iWay Software
An Information Builders Company

iWay

iWay Transaction Adapter for BEA Tuxedo
User's Guide
Version 5 Release 5

Updated for J2EE CA 1.5

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Preface

This documentation describes how to use the iWay Transaction Adapter for BEA Tuxedo. It is intended for users who integrate new and existing enterprise transaction systems, procedures, and application packages.

How This Manual Is Organized

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

Chapter		Contents
1	Introducing the iWay Transaction Adapter for BEA Tuxedo	Introduces the iWay Transaction Adapter for BEA Tuxedo.
2	Creating XML Schemas or Web Services for Tuxedo	Describes how to create XML schemas or Web services for BEA Tuxedo using Application Explorer.
3	Listening for Events for BEA Tuxedo	Describes how to use iWay Servlet Application Explorer to connect to BEA Tuxedo and listen for events.
4	Using Web Services Policy-Based Security	Describes how to use Web services policy-based security.
5	Management and Monitoring	Describes how you can use managing and monitoring tools provided by iBSE and JCA to gauge the performance of your run-time environment.
6	Customizing Your WebLogic Tuxedo Connector Environment	Describes how to configure the WebLogic Tuxedo Connector environment for use with the adapter.

Documentation Conventions

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

Convention	Description
`THIS TYPEFACE` or `this typeface`	Denotes syntax that you must enter exactly as shown.
`this typeface`	Represents a placeholder (or variable) in syntax for a value that you or the system must supply.
`underscore`	Indicates a default setting.
this typeface	Represents a placeholder (or variable), a cross-reference, or an important term.
this typeface	Highlights a file name or command.
Key + Key	Indicates keys that you must press simultaneously.
`{ }`	Indicates two or three choices; type one of them, not the braces.
`[ ]`	Indicates a group of optional parameters. None are required, but you may select one of them. Type only the parameter in the brackets, not the brackets.
`|`	Separates mutually exclusive choices in syntax. Type one of them, not the symbol.
`...`	Indicates that you can enter a parameter multiple times. Type only the parameter, not the ellipsis points (…).
`.` `.` `.`	Indicates that there are (or could be) intervening or additional commands.

Related Publications

To view a current listing of our publications and to place an order, visit our World Wide Web site, http://www.iwaysoftware.com. You can also contact the Publications Order Department at (800) 969-4636.

Customer Support

Do you have questions about the iWay Transaction Adapter for BEA Tuxedo?

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 Services (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 Transaction Adapter for BEA Tuxedo 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 (*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 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

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.

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

Specifications	Comments
Container Version	

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

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

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

Application Explorer Type	Version	Platform
Swing		
Servlet		
ASP		

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

Version	Vendor

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

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

Request/Question	Error/Problem Details or Information
Any **change in the application environment**: software configuration, EIS/ database configuration, application, and so forth?	
Under what circumstance does the problem *not* occur?	
Describe the **steps** to reproduce the problem.	
Describe the **problem**.	
Specify the **error** message(s).	

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

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

User Feedback

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

Thank you, in advance, for your comments.

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Contents

CHAPTER 1

Introducing the iWay Transaction Adapter for BEA Tuxedo

Topics:

- Features of the iWay Transaction Adapter for BEA Tuxedo
- Introducing BEA Tuxedo
- iWay Transaction Adapter for BEA Tuxedo Architecture
- Deployment Options for the iWay Transaction Adapter for BEA Tuxedo

The iWay Transaction Adapter for BEA Tuxedo provides interoperability between Sun Java System Application Server and Tuxedo events and services.

Features of the iWay Transaction Adapter for BEA Tuxedo

The iWay Transaction Adapter for BEA Tuxedo enables you to develop and support applications between Sun Java System Application Server and BEA Tuxedo.

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

The adapter uses XML messages to enable non-BEA Tuxedo applications to communicate and exchange transactions with BEA Tuxedo using services and events.

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

The iWay Transaction Adapter for BEA Tuxedo provides the following:

- Capability to call Sun Java System Application Server applications from BEA Tuxedo applications and vice versa.
- Capability to integrate Sun Java System Application Server applications into existing BEA Tuxedo environments.
- Transaction support.
- Capability to provide interoperability between CORBA Java and CORBA C++ server applications.
- Capability to define multiple connections between Sun Java System Application Server and BEA Tuxedo.
- Single implementation: the iWay Transaction Adapter for BEA Tuxedo does not require modification of existing Tuxedo application code.

Introducing BEA Tuxedo

BEA Tuxedo provides the framework, or middleware, for building scalable multi-tier client/server applications in heterogeneous (dissimilar), distributed environments that extend from the Web to the Enterprise. Using BEA Tuxedo, users can develop, manage, and deploy distributed applications independently of the underlying hardware, operating system, network, and database environment.

Middleware services provide a more functional set of application programming interfaces (API) than the operating system and network services. A main purpose of middleware services is to help solve application connectivity and interoperability problems.

BEA Tuxedo offers the following middleware services:

- An ATMI programming interface.

  ATMI (Application-to-Transaction Monitor Interface) is the main API for the Tuxedo system. It includes transaction management functions (routines, verbs); request/response, conversational, queuing, and publish-and-subscribe message-handling functions; service interface functions; and buffer management functions for distributed application communication.

- A CORBA programming interface.

  CORBA (Common Object Request Broker Architecture) is a language-independent, distributed-object model specified by the Object Management Group (OMG). The CORBA programming interface consists of C++ and Java ORBs. An ORB (Object Request Broker) is a library that enables CORBA objects to locate and communicate with one another.

- A high-performance transaction processing application server.

  The transaction processing application server oversees all aspects of a distributed ATMI transaction, regardless of the systems or resource managers used. It provides the run-time engines for running ATMI transactions on top of ordinary computer hardware and operating systems.

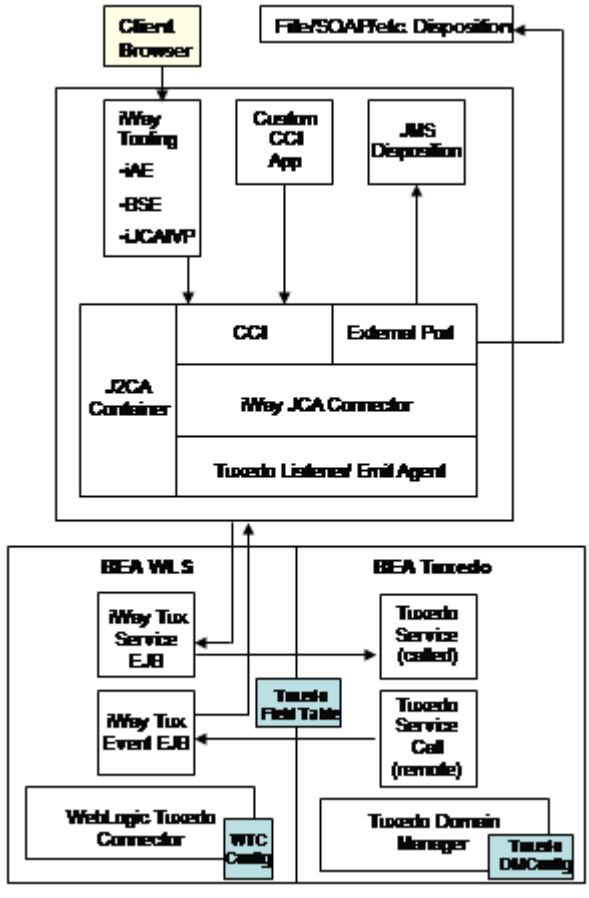
- A high-performance object application server.

  The object application server, based on the CORBA Object Transaction Service (OTS), combines the Tuxedo ATMI transaction processing technology with the BEA CORBA C++ ORB to provide high performance for distributed-object applications using transactions.

  BEA Tuxedo includes the ATMI services and CORBA C++ objects required for transaction management, security, message transport, administration and manageability, and XA-compliant database support for two-phase commit processing. It also includes a high-speed, highly reliable server-side message switch especially tuned for handling distributed transactions across many server machines.

iWay Transaction Adapter for BEA Tuxedo Architecture

The following architecture diagram shows how the iWay Transaction Adapter for BEA Tuxedo interacts with the BEA Tuxedo system.



Deployment Options for the iWay Transaction Adapter for BEA Tuxedo

The iWay Transaction Adapter for BEA Tuxedo works in conjunction with iWay Application Explorer with either 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 BEA Tuxedo 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 in BEA Tuxedo.

Deployment Information Roadmap

The following table lists the location of deployment information for the iWay Transaction Adapter for BEA Tuxedo. 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 *iWay Installation and Configuration*
iWay Business Services Engine (iBSE)	*iWay Installation and Configuration*
iWay Enterprise Connector for J2EE Connector Architecture (JCA)	*iWay Installation and Configuration*

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

CHAPTER 2

Creating XML Schemas or Web Services for Tuxedo

Topics:

- Overview
- Starting iWay Servlet Application Explorer
- Establishing a Target for Tuxedo
- Viewing Transactions
- Creating an XML Schema
- Generating a Business Service

This section describes how to create XML schemas or Web services for Tuxedo using Application Explorer.

Overview

The iWay Transaction Adapter for BEA Tuxedo provides interoperability between Sun Java System Application Server and Tuxedo services.

External applications that access Tuxedo through the adapter use either XML schemas or Web services to pass data between the external application and the adapter. You can use Application Explorer to create the required XML schemas and Web services.

Application Explorer is a Web application running within a servlet container that is accessible through a Web browser. It is packaged as an archive located in the following directory:

```
drive:\iWay55\etc\setup\iwae.war
```

Application Explorer need not reside on the same system as the application system being accessed, but network access is required.

For more information on installing and configuring Application Explorer, see the *iWay Installation and Configuration* manual.

Starting iWay Servlet Application Explorer

Before you can use iWay Servlet Application Explorer, you must start your application server.

Procedure: How to Open iWay Servlet Application Explorer

To open Application Explorer:

1. Ensure that your application server is running.
2. Enter the following URL in your browser

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

   where:

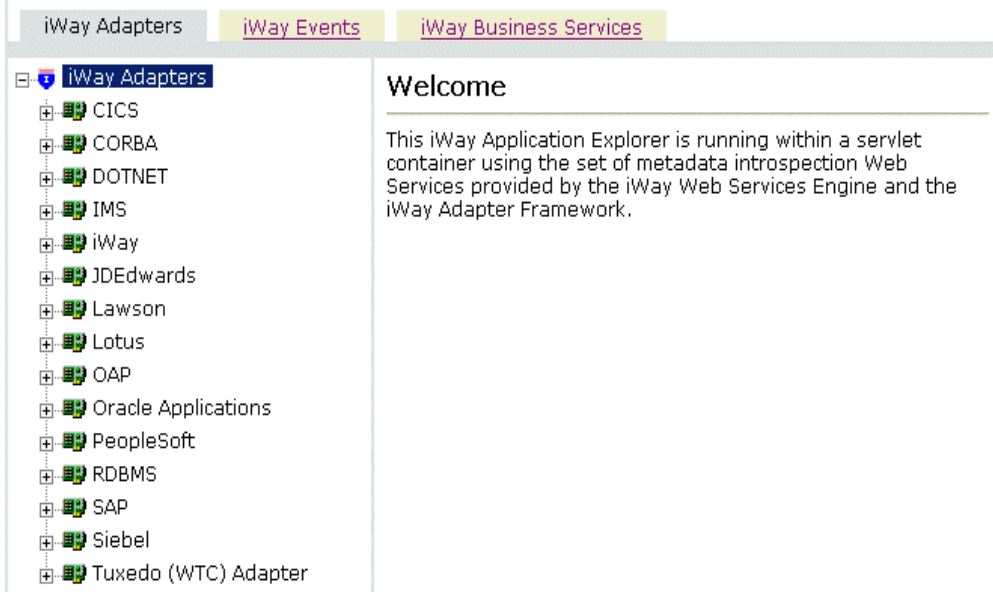
   hostname

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

   port

   Is the port number where your application server is listening. The default is 80.

After you start Application Explorer, the following window opens. The following image shows the Application Explorer, with the iWay adapters listed in the left pane and the welcome message displayed in the right pane.



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

For more information on adding instances, see the *iWay Installation and Configuration* manual.

You are ready to create new targets for Tuxedo.

Establishing a Target for Tuxedo

To browse Tuxedo, you must create a target for the system you intend to use. The target serves as your connection point and is automatically saved after you create it. You must establish a connection to this system every time you start iWay Application Explorer or after you disconnect from the system.

When you open Application Explorer, a list of supported application systems appears in the left pane. The list is based on the iWay Adapters that you installed and have licenses to use.

Creating a New Target

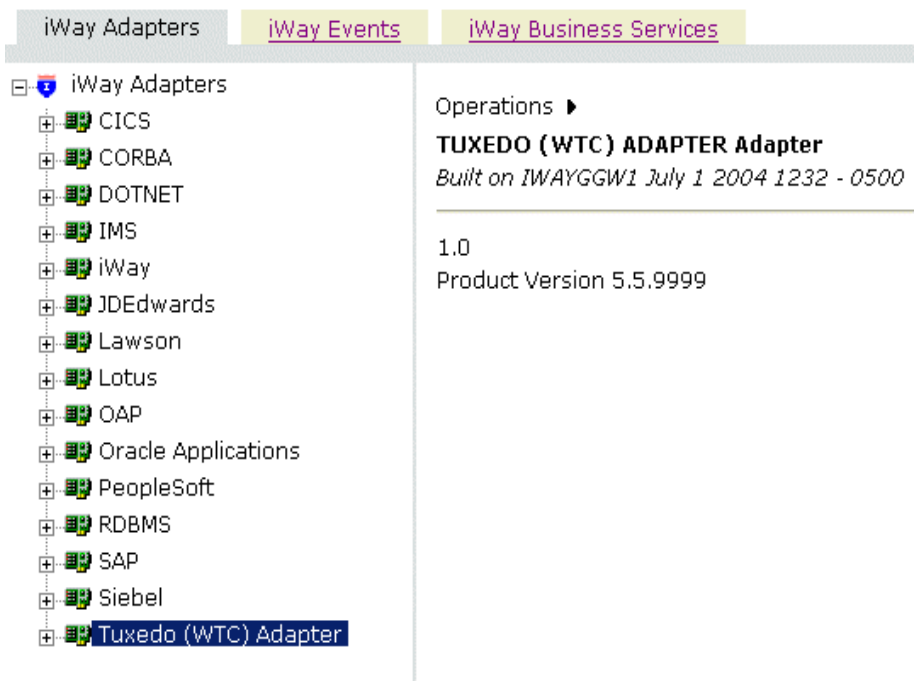
To connect to Tuxedo for the first time, you must create a new target.

Procedure: How to Create a New Target

To create a new target using Application Explorer:

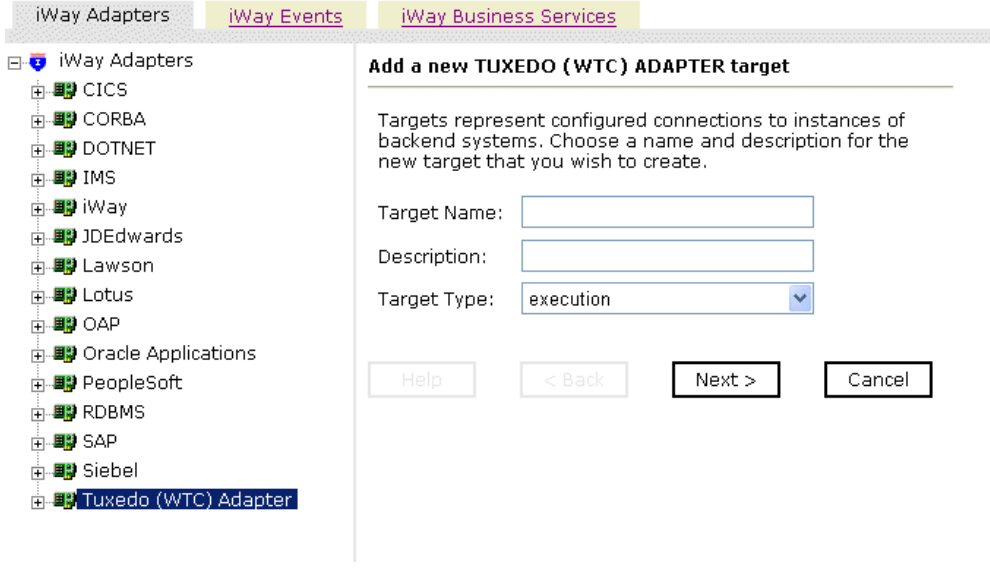
1. In the left pane, click the *Tuxedo* node.

   The following image shows the Tuxedo node selected under iWay Adapters in the left pane of Application Explorer. In the right pane, descriptive information for the adapter appears, for example, title and product version.



2. Move the pointer over *Operations* and select *Define a new target*.

The Add a new Tuxedo target pane opens on the right. The following image shows the iWay adapters listed in the left pane, and the Add a new Tuxedo target pane on the right, with target name, description, and target type fields.



a. In the Target Name field, type a descriptive name for the target, for example, TuxConnect.

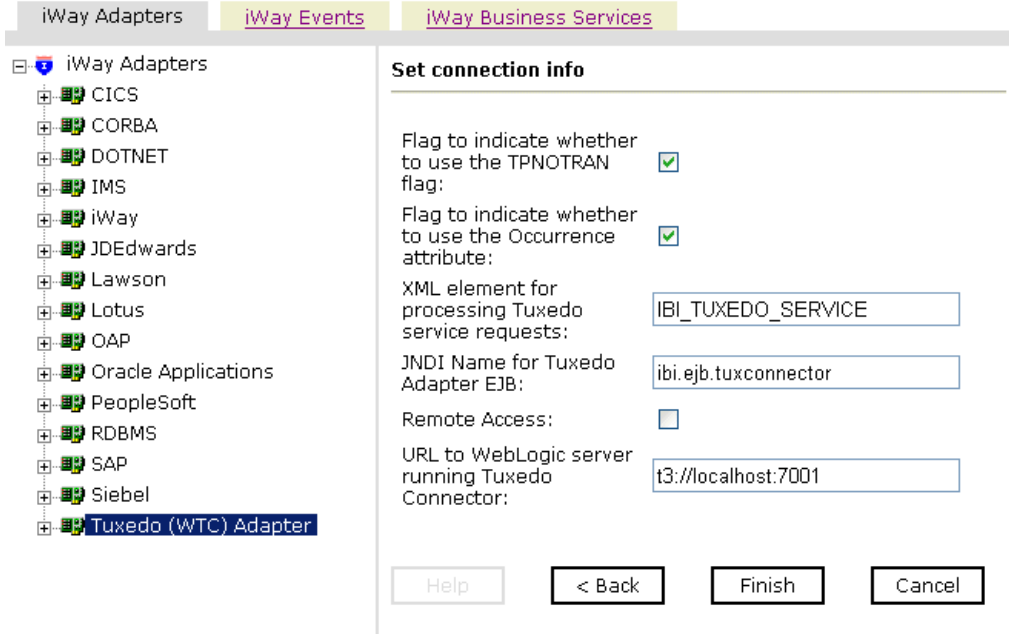
b. In the Description field, type a brief description for the connection (optional).

c. From the Target Type drop-down list, select the type of target to which you are connecting.

The default value is *execution*.

3. Click *Next*.

The Set connection info pane appears on the right, as shown in the following image, and contains fields for entering connection information. The information required for these fields are described next.



a. In the Flag to indicate whether to use the TPNOTRAN flag field, select the check box to determine whether this call to Tuxedo is done outside the current transaction.

b. In the Flag to indicate whether to use the Occurrence attribute, field, select this check box to use the Occurrence attribute, if required.

c. In the XML element for processing Tuxedo service requests field, type an XML element for processing Tuxedo service requests, in this case, IBI_TUXEDO_SERVICE.

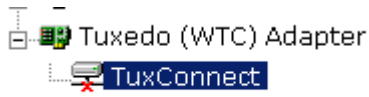
d. In the JNDI Name for Tuxedo Adapter EJB field, type a JNDI name of the EJB implementing the Tuxedo service locally on the WebLogic Server, in this case, ibi.EJB.tuxconnector.

e. Select the Remote Access check box to access remote Tuxedo domains that can be called on to execute the imported service.

f. In the URL to WebLogic server running Tuxedo Connector field, type the URL of the WebLogic system hosting the WebLogic Tuxedo Connector (WTC).

4. Click *Finish*.

In the left pane, the Tuxedo target, TuxConnect, appears below the Tuxedo node, as shown in the following image.



You are ready to connect to your Tuxedo target.

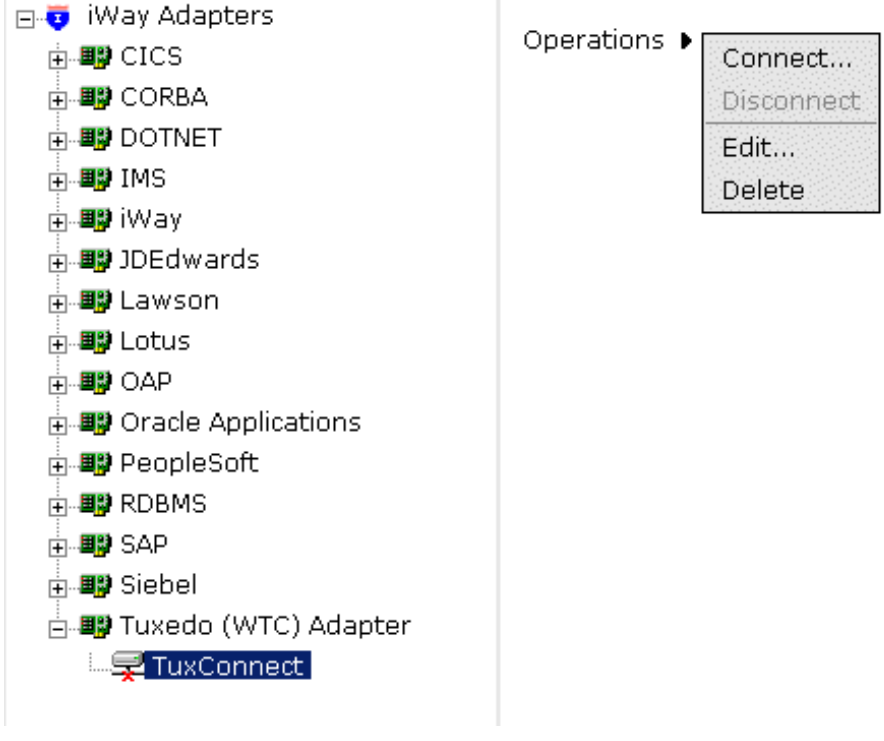
Connecting to a Target

To connect to Tuxedo, you must use the target you defined.

Procedure: How to Connect to a Target

To connect to a target using Application Explorer:

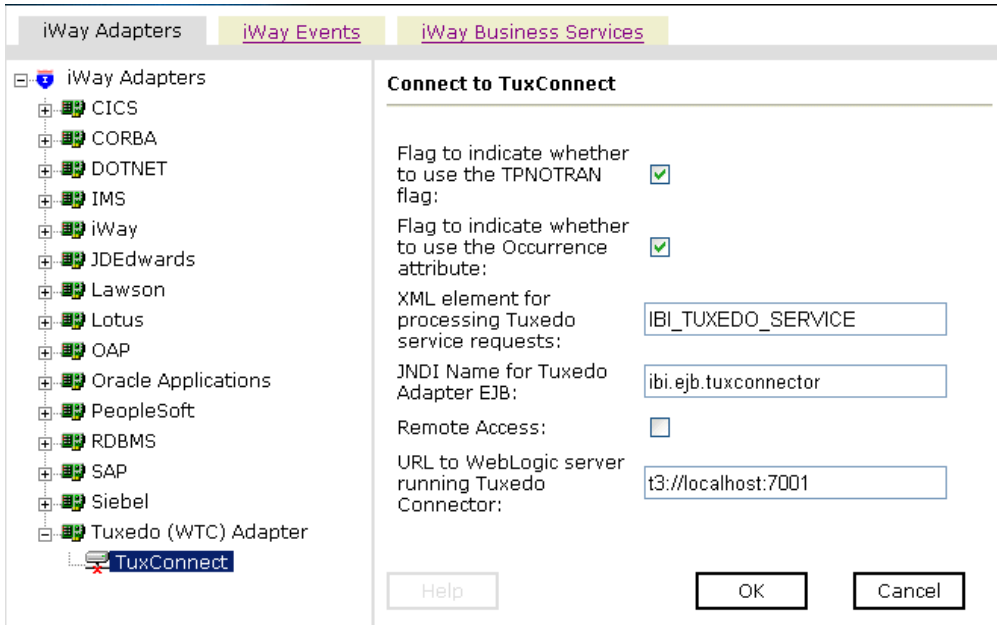
The following image shows the TuxConnect target, with connect selected in the right pane.



1. In the left pane, expand the *Tuxedo* node and select the target you defined, for example, TuxConnect.

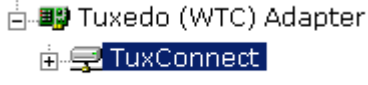
2. In the right pane, move the pointer over *Operations* and select *Connect*.

The following image shows the Connect to TuxConnect pane opens on the right.



3. Click *OK*.

In the left pane, the TuxConnect node changes to reflect that a connection was made, as shown in the following image.



4. Expand the *TuxConnect* node.

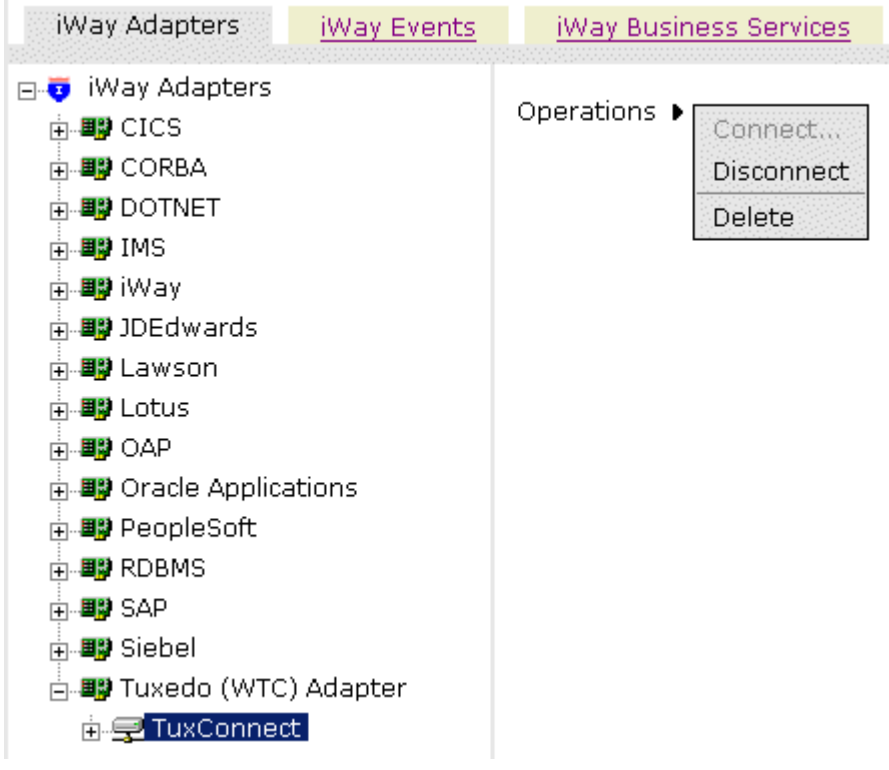
Disconnecting From a Target

Although you can maintain multiple open connections to different application systems, it is recommended to close connections when you are not using them.

Procedure: How to Disconnect From a Target

To disconnect from a target using Application Explorer:

The following image shows in the left pane the TuxConnect node selected and the Operations menu expanded displaying the Disconnect and Delete options in the right pane.



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

   Disconnecting from the application system drops the connection, but the node remains.

   The TuxConnect node in the left pane changes to reflect that a connection was closed.

