

# iWay

iWay Adapter for E-mail User's Guide  
Version 5 Release 5

Updated for J2EE CA 1.5

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## Preface

This document is written for system integrators who develop client interfaces between an e-mail server and other applications.

## How This Manual Is Organized

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

Chapter		Contents
1	Introducing the iWay Adapter for E-mail	Introduces the iWay Adapter for E-mail.
2	Creating XML Schemas or Web Services	Describes how to create schemas to enable interaction between the adapter and an e-mail system and how to use iWay Servlet Application Explorer as deployed to a Sun Java System Application Server.
3	Using the iWay Adapter for E-mail	Describes how iWay Servlet Application Explorer deployed to a Sun Java System Application enables you to listen for messages arriving at an e-mail queue.
4	Using Web Services Policy-Based Security	Describes how to configure Web services policy-based security.
5	Management and Monitoring	Describes how to configure and use monitoring tools provided by iBSE and JCA to gauge the performance of your run-time environment.

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## What You Need to Know

This document is written for system integrators who develop client-server interfaces between an e-mail server and other applications. The iWay Adapter for E-mail provides a means to exchange real-time business data between e-mail servers and other application, database, or external business partner systems. The adapter allows for inbound and outbound processing with an e-mail server. It is assumed that readers have:

- General knowledge of a client/server environment, including an e-mail server, client e-mail applications, and how to configure e-mail server tasks.
- Specific knowledge of business applications.
- Knowledge of your e-mail server and data models for the required application area.

## Requirements

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- Installation of the proper iWay components.
- Developer access to Sun Java System Application Server.
- Developer access to the e-mail server for which you wish to create applications.

## Documentation Conventions

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

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

## Customer Support

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Do you have questions about the iWay Adapter for E-mail?

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 E-mail 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.

<b>Platform</b>	
<b>Operating System</b>	
<b>OS Version</b>	
<b>Product List</b>	
<b>Adapters</b>	
<b>Adapter Deployment</b>	For example, JCA, Business Services Engine, iWay Adapter Manager
<b>Container Version</b>	

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

<b>Component</b>	<b>Version</b>
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.

<b>Application Explorer Type</b>	<b>Version</b>	<b>Platform</b>
Swing		
Servlet		
ASP		

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

<b>Version</b>	<b>Vendor</b>

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

<b>Request/Question</b>	<b>Error/Problem Details or Information</b>
Provide usage scenarios or summarize the application that produces the problem.	
Did this happen previously?	
Can you reproduce this problem consistently?	

Request/Question	Error/Problem Details or Information
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.

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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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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## CHAPTER 1

# Introducing the iWay Adapter for E-mail

### Topics:

- Introducing E-mail
- Features of the iWay Adapter for E-mail
- Deployment Options for the iWay Adapter for E-mail

The iWay Adapter for E-mail supports e-mail exchanges and file transfers between Internet users and others on the Internet or connected through TCP/IP and/or other networks.

## Introducing E-mail

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E-mail messages typically consist of a set of header fields, an optional body, and an optional set of attachments. Headers contain information about the message, such as to whom it is sent, from whom it was sent, when it was sent, and the subject.

There are several existing e-mail standards. These protocols define how e-mails are transferred, the format of the e-mail, and other definitions that allow e-mail to be handled uniformly by various mail servers that receive and store the mail, such as Microsoft Exchange server, and clients that communicate to the servers to retrieve and read mail messages. The most popular protocols are Simple Mail Transfer Protocol (SMTP), Post Office Protocol (POP3), and Internet Message Access Protocol (IMAP4).

- SMTP is a TCP/IP protocol used to send and receive e-mail. However, since it has limited ability to queue messages at the receiving end, it is usually used with one of the other two protocols, POP3 or IMAP4, that enable users to save messages in a server mailbox and download them periodically from the server. Users typically use software that employs SMTP for sending e-mail and POP3 or IMAP4 for receiving messages retrieved for them at their local server.
- POP3 uses a store and forward service. Using POP3, mail is delivered to a centralized server, and users periodically connect to the server to copy or move pending e-mails to a mobile device.
- IMAP4 is a client-server mail protocol that enables handling of remote mailboxes as if they were local. Mail is stored on a centralized server and users can copy or move mail to their mobile device. Depending on how IMAP4 is used by a mail server, users can ask the server for the headers or bodies of specified messages. Messages remain in the mail repository until marked for permanent deletion.

The iWay Adapter for E-mail supports SMTP, POP3 and IMAP4 protocols. The iWay Adapter for E-mail can use the POP3 or IMAP protocols to monitor e-mail accounts, select inbound messages, and filter or custom process e-mail based on content using contextual pattern matching of the subject. You can configure the adapter to poll an account at a configured level. The adapter provides support for both preprocessing and postprocessing of both message bodies and attachments.

You can deploy the iWay Adapter for e-mail on all J2EE supported platforms including Windows, Solaris, AIX, and OS/390.

The adapter connects to the e-mail server, extracts data, and converts it to the data types supported by the operation using the conversion instructions in its adapter business object type. The adapter then interacts with the server engine to provide responses from business logic back to the e-mail server. It enables you to integrate your mail servers seamlessly into your enterprise business processes and realize a rapid return on investment.

After receipt of the e-mail, the text in the body of the e-mail is processed. You can then apply document analysis, validation, transformation, and business logic capabilities to the document.

You can save attachments to a file or pass them through the system using the provided e-mail attachment agent. To process the content in the attachment, you must write a custom agent that implements the applicable business logic.

The iWay Adapter for E-mail treats the body of a document like a regular event. If the body of the mail is non-XML, then you must use a preparser to handle the document. If you do not use a preparser, an exception error occurs.

## **Features of the iWay Adapter for E-mail**

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The iWay Adapter for E-mail provides a means to exchange real-time business data between messaging systems and other application, database, or external business partner systems. The adapter supports inbound and outbound integration operations, using services and events.

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

The iWay Adapter for E-mail:

- Supports asynchronous bidirectional operations between the adapter and the e-mail server.
- Includes the iWay Application Explorer (iAE), a GUI tool that explores metadata and builds XML schemas or Web services.
- Enables the transfer of data to and from a mail server.

## **Deployment Options for the iWay Adapter for E-mail**

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The iWay Adapter for E-mail 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**

iWay Application Explorer uses an explorer metaphor to browse the e-mail system for metadata. The explorer enables you to create XML schemas and Web services for the associated object. In addition, you can create ports and channels to listen for events.

## Deployment Information Roadmap

The following table lists the location of deployment information for the iWay Adapter for E-mail. 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>
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

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, *Using the iWay Adapter for E-mail*. For more information on installing and deploying both connectors see *iWay Installation and Configuration*.



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## CHAPTER 2

# Creating XML Schemas or Web Services

### Topics:

- Processing Overview
- Starting Servlet iWay Application Explorer
- Defining a Target
- Creating XML Schemas
- Creating Web Services

The iWay Adapter for E-mail supports e-mail exchanges and file transfers between Internet users and others on the Internet or connected through TCP/IP and/or other networks. This section describes how to use iWay Servlet Application Explorer as deployed to a Sun Java System Application Server to create schemas for allowing interaction between the adapter and an e-mail system.

## Processing Overview

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The iWay Adapter for E-mail enables interaction an with an e-mail system. It enables you to create services for posting messages to a mail system. Services are configured using the iWay Application Explorer.

## Starting Servlet iWay Application Explorer

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The server must be started where Servlet iWay 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:

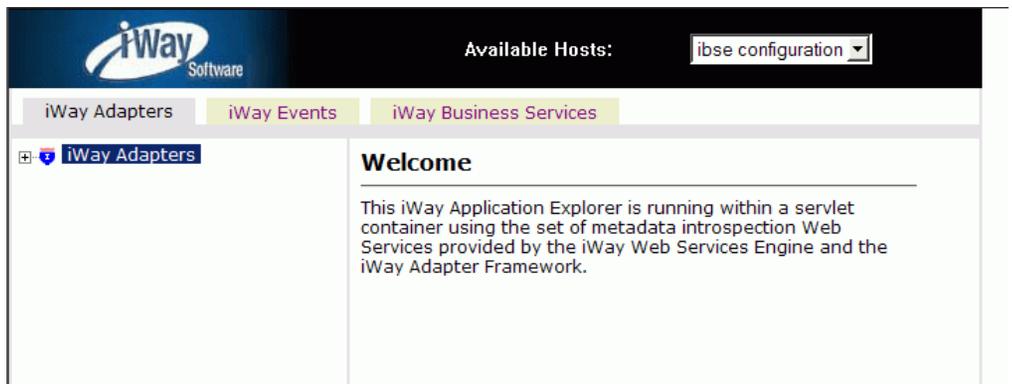
*hostname*

Is the machine where your application server is running.

*port*

Is the port number where the application server is listening.

The following image shows the Application Explorer window that opens. A Welcome message appears in the right pane.



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

- iWay Adapters, where you create and manage connections to an e-mail system and create and view schemas. This tab is active.
- iWay Events, where you configure e-mail event listening.
- iWay Business Services, where you create and view business services.

The left pane of the window contains an expandable list of adapter nodes, 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 define and modify adapter functions and services.

In the upper right, the Available Hosts drop-down list displays the Connector for JCA or Servlet iBSE instance you can access.

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

You are now ready to define new targets.

## Defining a Target

---

To create events and business services, you must first define a target. After you define the target, the parameters are automatically saved. However, you must supply a password every time you connect to the target.

### Procedure: How to Define a Target

To define a target:

1. In the left pane, expand the *Adapters* node, then select the *EMAIL* node.
2. In the right pane, move the pointer over *Operations* and select *Define a new target*.

The following image shows the Add a new E-mail target pane that opens on the right.

**Add a new EMAIL 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 name for the target.
  - b. In the Description field, type a brief description (optional).
  - c. From the Target Type drop-down list, select *EMAIL Transport*.
3. Click *Next*.

The following image shows the Set connection info window that opens in the right pane. You can click a button to go back, confirm your input, or cancel out of the pane.

**Set connection info**

---

Outgoing SMTP Host:

Email Recipient:

Subject:

Sender:

Reply To :

CC:

BCC:

SMTP host userid:

SMTP host password:

Tag Content of Email Body:

Tag Containing Attachment to email:

Inbound Document becomes first attachment:

Name of the Attachment:

Return Status or Input Document:

Should any preemitter be avoided?:

- a. Enter the parameters required to listen on an e-mail listener.
- b. For a description of these parameters, see *E-mail Listener Parameters* on page 2-6.

4. Click *Finish*.
5. Verify that the listener starts.
  - a. Expand the e-mail node if it is not already expanded.
  - b. Select the target you created.
  - c. In the right pane, move the pointer over *Operations* and select *Connect*.
  - d. In the window that opens in the right pane, click *OK*.

