opens and lists the available control methods.

5. Select the *GETMTHCONNECTION*(*GETMTHCONNECTION parameters*) control method and click *OK*.

A window opens, which shows the structure of the SOAP envelope.

6. Locate the *Text view* icon in the toolbar.

In the following image, the pointer points to the *Text view* icon.



7. To display the structure of the SOAP envelope as text, click the *Text view* icon.

The `<SOAP-ENV:Header>` tag is not required and can be deleted from the SOAP envelope.

8. Locate the following section:

```
<m:GETMTHCONNECTION
xmlns:m="urn:schemas-iwaysoftware-com:jul2003:ibse:config">
<m:serviceName>String</m:serviceName>
<m:methodName>String</m:methodName>
</m:GETMTHCONNECTION>
```

- a. For the `<m:serviceName>` tag, replace the `String` placeholder with the name of the Web service.
  - b. For the `<m:methodName>` tag, replace the `String` placeholder with name of the Web service method.
9. From the SOAP menu, select *Send request to server*.

A response is returned that contains the `<m:descriptor>` element. You must use this element when updating your Web service method.

### Procedure: How to Update Web Service Method Connection Information

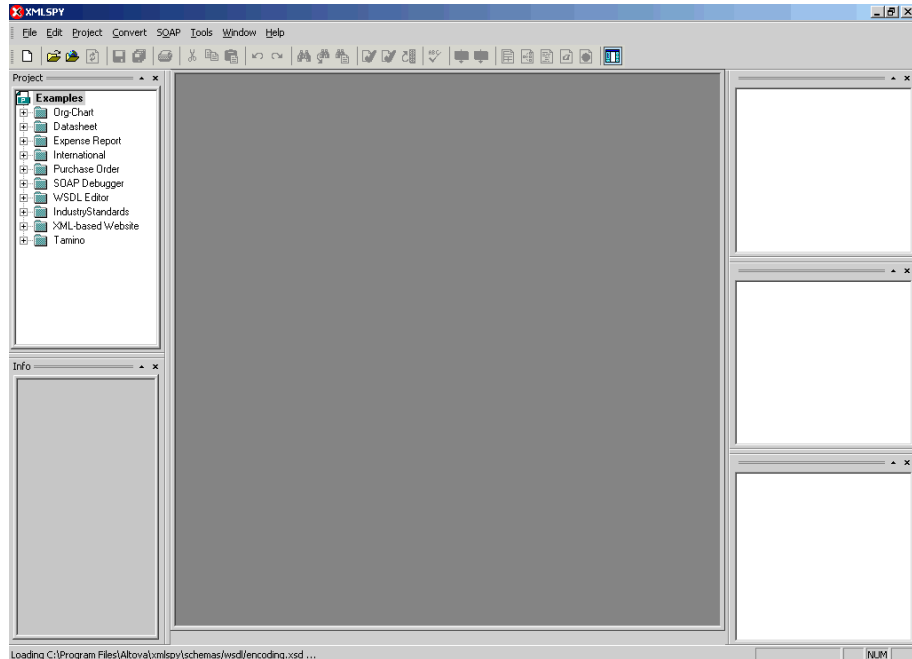
To update Web service method connection information:

1. Copy the iBSE configuration service URL, for example:

```
http://localhost:7777/ibse/IBSEServlet/admin/iwconfig.ibs?wsdl
```

2. Open a third party XML editor, for example, XMLSPY.

The following image shows the XMLSPY window. The upper left has a Project pane that contains a tree of sample files, and the lower left has a blank Info pane. The middle pane is blank. The right side is divided into three blank panes.



3. From the SOAP menu, select *Create new SOAP request*.  
The WSDL file location dialog box opens.
4. In the Choose a file field, paste the iBSE configuration service URL, and click *OK*.  
The soap operation name dialog box opens and lists the available control methods.
5. Select the *SETMTHCONNECTION(SETMTHCONNECTION parameters)* control method and click *OK*.  
A window opens that shows the structure of the SOAP envelope.
6. Locate the *Text view* icon in the toolbar.  
In the following image, the pointer points to the Text view icon.



7. To display the structure of the SOAP envelope as text, click the *Text view* icon.



The <SOAP-ENV:Header> tag is not required and can be deleted from the SOAP envelope.

**8.** Locate the following section:

```
<m:SETMTHCONNECTION
xmlns:m="urn:schemas-iwaysoftware-com:jul2003:ibse:config">
<m:servicename>String</m:servicename>
<m:methodname>String</m:methodname>
<m:descriptor format="" channel="">
  <m:option title="">
    <m:group title="">
      <m:param/>
    </m:group>
  </m:option>
</m:descriptor>
</m:SETMTHCONNECTION>
```

- a. For the <m:servicename> tag, replace the String placeholder with the name of the Web service.
  - b. For the <m:methodname> tag, replace the String placeholder with the name of the Web service method.
  - c. For the <m: descriptor> tag, copy and paste the contents of the <m: descriptor> tag that was returned when you retrieved Web Service method connection information.
- 9.** Modify the contents of the <m: descriptor> tag to change the existing Web Service method connection information.
- 10.** From the SOAP menu, select *Send request to server*.