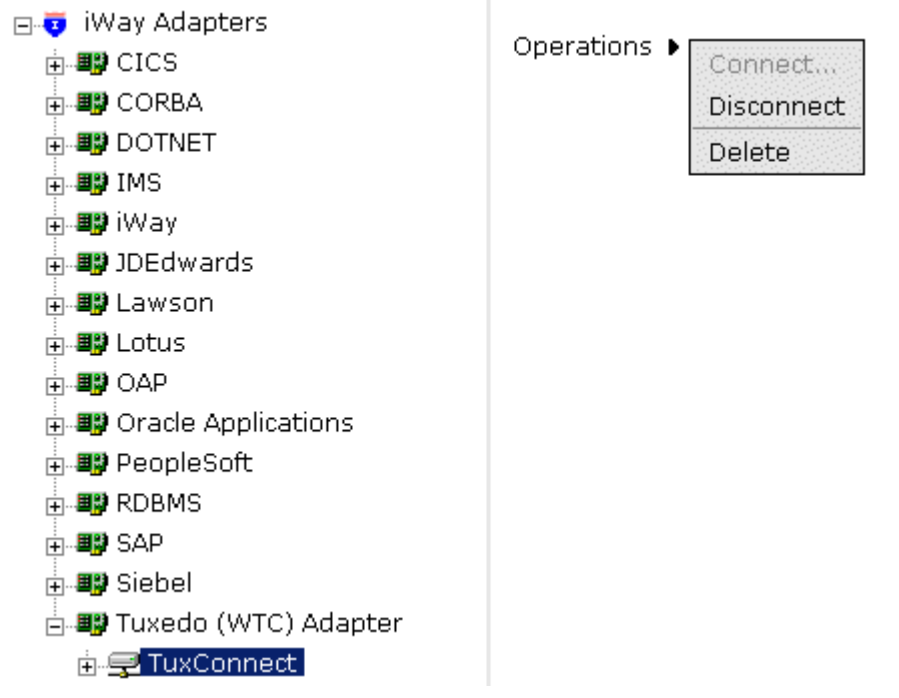
Deleting a Target

In addition to closing a target, you can delete a target that is no longer required. You can delete it whether or not it is closed. If open, the target automatically closes before it is deleted.

Procedure: How to Delete a Target

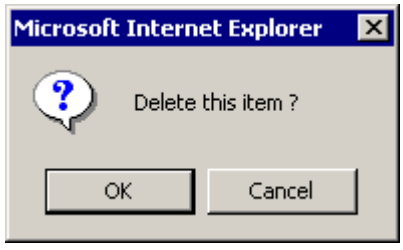
To delete a target using Application Explorer:

The following image shows in the left pane the TuxConnect node selected and the Operations menu expanded displaying the Disconnect and Delete options in the right pane.



1. In the left pane, click the target, for example, TuxConnect.
2. In the right pane, move the pointer over *Operations* and select *Delete*.

The Delete confirmation dialog box opens, as shown in the following image.



3. To delete the target you selected, click *OK*.

   The TuxConnect node disappears from the left pane.

Viewing Transactions

After you are connected to Tuxedo, iWay Servlet Application Explorer enables you to explore and browse metadata. For example, Application Explorer enables you to view Tuxedo transactions.

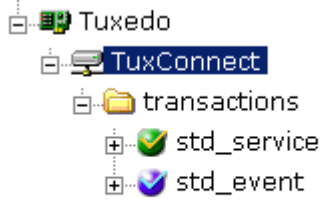
Procedure: How to View Transactions

To view transactions:

1. Click the icon to the left of the target name, for example, TuxConnect.

   The target expands to expose the available system objects.

   The following image shows a list of the BEA Tuxedo target transactions.



2. Expanded Connection To expand the desired Tuxedo node, click the icon to the left of the repository name, for example, Transactions.

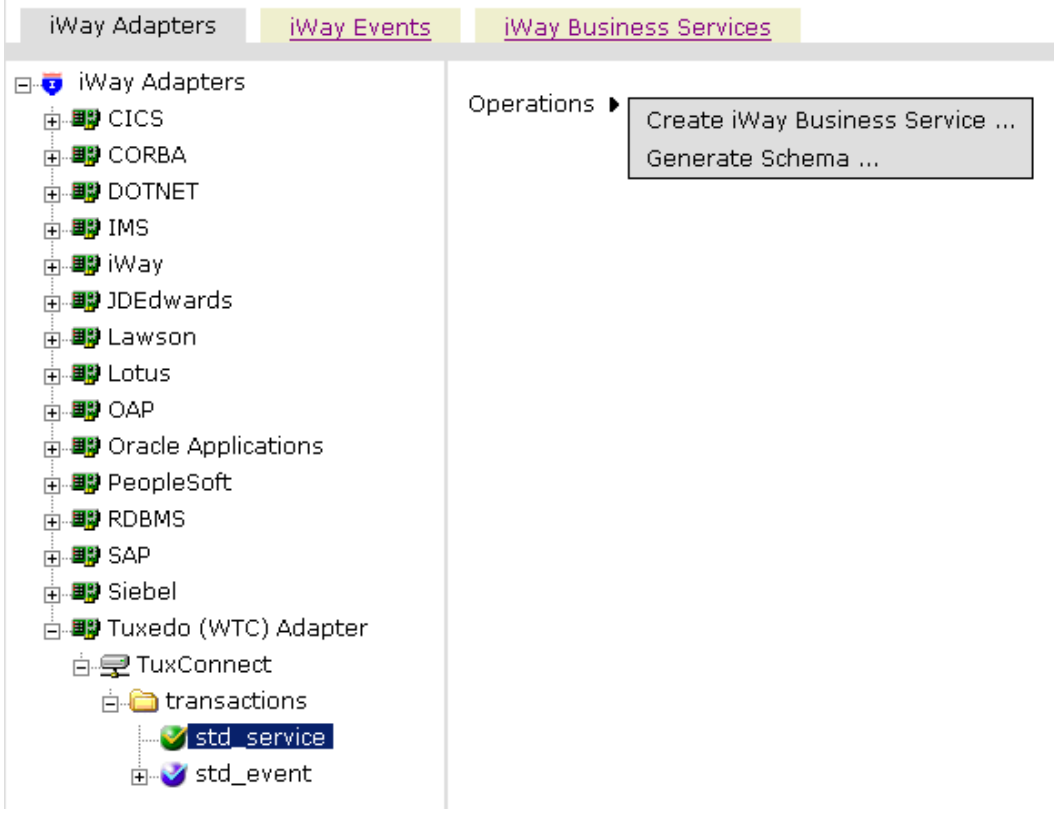
   You can now generate schemas. For more information, see *Creating an XML Schema on page 2-12*.

Creating an XML Schema

After you browse Tuxedo, you can generate XML request and response schemas for the object you wish to use with your adapter.

Procedure: How to Create XML Schemas

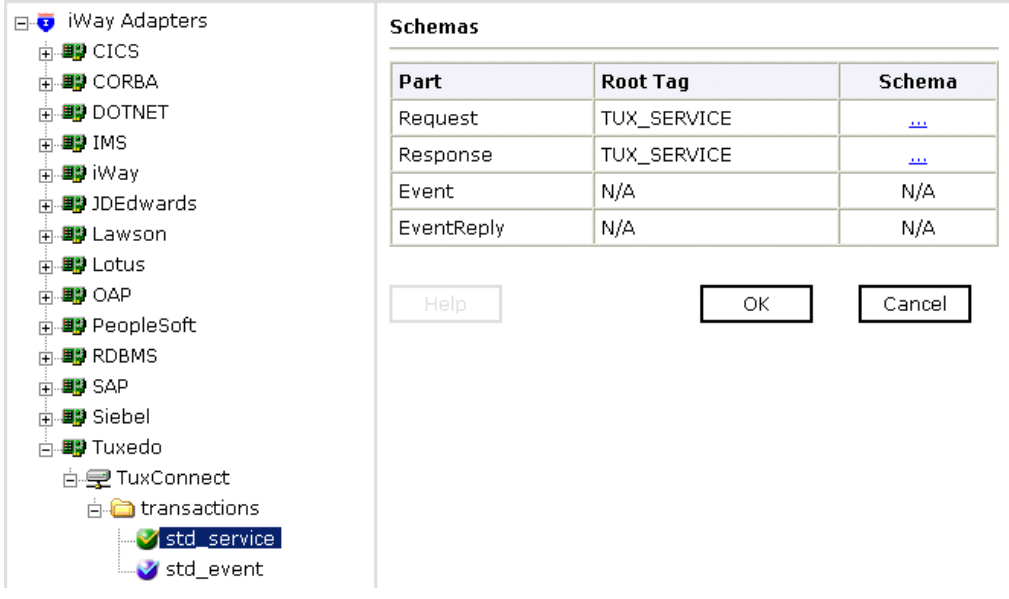
The following image shows in the left pane the std_service transaction selected and the Operations menu expanded displaying the Create iWay Business Service and Generate Schema options in the right pane.



To create XML request and response schemas for Tuxedo using Application Explorer:

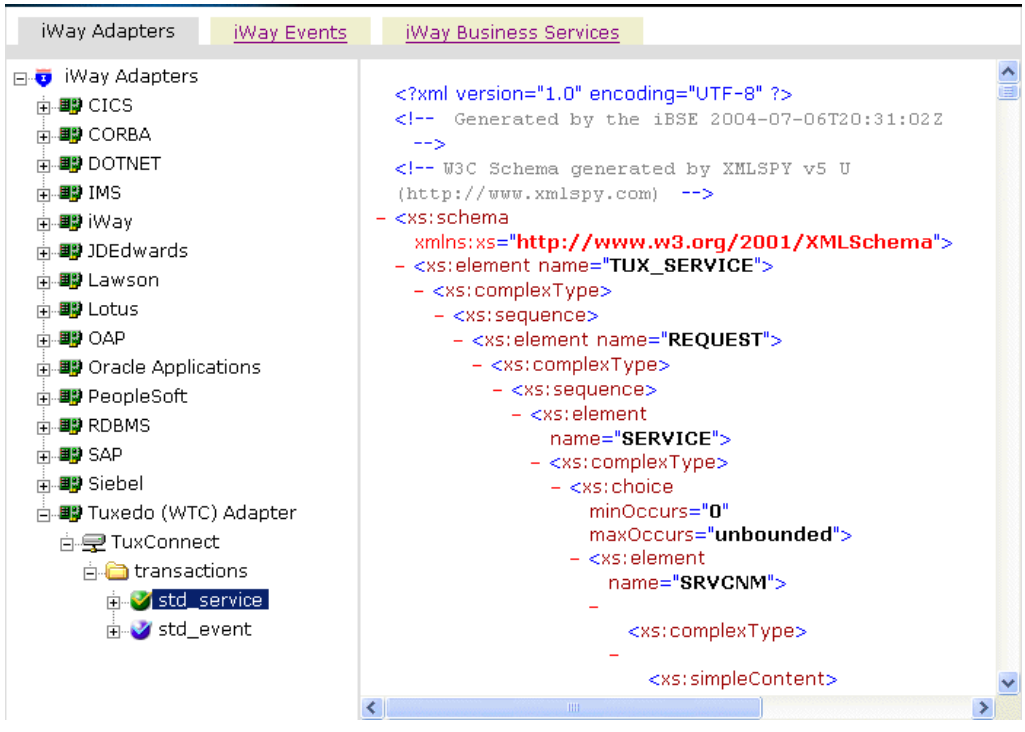
1. From the list of transactions, select *std_service*.
2. In the right pane, move the pointer over *Operations* and select *Generate Schema*.

The Schemas pane opens on the right. The following image shows that the Schemas pane displaying a table with columns for the part, the root tag, and the schema. Hyperlinks are provided to view the root tags under the Schema column.



3. Click the hyperlink associated with the type of schema you want to view.

For example, if you click the Request schema, the schema appears on the right as shown in the following image.



4. Click the *Back* button on your Web browser to return to the previous window.

After you create schemas, you can generate a business service.

Generating a Business Service

You can generate a business service (also known as a Web service) for Tuxedo. To generate a business service, you must deploy the adapter in a business services environment using iWay Business Services Engine (iBSE). iBSE exposes functionality as Web services and serves as a gateway to heterogeneous back-end applications and databases.

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

You can make a Web service available to other services within a host server by generating WSDL (Web Services Description Language) from the Web service.

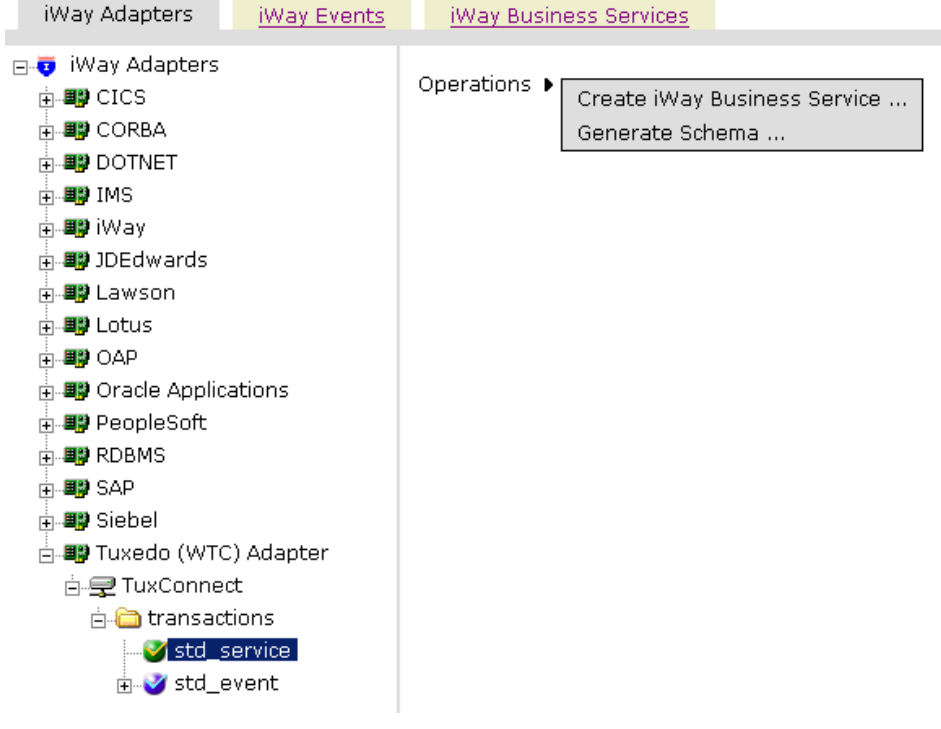
Procedure: How to Create an iWay Business Service

To create an iWay business service for Tuxedo:

1. If you have not already done so, connect to a Tuxedo target as described in *Establishing a Target for Tuxedo* on page 2-4.
2. In the left pane of Application Explorer, open the target node to display its modules.

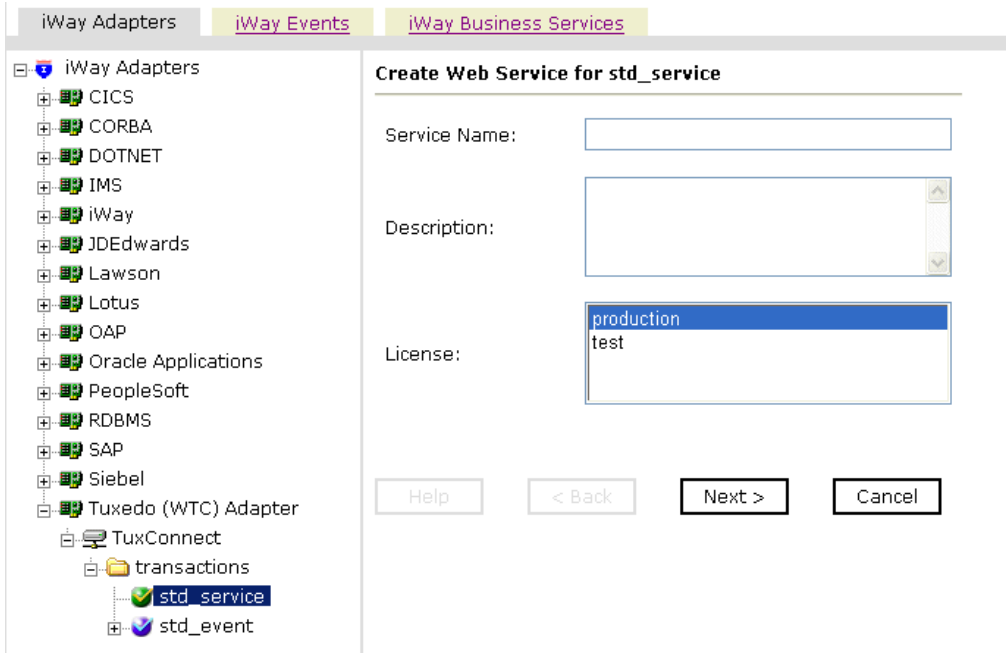
   The list includes all modules currently supported by Tuxedo.

   The following image shows in the left pane the std_service transaction selected and the Operations menu expanded displaying the Create iWay Business Service and Generate Schema options in the right pane.



3. In the right pane, move the pointer over *Operations* and select *Create iWay Business Service*.

The Create Web Service pane opens on the right as shown in the following image.



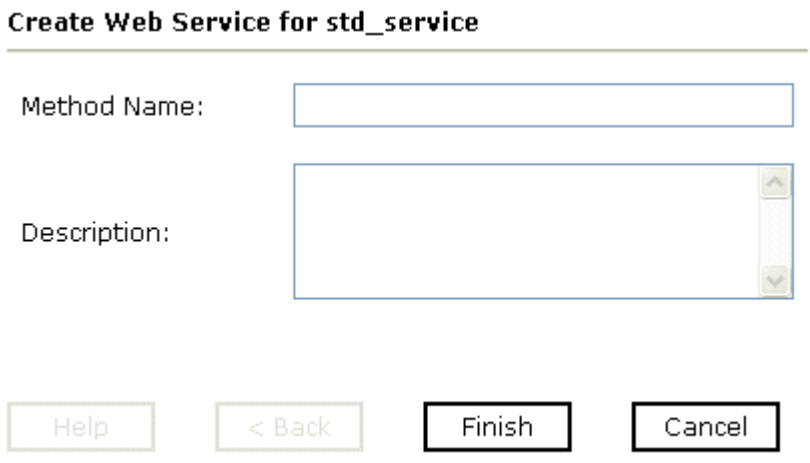
a. In the Service Name field, type a descriptive name for the iWay Business Service.

b. In the Description field, type a brief description of the iWay Business Service.

c. From the License field list, select a license definition.

4. Click *Next*.

The following image displays the Create Web Service pane, which prompts you for information about the method of the service.



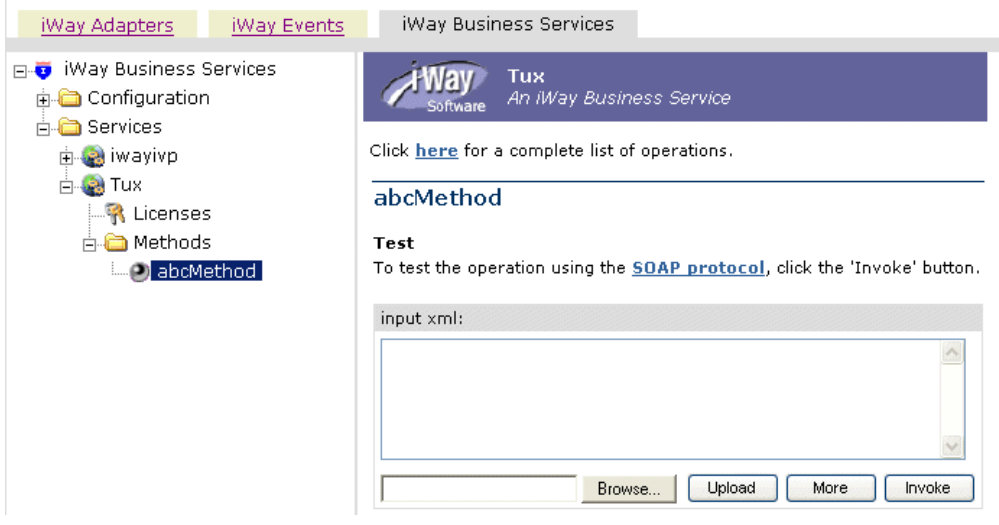
a. In the Method Name field, type a descriptive name for the method.

b. In the Description field, type a brief description of the method.

5. Click *Finish*.

The iWay Business Services Engine tab opens. The left pane lists all the available services, including the one just created. As shown in the following example, the service node we created (Tux) is expanded with the method (abcMethod) automatically selected.

The following image shows the test pane for the method that opens in the right pane. This pane provides a text field in which to paste the XML input or browse to a file that can be uploaded. Below the text field is the browse field and three action buttons.



Testing a Business Service

iWay provides a test tool to test business services. When you create a new business service, test it to ensure it functions properly.

Procedure: How to Test a Business Service

To test a business service:

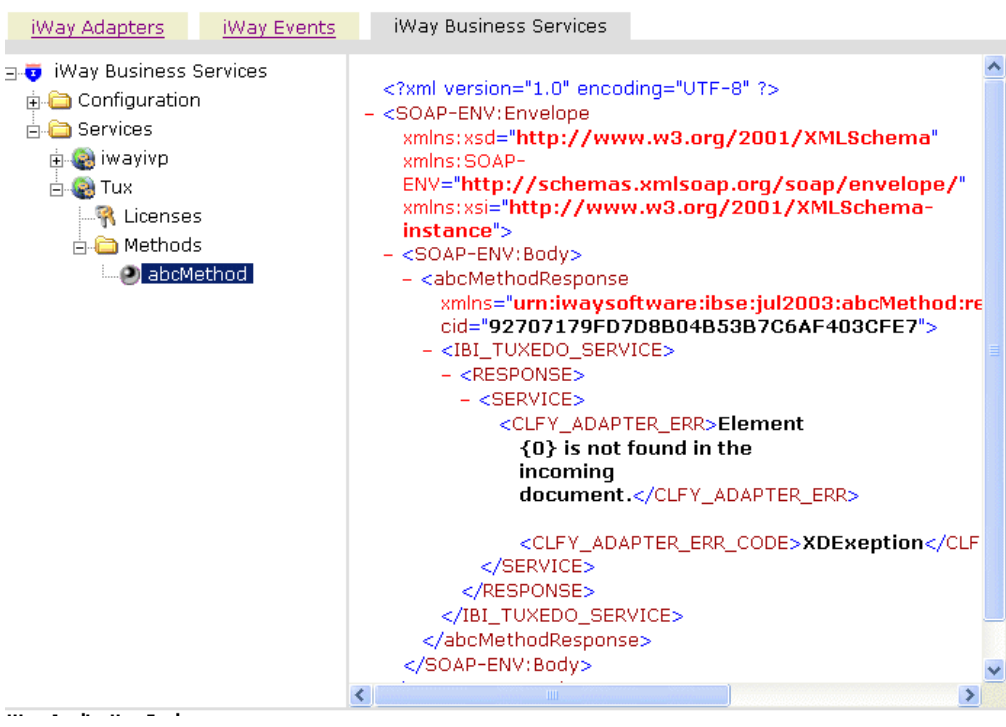
1. If you just created the business service, the right pane automatically opens the test option parameters. This pane provides a text field in which to paste the XML input or browse to a file that can be uploaded. Below the text field is the browse field and three action buttons.

   If you want to test an existing business service, click the iWay Business Service tab, expand the list of business services in the left pane, and select the business service you want to test. The test options appear in the right pane.

2. Enter a sample XML document that will query the service in the input xml field. Do this using cut and paste, or browsing to a file and uploading the content.

3. Click *Invoke*.

The test results appear in the right pane. The following image shows a sample of a test results pane.



CHAPTER 3

Listening for Events for BEA Tuxedo

Topics:

- Understanding iWay Event Functionality
- Adding, Modifying, or Deleting a Port
- Adding, Modifying, or Deleting a Channel

This section describes how to use iWay Servlet Application Explorer to connect to BEA Tuxedo and listen for events. Several port dispositions are available, and you can choose the technique that best suits your requirements.

Understanding iWay Event Functionality

Events are generated as a result of activity in an application system. You can use events to trigger an action in your application. For example, BEA Tuxedo may generate an event when customer information is updated. If your application performs an action when this happens, your application is a consumer of this event.

After you create a connection to your application system, you can add events using iWay Servlet Application Explorer. To create an iWay 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 *Adding, Modifying, or Deleting a 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 *Adding, Modifying, or Deleting a Channel* on page 3-35.

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.

Adding, Modifying, or Deleting a Port

The following procedures describe how to create an event port using iWay Servlet Application Explorer. You can create a port for BEA Tuxedo from the iWay Adapters tab or from the iWay Events tab.

When you use Application Explorer with an iWay Business Services Engine (iBSE) implementation, the following port dispositions are available:

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

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

With a JCA implementation, the following port dispositions are available:

- File
- HTTP
- JMS

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 for the File Disposition

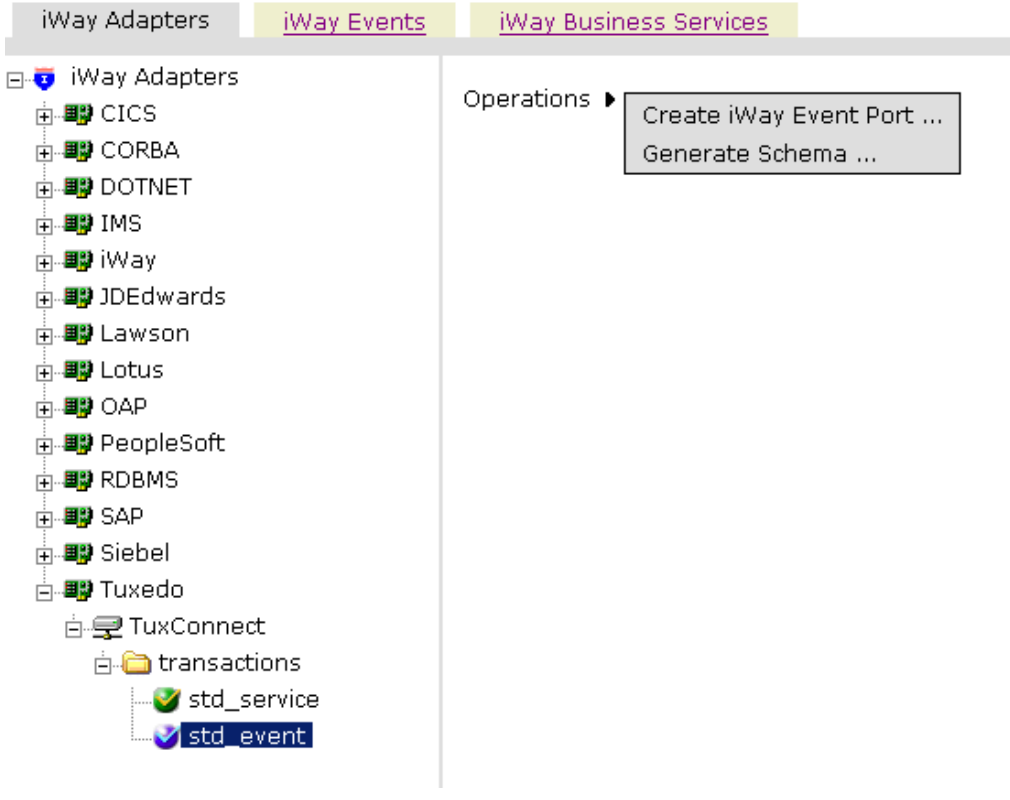
The File disposition uses a file URL to specify the destination file name or directory where the event document will be written. During run time, the destination file name may require indexing to avoid overwriting.

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

To create a specific event port for the File disposition using Application Explorer:

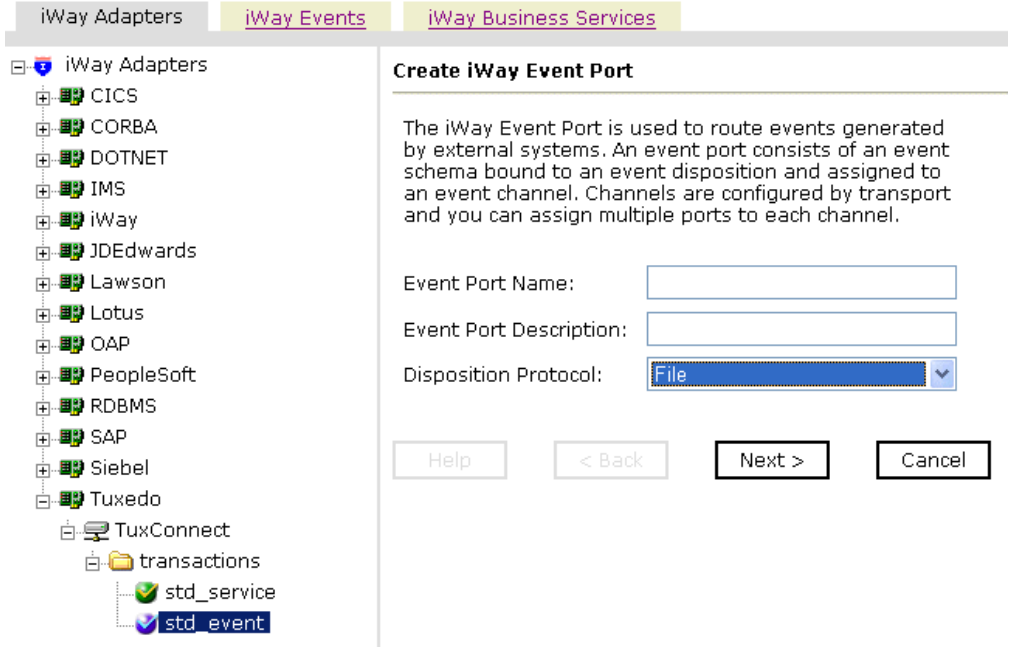
1. Click the *iWay Adapters* tab.
2. Expand the Tuxedo tab and then select *std_event*.