If you connect to the target successfully, the red x is removed from the target icon. If the red x still appears, turn on traces to determine the cause of the failure.

### Reference: E-mail Listener Parameters

The following table lists the e-mail listener parameters and provides a description of each one.

Property Name	Property Description
Outgoing SMTP Host (required)	SMTP (Simple Mail Transfer Protocol) host. The server from which outgoing electronic mail is sent. Obtain this value from your e-mail administrator.
E-mail Recipient	The e-mail address to which the e-mail is sent. You can supply multiple e-mail addresses (separated by commas). Recipients' e-mail addresses appear.
Subject	The text that appears in the subject line of the e-mail.
Sender	The name that appears in the From line of the e-mail.
Reply To	The name that appears in the To line of the e-mail if the recipient replies to the e-mail.
CC	E-mail address(es) to which to send a copy of the e-mail. You can supply multiple e-mail addresses (separated by commas). Recipients' e-mail addresses appear.
BCC	E-mail address(es) to which to send a blind copy of the e-mail. Recipients' e-mail addresses do not appear. You can supply multiple e-mail addresses (separated by commas).
SMTP host userid	Valid user name to access the SMTP (outgoing) server.
SMTP host password	Valid password to access the SMTP (outgoing) server.

Property Name	Property Description
Tag Content of Email Body	The XML tag in the document that contains the body of the e-mail.
Tag Containing Attachment to email	Name of the tag identifying the attachment. Attachment is the default value.
Inbound Document becomes first attachment	When checked, the document received from the listener becomes an attachment. If there is more than one attachment, this document is the first in the list.
Name of the Attachment	The full name, including the file extension, of the attachment you want to send.
Return Status or Input Document	<p>The options are return status or input.</p> <p>If you choose Return Status, the adapter creates an XML file that displays the result of the transmission. It is similar to the following:</p> <pre data-bbox="609 811 1271 1349"> &lt;emitStatus&gt;   &lt;protocol&gt;e-mail&lt;/protocol&gt;   &lt;parms&gt;password=****, docattach=true, to=user@yourserver.com, host=mail.yourserver.com, return=status, subject=s, nopreemit=false&lt;/parms&gt;   &lt;status&gt;0&lt;/status&gt;   &lt;msg/&gt;  &lt;timestamp&gt;2004-08-05T05:04:16:213Z&lt;/timestamp&gt; &gt;   &lt;attempts&gt;1&lt;/attempts&gt;   &lt;name&gt;user@yourserver.com&lt;/name&gt; &lt;/emitStatus&gt; </pre> <p>If you choose input, only the original document is returned to the user.</p>
Should any premitter be avoided?	If selected, error documents are not processed by any configured premitters. This is not selected by default.

**Note:** An attachment tag is added to the incoming document for each attachment. The attributes of the tag are:

- **Name:** The attachment name from the e-mail.  
If this name is left blank, the iWay Adapter for e-mail uses the original.
- **Mime:** The attachment mime type from the e-mail.  
This tag is used in business logic to locate the document.

The following is a sample XML document received with a tag name attachment that indicates that an attachment of MSOut1.htm was received and stored in C:\abc\NAOMI003NAOMI. The original format of the attachment is text/html.

```
<?xml version="1.0" encoding="ISO-8859-1" ?><M1><attachment  
name="MSOut1.htm" file="C:\abc\NAOMI003NAOMI" mime="text/html" /></M1>
```

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

To connect to a previously defined target:

1. Click the target name beneath the EMAIL node.
2. In the right pane, move the pointer over *Operations* and select *Connect*.
3. Type the password and click *OK*.

The following image shows the target icon, which includes a plus sign to indicate that you are connected.



### Disconnecting From a Target

Although you can maintain multiple open connections, it is good practice to close connections when not in use.

### Procedure: How to Disconnect From a Target

To disconnect from a target:

1. In the left pane, click the target to which you are connected.
2. In the right pane, move the pointer over *Operations* and select *Disconnect*.

Disconnecting from the application system drops the target, but the node remains. The node in the left pane changes to reflect that the target was closed.

## Modifying a Target

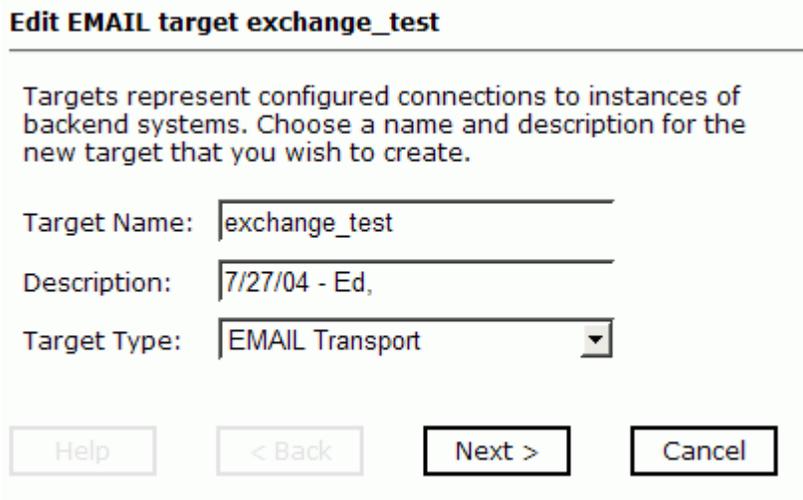
After you create a target, you can edit any information that you provided during the creation process.

### Procedure: How to Edit a Target

To edit a target:

1. In the left pane, click the target node.
2. In the right pane, move the pointer over *Operations* and select *Edit*.

The following image shows the Edit pane that opens on the right. This pane provides three fields: Target Name, Description, and Target Type. You can click a button to continue or cancel out of the Edit pane.



**Edit EMAIL target exchange\_test**

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:

3. Modify the target information.
4. Click *Next*.

The following image shows the Set connection info pane that opens on the right. You can click a button to go back, confirm your input, or cancel out of the pane.

**Set connection info**

---

Outgoing SMTP Host:

Email Recipient:

Subject:

Sender:

Reply To :

CC:

BCC:

SMTP host userid:

SMTP host password:

Tag Content of Email Body:

Tag Containing Attachment to email:

Inbound Document becomes first attachment:

Name of the Attachment:

Return Status or Input Document:

Should any preemitter be avoided?:

5. Modify the settings you wish to change, and click *Finish*. For information on these settings, see *E-mail Listener Parameters* on page 2-6

## Deleting a 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 e-mail targets in the left pane.

### Procedure: How to Delete a Target

To delete a target:

1. In the left pane, select the target.
2. In the right pane, move the pointer over *Operations* and select *Delete*.  
A confirmation dialog box opens.
3. Click *OK* to delete the target you selected.

The node disappears from the left pane.

## Creating XML Schemas

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The following procedure describes how to create XML schemas for the adapter when you deploy the iWay Adapter for E-mail for use either in a JCA (iWay Enterprise Connector for J2EE Connector Architecture) environment or a Web services environment.

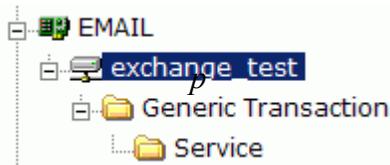
If you plan to deploy the iWay Adapter for E-mail in a Web services environment, also see *Creating Web Services* on page 2-14.

### Procedure: How to Create an XML Schema

To generate service request and response schemas:

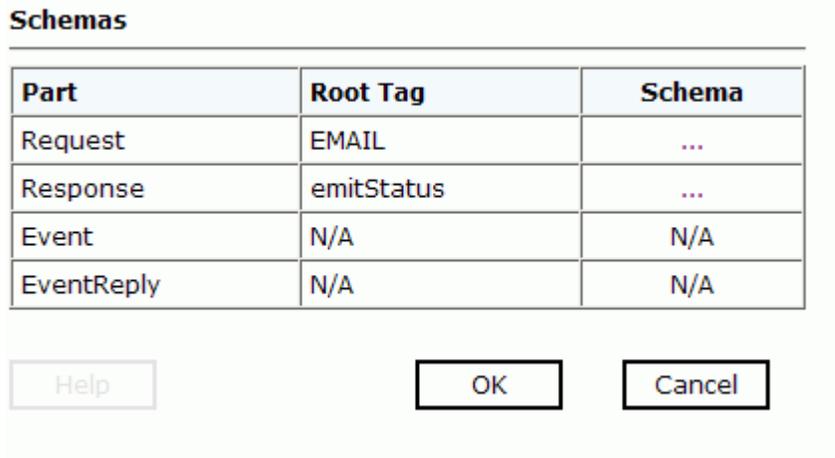
1. If you have not started the explorer, start Application Explorer and connect to your e-mail server.

The following image shows the expansion of the e-mail node as per the instructions following the image.



- a. In the left pane, expand the *EMAIL* node.
  - b. Expand the *exchange\_test* node and the *Generic Transaction* nodes.
  - c. Select the *Service* node.
2. In the right pane, move the pointer over *Operations* and select *Generate Schema*.

Application Explorer builds request and response schemas. The following image shows a schemas table similar to the one that appears in the right pane. This table contains three columns labeled Part, Root Tag, and Schema. The Schema column provides URLs to the different schemas.



3. To view a schema, click the ellipsis (...) in the row corresponding to the schema you want to view.

The following image shows the Request schema.

```

<?xml version="1.0" encoding="UTF-8" ?>
<!-- Generated by the iBSE 2004-08-04T18:21:12Z
-->
- <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="EMAIL">
  - <xs:complexType>
    - <xs:sequence>
      <xs:any minOccurs="0"
        maxOccurs="unbounded" />
    </xs:sequence>
  </xs:complexType>
</xs:element>
</xs:schema>

```

The following image shows the Response schema.

```

<?xml version="1.0" encoding="UTF-8" ?>
<!-- Generated by the iBSE 2004-08-04T18:21:12Z
-->
- <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>

```

## Creating Web Services

---

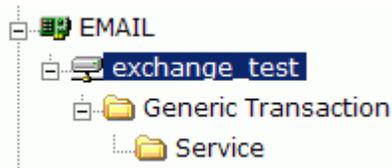
You can generate a business service (also known as a Web service) for e-mail operations.

Ensure you properly configure the servlet iBSE. For more information on installing and deploying iWay components, see the *iWay Installation and Configuration* manual.

**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.

### Procedure: How to Create a Web Service

The following image shows the expanded EMAIL node.



1. Connect to your EMAIL node.
2. Expand the *Generic Transaction* folder; then expand the *Service* folder.
3. In the right pane, move the pointer over *Operations* and select *Create iWay Business Service*.

If this is not the first Web service you have created, choose whether to create a new service or use an existing service.

- a. To use a previously created service, select the option to use an existing service.  
A drop-down list appears.
- b. Select the business service to which you want to add the new service.