## Starting or Stopping a Channel Programmatically

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The following topic describes how to start or stop a channel programmatically.

### Procedure: How to Start a Channel Programmatically

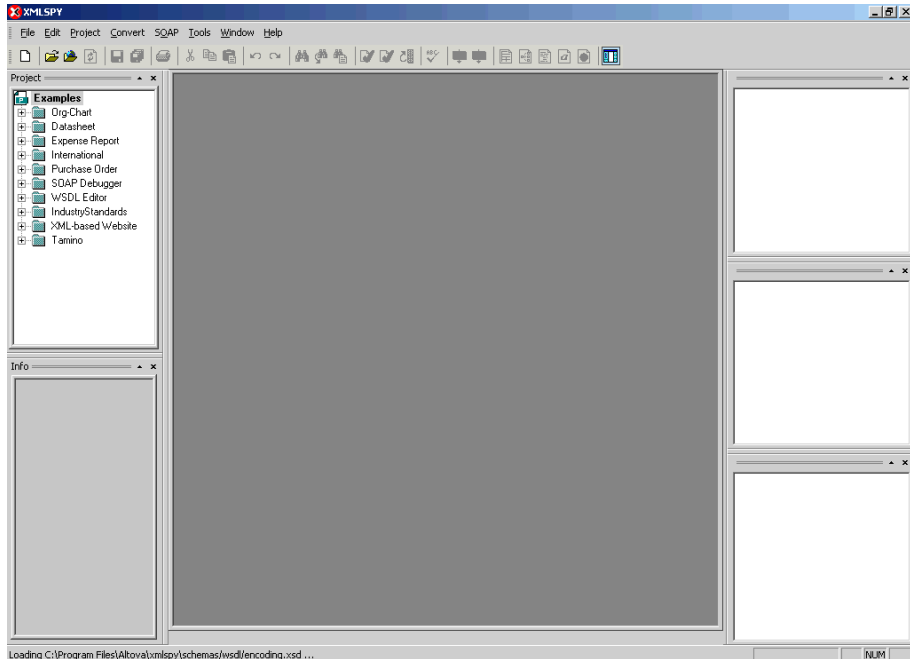
To start a channel programmatically:

1. Copy the iBSE control event URL, for example:
 

```
http://localhost:7777/ibse/IBSEServlet/admin/iwevent.ibs?wsdl
```
2. Open a third party XML editor, for example, XMLSPY.

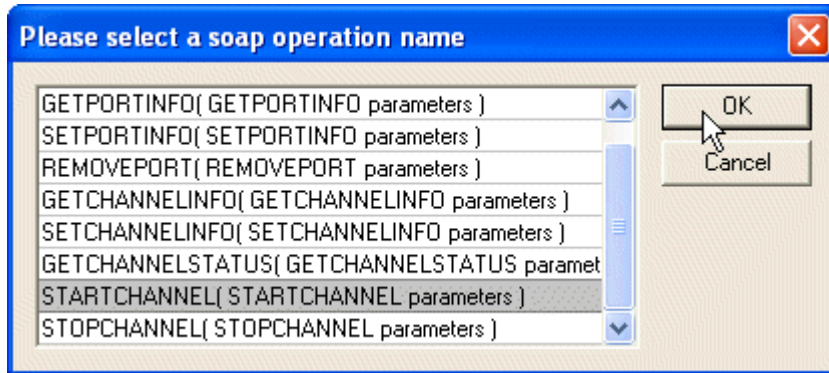
## Starting or Stopping a Channel Programmatically

The following image shows the XMLSPY window. The upper left has a Project pane that contains a tree of sample files, and the lower left has a blank Info pane. The middle pane is blank. The right side is divided into three blank panes.



3. From the SOAP menu, select *Create new SOAP request*.  
The WSDL file location dialog box opens.
4. In the Choose a file field, paste the iBSE control event URL, and click *OK*.

The following image shows the soap operation name dialog box that opens with a list of available control methods. You can select one and click OK or to escape from the dialog box, you can click Cancel.



5. Select the *STARTCHANNEL(STARTCHANNEL parameters)* control method and click *OK*.

A window opens, which shows the structure of the SOAP envelope.

6. Locate the *Text view* icon in the toolbar.

In the following image, the pointer points to the *Text view* icon.



7. To display the structure of the SOAP envelope as text, click the *Text view* icon.

The `<SOAP-ENV:Header>` tag is not required and can be deleted from the SOAP envelope.