The following image shows the std_event node selected in the left pane, and the expanded Operations menu displaying the Create iWay Event Port and Generate Schema options in the right pane.



3. In the right pane, move the pointer over *Operations* and select *Create iWay Event Port*.

The Create iWay Event Port pane opens on the right. The following image shows in the left pane the std_event transactions selected and in the right pane is the Create iWay Event Port where you enter the port's configuration information.



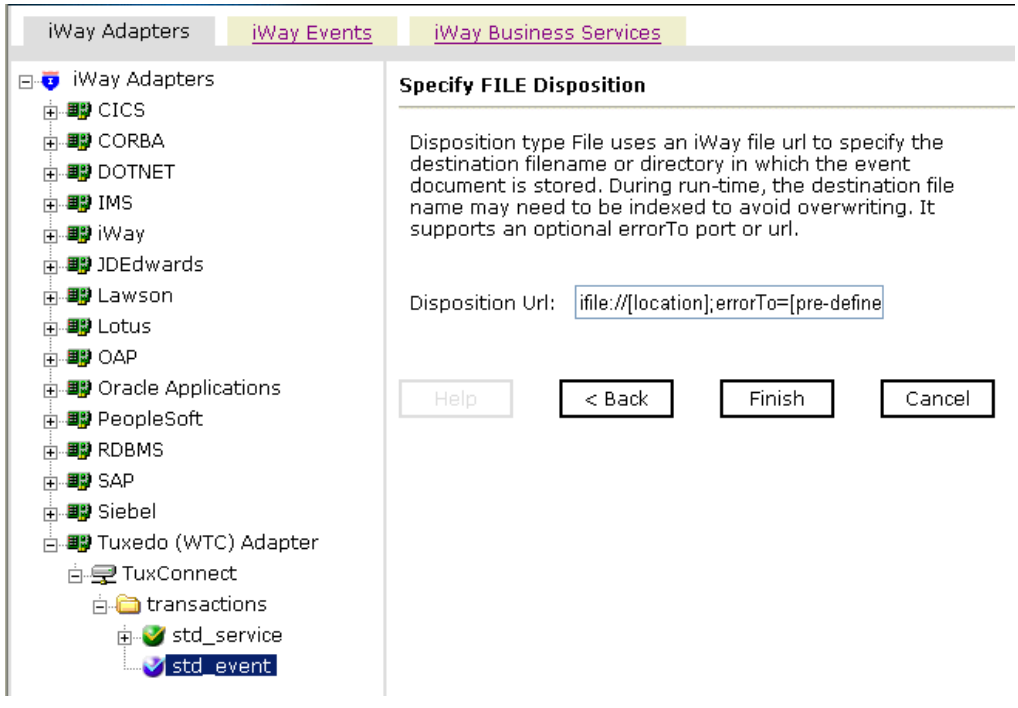
a. In the Event Port Name field, type a name.

b. In the Event Port Description field, type a brief description.

c. From the Disposition Protocol drop-down list, select *FILE*.

4. Click *Next*.

The following image shows in the left pane the std_event transaction selected and in the right pane the Specify FILE Disposition displays where you enter the destination for the event document to be stored.



5. In the Disposition Url field, type a File destination to which event data is written.

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

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

When pointing Application Explorer to a **JCA** deployment, 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.

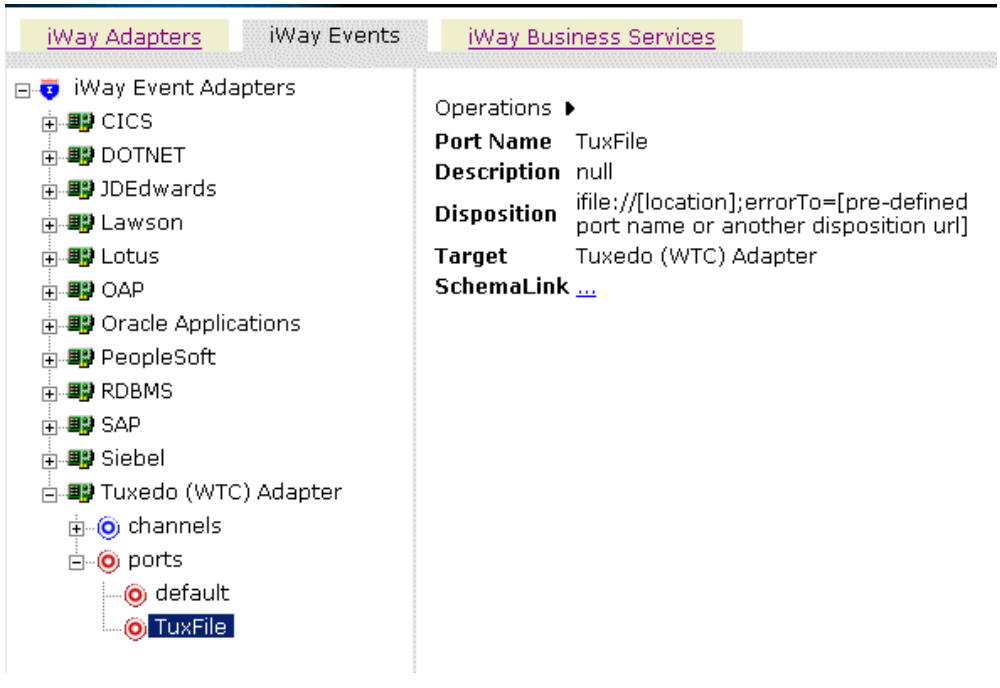
The following table describes the parameters for the disposition.

Parameter	Description
location	The destination and filename of the document where event data will be written, for example, `ifile://D:\in\x.txt;errorTo=ifile://D:\error.`
errorTo	Predefined port name or another disposition URL to which error logs are sent.

6. Click *Finish*.

   The iWay Events tab opens.

   The following image shows the TuxFile event port appearing under the ports node in the left pane. In the right pane is a summary of the information associated with the port you created.



7. To view the event schema that was created for the event port, click *SchemaLink*.

You are ready to associate the event port with a channel. For more information, see *Adding, Modifying, or Deleting a Channel* on page 3-35.

Creating an Event Port for the iBSE Disposition

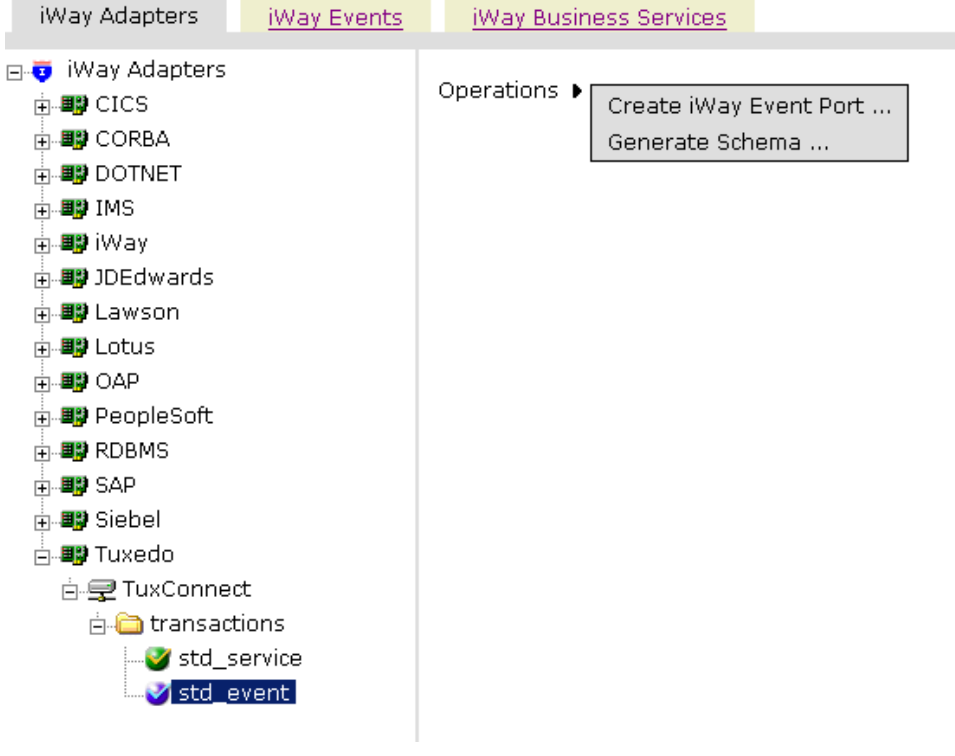
The iBSE disposition enables an event to launch an iWay Business Service Method.

Procedure: How to Create a Port for the iBSE Disposition

To create a port for an iBSE disposition using Application Explorer:

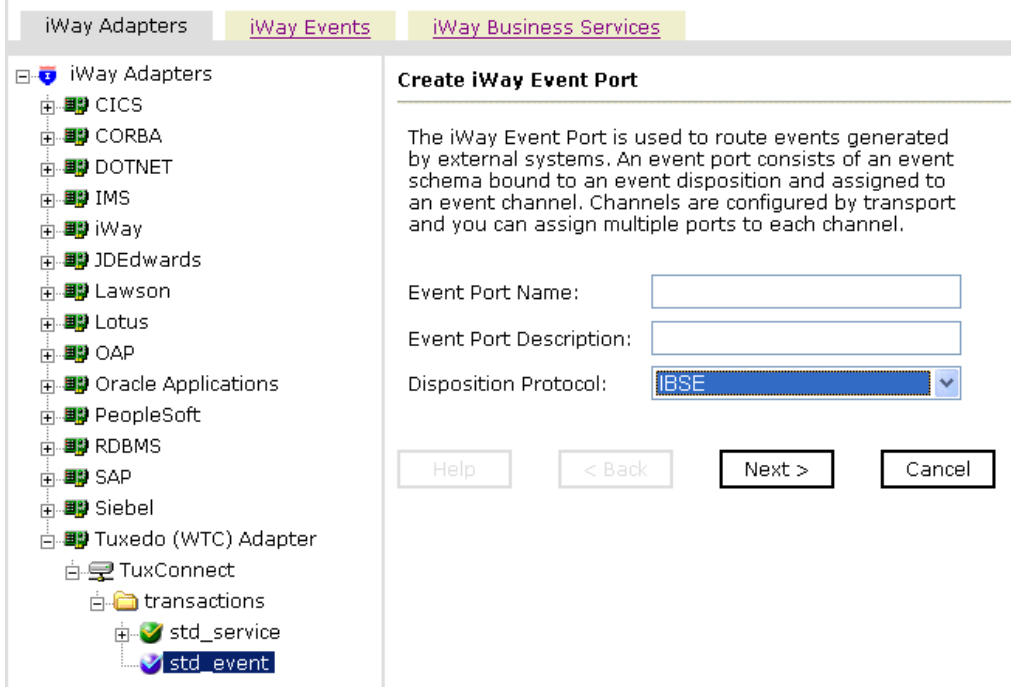
1. Click the *iWay Adapters* tab.
2. Expand the Tuxedo tab and then select *std_event*.

   The following image shows the std_event node selected in the left pane, and the expanded Operations menu displaying the Create iWay Event Port and Generate Schema options in the right pane.



3. In the right pane, move the pointer over *Operations* and select *Create iWay Event Port*.

The Create iWay Event Port pane opens on the right. The following image shows in the left pane the std_event transactions selected and in the right pane is the Create iWay Event Port where you enter the port's configuration information.



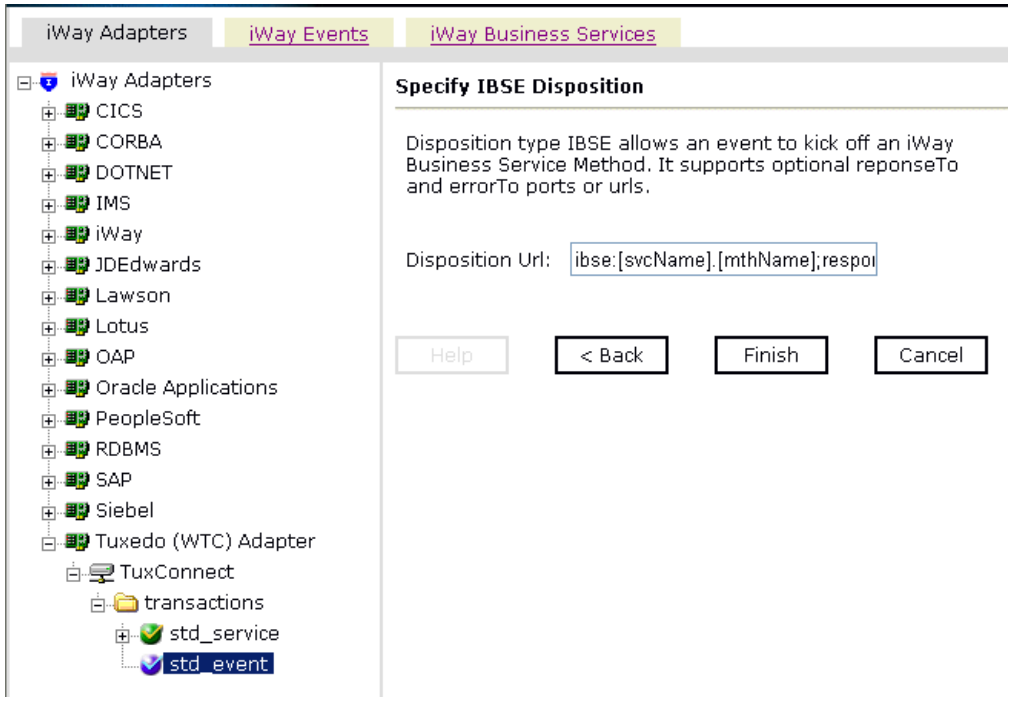
a. In the Event Port Name field, type a name.

b. In the Event Port Description field, type a brief description.

c. From the Disposition Protocol drop-down list, select *IBSE*.

4. Click *Next*.

The following image shows in the left pane the std_event transaction selected and in the right pane the Specify iBSE Disposition displays where you enter the destination for the event document to be stored.



5. In the Disposition Url field, enter an iBSE destination in the form of:

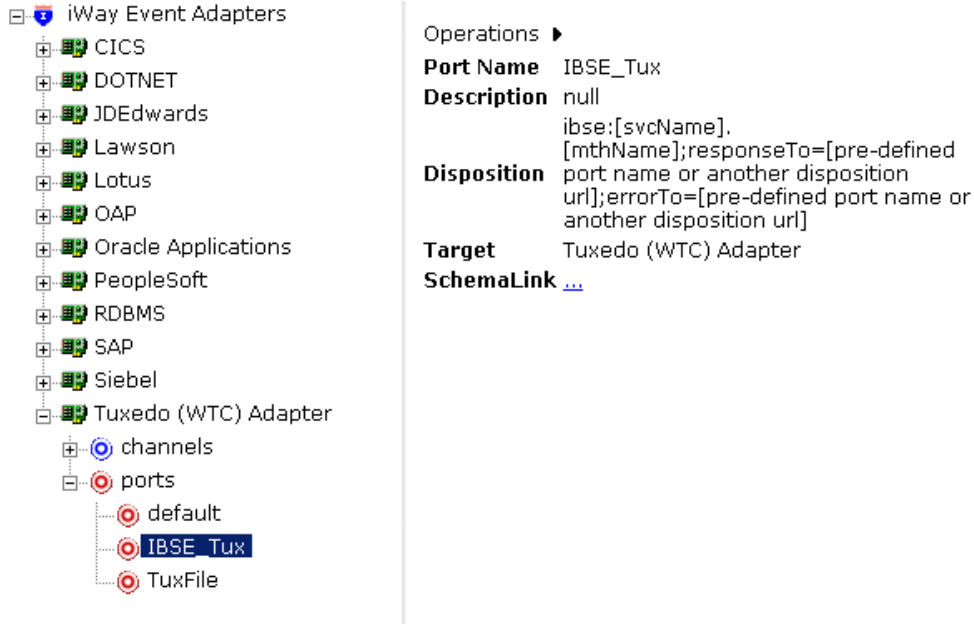
```
ibse:svcName.mthName;responseTo=[pre-defined port name or another disposition url];errorTo=[pre-defined port name or another disposition url]
```

The following table defines the parameters for the 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.

6. Click *Finish*.

The following image shows the IBSE_Tux event port appearing under the ports node in the left pane. In the right pane is a summary of the information associated with the port you created.



7. To view the event schema that was created for the event port, click *SchemaLink*.

You are ready to associate the event port with a channel. For more information, see *Adding, Modifying, or Deleting a Channel* on page 3-35.

Creating an Event Port for the MSMQ Disposition

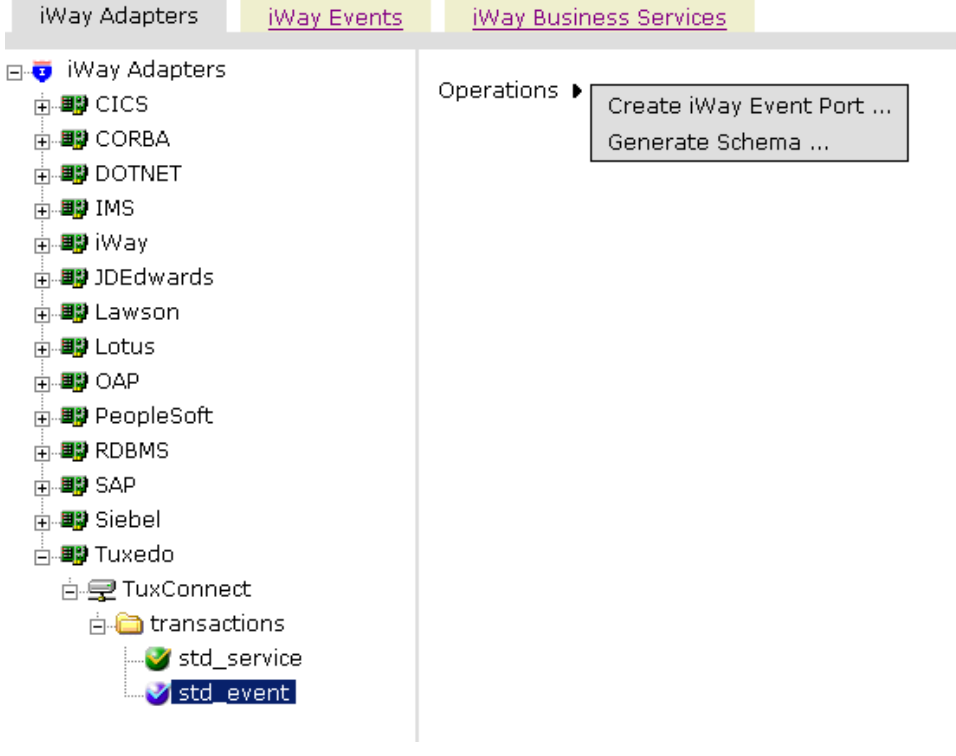
The MSMQ disposition supports public and private queues.

Procedure: How to Create a Port for the MSMQ Disposition

To create a port for an MSMQ disposition using Application Explorer:

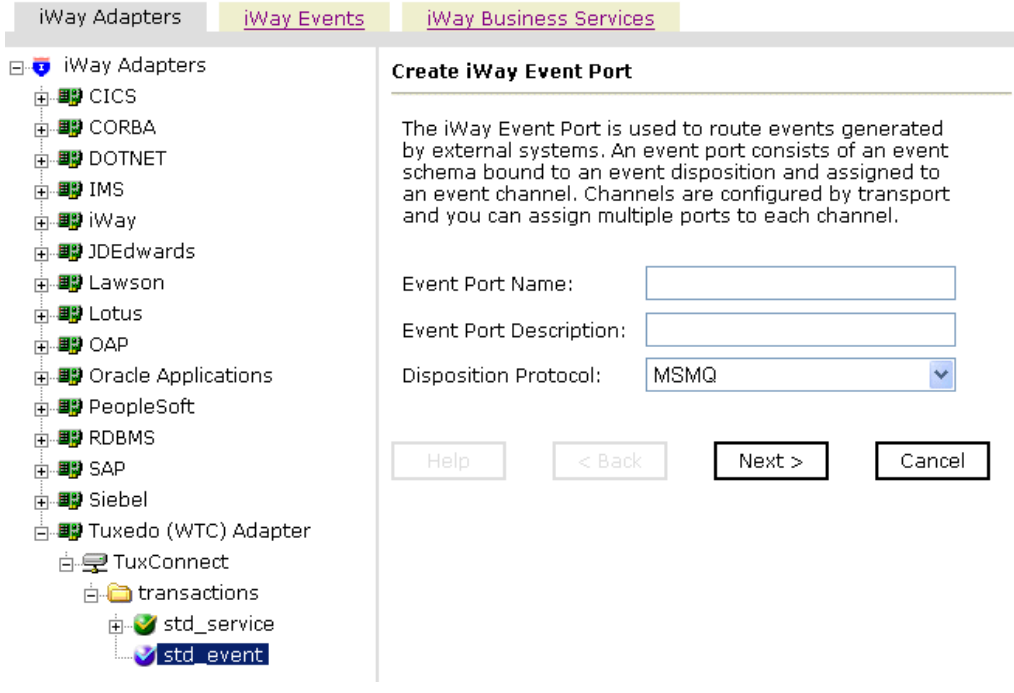
1. Click the *iWay Adapters* tab.
2. Expand the Tuxedo tab and then select *std_event*.

   The following image shows the std_event node selected in the left pane, and the expanded Operations menu displaying the Create iWay Event Port and Generate Schema options in the right pane.



3. In the right pane, move the pointer over *Operations* and select *Create iWay Event Port*.

The Create iWay Event Port pane opens on the right. The following image shows in the left pane the std_event transactions selected and in the right pane is the Create iWay Event Port where you enter the port's configuration information.



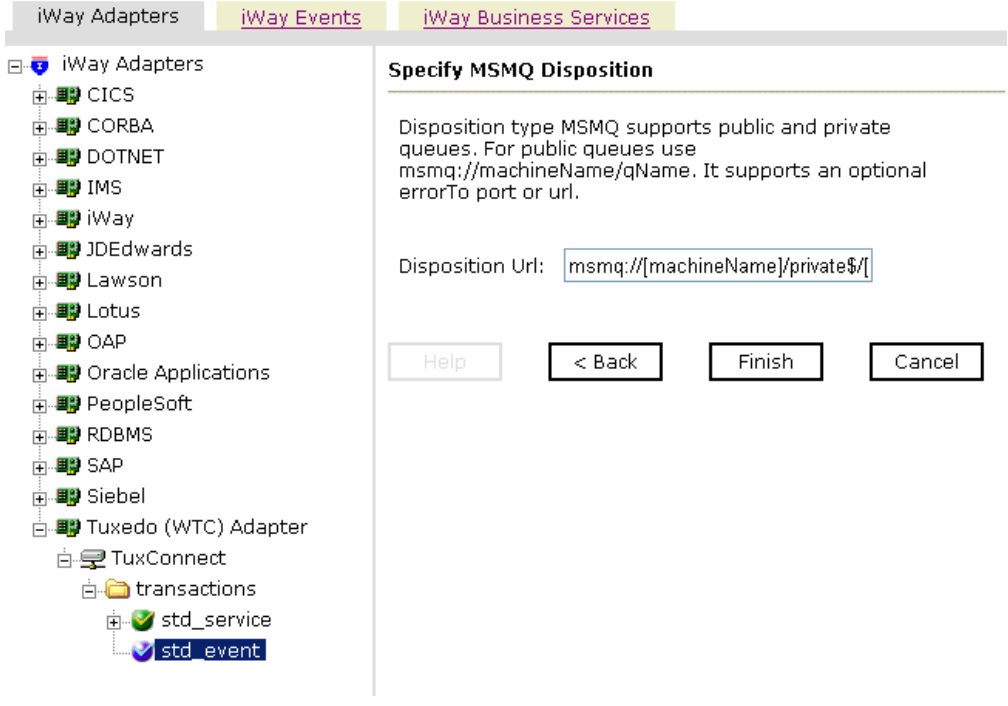
a. In the Event Port Name field, type a name.

b. In the Event Port Description field, type a brief description.

c. From the Disposition Protocol drop-down list, select *MSMQ*.

4. Click *Next*.

The following image shows in the left pane the std_event transaction selected and in the right pane the Specify MSMQ Disposition displays where you enter the destination for the event document to be stored.



5. In the Disposition field, enter an MSMQ destination in the format:

msmq:/host/*queueType*/*queueName*[;errorTo=*errorDest*]

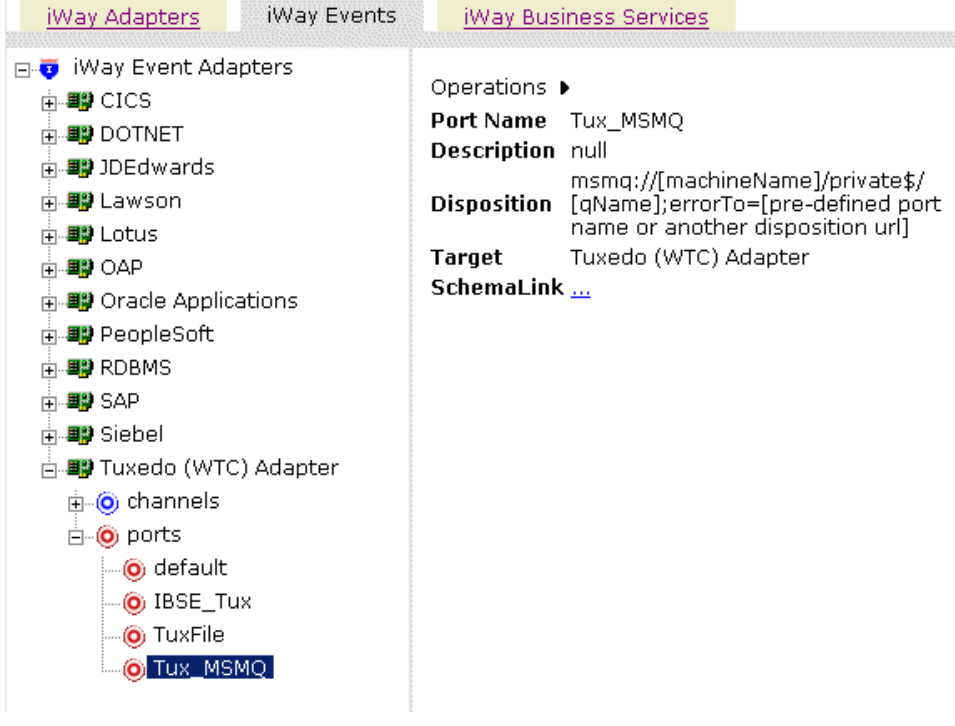
The following table defines the disposition parameters.

Parameter	Description
host	The name of the host on which the Microsoft Queuing system runs.
queueType	The type of queue. For private queues, enter Private$. 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.
queueName	The name of the queue in which messages are placed.

Parameter	Description
errorDest	The location to which error logs are sent. This is optional. This can be a pre-defined port name or another disposition URL. The URL must be complete, including the protocol.

6. Click *Finish*.

The following image shows the Tux_MSMQ event port appearing under the ports node in the left pane. In the right pane is a summary of the information associated with the port you created.



7. To view the event schema that was created for the event port, click *SchemaLink*.

You are ready to associate the event port with a channel. For more information, see *Adding, Modifying, or Deleting a Channel* on page 3-35.