If this is the first Web service you are creating or if you select to create a new service, the Create Web Service pane appears. This pane provides three fields followed by a help button and three action buttons.

The following image shows the Create Web Service for Service dialog box that appears in the right pane.

**Create Web Service for Service**

Service Name:

Description:

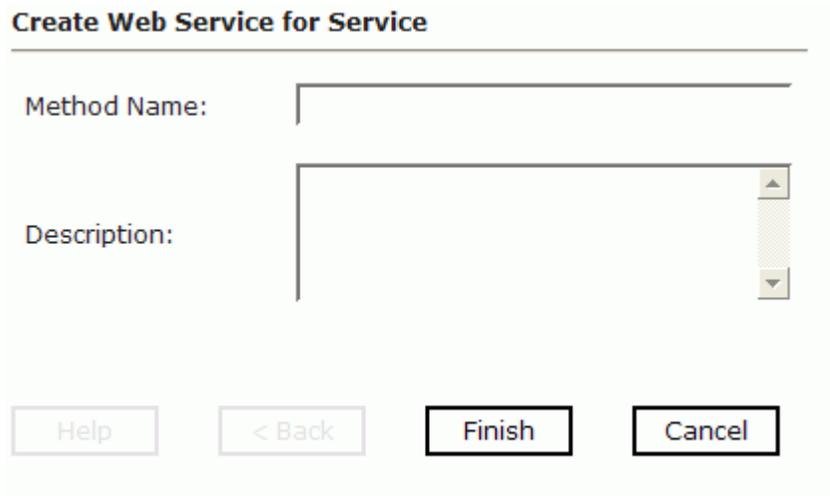
License: 

- production
- test

Help < Back Next > Cancel

- a. In the Service Name field, type a descriptive name for the service.
  - b. In the Description field, type a description for the service (optional).
  - c. In the License field, select a license.
4. Click Next.

The following image shows the dialog box that opens.



The image shows a dialog box titled "Create Web Service for Service". It features two input fields: "Method Name:" with a text box and "Description:" with a larger text area. At the bottom, there are four buttons: "Help", "< Back", "Finish", and "Cancel".

- a. In the Method Name field, type a name for the method.
  - b. In the Description field, type a description for the method (optional).
5. Click *Finish*.

## Testing a Web Service

After you create a Web service, test it to ensure that it functions properly. Application Explorer includes a test tool for testing a Web service.

### Procedure: How to Test a Web Service for a Business Object

To test a Web 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 *iWay Business Services* node.
3. Expand the *Services* node.
4. Select the name of the business service you want to test.
5. In the right pane, click the named business services link, for example, *Get*.

The test option appears in the right pane as shown in the following image. This pane provides a text field in which to paste the XML input. Alternatively, you can browse to a file that can be uploaded. In addition to the Browse button, the pane has three active buttons (Upload, More, and Invoke).

---

## Get

### Test

To test the operation using the [SOAP protocol](#), click the 'Invoke' button.

The screenshot shows a window titled 'input xml:' with a large text area for entering XML. Below the text area is a row of four buttons: 'Browse...', 'Upload', 'More', and 'Invoke'. The 'Browse...' button is a standard file selection button, while the others are simple rectangular buttons.

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

Application Explorer displays the results in the results pane on the right.

## 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

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 link for the service appears in the right pane.

4. Right-click the *Service Description* link 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

# Using the iWay Adapter for E-mail

### Topics:

- Understanding iWay Event Functionality
- Creating an Event Port
- Creating Channels

iWay Servlet Application Explorer deployed to a Sun Java System Application Server enables you to listen for messages arriving at an e-mail server.

Although this section describes the Java™ servlet implementation of Application Explorer, other implementations provide the same functionality by means of similar graphical user interfaces.

## Understanding iWay Event Functionality

---

Events are generated as a result of a specific condition being satisfied or triggered by the e-mail server. You can use events to trigger an action in your application.

After you create a connection to your mail server, you can add events. To create an event, you must create a port and a channel.

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 location of the event data. The port defines the end point of the event consumption. For more information, see *Creating an Event Port* on page 3-2.

- Channel

A channel represents configured connections to particular instances of back-end or other types of systems. A channel binds one or more event ports to a particular listener managed by an adapter. For more information, see *Creating Channels* on page 3-16.

**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.

## Creating an Event Port

---

The following procedures describe how to create an event port from the iWay Event Adapters tab for various dispositions using Application Explorer.

**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 dispositions are available when using the servlet Application Explorer in conjunction with an iBSE implementation. You can switch between an iBSE and a JCA implementation by choosing one or the other from the drop-down menu in the upper right of the Application Explorer.

- File
- iBSE
- MSMQ
- JMS queue
- SOAP

- HTTP
- MQSeries

**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 implementation.

- File
- HTTP
- JMS queue
- MQSeries

**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.

### **Procedure: How to Create an Event Port for the File Disposition**

To create a specific event port for the File disposition:

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

The following image shows the Create New Port pane that appears on the right. You can click a button to confirm your input or cancel out of the pane.

**Create New Port**

Choose parameters of the port that you wish to create.

Port Name: File

Description: fileport

Disposition Protocol: FILE

Disposition: ifile://[location];errorTo=[pre-define]

Help OK Cancel

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

When pointing Application Explorer to an **iBSE** deployment, use the following format:

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

For example:

```
ifile://D:\in\x.txt;errorTo=ifile://D:\error
```

When pointing Application Explorer to a **JCA** deployment, provide 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	The destination and filename 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 event port appears beneath 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. The following image shows the summary.

Operations ▶	
<b>Port Name</b>	FileNew
<b>Description</b>	Fileport
<b>Disposition</b>	ifile://D:\in\*.txt
<b>Target</b>	EMAIL

You are ready to associate the event port with a channel. For more information, see *Creating Channels* on page 3-16.

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

You can call a Web Service created through iWay Business Services Engine (iBSE).

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 *EMAIL* node.

3. Select the *ports* node.

4. Move the pointer over *Operations* and select *Add a new port*.

The Create Event Port pane opens on the right.

a. In the Port Name field, type a name for the connection.

The name is used to build a repository entry as well as to identify the connection.

- b. In the Description field, type a description for the target name you just created.
- c. From the Disposition Protocol drop-down list, select *iBSE*.
- d. In the Disposition field, enter an iBSE destination in the form of:

```
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*.

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

You are ready to associate the event port with a channel. For more information, see *Creating Channels* on page 3-16.

### Procedure: How to Create an Event Port for a JMS Queue

To create an event port for Sun Java System Message Queue:

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

The Create Event Port pane opens on the right.

- a. Type a name for the event port and provide a brief description.

- b. From the Disposition Protocol drop-down list, select *JMSQ*.
- c. In the Disposition field, enter a JMS destination.

When pointing Application Explorer to an **iBSE** deployment, use 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, use 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 JMS queue disposition.

Parameter	Description
queue	JNDI name of a queue to which events are emitted.
Connection Factory	A resource that contains information about the JMS Server. You must create the connection factory, for example: <code>sampleQCF</code>
jndiurl	The URL to use to contact the JNDI provider. The syntax of this URL depends on which JNDI provider is 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: 3700 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>

Parameter	Description
user	A valid user name required to access a JMS server.
password	A valid password required to access a JMS server.
errorTo	Location where error documents are sent. A predefined port name or another full URL. Optional.

5. Click *OK*.

The event port appears beneath 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. The following image shows the port listing and summary.



You are now ready to associate the event port with a channel. For more information, see *Creating Channels* on page 3-16.

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

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 *EMAIL* node.
3. Select the *ports* node.
4. Move the pointer over *Operations* and select *Add a new port*.

The Create Event Port pane opens on the right.

- a. In the Port Name field, type a name for the connection, for example, Queue1\_on\_NTK.  
The name is used to build a repository entry as well as to identify the connection.
- b. In the Description field, type a description for the target name you just created.
- c. From the Disposition Protocol drop-down list, select *MSMQ*.

- d. In the Disposition field, enter a MSMQ destination in the form of:

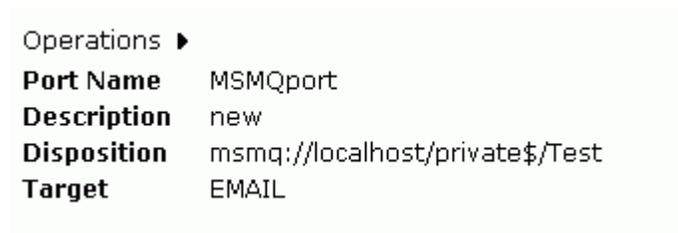
```
msmq://host/private$/qName;errorTo=[pre-defined port name or
another disposition url]
```

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

Parameter	Description
host	Machine name where the Microsoft Queuing system is running.
Queue Type	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.  For private queues, enter <i>Private\$</i> .
qName	Name of the private queue where messages are placed.
errorTo	Location where error documents are sent. A predefined port name or another full URL. Optional.

5. Click *OK*.

The event port appears beneath 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. The following image shows the summary.



Operations ▶	
<b>Port Name</b>	MSMQport
<b>Description</b>	new
<b>Disposition</b>	msmq://localhost/private\$/Test
<b>Target</b>	EMAIL

You are ready to associate the event port with a channel. For more information, see *Creating Channels* on page 3-16.

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

To create a port for a SOAP disposition:

1. Click the *iWay Events* tab.

The iWay Event Adapters window opens.

2. In the left pane, expand the *EMAIL* node.
3. Select the *ports* node.
4. Move the pointer over *Operations* and select *Add a new port*.

The Create Event Port window opens in the right pane.

- a. Type a name for the event port and provide a brief description.
- b. From the Disposition Protocol drop-down list, select *SOAP*.
- c. In the Disposition field, enter an 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	<p>URL to the WSDL file that is required to create the SOAP message. For example:</p> <pre>http://localhost:7001/ibse/IBSEServlet/test/ webservice.ibs?wsdl</pre> <p>where:</p> <pre>webservice</pre> <p>Is the name of the Web service you created using Application Explorer.</p> <p>This value can be found by navigating to the iWay Business Services tab and opening the <i>Service Description</i> link in a new window. The WSDL URL appears in the Address field.</p> <p>You can also open the WSDL file in a third party XML editor (for example, XMLSPY) and view the SOAP request settings to find this value.</p>

Parameter	Description
soapaction	<p>Method that will be called by the SOAP disposition. For example</p> <p><i>webservice.method@test@@</i></p> <p>where:</p> <p><i>webservice</i> Is the name of the Web service you created using Application Explorer.</p> <p><i>method</i> Is the method being used.</p> <p><i>test</i> Is the license that is being used by the Web service.</p> <p>This value can be found by navigating to the iWay Business Services tab and opening the <i>Service Description</i> link in a new window. Perform a search for <i>soapAction</i>.</p> <p>You can also open the WSDL file in a third party XML editor (for example, XMLSPY) and view the SOAP request settings to find this value..</p>
method	Web service method you are using. This value can be found in the WSDL file.
namespace	XML namespace you are using. This value can be found in the WSDL file.
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 event port appears beneath 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.

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

To create an event port for an HTTP disposition:

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

The Create iWay Event Port pane opens on the right.

- a. Type an event port name and a brief description.
- b. From the disposition protocol drop-down list, select *HTTP*.
- c. From the Disposition field, enter an HTTP destination.

When pointing Application Explorer to an **IBSE** deployment, use the following format:

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

When pointing Application Explorer to a **JCA** deployment, use the following format:

```
http://host:port/uri
```

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	Location where responses to the Web service are posted. A predefined port name or another full URL. Optional.

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 the Web server resides and the port on which the server is listening for the post operation.

Parameter	Description
uri	Universal resource identifier that completes the URL specification.

**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 pane shows an example of a completed HTTP port disposition. It shows four fields and their respective values: Port Name, Description, Disposition, and Target.

Operations ▶	
<b>Port Name</b>	HTTPNew
<b>Description</b>	HTTPport
<b>Disposition</b>	ihttp://myhost:1234/docroot
<b>Target</b>	EMAIL

5. Click *OK*.

The port appears beneath the ports node in the left pane.

### Procedure: How to Create an Event Port for MQSeries Disposition

To create an event port for an MQSeries disposition using Application Explorer:

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

The Create iWay Event Port pane opens on the right.

- a. Type an event port name and a brief description.
- b. From the disposition protocol drop-down list, select *MQSeries*.
- c. In the Disposition field, enter an MQSeries destination.

When pointing Application Explorer to an **iBSE** deployment, use 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, use 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 MQSeries disposition.

Parameter	Description
qManager	Is the name of the queue manager to which the server must connect.
qName or respqueue	Name of the queue where messages are placed.
host	The host on which the MQ Server is located (for the MQ Client only).
port	The number to connect to an MQ Server queue manager (for the MQ client only).
channel	The case-sensitive name of the channel that connects with the remote MQ Server queue manager (for the MQ client only). The default channel name for MQSeries is SYSTEM.DEF.SVRCONN.
errorTo	Location where error documents are sent. This can be a predefined port name or another full URL. Optional.

5. Click *OK*.

The newly created event port appears beneath the port area of the event adapter in the left pane.

## Editing or Deleting an Event Port

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

### Procedure: How to Edit an Event Port

To edit an existing 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 following image shows the Edit Port pane that opens. You can click a button to confirm your input or cancel out of the pane.

**Edit Port**

Choose parameters of the port that you wish to edit.

Port Name:

Description:

Disposition Protocol:

Disposition:

3. Make the required changes to the Description, Disposition Protocol, or Disposition fields, and click *OK*.

**Note:** The Edit Port pane does not allow you to change the name of the port, only the parameters.

### Procedure: How to Delete an Event Port

To delete an existing event port:

1. 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 Channels

---

The following procedure describes how to create an e-mail channel for your iWay Event. You must associate a port to a channel before you can make the channel active.

### Procedure: How to Create a Channel

To create a channel:

1. Connect to the *EMAIL* node.
2. Choose the *Events* tab.
3. Expand the *EMAIL* node, then choose *channels*.
4. In the right pane, move the pointer over *Operations* and select *Add a new channel*.

The following image shows the Add a new EMAIL channel dialog box that opens in the right pane. You can click a button to continue or cancel out of the pane.

**Add a new EMAIL 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 name for the channel.
  - b. In the Description field, type a brief description (optional).
  - c. From the Channel Type drop-down list, select *EMAIL Listener*.
5. Click *Next*.

The following image shows the Edit channels dialog box that enables you to configure the e-mail listener. You can click a button to go back, continue, or cancel out of the pane.

**Edit channels**

EMAIL | EMAIL Attachments

Incoming Mail Host:

Userid:

Password:

SMTP host:

Mail Protocol:

Filter:

Timeout:

Java Encoding:

Error File Location:

Help    < Back    Next >    Cancel

**6.** Specify the e-mail listener parameters.

The following table lists and defines the parameters that must be defined to configure the e-mail listener.

Parameter	Description
Incoming Mail Host	Central repository where electronic mail is stored before the recipient downloads it. Obtain this value from your e-mail administrator.

Parameter	Description
Userid	Valid e-mail account on the server. This field requires the user ID, not the complete e-mail address. For example, if the e-mail address is abc@company.com, the e-mail user to be entered in the configuration tool is abc.
Password	Valid password for the e-mail account.
SMTP host	SMTP (Simple Mail Transfer Protocol) host. This is the location where outgoing electronic mail is dropped off. Obtain this value from your e-mail administrator.
Mail Protocol	POP3 (default) or IMAP (Internet Mail Application Protocol).
Filter	The e-mail listener can filter based on the subject header. This listener accepts any e-mail that contains e-mail with the subject in the header. A subject filter of "error" listens on any pattern that includes the word "error". For example, error, RE: error, FWD: error, this is an error, errors.
Timeout	The maximum time, in seconds, it takes to complete a request. This parameter prevents runaway requests. Any request that takes longer to complete than this value is terminated.
Java Encoding	Default encoding if incoming message is not self-declaring (that is, XML).
Error File Location	Location to documents are sent if processing errors are encountered.

7. If you want to control how attachments are used, click the *EMAIL Attachments* tab.

The following image shows the EMAIL Attachment configuration options that appear when you click the EMAIL Attachments tab. You can click a button to go back, continue, or cancel out of the pane.

**Edit channels**

EMAIL | EMAIL Attachments

Attachment Tags:

Target of attachments:

Base64 document:

Output Directory:

Output File Name:

8. Optionally, specify the e-mail attachments parameters.

The following table lists and defines the parameters that must be specified for the processing of e-mail attachments.

Parameter	Description
Attachment Tags	Name of the tag identifying the attachment. Attachment is the default value.
Target of attachments	Format of the attachment output. Document is the default value. Document indicates that the original attachment is placed in the body of the document and passed to the business logic. File indicates that the attachment is stored in a file.
Base64 document	True or false. Use when TYPE=DOCUMENT is specified. This parameter indicates whether the original attachment is base64 encoded (True) in the original document.

Parameter	Description
Output Directory	Directory or File to indicate the type of attachment repository. Location type of attachment files are stored (for example, C:\attach).
Output File Name	Standard pattern with which the attachment is stored, # and * are supported. For example, NAOMI#, the first file would be stored as NAOMI1, the second as NAOMI2, and so on.

An attachment tag is added to the incoming document for each attachment. The attributes of the tag are:

**Name:** The attachment name from the e-mail. If this name is left blank, the iWay Adapter for e-mail uses the original.

**Mime:** The attachment mime type from the e-mail.

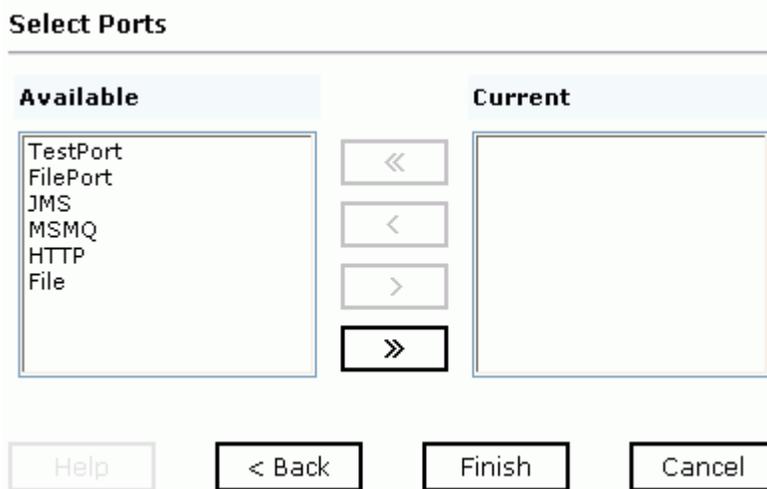
This tag is used in business logic to locate the document. The following is a sample XML document received with a tag name attachment:

```
<?xml version="1.0" encoding="ISO-8859-1" ?><M1><attachment
name="MSOut1.htm" file="C:\abc\NAOMI003NAOMI" mime="text/html" /></M1>
```

This indicates that an attachment of MSOut1.htm was received and stored in C:\abc\NAOMI003NAOMI. The original format of the attachment is text/html.

9. Click *Next*.

The following image shows the Select Ports pane that opens. A list of available ports appear in Available field on the left, and the ports that are currently associated appear in the Current field on the right. You can click a button to go back, confirm changes, or cancel out of the pane.



- a. Select an event port from the list of current ports.
  - b. Click the single right ( > ) arrow button to transfer the port to the list of available ports. To associate all the event ports, click the double right (>>) arrow button.
- 10.** Click *Finish*.

The summary window opens, showing port description, status, and available ports.

All the information in the summary is associated with the channel you created.

The channel also appears beneath the channels node in the left pane. The following image shows a sample listing of a channel. An X over the icon, also shown in this image, indicates that the channel is currently disconnected. You must start the channel to activate your event configuration.

- 11.** In the right pane, move the pointer over *Operations* and select *Start the channel*.

The channel you created becomes active.

The X that was over the icon disappears.

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

## E-mail Troubleshooting

This topic describes errors that you may encounter when using an e-mail listener.

The following table lists each error, the possible reasons for the error, and a solution.

Error	Reason	Solution
<pre>unable to connect: javax.mail.AuthenticationFailedException: Password supplied for iwaytest7 is incorrect.: [line 6]</pre>	<p>Either the user ID or password specified is incorrect.</p>	<p>Log on to the e-mail account using an e-mail tool and verify that the user ID and password specified in the configuration console are correct.</p>
<pre>Unable to connect: javax.mail.MessagingException: Connect failed; nested exception is: java.net.UnknownHostException: ibirisc21: [line 3]</pre>	<p>The server is unable to connect to the incoming mail server (POP3 Server).</p>	<p>Verify that you have correctly entered the POP3 Server. Contact your e-mail administrator to verify the POP3 Server name.</p>
<pre>Unable to connect: javax.mail.MessagingException: Connect failed; nested exception is: java.net.UnknownHostException: ibi.com@ibirisc2: [line 3] unable to login: [line 3]</pre>	<p>Unable to log on to the POP3 Server.</p>	<p>Verify that the user ID is correct. Verify that it is in the format of user name, and not username@host.com.</p>

---

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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 *Create a User to Associate With a Policy* on page 4-3 or *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 *Create an Execution Policy* on page 4-7.

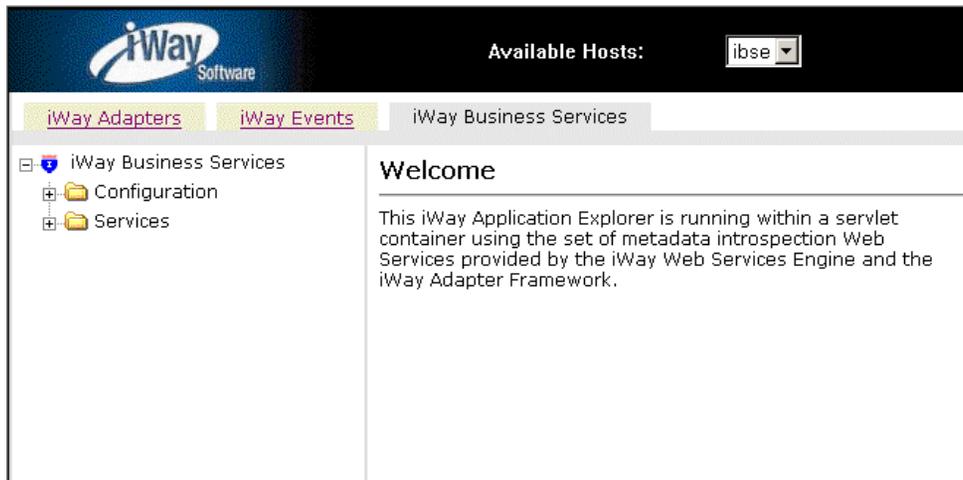
You configure the IP and Domain Restriction policy type slightly differently from other policy types. The IP and Domain Restriction policy type controls connection access to iBSE and therefore, need not be applied to an individual business service. You need not create a policy, however, you must enable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

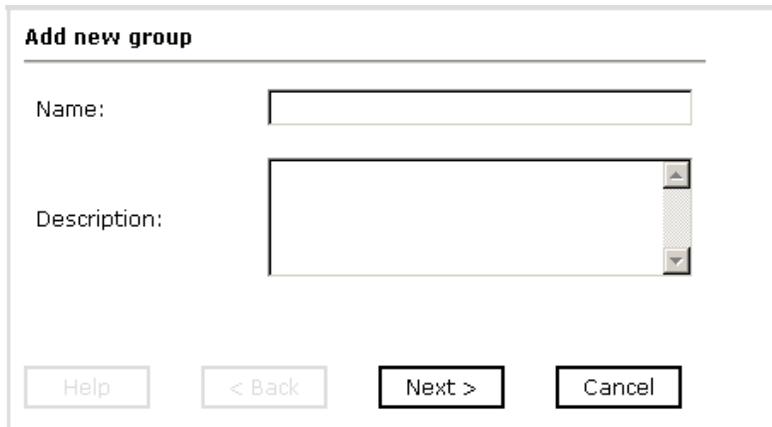
User Id	Description
<input type="checkbox"/> bse1	

### 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.



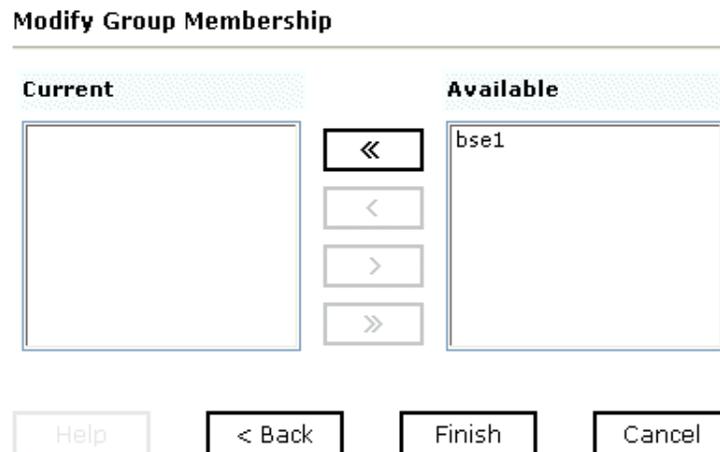
**Add new group**

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*.

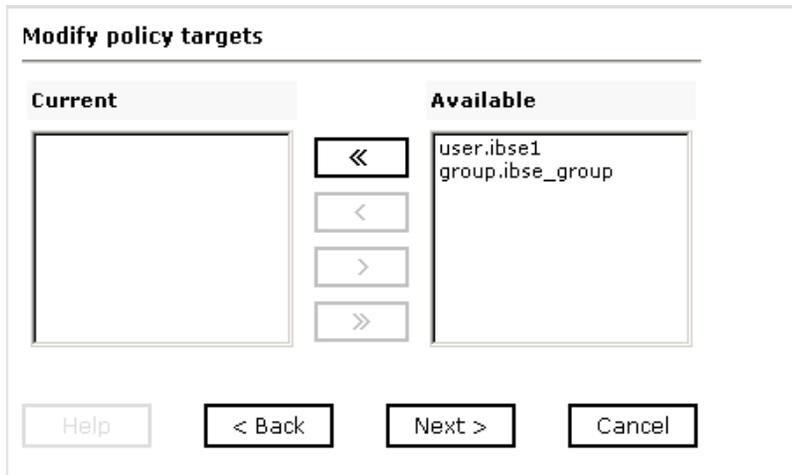
The following image shows the Add a new policy pane that opens with fields for entering the name, type, and description of the policy. To continue, click the *Next* button. The pane includes a *Help* button, a *Back* button to return to the previous screen, and a *Cancel* button to escape from the pane.

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

- 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.

**Add a new IP/Domain**

IP(Mask)/Domain:

Type:

Access Control:

Description:

- 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

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	

---

---

## 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
- Configuring Connection Pool Sizes
- 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/iWay55/bea
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
<input type="button" value="Save Configuration"/> <input type="button" value="Save History"/> <input type="button" value="View Events"/> <input type="button" value="View Services"/>	
<input type="button" value="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.

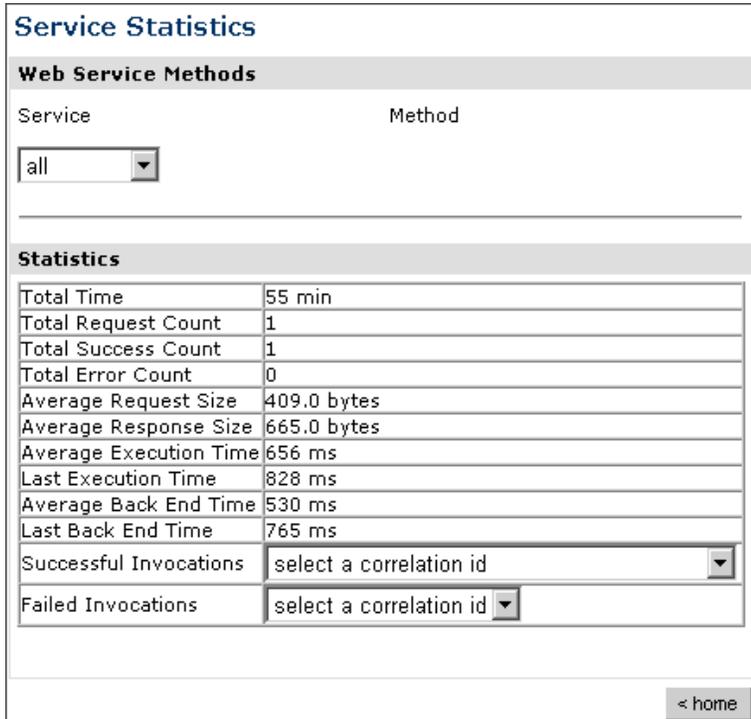
- e. To enable pooling, click the *Repository Pooling* check box.
  - f. In the Auditing pane, select *yes* if you want to store messages.  
This option is disabled by default.  
**Note:** You must start and then, stop monitoring to enable this option.
  - g. Select the maximum number of messages you 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 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.

Statistic	Description
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.

<b>Statistic</b>	<b>Description</b>
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).

### Service Statistics

**Web Service Methods**

Service

Method

---

**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	<input type="text" value="select a correlation id"/>
Failed Invocations	<input type="text" value="select a correlation id"/>

- 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).

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

**Web Service Methods**

Service: [B0100033 ▼]  
Method: [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.

### Invocation Statistics

**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

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

**Channels Section:**

- Labels: "Channels" and "Ports".
- A drop-down menu for "Channels" with "all" selected.

**Statistics Section:**

Total Event Count	4
Total Success Count	3
Total Error Count	1
Average Event Size	337.0 bytes
Average Event Reply Size	na
Average Delivery Time	1274.0 ms
Last Delivery Time	250 ms
Successful Events	select a correlation id
Failed Events	select a correlation id

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

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.

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 "all".

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

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	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".

- 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.

**Channel Statistics**

**Channels**

Channels: TestChan ▾      Ports: TestPort ▾

---

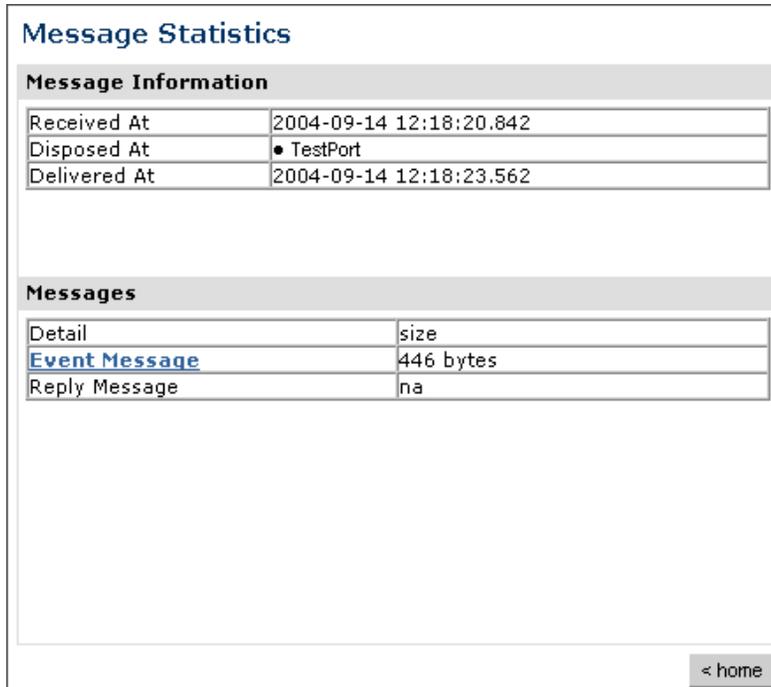
**Statistics**

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 ▾

- 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 displays the 'Message Statistics' window. It features two main sections: 'Message Information' and 'Messages'. The 'Message Information' section contains a table with three rows: 'Received At' (2004-09-14 12:18:20.842), 'Disposed At' (● TestPort), and 'Delivered At' (2004-09-14 12:18:23.562). The 'Messages' section contains a table with three rows: 'Detail' (size), 'Event Message' (446 bytes), and 'Reply Message' (na). A '< home' button is located in the bottom right corner of the window.

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

< 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](#)

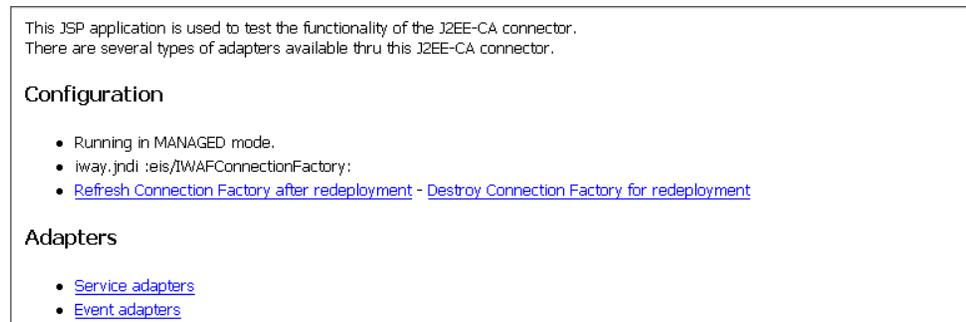
Is the name of the machine where your application server is running.

[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.

#### Service Adapters

Select an adapter from the following list to review its available targets (configurations)

- [CICS](#)
- [Clarify\(CBO\)](#)
- [EMAIL](#)
- [IMS](#)
- [JMS](#)
- [Lotus](#)
- [MQ](#)
- [MSMQ](#)
- [Oracle Applications](#)
- [RDBMS](#)
- [Telnet](#)
- [Tibco](#)
- [Tuxedo](#)

#### Targets for EMAIL

No targets configured for this adapter.

[<< Back](#)

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.

<p><b>Service Adapters</b> Select an adapter from the following list to review its available targets (configurations)</p> <ul style="list-style-type: none"> <li>• <a href="#">CICS</a></li> <li>• <a href="#">Clarify(CBO)</a></li> <li>• <a href="#">EMAIL</a></li> <li>• <a href="#">IMS</a></li> <li>• <a href="#">JMS</a></li> <li>• <a href="#">Lotus</a></li> <li>• <a href="#">MQ</a></li> <li>• <a href="#">MSMQ</a></li> <li>• <a href="#">Oracle Applications</a></li> <li>• <a href="#">RDBMS</a></li> <li>• <a href="#">Telnet</a></li> <li>• <a href="#">Tibco</a></li> <li>• <a href="#">Tuxedo</a></li> </ul> <p><b>Targets for EMAIL</b></p> <ul style="list-style-type: none"> <li>• <a href="#">TestService</a></li> </ul>	<p><b>Statistics for EMAIL target TestService</b></p> <p>TotalRequestCount : 0                  TotalSuccessCount : 0                  TotalErrorCount : 0                  AverageExecutionTime : 0 msec.                  LastExecutionTime : 0 msec.</p> <p><b>Request for EMAIL target TestService</b>                  Enter the data for this interaction. The configured user/password will be used if the User name is not provided.</p> <p>User: <input type="text"/></p> <p>Password: <input type="password"/></p> <p>Input Doc:</p> <div style="border: 1px solid gray; height: 100px; width: 100%;"></div> <p style="text-align: center;"> <input type="button" value="Send"/> <input type="button" value="Reset"/> </p> <p style="text-align: right;"><input type="button" value=" &lt;&lt; Back"/></p>
---	--

- 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
AverageExecutionTime	: 0 msec.
LastExecutionTime	: 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](#)

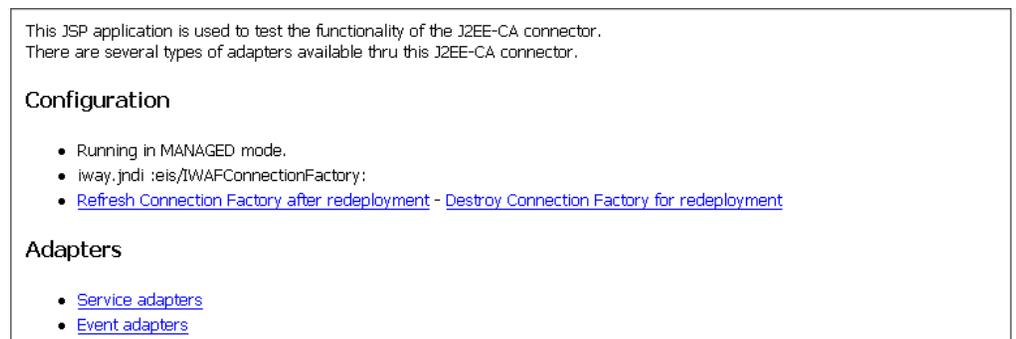
Is the name of the machine where your application server is running.

[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.



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.

<b>Current channel Statistics</b>	
<b>Commands:</b> <a href="#">start</a> <a href="#">refresh</a>	
Active: false	
TotalRequestCount	: 0
TotalSuccessCount	: 0
TotalErrorCount	: 0
AverageExcecutionTime	: 0 msec.
LastExcecutionTime	: 0 msec.
<b>Statistics for port 'fileIN'</b>	
TotalRequestCount	: 0
TotalSuccessCount	: 0
TotalErrorCount	: 0
AverageExcecutionTime	: 0 msec.
LastExcecutionTime	: 0 msec.

## 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.

## Configuring Connection Pool Sizes

---

The following topic describes how to configure connection pool sizes for the JCA connector.

### Procedure: How to Configure Connection Pool Sizes

To configure connection pool sizes:

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

**pool-params.** The JCA Resource Connector has an initial capacity value of 0 by default and cannot be changed. The maximum capacity value is 10 by default and can be changed to a higher value.

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE weblogic-connection-factory-dd (View Source for full
doctype...)>
- <weblogic-connection-factory-dd>
  <connection-factory-name>IWAFJCA</connection-factory-name>
  <jndi-name>eis/IWAFConnectionFactory</jndi-name>
  - <pool-params>
    <initial-capacity>0</initial-capacity>
    <max-capacity>10</max-capacity>
    <capacity-increment>1</capacity-increment>
    <shrinking-enabled>>false</shrinking-enabled>
    <shrink-period-minutes>200</shrink-period-minutes>
  </pool-params>
  <security-principal-map />
</weblogic-connection-factory-dd>
```