8. Locate the following section:

```
<SOAP-ENV:Body>
  <m:STARTCHANNEL
    xmlns:m="urn:schemas-iwaysoftware-com:dec2002:iwse:event">
    <m:channel>String</m:channel>
  </m:STARTCHANNEL>
</SOAP-ENV:Body>
```

9. For the `<m:channel>` tag, replace the String placeholder with the name of the Channel you want to start.

10. From the SOAP menu, select *Send request to server*.

## Procedure: How to Stop a Channel Programmatically

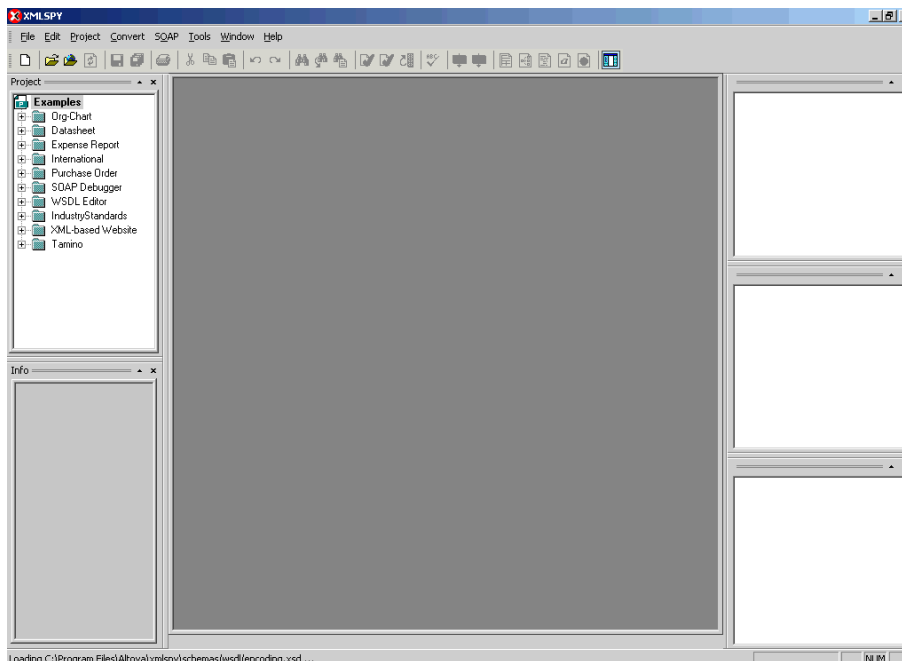
To stop a channel programmatically:

1. Copy the iBSE control event URL, for example:

<http://localhost:7777/ibse/IBSEServlet/admin/iwevent.ibs?wsdl>

2. Open a third party XML editor, for example, XMLSPY.

The following image shows the XMLSPY window. The upper left has a Project pane that contains a tree of sample files, and the lower left has a blank Info pane. The middle pane is blank. The right side is divided into three blank panes.

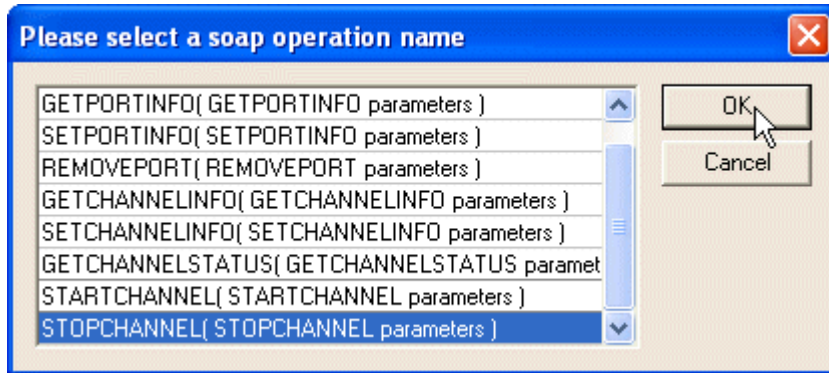


3. From the SOAP menu, select *Create new SOAP request*.

The WSDL file location dialog box opens.

4. In the Choose a file field, paste the iBSE control event URL, and click *OK*.

The following image shows the soap operation name dialog box that opens with a list of available control methods. You can select one and click OK or to escape from the dialog box, you can click Cancel.



5. Select the *STOPCHANNEL(STOPCHANNEL parameters)* control method and click *OK*.

A window opens, which shows the structure of the SOAP envelope.

6. Locate the *Text view* icon in the toolbar.

In the following image, the pointer points to the *Text view* icon.



7. To display the structure of the SOAP envelope as text, click the *Text view* icon.

The `<SOAP-ENV:Header>` tag is not required and can be deleted from the SOAP envelope.

8. Locate the following section:

```
<SOAP-ENV:Body>
  <m:STOPCHANNEL
    xmlns:m="urn:schemas-iwaysoftware-com:dec2002:iwse:event">
    <m:channel>String</m:channel>
  </m:STOPCHANNEL>
</SOAP-ENV:Body>
```

9. For the `<m:channel>` tag, replace the String placeholder with the name of the Channel you want to stop.

10. From the SOAP menu, select *Send request to server*.

## *Starting or Stopping a Channel Programmatically*

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## Reader Comments

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

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## **Reader Comments**