Creating an Event Port for the JMS Queue Disposition

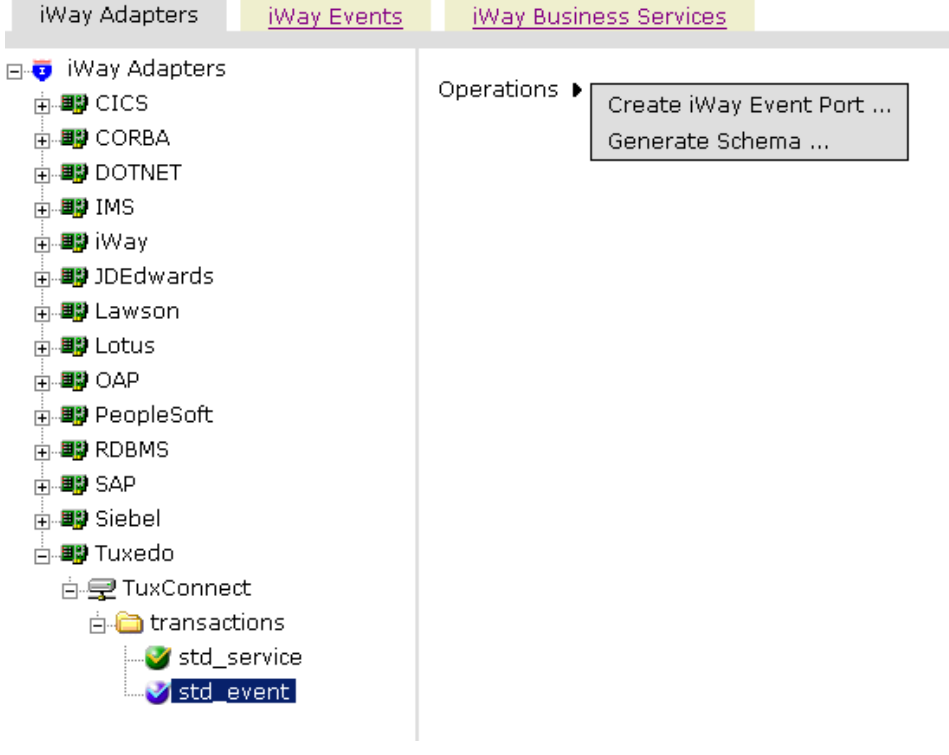
The Sun Java System Message Queue disposition allows an event to be enqueued to a JMS queue.

Procedure: How to Create a Port for the JMS Queue Disposition

To create a port for a Sun Java System Message Queue disposition using Application Explorer:

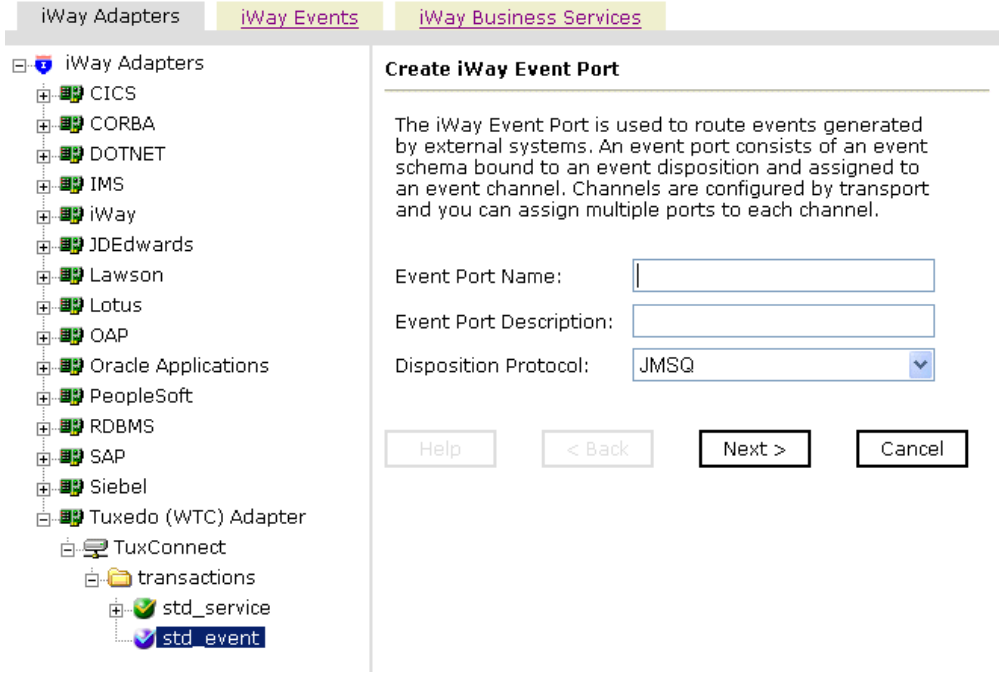
1. Click the *iWay Adapters* tab.
2. Expand the Tuxedo tab and then select *std_event*.

   The following image shows the std_event node selected in the left pane, and the expanded Operations menu displaying the Create iWay Event Port and Generate Schema options in the right pane.



3. In the right pane, move the pointer over *Operations* and select *Create iWay Event Port*.

The Create iWay Event Port pane opens on the right. The following image shows in the left pane the std_event transactions selected and in the right pane is the Create iWay Event Port where you enter the port's configuration information.

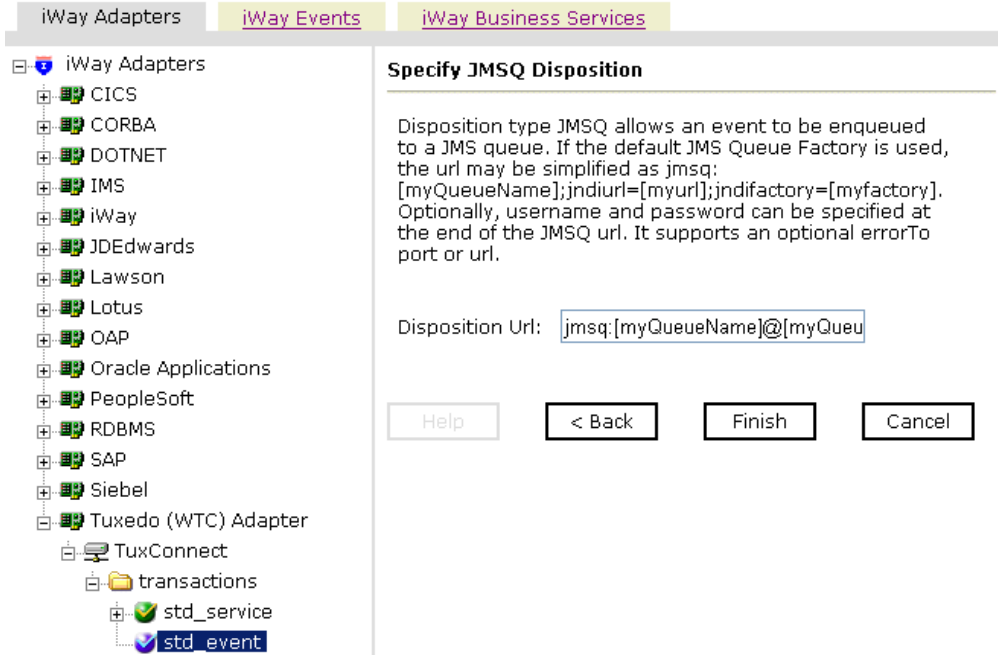


a. Type a name for the event port and provide a brief description.

b. From the Disposition Protocol drop-down list, select *JMSQ*.

4. Click *Next*.

The following image shows in the left pane the std_event transaction selected and in the right pane the Specify JMSQ Disposition displays where you enter the destination for the event document to be stored.



5. 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 defines the parameters for the disposition.

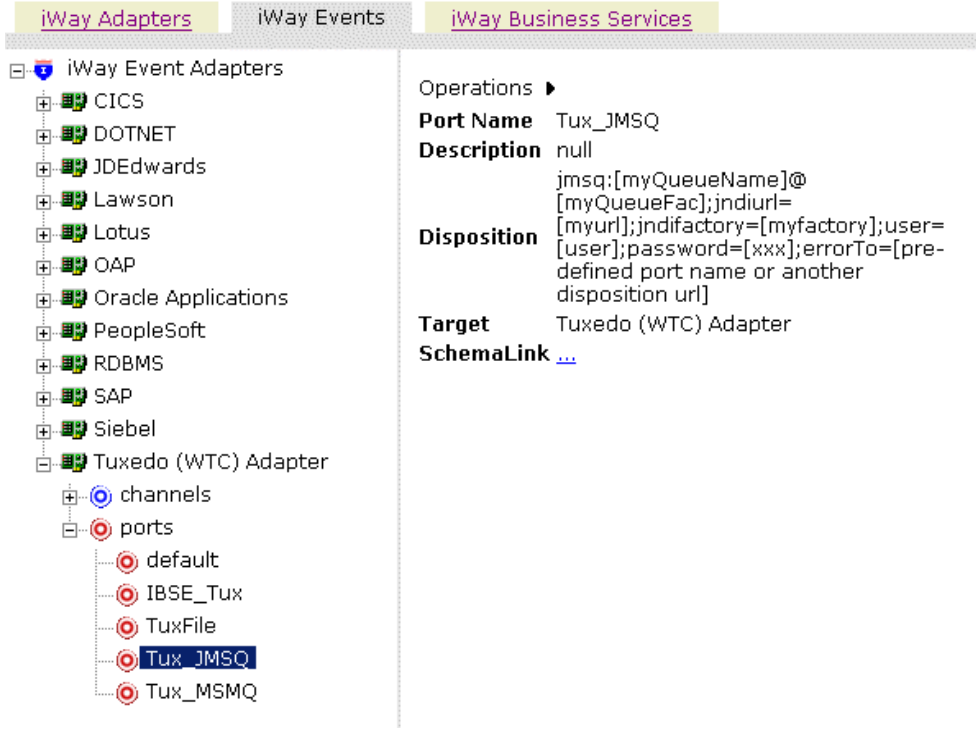
Parameter	Description
queue	Name of a queue to which events are emitted.
Connection Factory	A resource that contains information about the JMS Server. You must create the connection factory; for example: `sampleQCF`

jndi_url	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:
	`java.naming.provider.url`
	The URL of the Sun Java System Application Server is
	`iiop://localhost:3700`
	where:
	`3700`
	Is a default port.

jndi_factory	Is JNDI context.INITIAL_CONTEXT_FACTORY and is provided by the JNDI service provider. For Sun Java System Application Server, this is: `com.sun.jndi.cosnaming.CNCtxFactory`
user	A user ID associated with this queue.
password	The password for this user ID.
errorTo	The location where error logs are sent. Optional. A predefined port name or another disposition URL. The URL must be complete, including the protocol.

6. Click *Finish*.

The following image shows the Tux_JMSQ event port appearing under the ports node in the left pane. In the right pane is a summary of the information associated with the port you created.



7. To view the event schema that was created for the event port, click *SchemaLink*.

You are ready to associate the event port with a channel. For more information, see *Adding, Modifying, or Deleting a Channel* on page 3-35.

Creating an Event Port for the SOAP Disposition

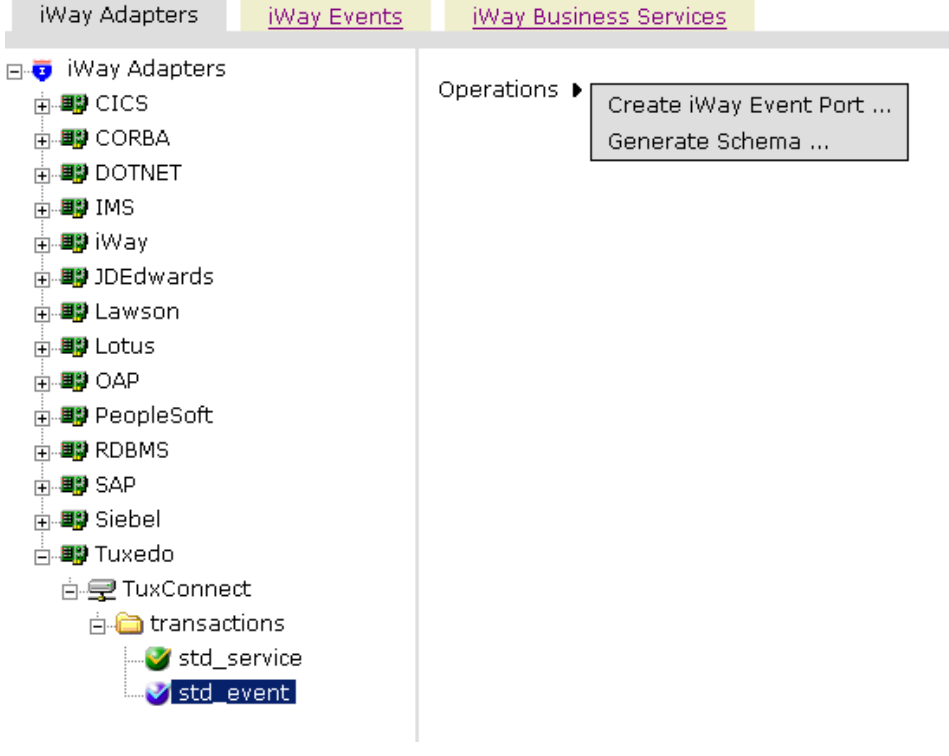
The SOAP disposition allows an event to launch a Web service specified by a WSDL file. A SOAP action is optional; "" is the default value.

Procedure: How to Create a Port for the SOAP Disposition

To create a port for a SOAP disposition using Application Explorer:

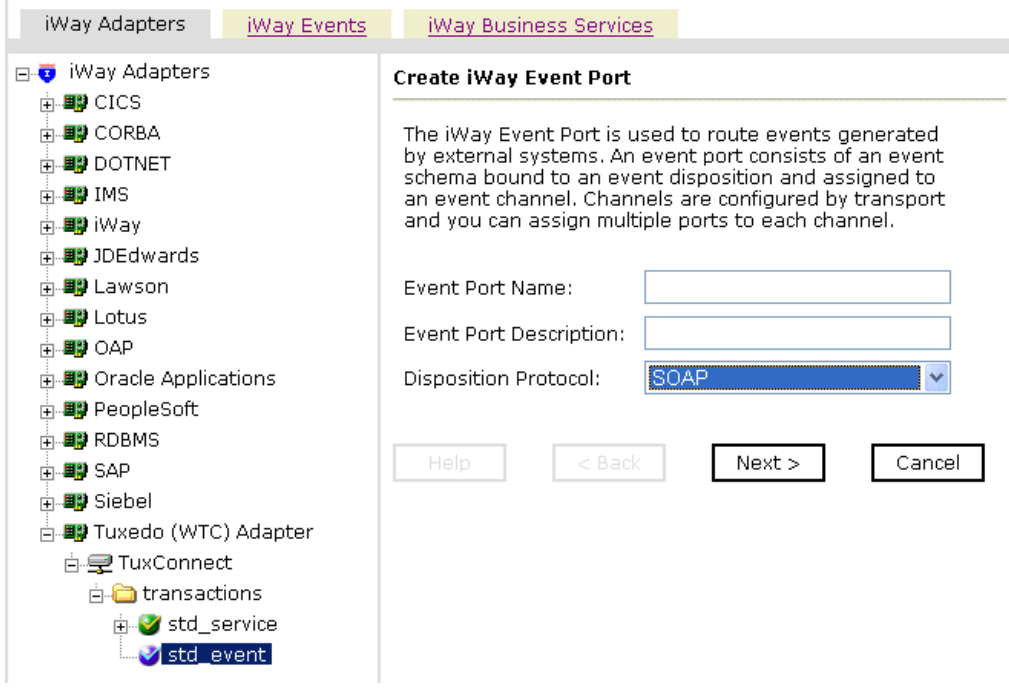
1. Click the *iWay Adapters* tab.
2. Expand the Tuxedo tab and then select *std_event*.

   The following image shows the std_event node selected in the left pane, and the expanded Operations menu displaying the Create iWay Event Port and Generate Schema options in the right pane.



3. In the right pane, move the pointer over *Operations* and select *Create iWay Event Port*.

The Create iWay Event Port pane opens on the right. The following image shows in the left pane the std_event transactions selected and in the right pane is the Create iWay Event Port where you enter the port's configuration information.

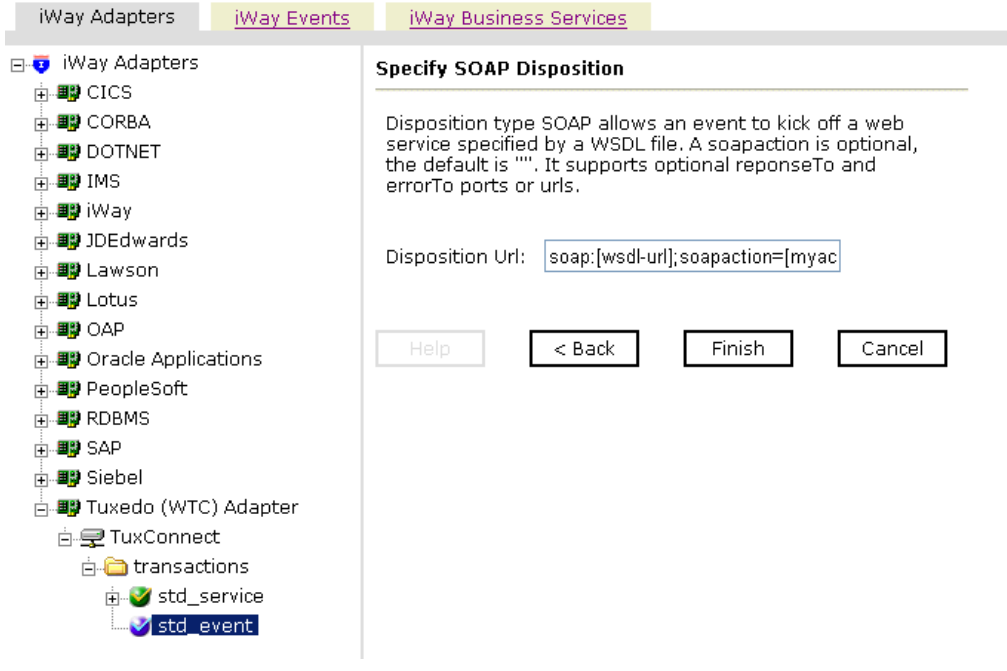


a. Type a name for the event port and provide a brief description.

b. From the Disposition Protocol drop-down list, select *SOAP*.

4. Click *Next*.

The following image shows in the left pane the std_event transaction selected and in the right pane the Specify SOAP Disposition displays where you enter the destination for the event document to be stored.



5. In the Disposition field, enter a SOAP destination in the form of:

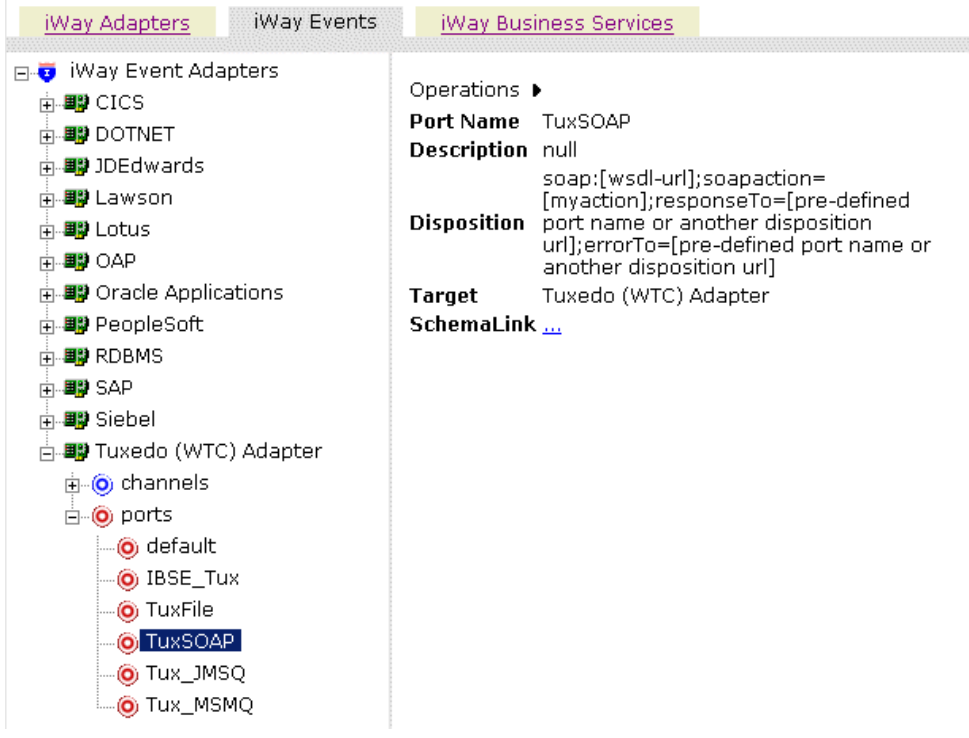
```
soap:[wsdl-url];soapaction=[myaction];responseTo=[pre-defined port
name or another disposition URL];errorTo=[pre-defined port name or
another disposition url]
```

The following table defines the parameters for the disposition.

Parameter	Description
wsdl-url	URL to the WSDL file that is required to create the SOAP message.
soapaction	Method called by the disposition.
responseTo	Predefined port name or another disposition URL where response documents are sent. Optional.
errorTo	Location where error documents are sent. A predefined port name or another full URL. Optional.

6. Click *Finish*.

The following image shows the Tux_JMSQ event port appearing under the ports node in the left pane. In the right pane is a summary of the information associated with the port you created.



7. To view the event schema that was created for the event port, click *SchemaLink*.

You are ready to associate the event port with a channel. For more information, see *Adding, Modifying, or Deleting a Channel* on page 3-35.

Creating an Event Port for the HTTP Disposition

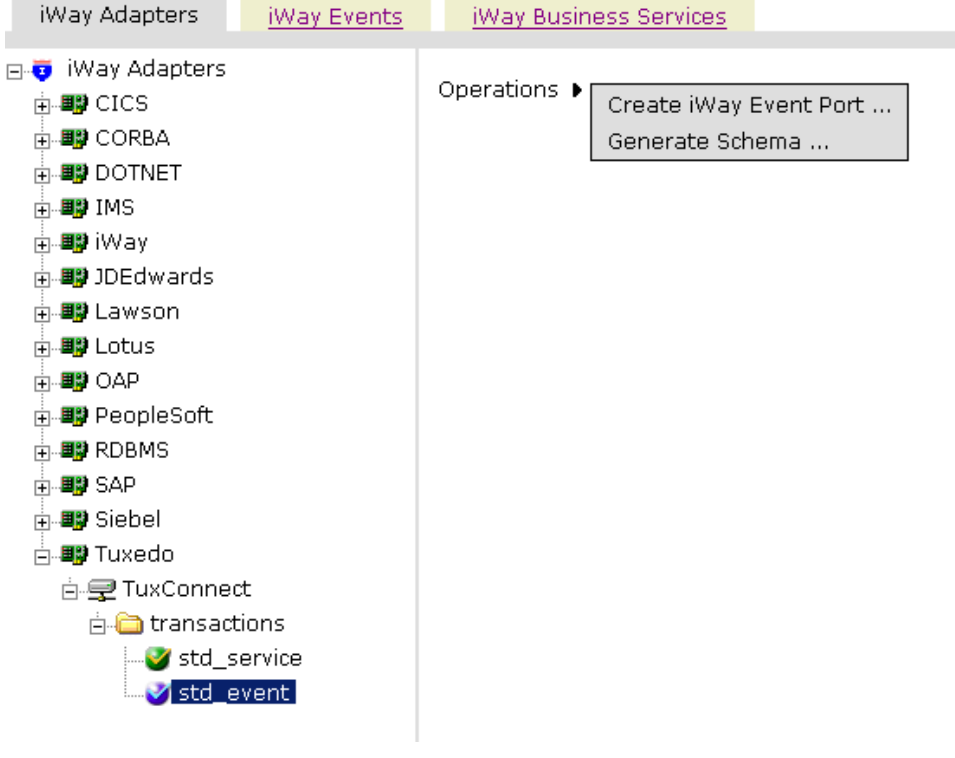
The HTTP disposition uses an HTTP URL to specify an HTTP end point to which the event document is posted.

Procedure: How to Create a Port for the HTTP Disposition

To create a port for an HTTP disposition using iWay Application Explorer:

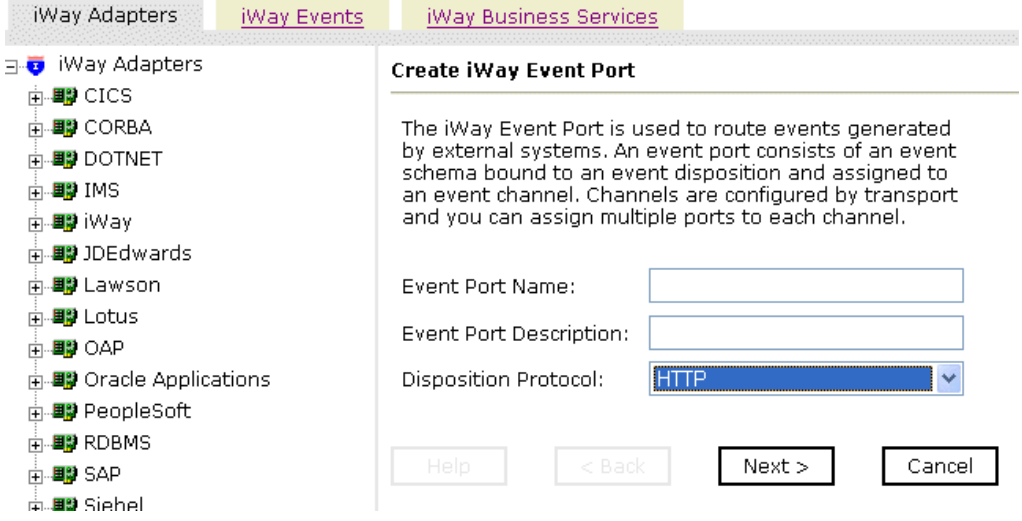
1. Click the *iWay Adapters* tab.
2. Expand the Tuxedo tab and then select *std_event*.

   The following image shows the std_event node selected in the left pane, and the expanded Operations menu displaying the Create iWay Event Port and Generate Schema options in the right pane.



3. In the right pane, move the pointer over *Operations* and select *Create iWay Event Port*.

The Create iWay Event Port pane opens on the right. The following image shows in the left pane the std_event transactions selected and in the right pane is the Create iWay Event Port where you enter the port's configuration information.

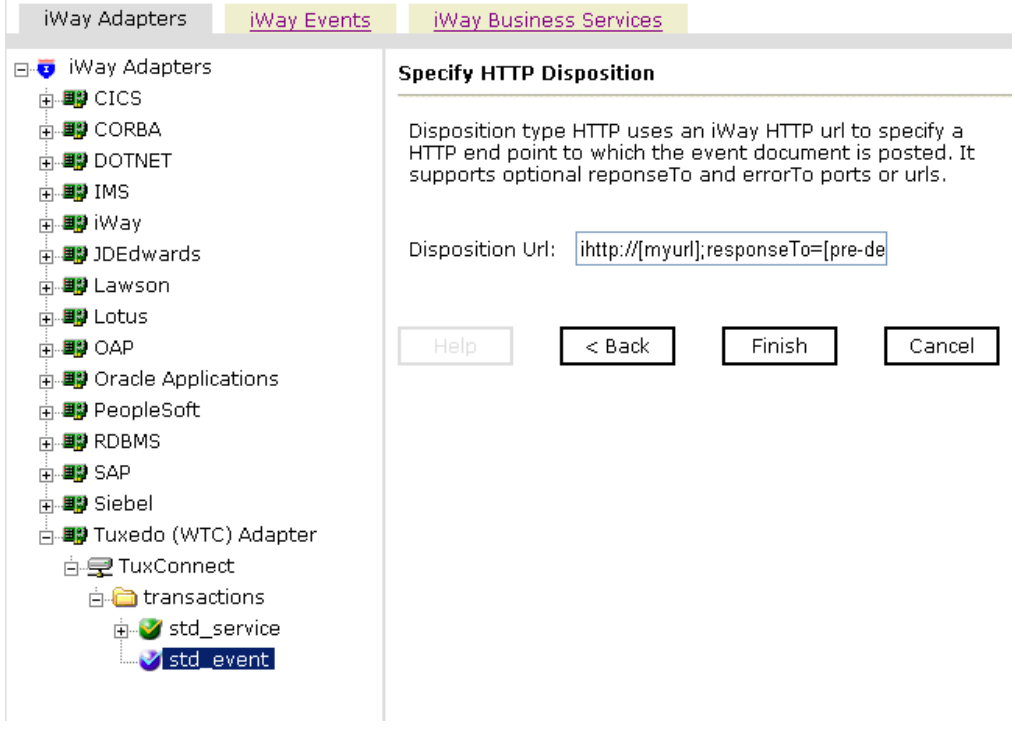


a. Type a name for the event port and provide a brief description.

b. From the Disposition Protocol drop-down list, select *HTTP*.