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 `ibserrepo.xml` file from the following path:

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

where:

```
drive
```

Is the location of your iWay 5.5 installation.

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

```
drive:\ProductionConfig\ibse\ibserrepo.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 5-28.

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

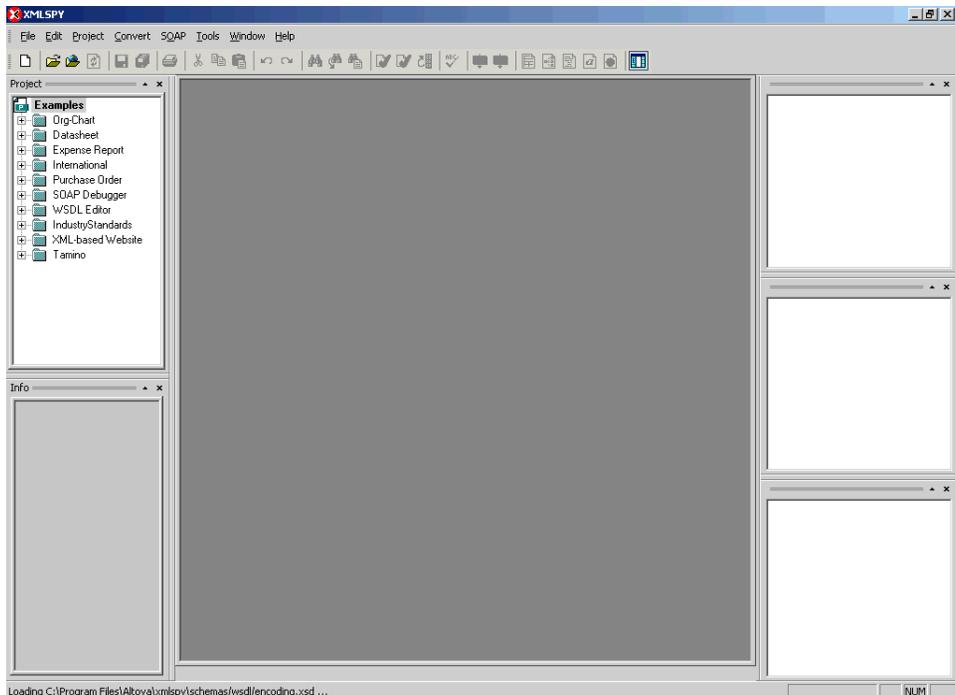
To migrate an iBSE repository that is configured for Oracle:

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

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

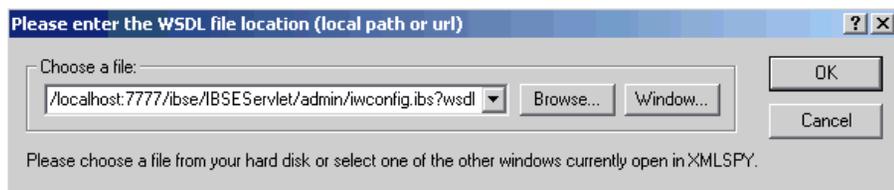
2. Open a third party XML editor, for example, XMLSPY.

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.



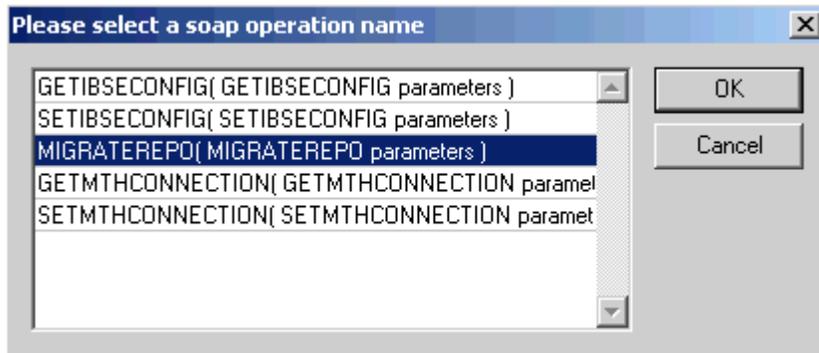
3. From the SOAP menu, select *Create new SOAP request*.

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.



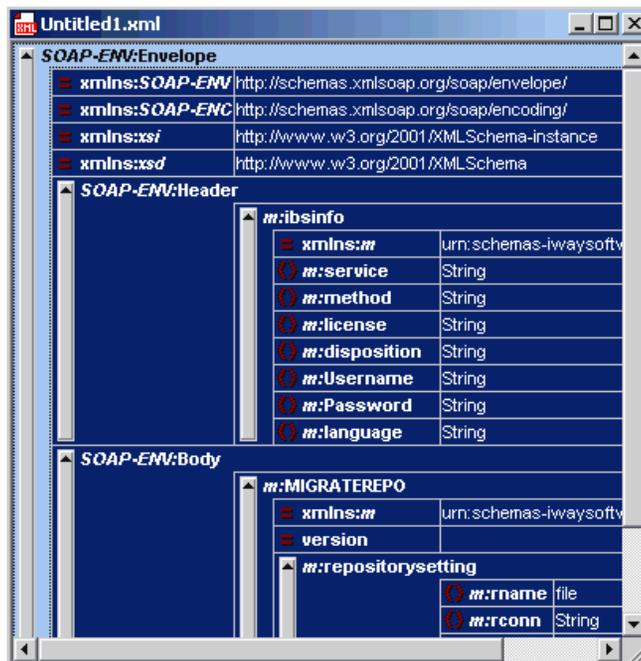
4. In the Choose a file field, paste the iBSE configuration service URL.
5. Click OK.

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 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:

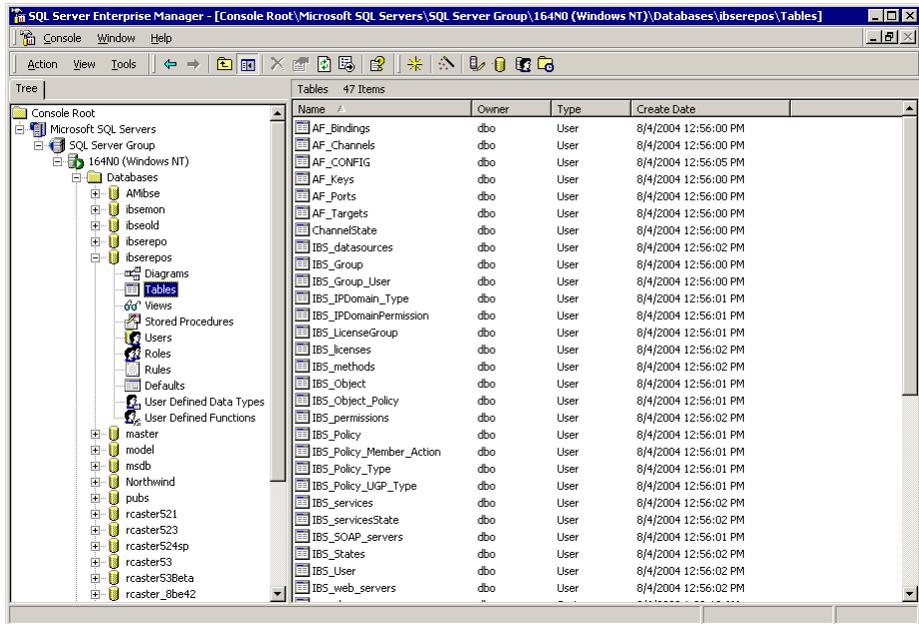
1. Open a command prompt and navigate to the iWay setup directory. The default location on Windows is:

```
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 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:

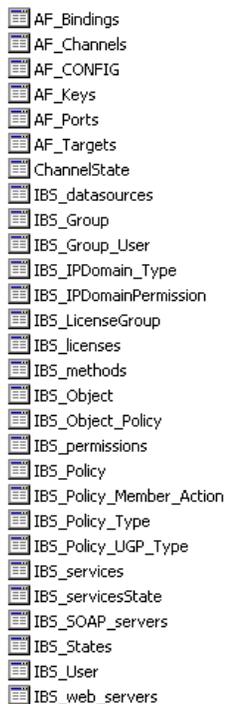
For Oracle 8:

```
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, likely from an Oracle Enterprise Manager interface. The list contains 30 table names, each preceded by a small icon representing a table. The tables are: AF\_Bindings, AF\_Channels, AF\_CONFIG, AF\_Keys, AF\_Ports, AF\_Targets, ChannelState, IB5\_datasources, IB5\_Group, IB5\_Group\_User, IB5\_IPDomain\_Type, IB5\_IPDomainPermission, IB5\_LicenseGroup, IB5\_licenses, IB5\_methods, IB5\_Object, IB5\_Object\_Policy, IB5\_permissions, IB5\_Policy, IB5\_Policy\_Member\_Action, IB5\_Policy\_Type, IB5\_Policy\_UGP\_Type, IB5\_services, IB5\_servicesState, IB5\_SOAP\_servers, IB5\_States, IB5\_User, and IB5\_web\_servers.

AF_Bindings
AF_Channels
AF_CONFIG
AF_Keys
AF_Ports
AF_Targets
ChannelState
IB5_datasources
IB5_Group
IB5_Group_User
IB5_IPDomain_Type
IB5_IPDomainPermission
IB5_LicenseGroup
IB5_licenses
IB5_methods
IB5_Object
IB5_Object_Policy
IB5_permissions
IB5_Policy
IB5_Policy_Member_Action
IB5_Policy_Type
IB5_Policy_UGP_Type
IB5_services
IB5_servicesState
IB5_SOAP_servers
IB5_States
IB5_User
IB5_web_servers

For more information on configuring the Oracle repository, see the 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:

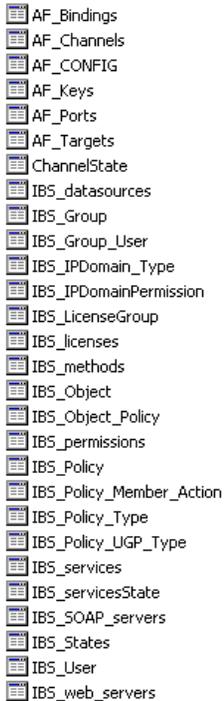
1. Open a command prompt and navigate to the iWay setup directory. The default location on Windows is:

```
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.



A screenshot of a SQL script listing various database tables. Each table name is preceded by a small icon representing a table. The list includes:

- AF\_Bindings
- AF\_Channels
- AF\_CONFIG
- AF\_Keys
- AF\_Ports
- AF\_Targets
- ChannelState
- IB5\_datasources
- IB5\_Group
- IB5\_Group\_User
- IB5\_IPDomain\_Type
- IB5\_IPDomainPermission
- IB5\_LicenseGroup
- IB5\_licenses
- IB5\_methods
- IB5\_Object
- IB5\_Object\_Policy
- IB5\_permissions
- IB5\_Policy
- IB5\_Policy\_Member\_Action
- IB5\_Policy\_Type
- IB5\_Policy\_UGP\_Type
- IB5\_services
- IB5\_servicesState
- IB5\_SOAP\_servers
- IB5\_States
- IB5\_User
- IB5\_web\_servers

For more information on configuring the Sybase repository, see the 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.



A screenshot of a list of database tables, each preceded by a small icon representing a table. The list includes:

- AF\_Bindings
- AF\_Channels
- AF\_CONFIG
- AF\_Keys
- AF\_Ports
- AF\_Targets
- ChannelState
- IB5\_datasources
- IB5\_Group
- IB5\_Group\_User
- IB5\_IPDomain\_Type
- IB5\_IPDomainPermission
- IB5\_LicenseGroup
- IB5\_licenses
- IB5\_methods
- IB5\_Object
- IB5\_Object\_Policy
- IB5\_permissions
- IB5\_Policy
- IB5\_Policy\_Member\_Action
- IB5\_Policy\_Type
- IB5\_Policy\_UGP\_Type
- IB5\_services
- IB5\_servicesState
- IB5\_SOAP\_servers
- IB5\_States
- IB5\_User
- IB5\_web\_servers

For more information on configuring the DB2 repository, see the 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

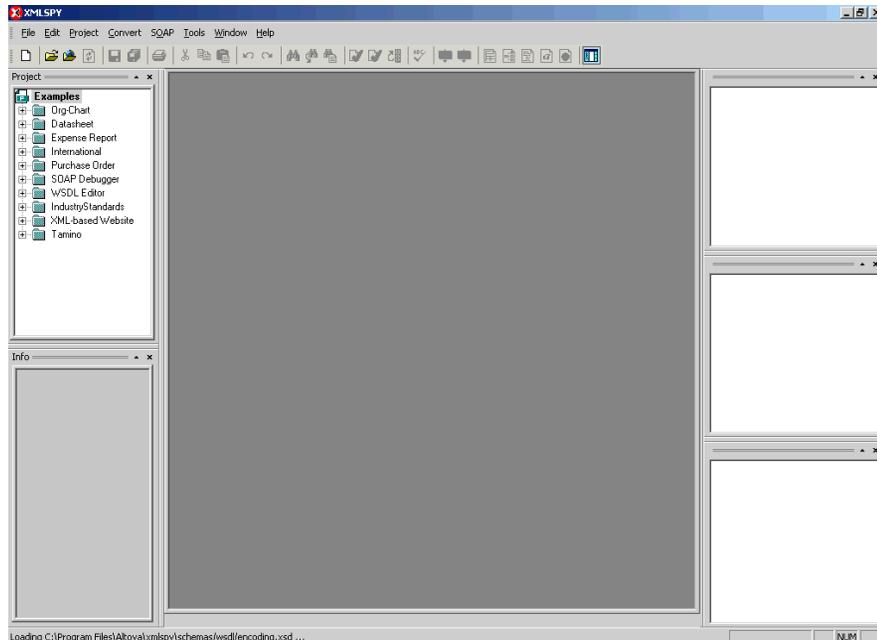
To export a target:

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

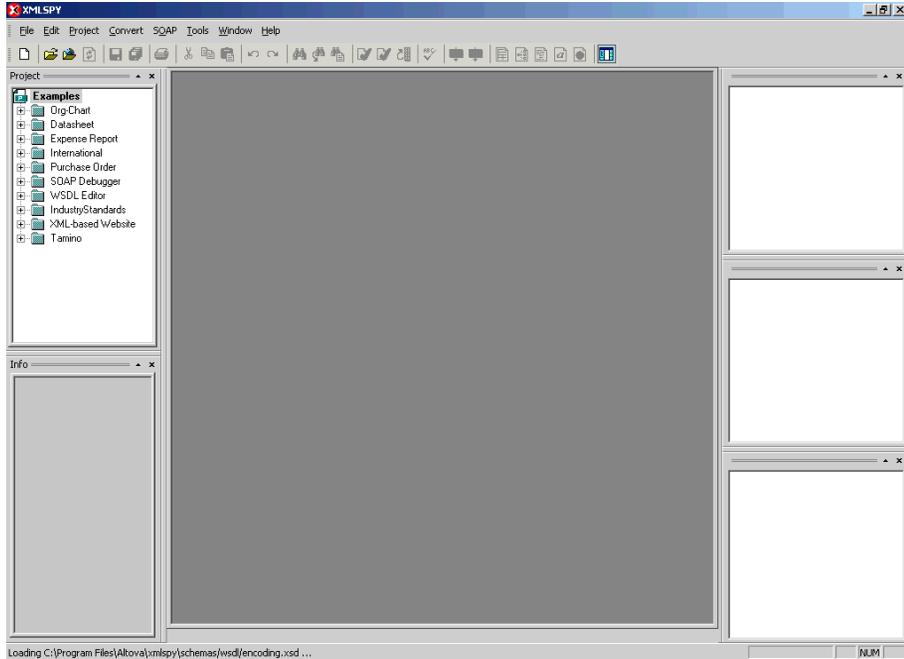
To import a target:

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>R01GODlhcgGSALMAAAQCAEMmCZtuMFQxDS8b</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

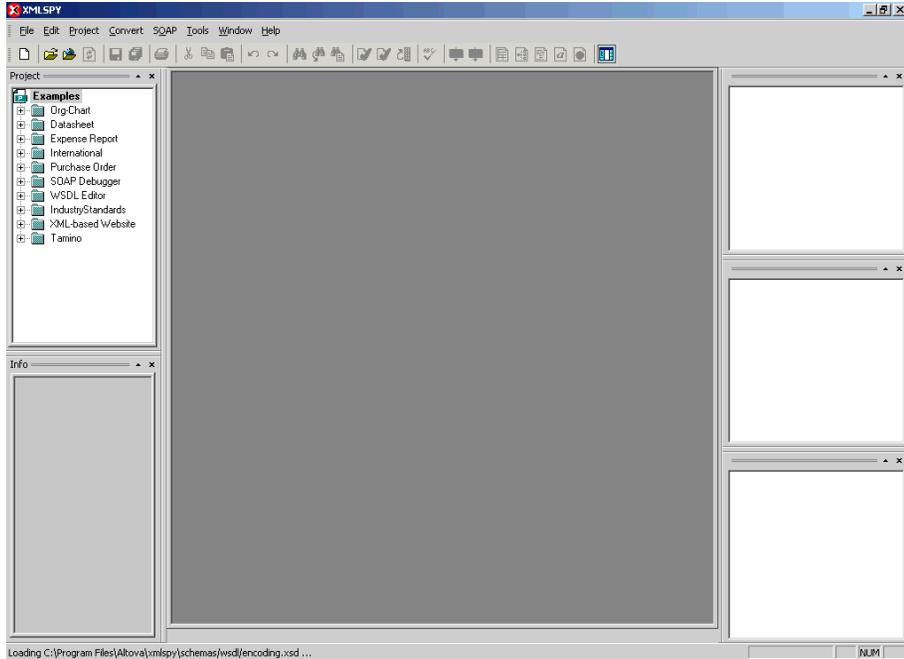
To retrieve Web service method connection information:

- 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.

## Retrieving or Updating Web Service Method Connection Information

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

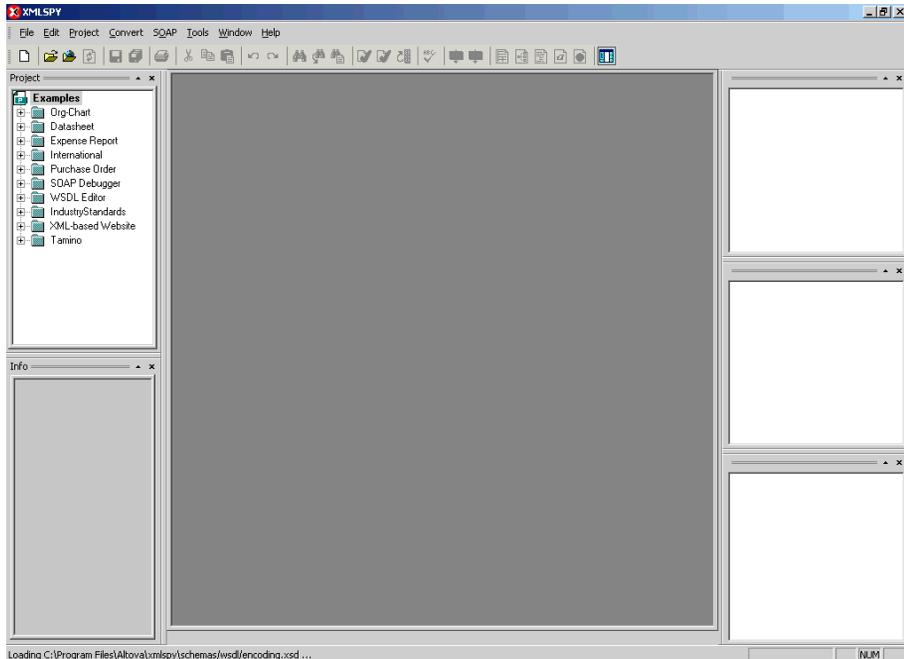
To update Web service method connection information:

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.

## Starting or Stopping a Channel Programmatically

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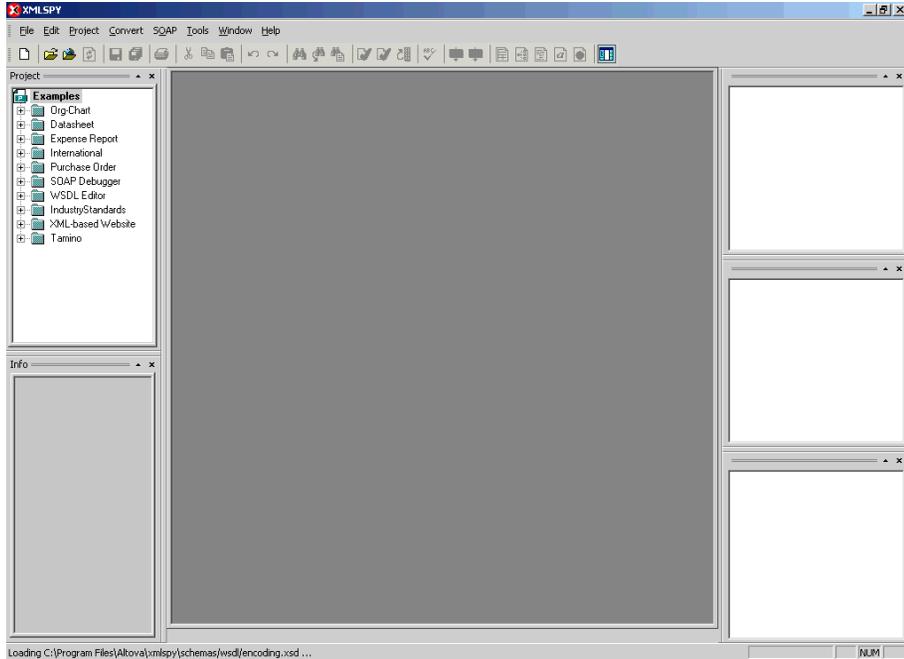
The following topic describes how to start or stop a channel programmatically.

### 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.

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.

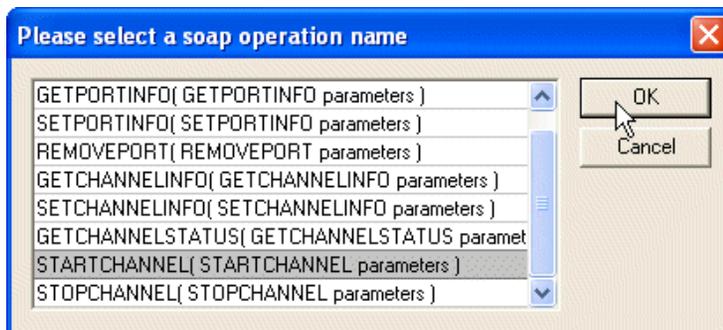


3. From the SOAP menu, select *Create new SOAP request*.

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*.



## Starting or Stopping a Channel Programmatically

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

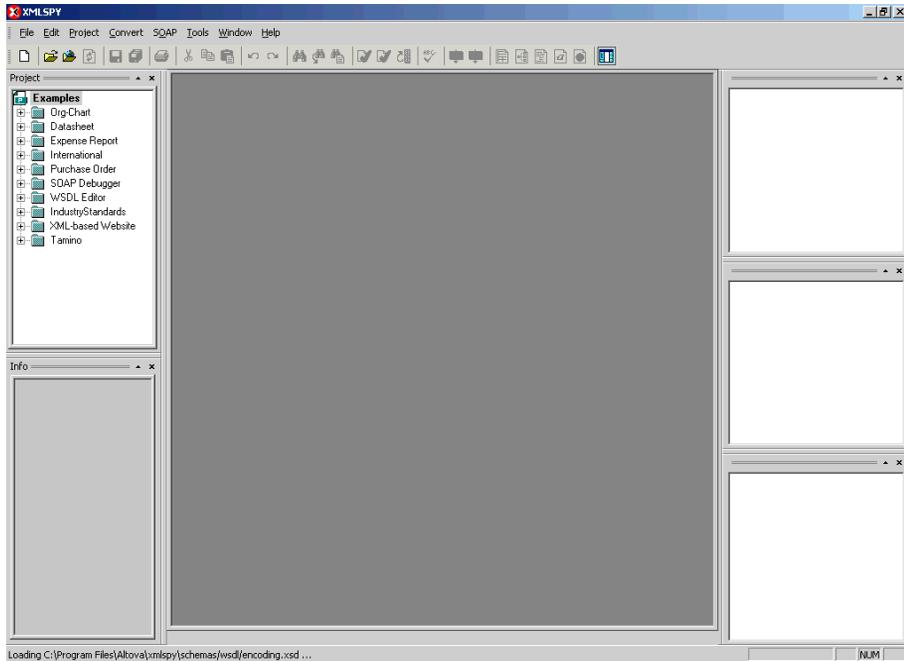
To stop a channel programmatically:

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.

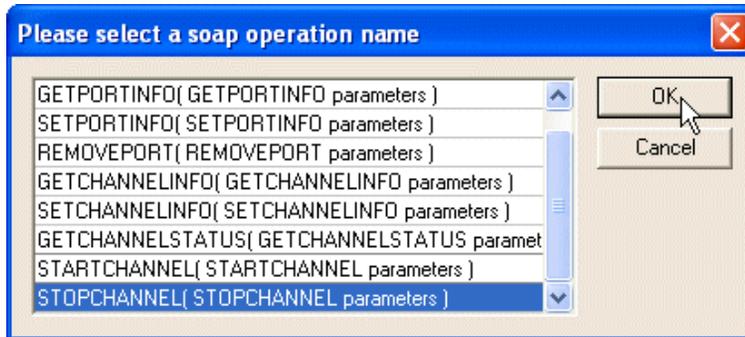
The following image shows the XMLSPY window. The upper left has a Project pane that contains a tree of sample files, and the lower left has a blank Info pane. The middle pane is blank. The right side is divided into three blank panes.



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*.

## Starting or Stopping a Channel Programmatically

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*.

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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**