4. Click *Next*.

The following image shows in the left pane the std_event transaction selected and in the right pane the Specify HTTP Disposition displays where you enter the destination for the event document to be stored.



5. In 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];
```

where:

url

Is the URL target for the post operation, for example,

```
http://myhost:1234/docroot
```

responseTo

Is the location where responses are posted, if desired.

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

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

where:

host:port

Is the 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.

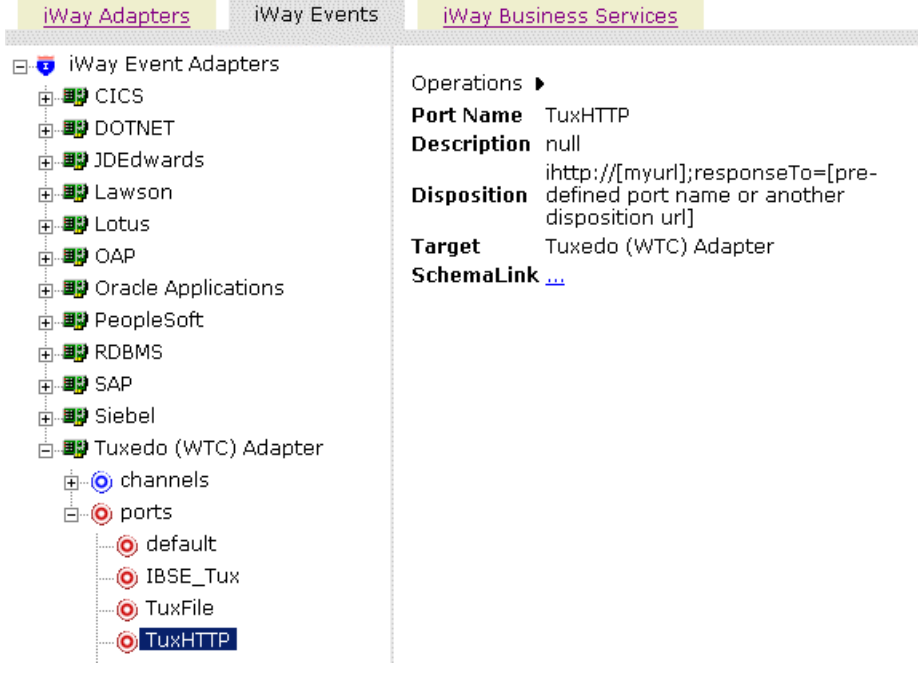
uri

Is the 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.

6. Click *Finish*.

The following image shows the TuxHTTP event port appearing under the ports node in the left pane. In the right pane is a summary of the information associated with the port you created.



7. To view the event schema that was created for the event port, click *SchemaLink*.

You are ready to associate the event port with a channel. For more information, see *Adding, Modifying, or Deleting a Channel* on page 3-35.

Creating an Event Port for the MQ Series Disposition

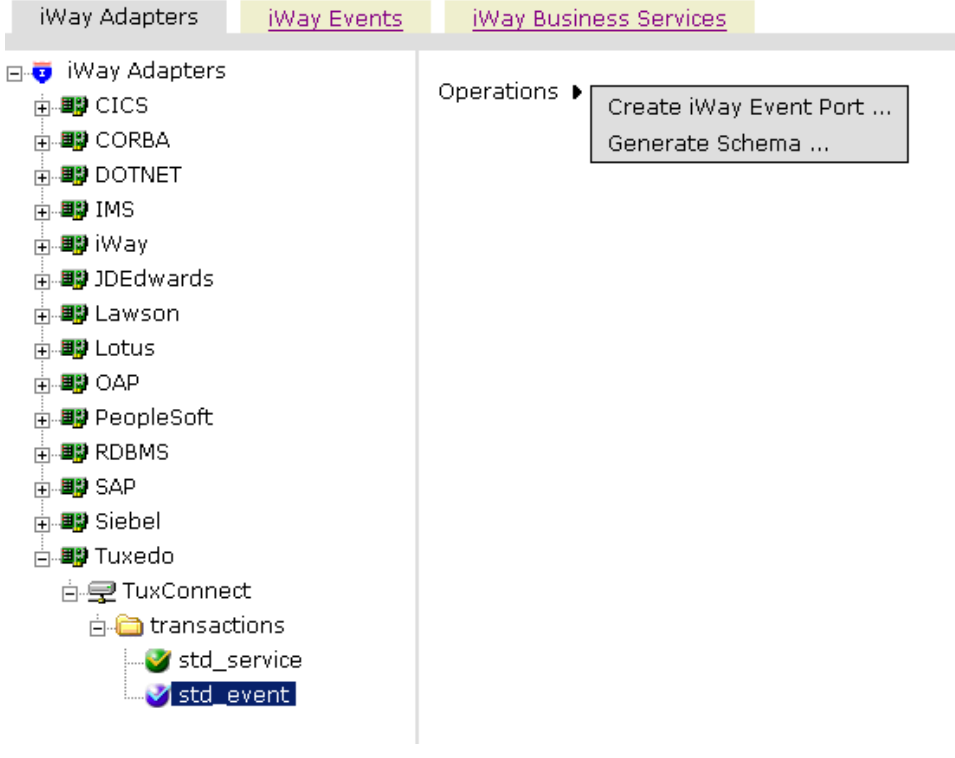
The MQ Series disposition enables an event to be enqueued to an MQ Series queue. Both queue manager and queue name may be specified.

Procedure: How to Create a Port for the MQ Series Disposition

To create a port for an MQ Series disposition using iWay Application Explorer:

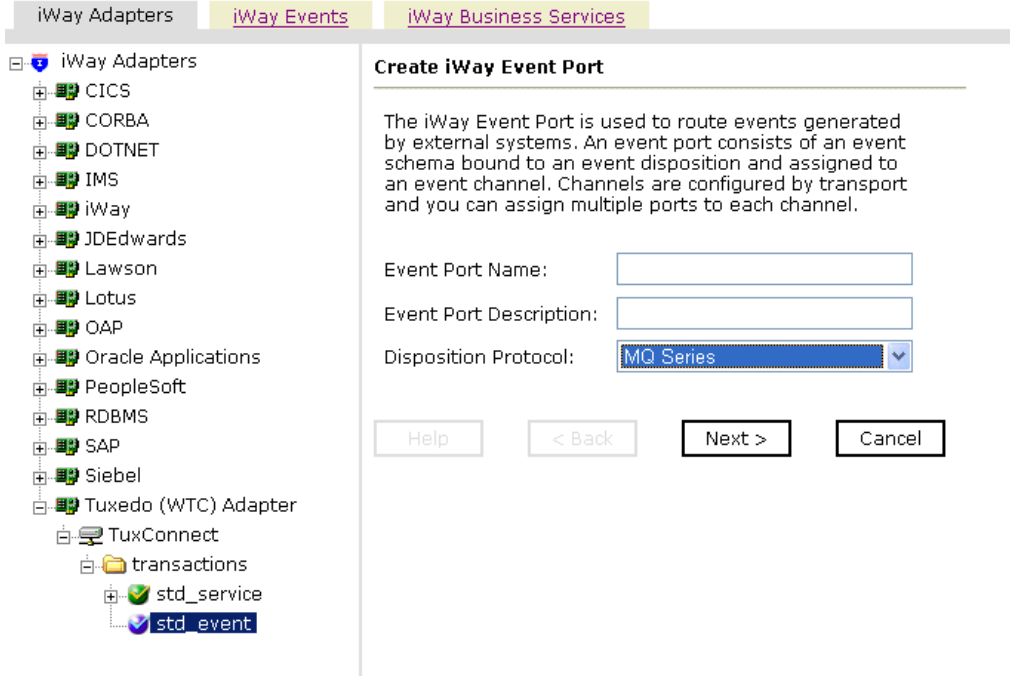
1. Click the *iWay Adapters* tab.
2. Expand the Tuxedo tab and then select *std_event*.

   The following image shows the std_event node selected in the left pane, and the expanded Operations menu displaying the Create iWay Event Port and Generate Schema options in the right pane.



3. In the right pane, move the pointer over *Operations* and select *Create iWay Event Port*.

The Create iWay Event Port pane opens on the right. The following image shows in the left pane the std_event transactions selected and in the right pane is the Create iWay Event Port where you enter the port's configuration information.

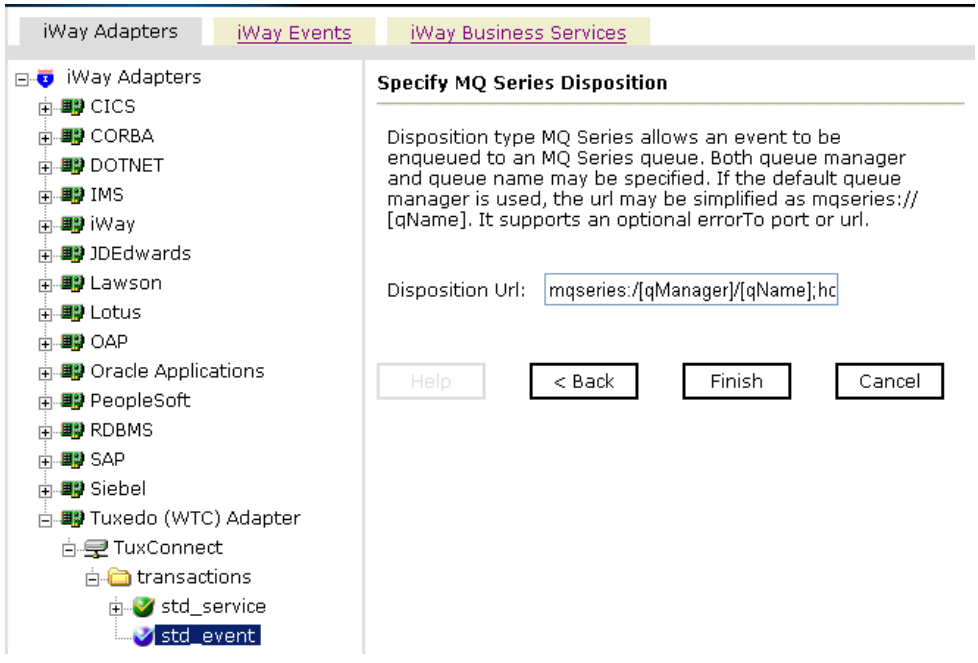


a. Type a name for the event port and provide a brief description.

b. From the Disposition Protocol drop-down list, select *MQ Series*.

4. Click *Next*.

The following image shows in the left pane the std_event transaction selected and in the right pane the Specify MQ Series Disposition displays where you enter the destination for the event document to be stored.



5. In the Disposition field, enter an MQ Series destination.

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

   ```
   mqseries:/qManager/qName;host=[hostname];port=[port];channel=[channnel
   name];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=
   ```

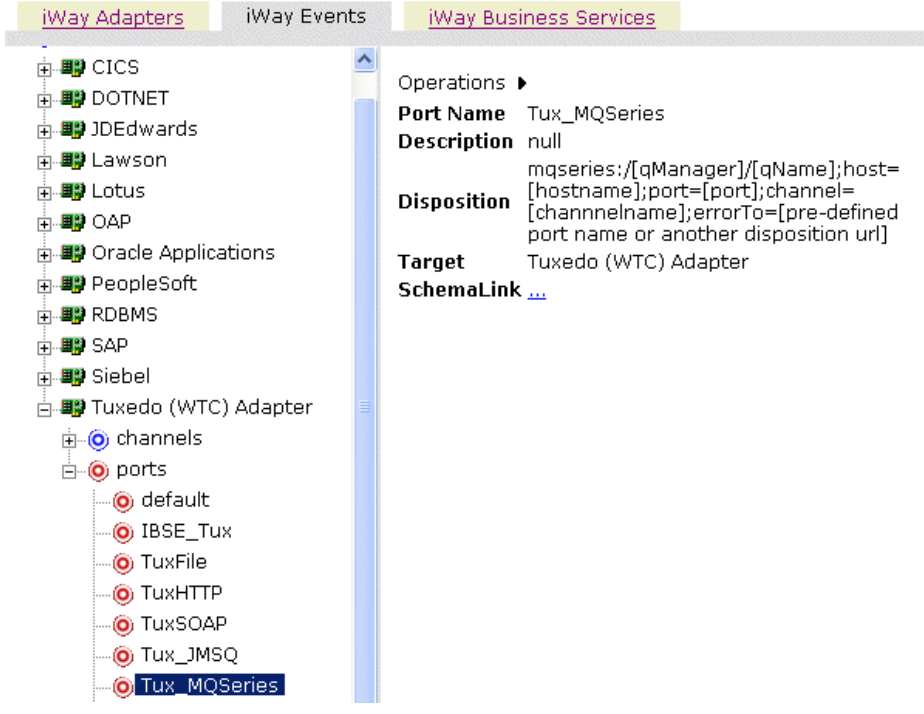
   Important: When using the adapter in conjunction with the iWay Connector for JCA 1.5, there is no need to create event ports to dispose of event data. However, you must create a channel to enable event listening capabilities.

The following table defines the parameters for the disposition.

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

6. Click *Finish*.

The following image shows the Tux_MQSeries event port appearing under the ports node in the left pane. In the right pane is a summary of the information associated with the port you created.



7. To view the event schema that was created for the event port, click *SchemaLink*.

You are ready to associate the event port with a channel. For more information, see *Adding, Modifying, or Deleting a Channel* on page 3-35.

Editing an Event Port

You can edit an existing event port.

Procedure: How to Edit an Event Port

To edit an event port:

1. Select the event port you want to edit.

2. In the right pane, move the pointer over *Operations* and select *Edit*.

The Edit Port pane opens on the right.

3. Make the required changes to the event port configuration fields.

4. Click *OK*.

Deleting an Event Port

You can delete an existing event port.

Procedure: How to Delete an Event Port

To delete an event port:

1. Select the event port you want to delete.
2. In the right pane, move the pointer over *Operations* and select *Delete*.

   The following image shows the confirmation dialog box that opens.

3. To delete the event port you selected, click *OK*.

   The event port disappears from the list in the left pane.

Adding, Modifying, or Deleting a Channel

The following topics describe how to create, modify, or remove a channel for your event adapter. All defined event ports must be associated with a channel.

Creating a Channel

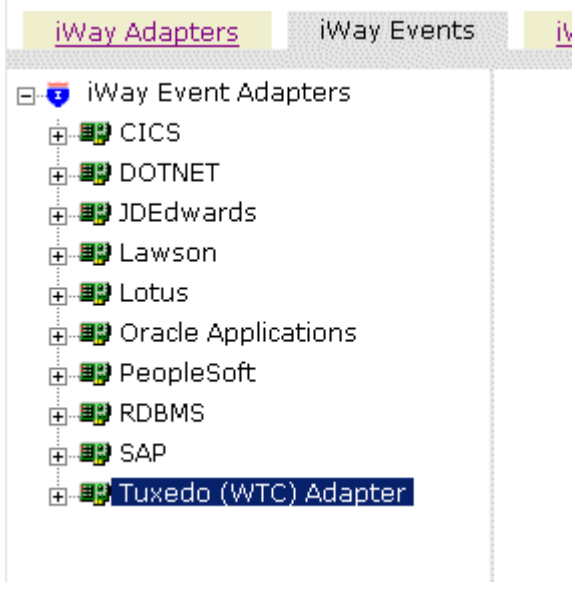
You can create a channel using iWay Servlet Application Explorer. The following procedure also describes how to start or stop a channel.

Procedure: How to Create a Channel

To create a channel using Application Explorer:

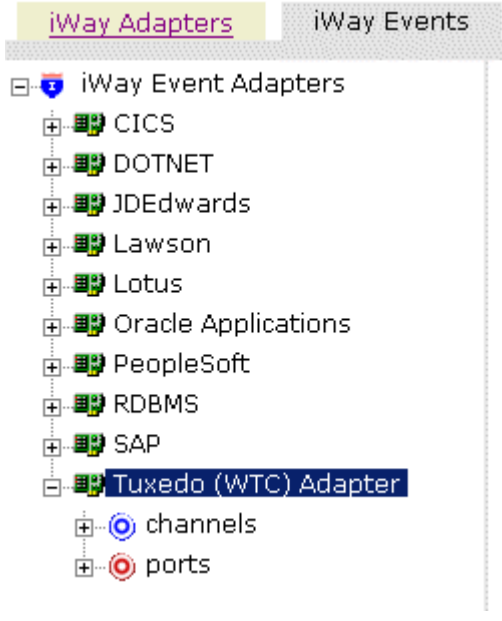
1. Click the *iWay Events* tab.

   The iWay Event Adapters pane opens on the left. The following image shows the list of iWay adapters that support events with the Tuxedo (WTC) Adapter selected.



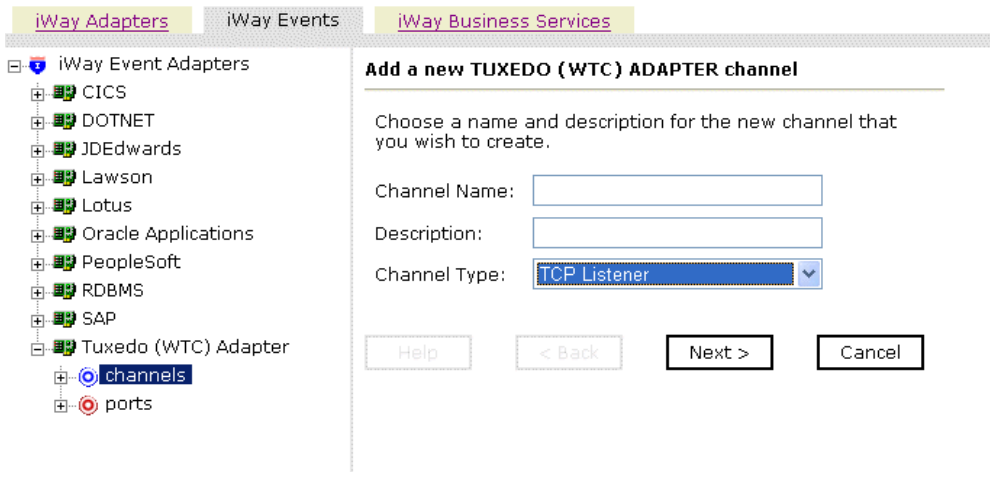
2. Expand the *Tuxedo* node.

The following image shows the iWay Event Adapters pane on the left with the Tuxedo (WTC) Adapter expanded displaying the ports and channels nodes.



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

   The following image shows the Add a new Tuxedo channel pane that opens on the right where you enter channel name and description.



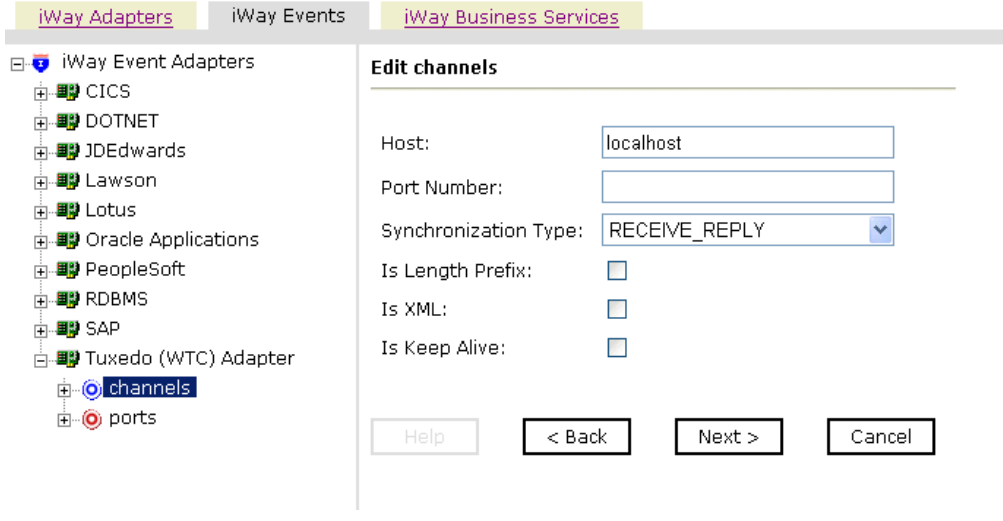
a. In the Channel Name field, type a name, for example, TEST_CHANNEL.

b. In the Description field, type a brief description.

c. From the drop-down list, select a channel type, for example, TCP Channel.

5. Click *Next*.

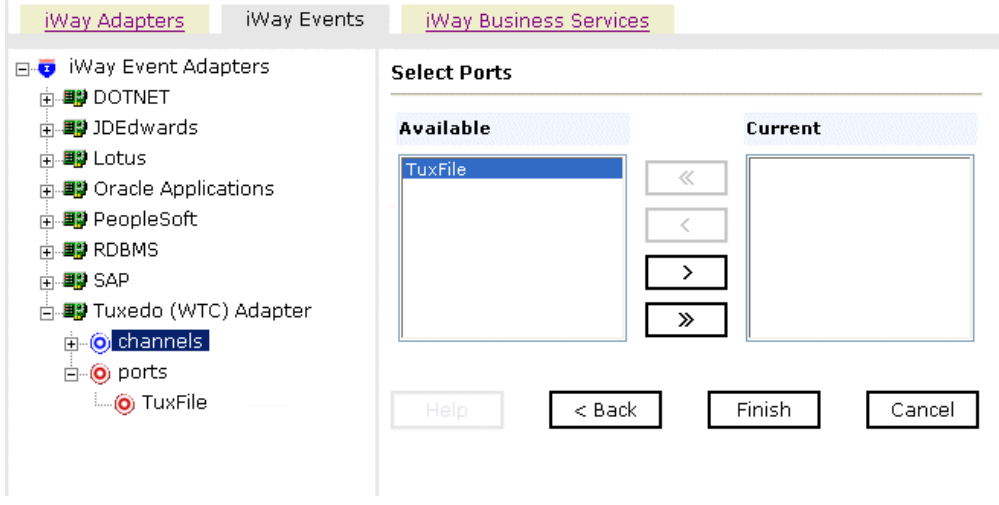
The following image shows the Edit channels pane opens on the right where you enter the channel information.



6. Enter the information that is specific to your BEA Tuxedo system and the channel you are creating.

7. Click *Next*.

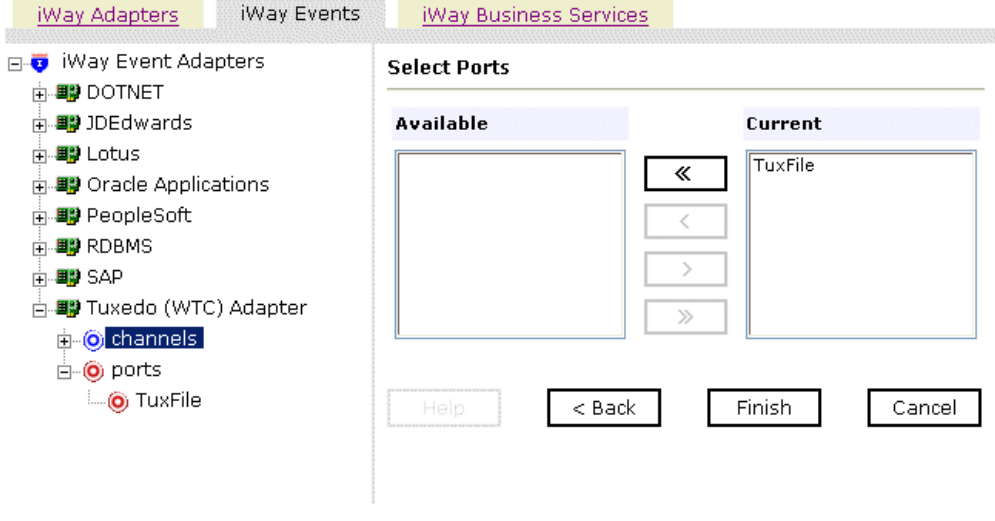
The Select Ports pane, shown in the following image, opens on the right. This pane provides lists of available and current ports and buttons to enable you to move ports from one list to the other.



a. Select an event port from the list of current ports.

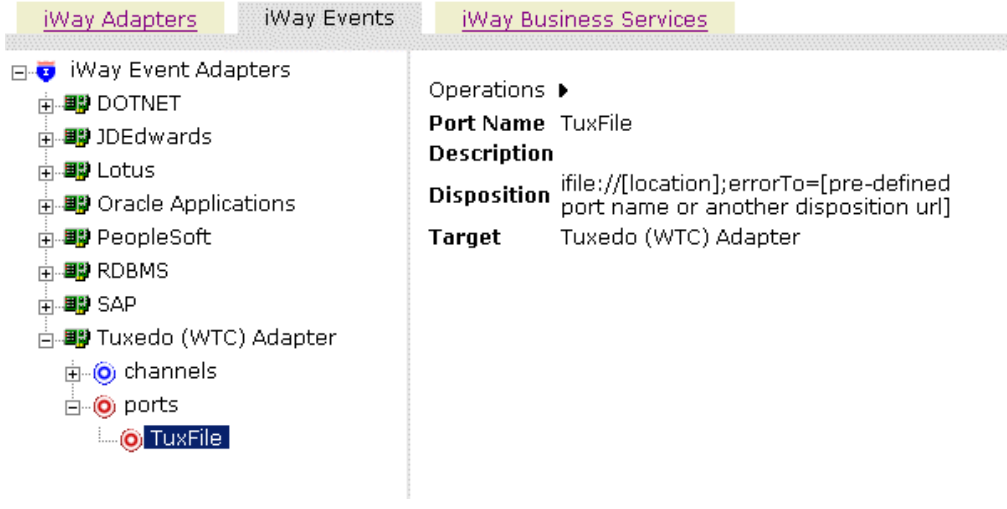
b. To transfer the port to the list of available ports, click the single right arrow button. To associate all event ports, click the double right arrow button.

The following image shows the Select Ports pane on the right with TuxFile listed as the current port available.



8. Click *Finish*.

   The summary pane opens on the right, as shown in the following image. A summary provides the channel description, channel status, and available ports. All the information is associated with the channel you created.



   The channel appears under the channels node in the left pane. An X through the icon indicates that the channel is currently disconnected.

   You must start the channel to activate your event configuration.

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

   When the channel is activated, the X through the icon in the left pane disappears.

10. To stop the channel at any time, move the pointer over *Operations* and select *Stop the channel*.

Creating a Channel Using Specific Protocols

You can create the following types of channels using iWay Servlet Application Explorer:

- JNDI
- TCP

The following procedures explain how to create these channels.

Procedure: How to Create a JNDI Channel

To create a JNDI channel using Application Explorer:

1. Click the *iWay Events* tab.

   The iWay Event Adapters opens in the left pane showing the adapters that support events.

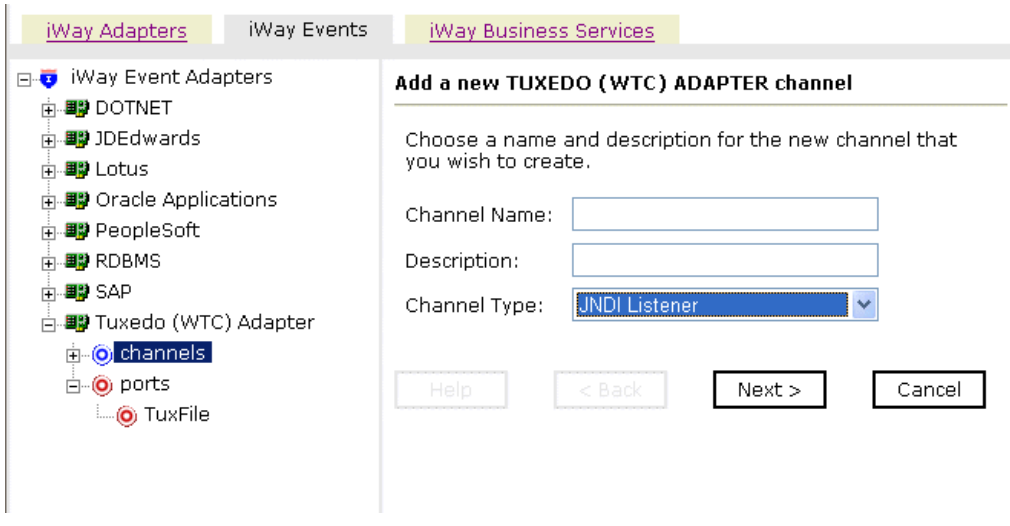
2. Expand the *iWay Adapter* node.

   The ports and channels nodes appear in the left pane.

3. Click the *channels* node.

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

   The Add a new TUXEDO (WTC) ADAPTER channel pane opens on the right, as shown in the following image, where you enter channel name and description.



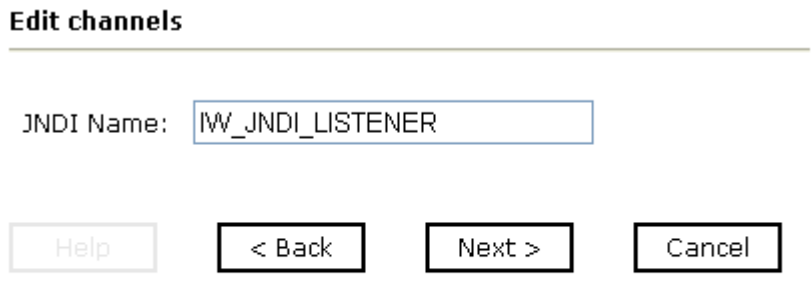
   a. Type a name for the channel, for example, NewChannel.

   b. Type a brief description.

   c. From the drop-down list, select *JNDI Listener*.

5. Click *Next*.

The Edit channels pane opens on the right, as shown in the following image, displaying the JDI Name value, IW_JNDI_LISTENER.



6. Click *Next*.

The Select Ports pane opens.

a. Select an event port from the list of current ports.

b. To transfer the port to the list of available ports, click the single right arrow button. To associate all the event ports, click the double right arrow button.

7. Click *Finish*.

The channel appears under the channels node in the left pane. An X over the icon indicates that the channel is currently disconnected. You must start the channel to activate your event configuration.

In the right pane, a summary provides the channel description, channel status, and available ports. All the information is associated with the channel you created

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

The channel you created becomes active. The X over the icon disappears.

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

Procedure: How to Create a TCP Channel

To create a TCP channel using Application Explorer:

1. Click the *iWay Events* tab.

   The iWay Event Adapters opens in the left pane showing the adapters that support events.

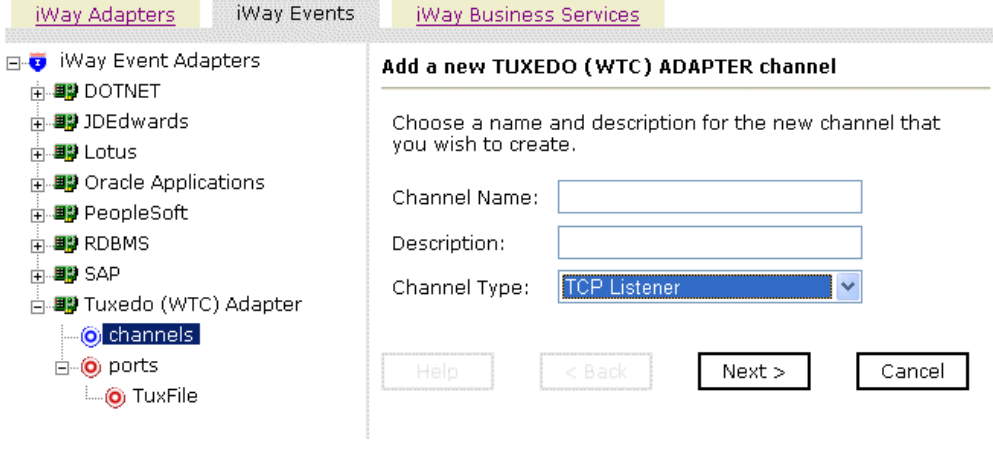
2. Expand the *iWay Adapter* node.

   The ports and channels nodes appear in the left pane.

3. Click the *channels* node.

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

   The Add a new TUXEDO (WTC) ADAPTER channel pane opens on the right, as shown in the following image, where you enter channel name and description.



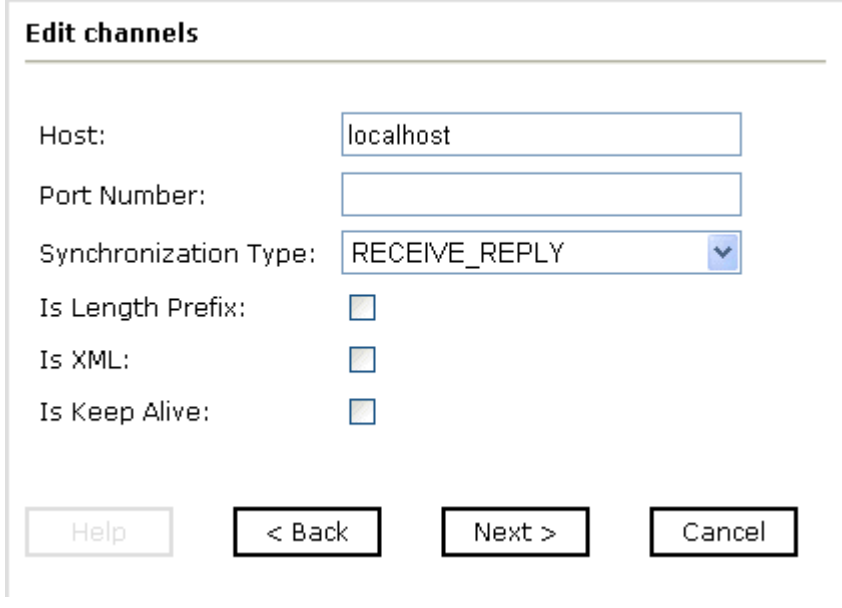
   a. Type a name for the channel, for example, NewChannel.

   b. Type a brief description.

   c. From the drop-down list, select *TCP Listener*.

5. Click *Next*.

The following image shows on the right the Edit channels pane containing three fields, Host, Port Number, and Synchronization Type, and three check boxes, Is Length Prefix, Is XML, and Is Keep Alive, and three action buttons.



6. Enter the information that is specific to your BEA Tuxedo system and the channel you are creating.
7. Click *Next*.

   The Select Ports pane opens.

   a. Select an event port from the list of current ports.

   b. To transfer the port to the list of available ports, click the single right (>) arrow button. To associate all the event ports, click the double right (>>) arrow button.
8. Click *Finish*.

   The channel appears under the channels node in the left pane. An X over the icon indicates that the channel is currently disconnected. You must start the channel to activate your event configuration.

   In the right pane, a summary provides the channel description, channel status, and available ports. All the information is associated with the channel you created.
9. Move the pointer over *Operations* and select *Start the channel*.

   The channel becomes active. The X over the icon disappears.
10. To stop the channel, move the pointer over *Operations* and select *Stop the channel*.

Modifying a Channel

You can edit an existing channel.

Procedure: How to Edit a Channel

To edit an existing channel:

1. In the left pane, select the channel you want to edit.
2. In the right pane, move the pointer over *Operations* and select *Edit*.
3. Make the required changes to the channel configuration fields and click *Finish*.

Deleting a Channel

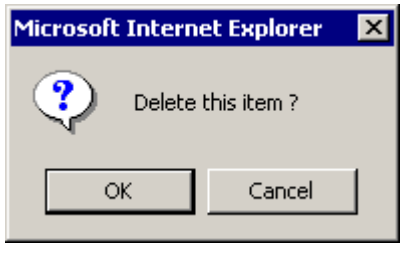
You can remove an existing channel.

Procedure: How to Delete a Channel

To delete an existing channel:

1. In the left pane, select the channel you want to delete.
2. In the right pane, move the pointer over *Operations* and select *Delete*.

   The following image shows the confirmation dialog box that opens.



3. To delete the channel you selected, click *OK*.

   The channel disappears from the list in the left pane.

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.

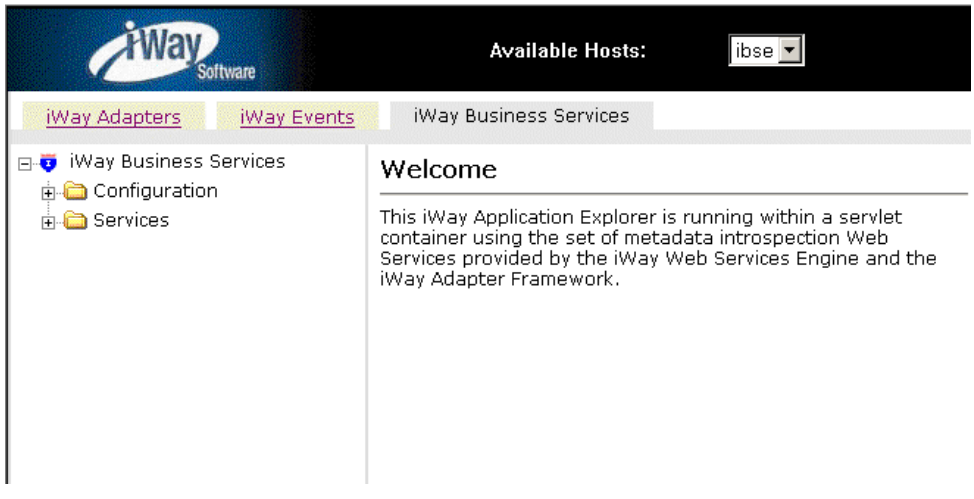
You configure the IP and Domain Restriction policy type slightly differently from other policy types. The IP and Domain Restriction policy type controls connection access to iBSE and therefore, need not be applied to an individual business service. You need not create a policy, however, you must enable 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 Service Adapters, Event Adapters, 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.

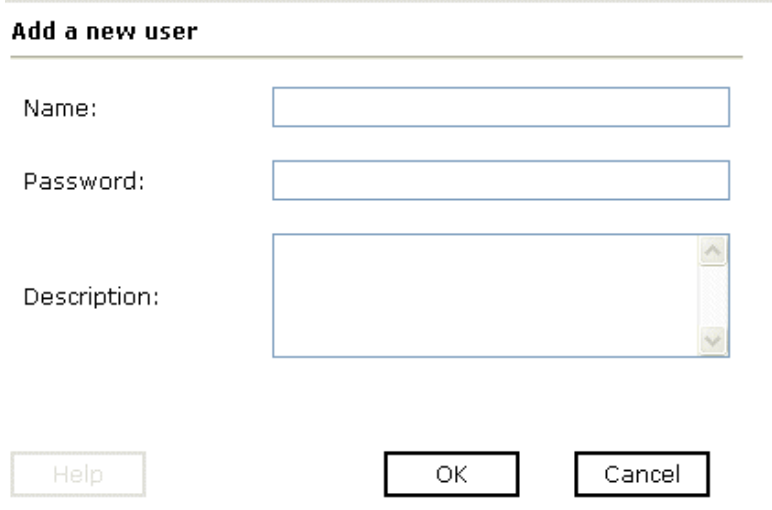
c. Expand the *Security* node.

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.



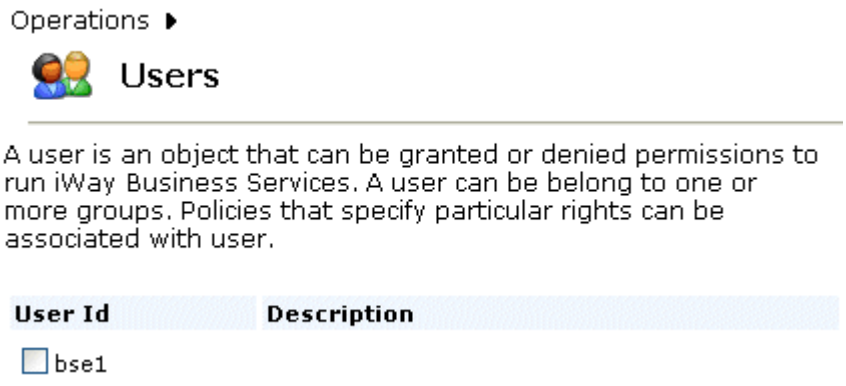
a. In the Name field, type a user ID.

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.

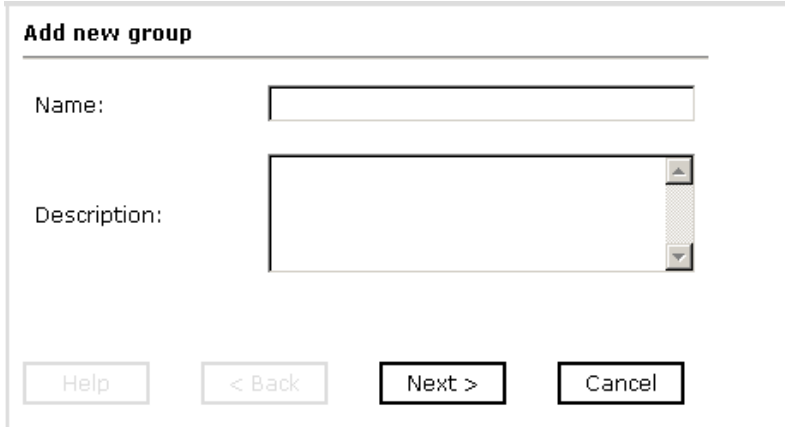


Procedure: How to Create a Group to Associate With a Policy

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.

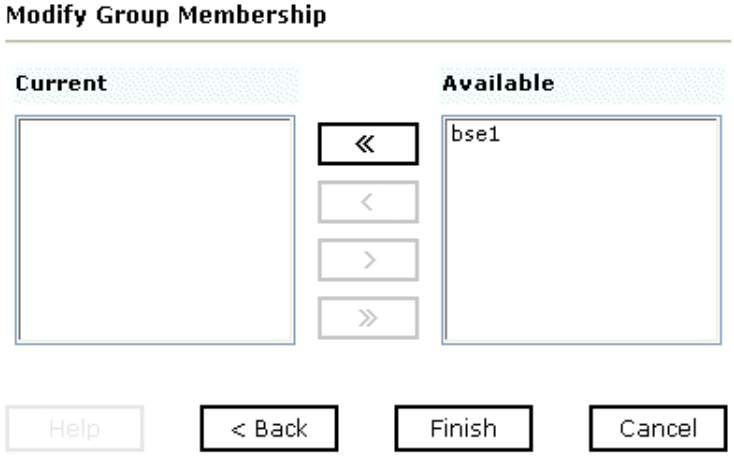


a. In the Name field, type a a name for the group.

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.

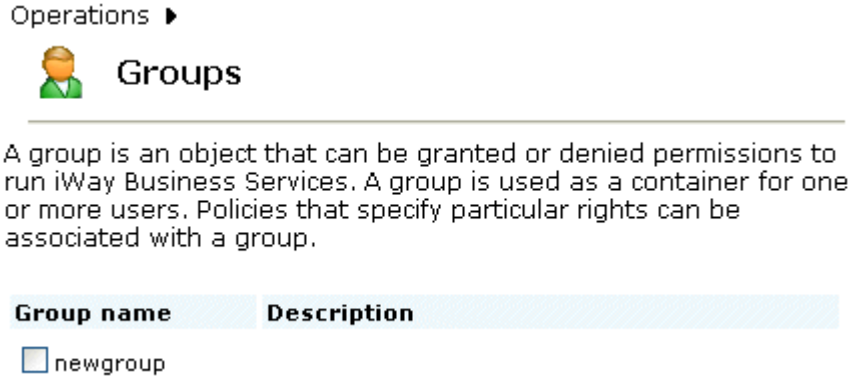


You can either highlight a single user in the list of available users and add it to the current list by clicking the left arrow, or you can click the double left arrow to add all users in the list of available users to the group.

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.



Procedure: How to Create an Execution Policy

To create an execution policy:

1. Open *Servlet Application Explorer*.

a. Click the *iWay Business Services* tab.

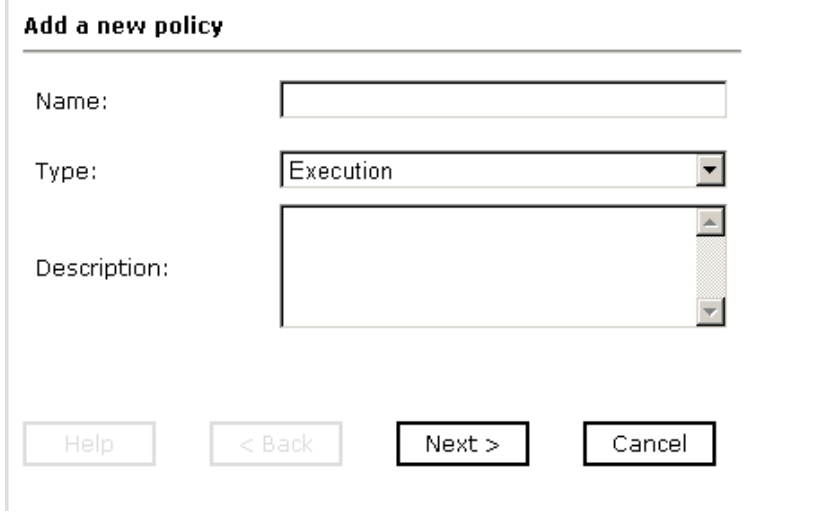
b. Expand the *Configuration* node.

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.



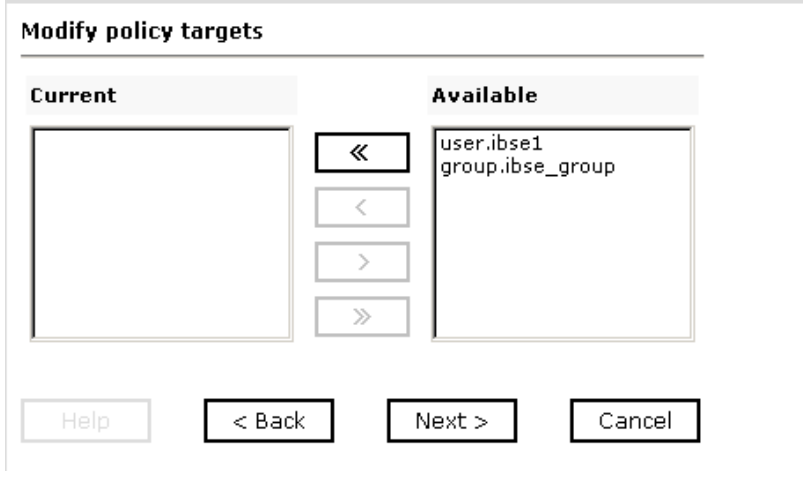
a. In the Name field, type a a name for the policy.

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.

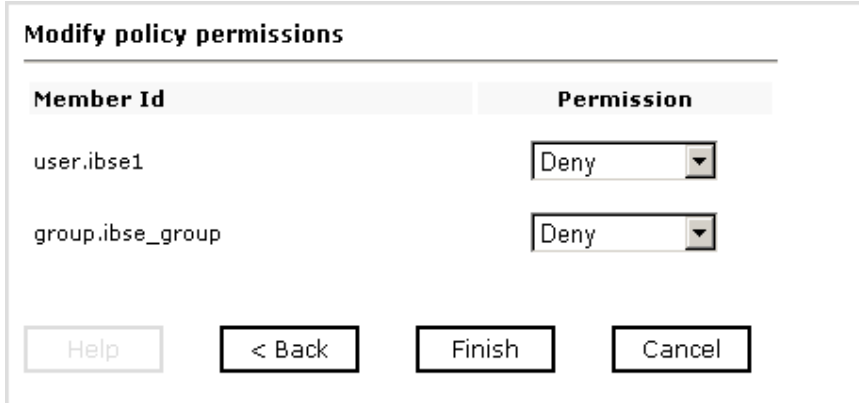


4. Select a minimum of one user or group from the Available pane.

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.

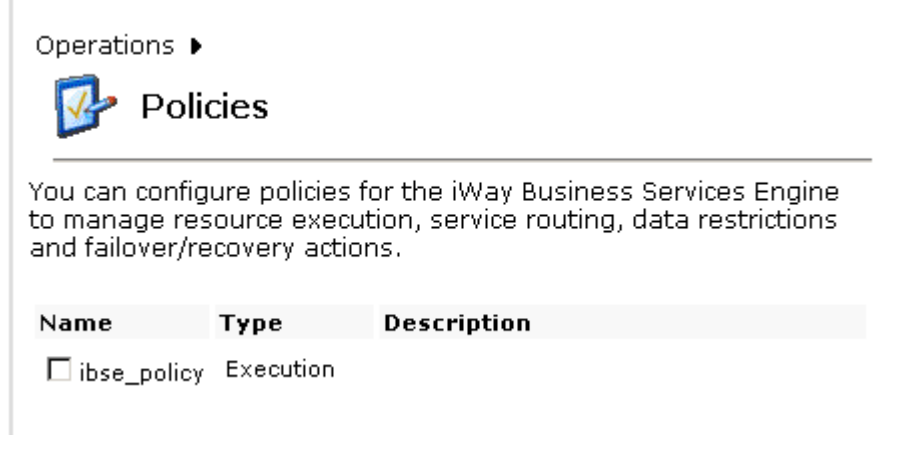
5. Click *Next*.

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.



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.

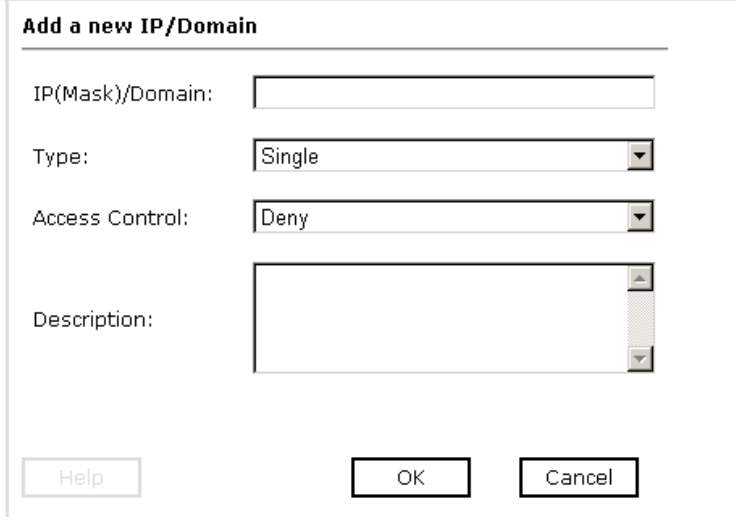


Procedure: How to Configure IP and Domain Restrictions

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.



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).

CHAPTER 5

Management and Monitoring

Topics:

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

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

Managing and Monitoring Services and Events Using iBSE

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

The following monitoring levels are available for services:

- System
- Service
- Method

The following monitoring levels are available for events:

- System
- Channel
- Port

Procedure: How to Configure Monitoring Settings

To configure monitoring settings:

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

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

   where:

   localhost

   Is the machine where the application server is running.

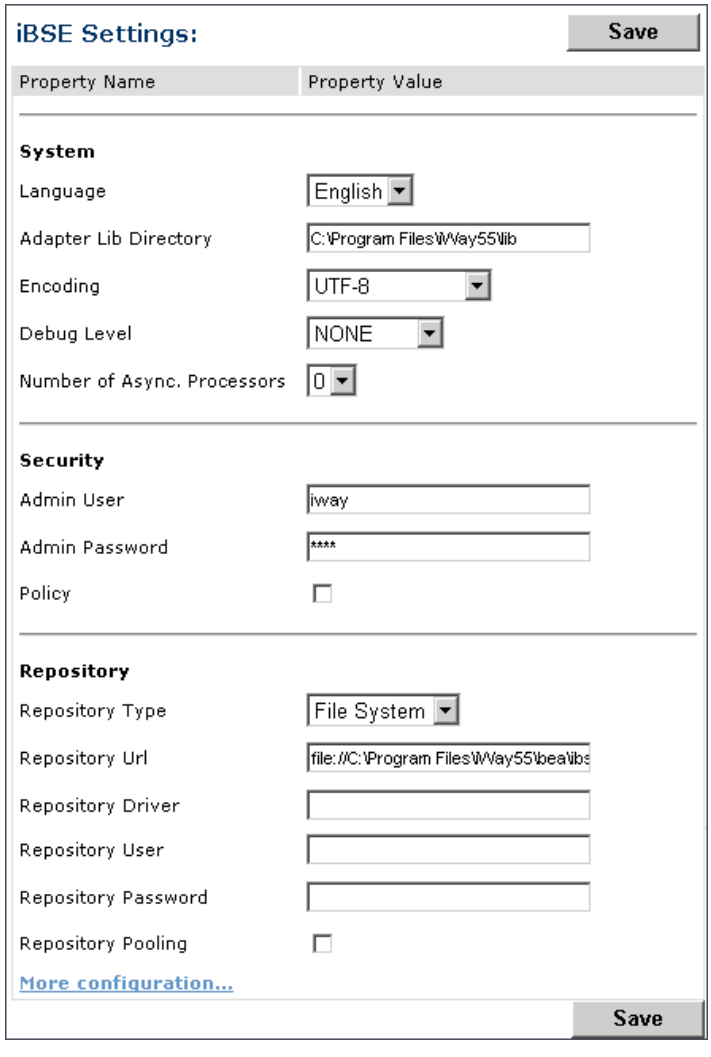
   port

   Is the HTTP port for the application server.

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

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

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



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:

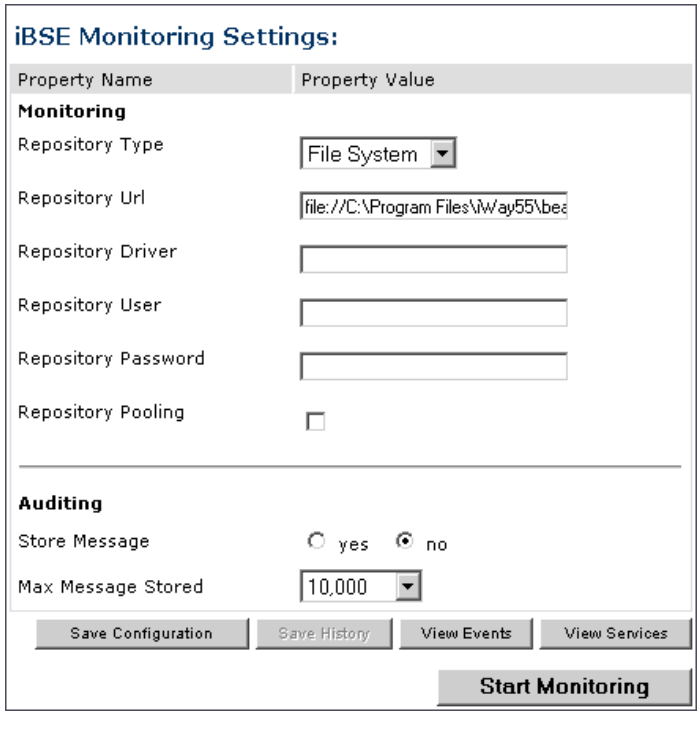
localhost

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.



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.

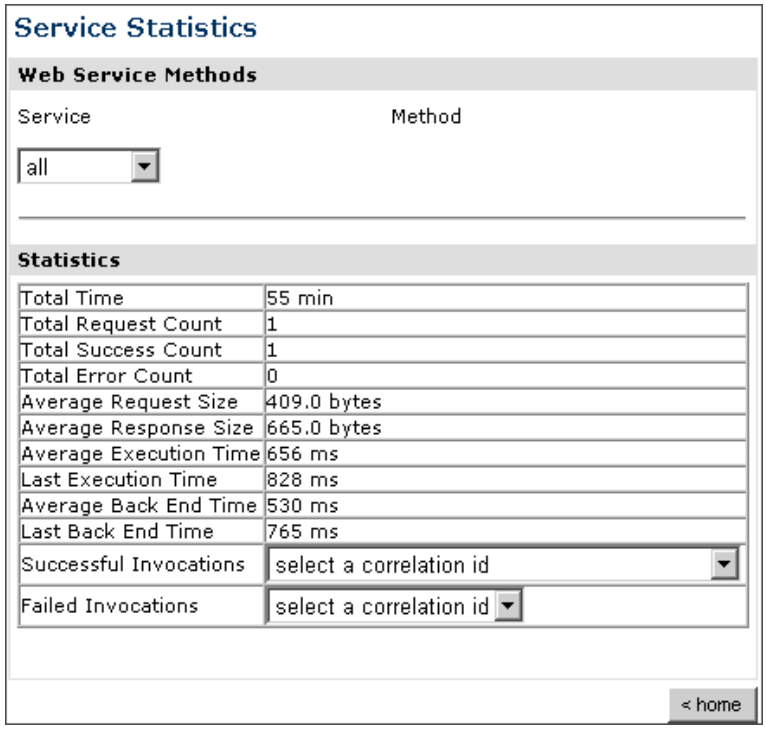
5. To stop monitoring, click *Stop Monitoring*.

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.



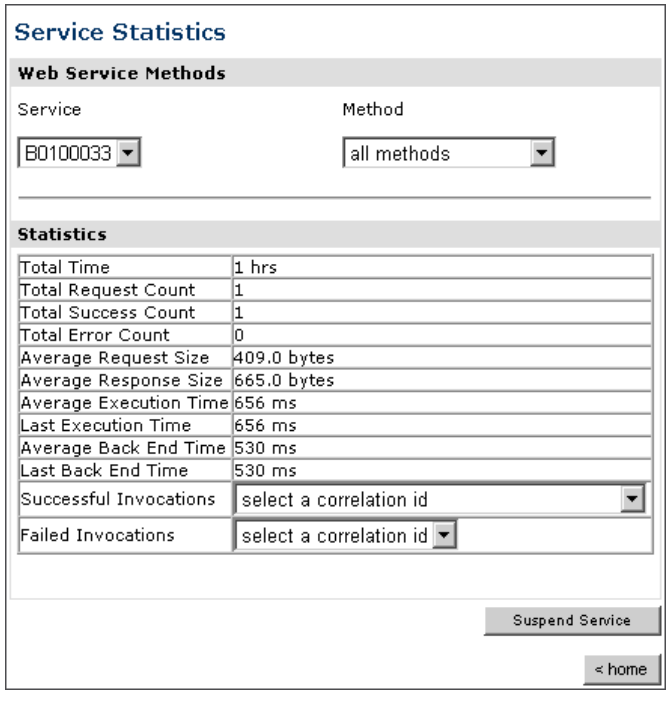
   The system level summary provides services statistics at a system level.

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.
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).

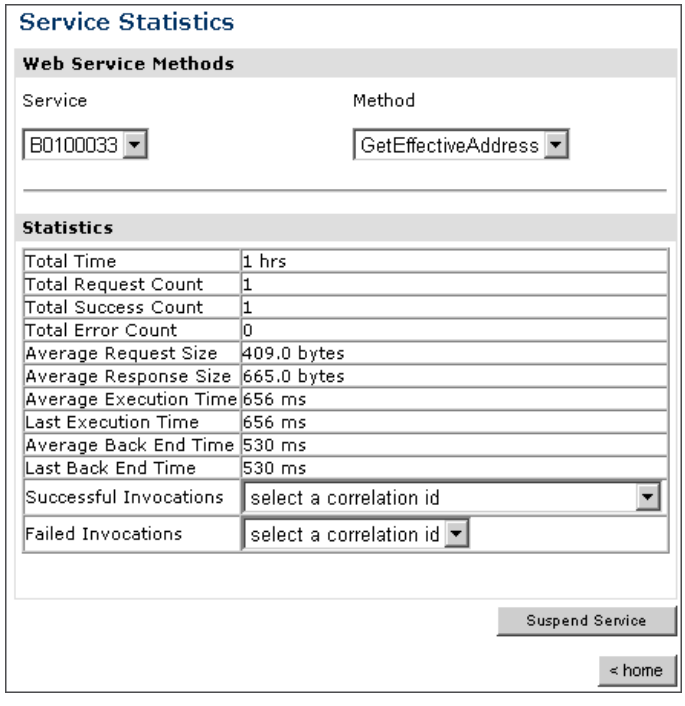


a. To stop a service at any time, click *Suspend Service*.

b. To restart the service, click *Resume Service*.

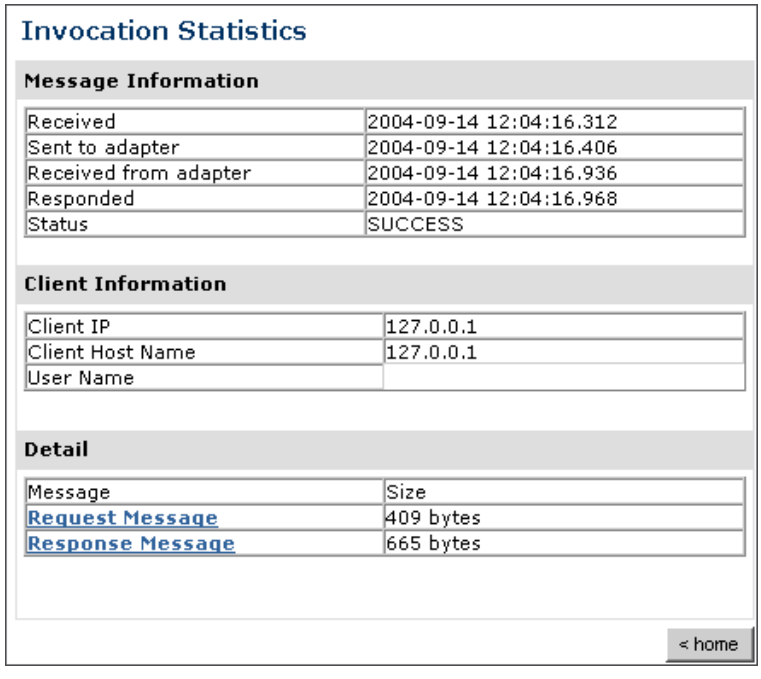
5. Select a method for the service from the Method drop-down list.

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).



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.



7. To view the XML request document in your Web browser, click *Request Message*.

   You can also view the XML response document for the service.

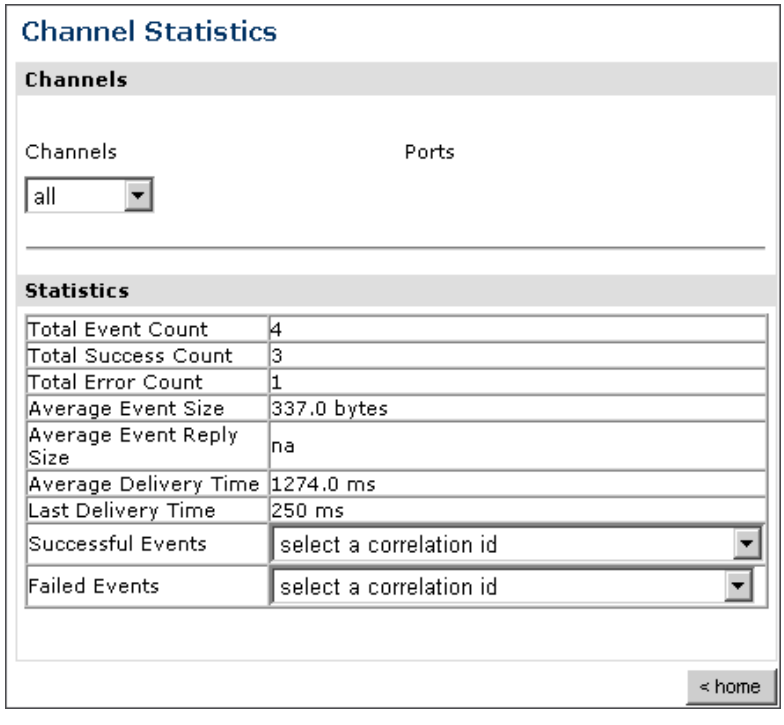
8. To return to the iBSE Monitoring Settings window, click *home*.

Procedure: How to Monitor Events

To monitor events:

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

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



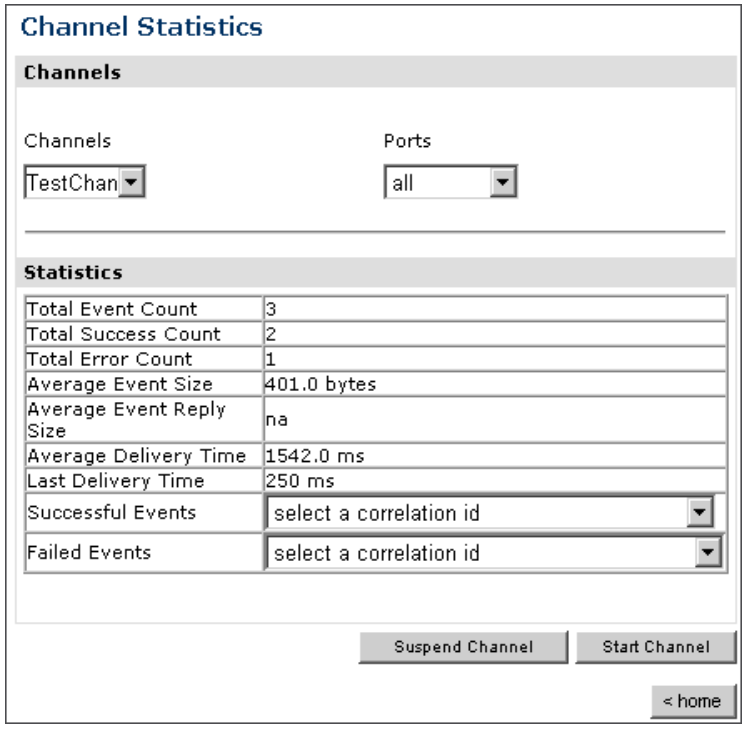
   The system level summary provides event statistics at a system level.

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

Statistic	**Description**
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.

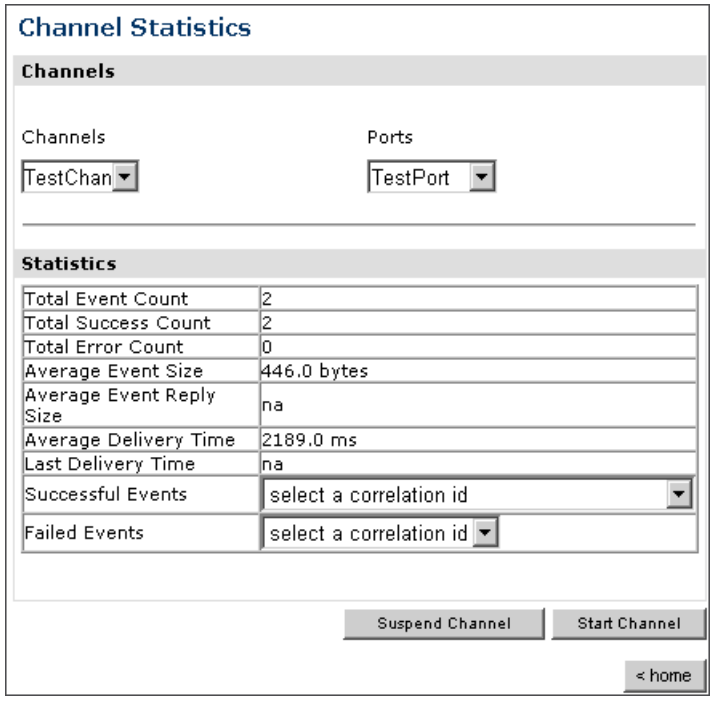


   a. To stop a channel at any time, click *Suspend Channel*.

   b. To start the channel, click *Start Channel*.

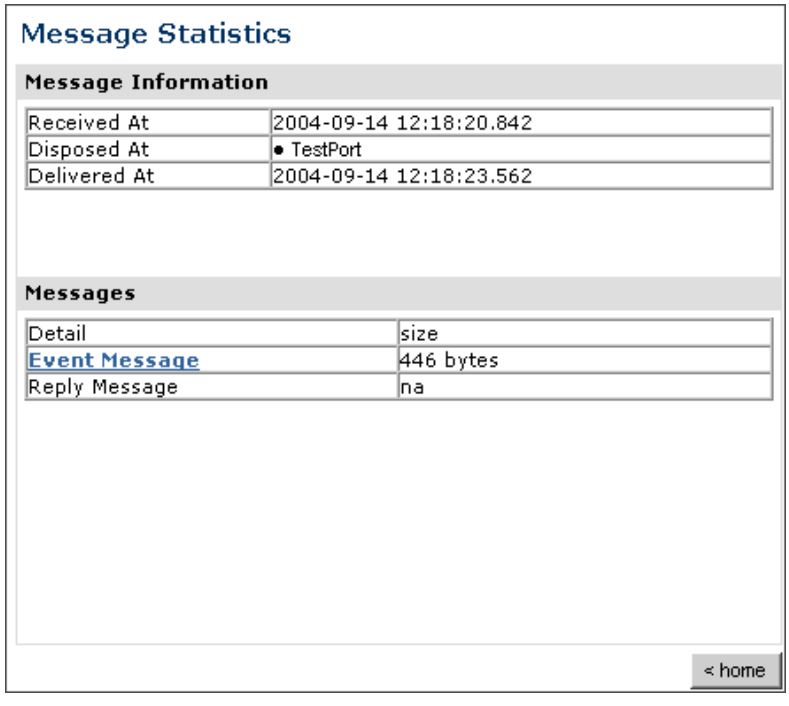
5. From the Ports drop-down list, select a port for the channel.

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.



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

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



   a. To view the XML event document in your Web browser, click *Event Message*.

   b. To return to the iBSE Monitoring Settings window, click *home*.

Managing and Monitoring Services and Events Using the JCA Test Tool

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

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

To manage and monitor services using the JCA Test Tool:

1. Open a Web browser to:

   `http://localhost:port/iwjcaivp`

   where:

   localhost

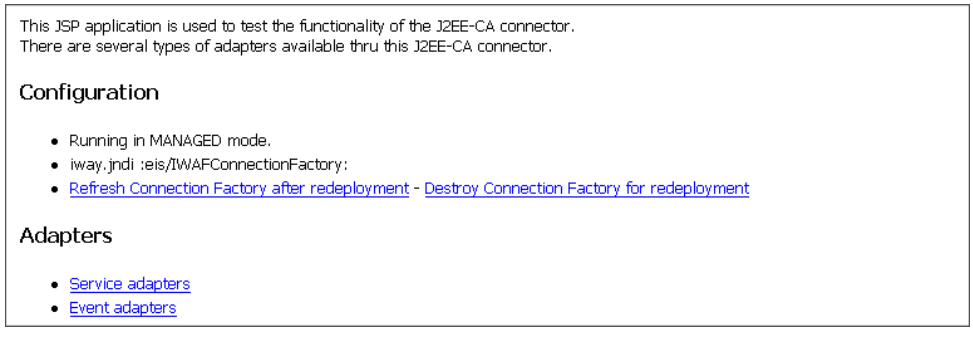
   Is the name of the machine where your application server is running.

   port

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

   `http://localhost:7001/iwjcaivp`

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



   The JCA Test Tool runs in managed mode by default.

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

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

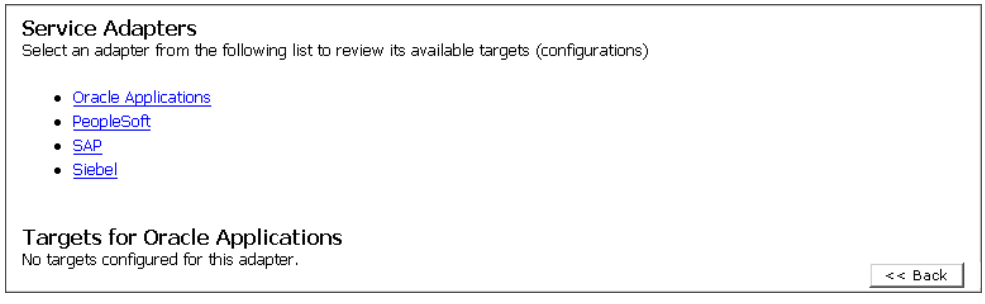
   a. Click *Destroy Connection Factory for redeployment*.

   b. Redeploy the JCA connector.

   c. In the JCA Test Tool, click *Refresh Connection Factory after redeployment*.

3. Click *Service adapters*.

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



4. Select a service adapter to monitor.

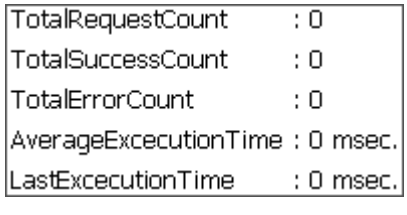
   a. Click the desired target for your service adapter.

   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.



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

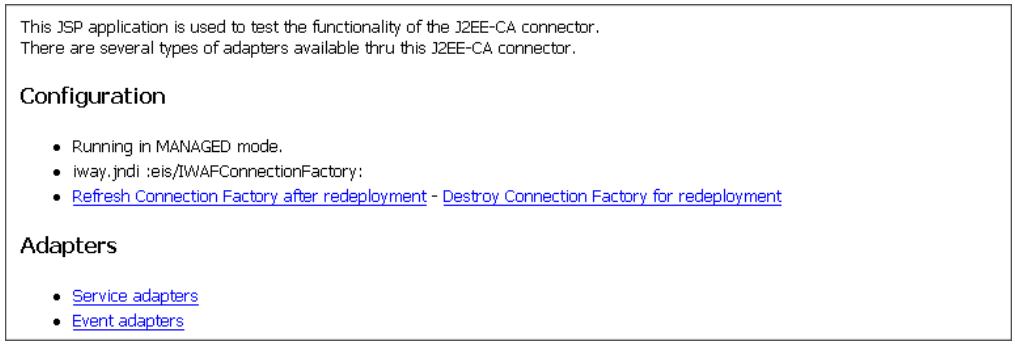
   Is the name of the machine where your application server is running.

   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.

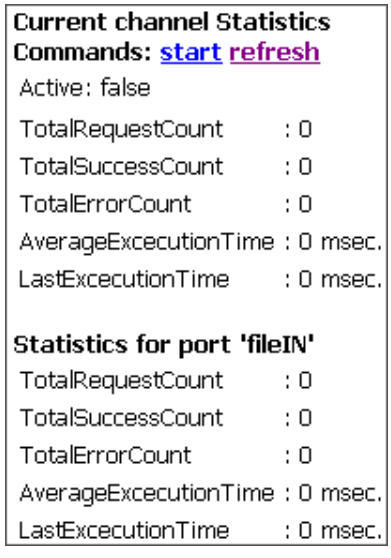
   c. In the JCA Test Tool, click *Refresh Connection Factory after redeployment*.

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.



Setting Engine Log Levels

The following section describes how to set engine log levels for Servlet iBSE and JCA. For more information, see *iWay Installation and Configuration*.

Procedure: How to Enable Tracing for Servlet iBSE

To enable tracing for Servlet iBSE:

1. Open the Servlet iBSE configuration page at:

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

   where:

   localhost

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

   port

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

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

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

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

Procedure: How to Enable Tracing for JCA

To enable tracing for JCA:

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

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

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

   For example:

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

   A directory in the configuration directory contains the logs.

   a. Review the logs generated by your application server.

b. Leave the remainder of the previous file unchanged.

3. Save the file and exit the editor.

4. Redeploy the connector.

Migrating Repositories

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

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

File Repositories

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

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

where:

drive

Is the location of your iWay 5.5 installation.

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

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

iBSE Repositories

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

Note: The following procedure allows you to migrate only Web services. If migrating event handling information is one of your requirements, you must migrate at the database level. For more information, see *Migrating Event Handling Configurations* on page 5-26.

Procedure: How to Migrate an iBSE Repository Configured for Oracle

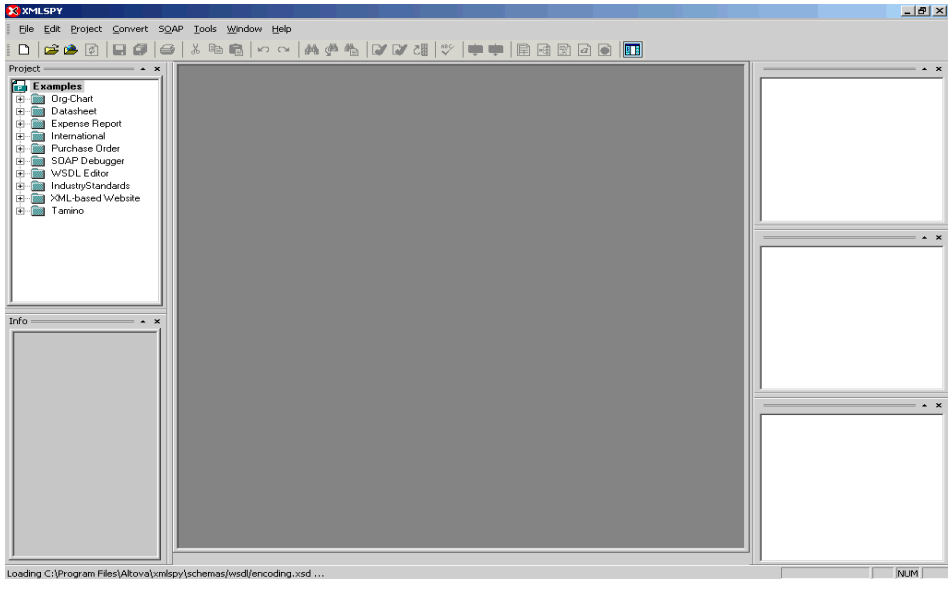
To migrate an iBSE repository that is configured for Oracle:

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

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

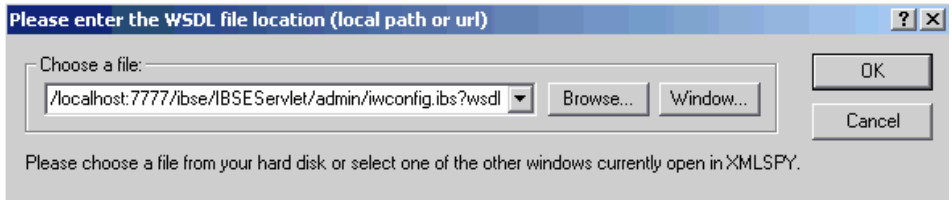
2. Open a third party XML editor, for example, XMLSPY.

   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*.

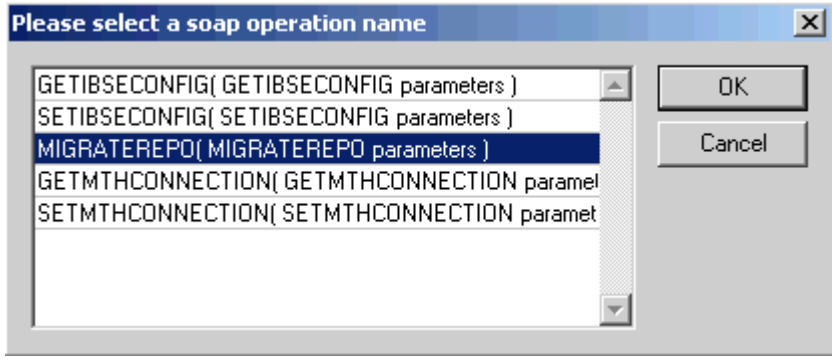
   The following image shows the WSDL file location dialog box that opens, where you enter a local path or URL. The dialog includes Browse, Window, OK, and Cancel buttons.



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

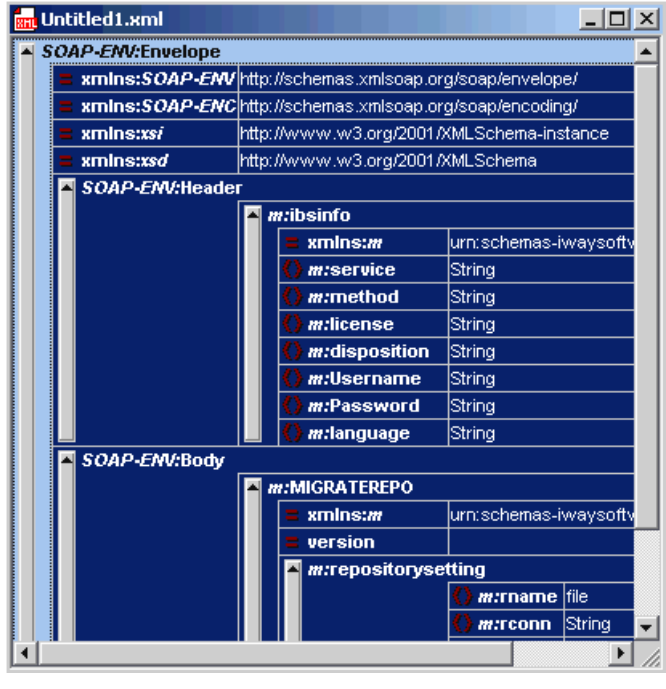
5. Click *OK*.

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 *iWay Installation and Configuration*.

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:

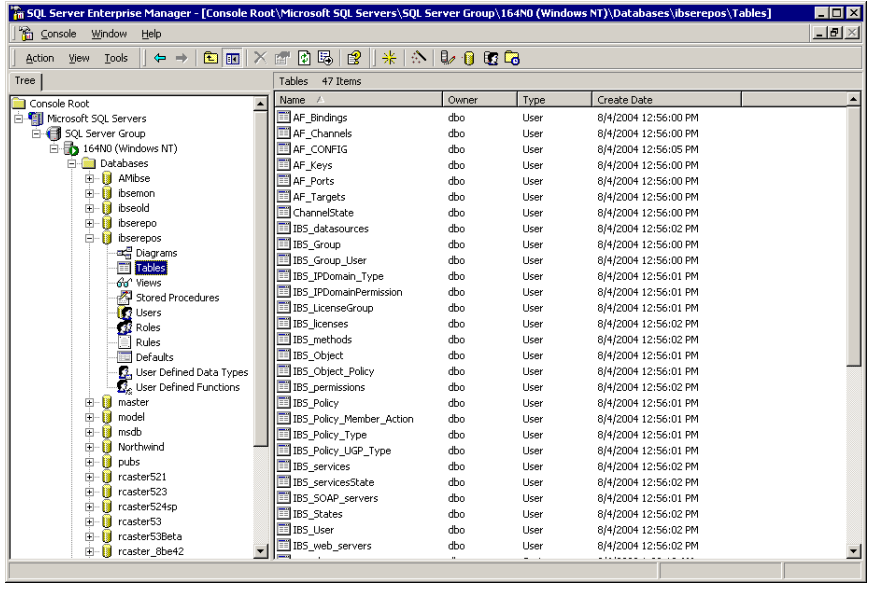
1. Open a command prompt and navigate to the iWay setup directory. The default location on Windows is:

   ```
   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 *iWay Installation and Configuration*.

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:

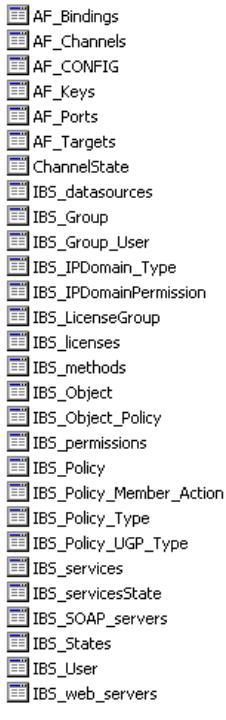
   For Oracle 8:

   ```
   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.

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

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:

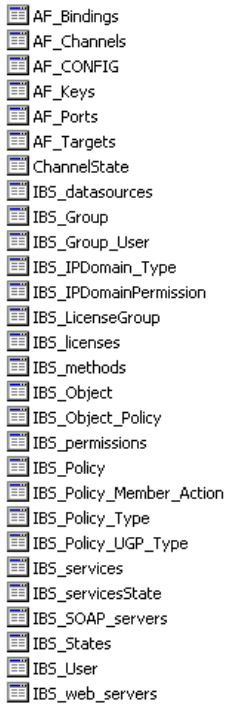
1. Open a command prompt and navigate to the iWay setup directory. The default location on Windows is:

   ```
   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.

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

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:

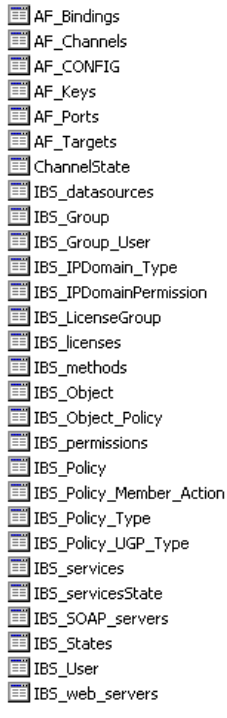
1. Open a command prompt and navigate to the iWay setup directory. The default location on Windows is:

   ```
   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.



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

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

Exporting or Importing Targets

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

Procedure: How to Export a Target

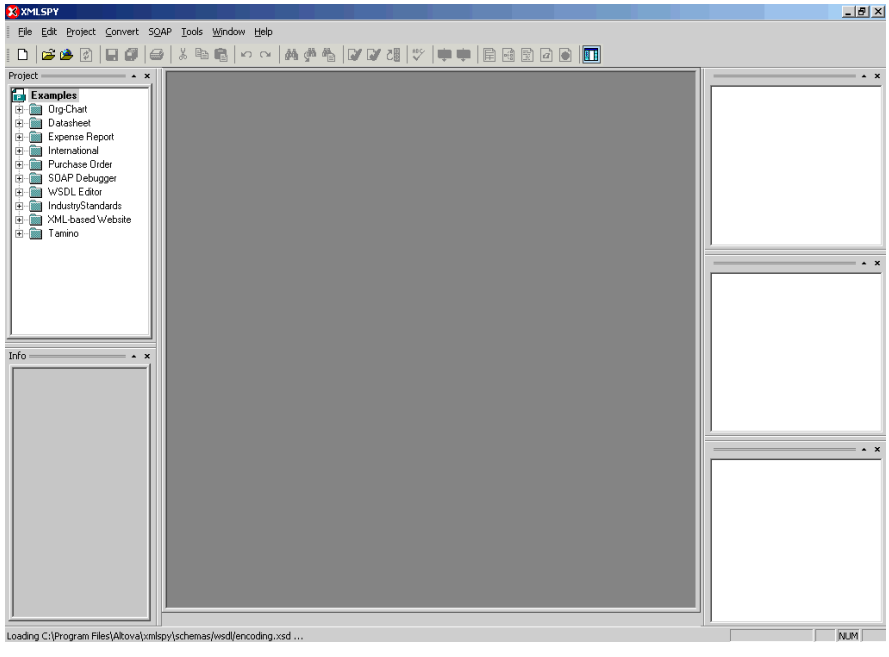
To export a target:

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

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

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

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



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

   The WSDL file location dialog box opens.

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

5. Click *OK*.

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

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

   A window opens that shows the structure of the SOAP envelope.

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

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

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

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

9. Locate the following section:

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

   a. For the <m:target> tag, replace the String placeholder with the EIS target system name as it appears in Application Explorer and verify whether this value is case sensitive.

   b. For the <m:name> tag, replace the String placeholder with the name of the target you want to export.

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

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

Procedure: How to Import a Target

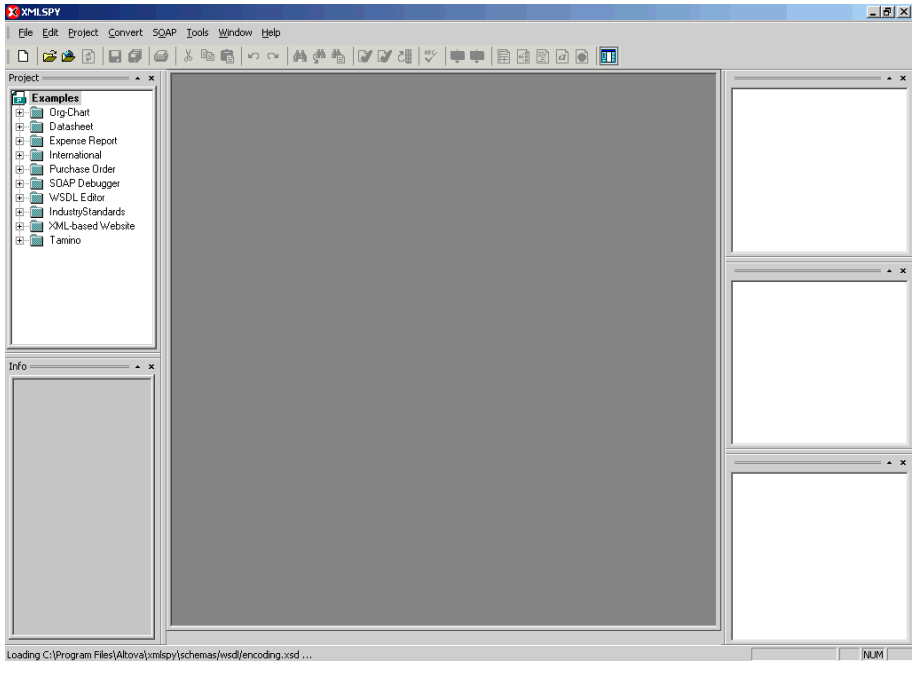
To import a target:

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

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

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

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



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

   The WSDL file location dialog box opens.

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

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

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

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

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

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

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

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

8. Locate the following section:

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

   a. For the <m:target> tag, replace the String placeholder with the EIS target system name.

   b. For the <m:name> tag, replace the String placeholder with the new name of the target you want to import.

   c. For the <m:description> tag, replace the String placeholder with a description of the target.

   d. For the <m:repositoryid> tag, copy and paste the contents of the <m:repositoryid> tag that was returned when you exported your target.

   e. For the <m: exporttime> tag, copy and paste the contents of the <m: exporttime> tag that was returned when you exported your target.

   f. For the <m: contents> tag, copy and paste the contents of the <m: contents> tag that was returned when you exported your target.

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

Retrieving or Updating Web Service Method Connection Information

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

Procedure: How to Retrieve Web Service Method Connection Information

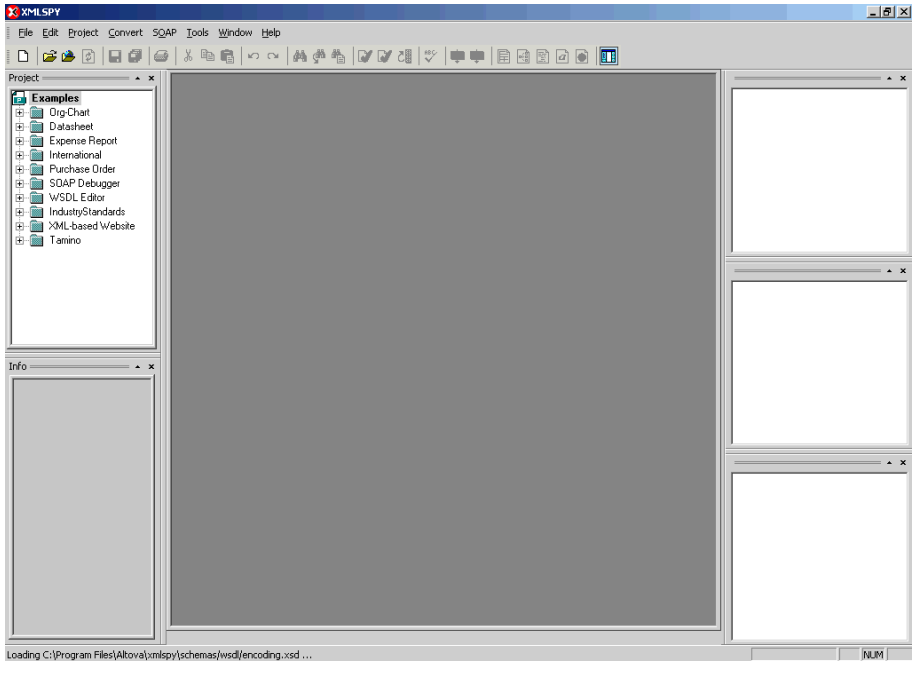
To retrieve Web service method connection information:

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

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

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

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



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

   The WSDL file location dialog box opens.

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

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

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

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

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

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

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

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

8. Locate the following section:

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

   a. For the <m:servicename> tag, replace the String placeholder with the name of the Web service.

   b. For the <m:methodname> tag, replace the String placeholder with name of the Web service method.

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

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

Procedure: How to Update Web Service Method Connection Information

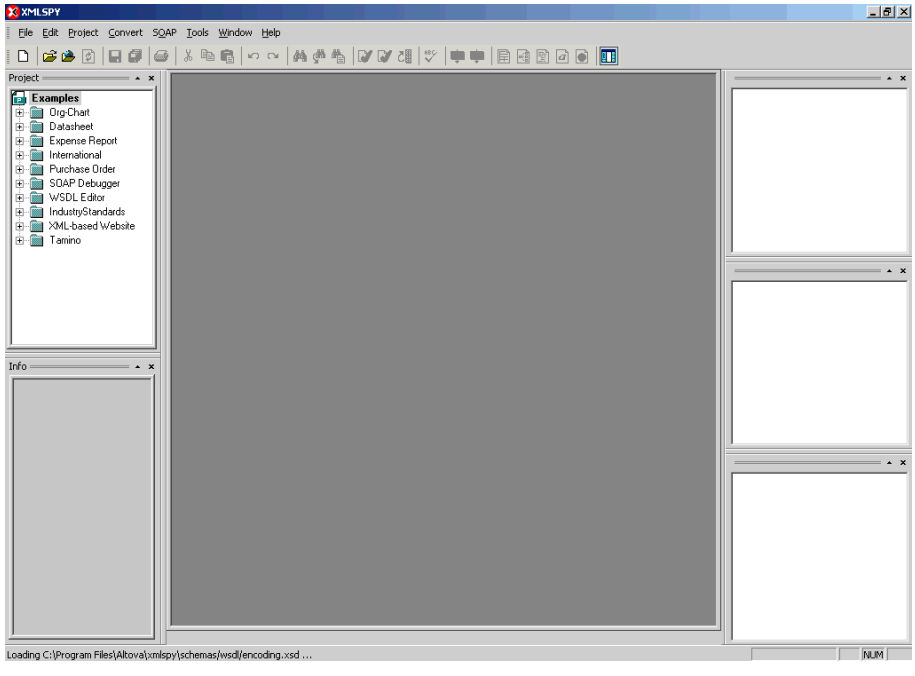
To update Web service method connection information:

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

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

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

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



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

   The WSDL file location dialog box opens.

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

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

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

   A window opens that shows the structure of the SOAP envelope.

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

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

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

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

8. Locate the following section:

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

   a. For the <m:servicename> tag, replace the String placeholder with the name of the Web service.

   b. For the <m:methodname> tag, replace the String placeholder with the name of the Web service method.

   c. For the <m: descriptor> tag, copy and paste the contents of the <m: descriptor> tag that was returned when you retrieved Web Service method connection information.

9. Modify the contents of the <m: descriptor> tag to change the existing Web Service method connection information.

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

Starting or Stopping a Channel Programmatically

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

Procedure: How to Start a Channel Programmatically

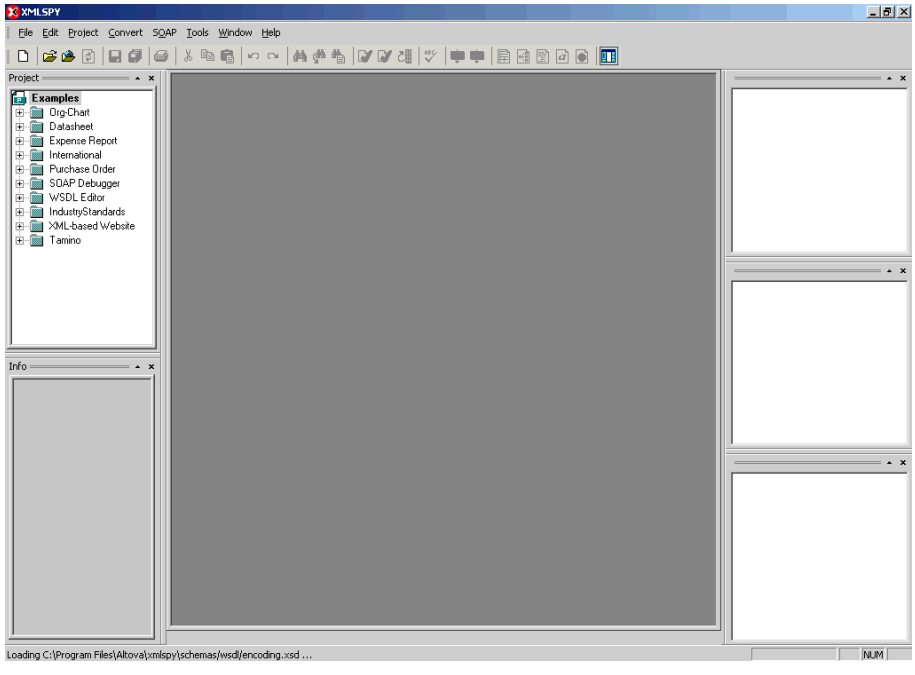
To start a channel programmatically:

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.

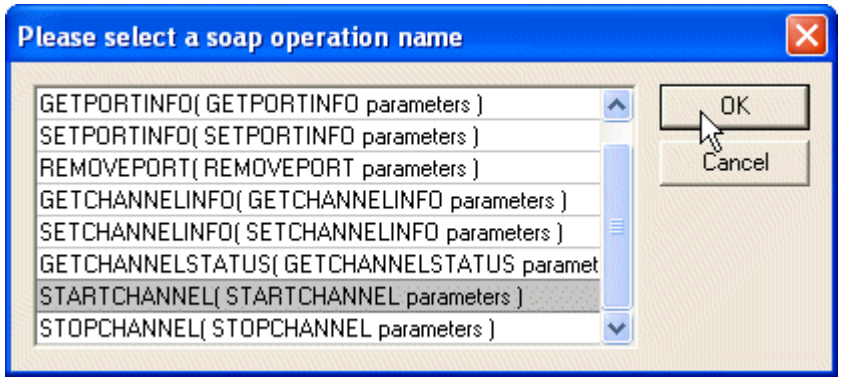


3. From the SOAP menu, select *Create new SOAP request*.

   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.



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

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

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

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

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

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

8. Locate the following section:

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

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

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

Procedure: How to Stop a Channel Programmatically

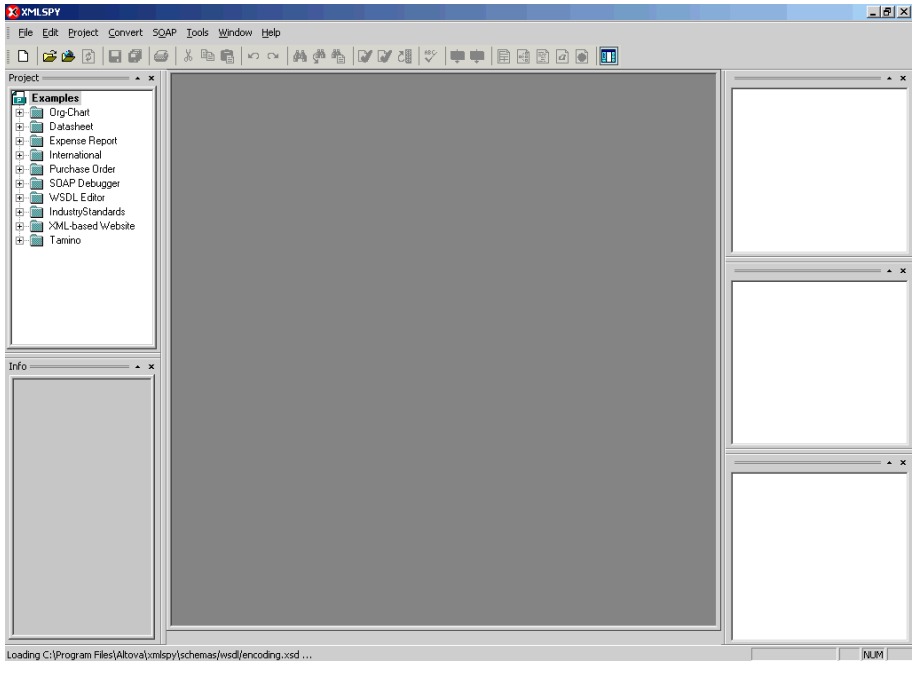
To stop a channel programmatically:

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

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

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

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

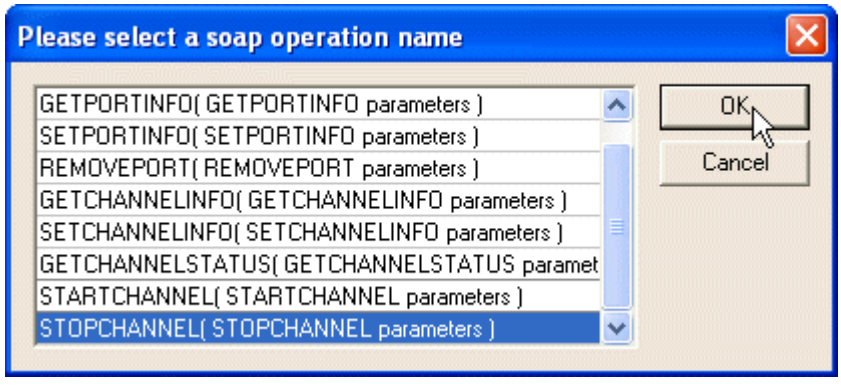


3. From the SOAP menu, select *Create new SOAP request*.

   The WSDL file location dialog box opens.

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

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



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

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

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

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

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

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

8. Locate the following section:

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

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

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

CHAPTER 6

Customizing Your WebLogic Tuxedo Connector Environment

Topics:

- Configuring the WebLogic Tuxedo Connector
- Configuring the WebLogic Tuxedo Connector EJBs
- Creating Domain Access Permissions for WTC Server

The iWay Transaction Adapter for BEA Tuxedo requires the WebLogic Tuxedo Connector. This section describes how to configure the WebLogic Tuxedo Connector environment for use with the adapter.

Note: The following topics use WebLogic Integration 7.0 and ClarifyCRM as an example.

Configuring the WebLogic Tuxedo Connector

A WebLogic Tuxedo Connector (WTC) Server is a running instance of the WebLogic Tuxedo Connector. This topic describes the basic tasks required to configure a WebLogic Tuxedo Connector Server for use with the adapter and includes the following topics:

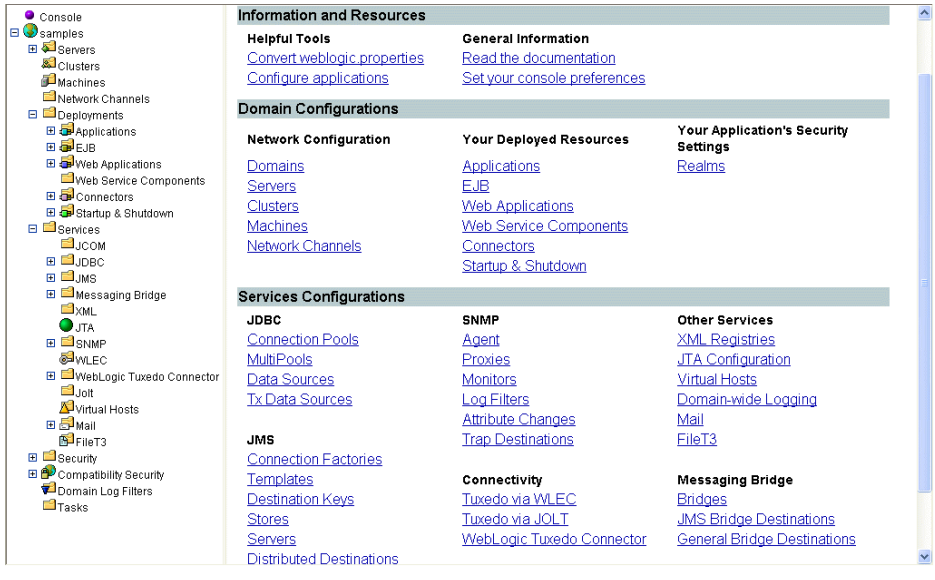
- *How to Create a Local WebLogic Domain* on page 6-6.
- *How to Create a Remote Tuxedo Domain* on page 6-8.
- *Exporting a Local WTC Service* on page 6-10.
- *Importing a Remote Tuxedo Service* on page 6-11.

Procedure: How to Create a New WTC Server

To create a new WTC Server:

1. Log on to the BEA WebLogic Server Console.

   The following image shows the directory structure in the left pane and lists of resources, domain configurations, and service configurations in the right pane.

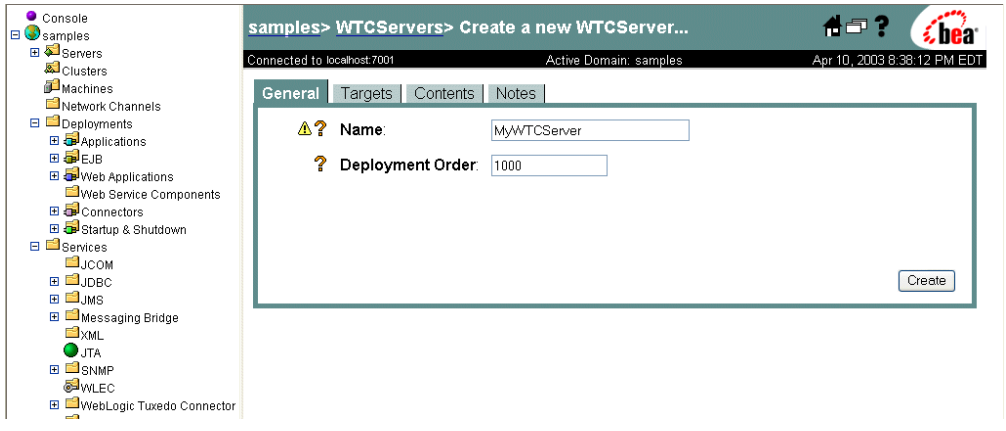


2. Click *WebLogic Tuxedo Connector*.

The following image shows that the WTCServers pane opens on the right with information about the local host connection, the active domain, and the WTC Server name.

3. Click *Configure a new WTCServer.*

The following image shows that the Create a new WTCServer window opens on the right with four tabs. The General tab is active.



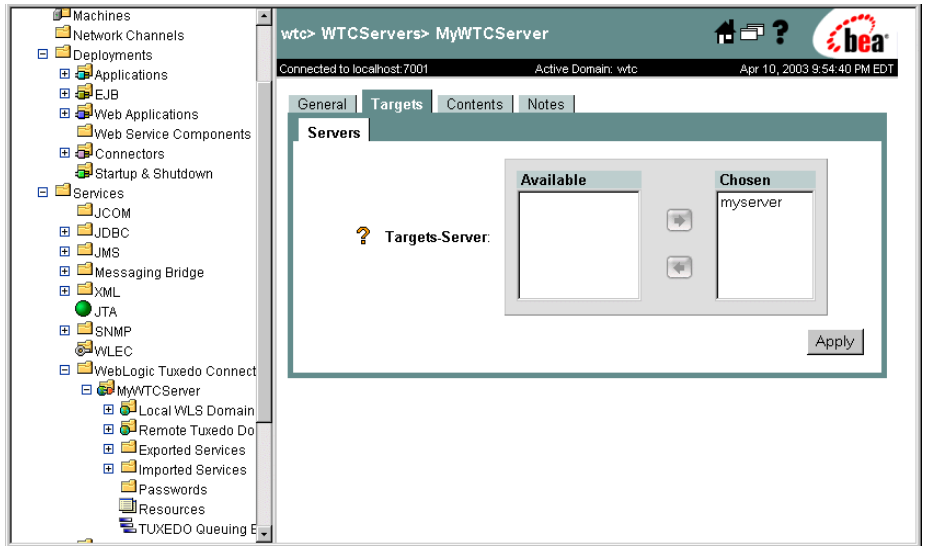
4. Type a name and a deployment order for this WebLogic Tuxedo Connector Server (that is, for this instance of the WebLogic Tuxedo Connector).

You can provide any descriptive name for the server. The name serves only to contain the configuration of domains and services.

5. To create your new WTC Server, click *Create*.

6. Click the *Targets* tab.

The following image shows two lists, one for the available target servers and one for the selected target servers, with arrow buttons that you can use to move a server from one list to the other.

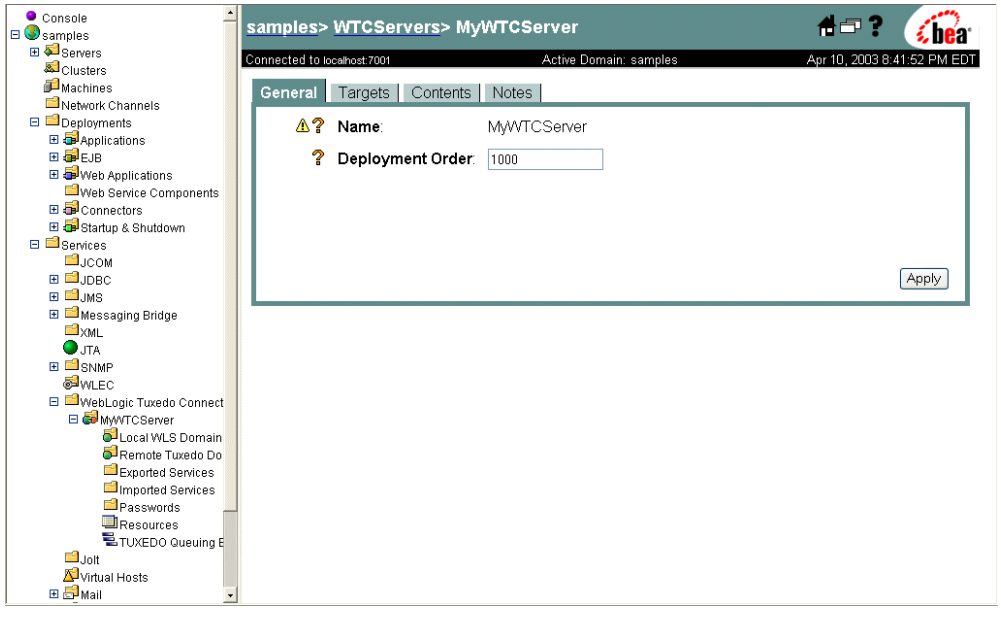


a. Move the WebLogic Server on which you want the WTC server to be deployed to the Chosen list, if it is not already there.

b. In the left pane, expand the node corresponding to your new WTC Server.

The WTC Server components appear in the left pane.

The following image shows the information for the new deployment on the General tab in the right pane.



You have successfully created the WTC Server.

To create a:

- Local WebLogic domain, see *How to Create a Local WebLogic Domain* on page 6-6.
- Remote Tuxedo domain, see *How to Create a Remote Tuxedo Domain* on page 6-8.

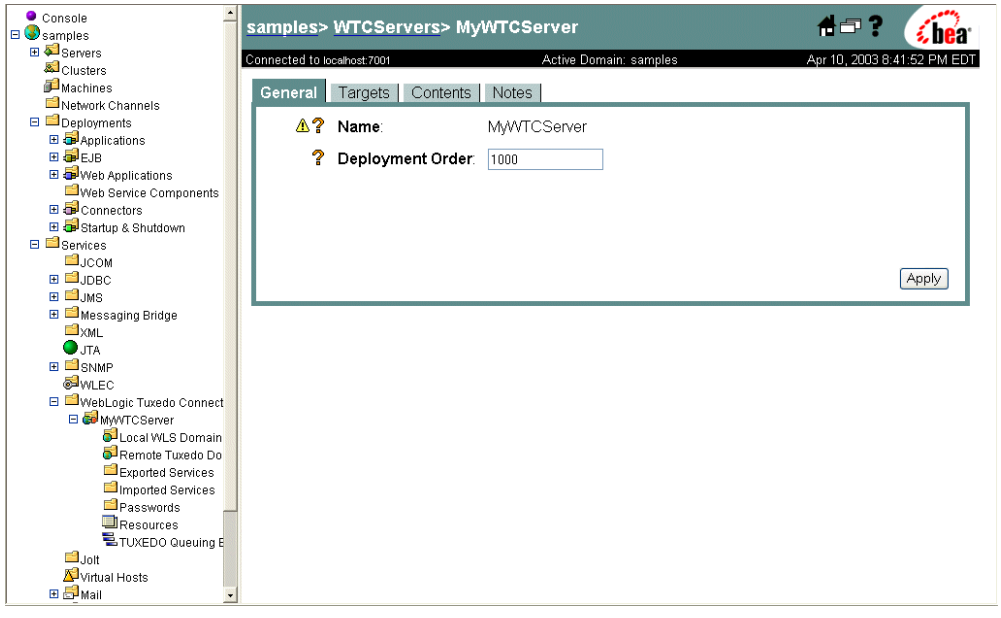
You can create the domains in any order.

Procedure: How to Create a Local WebLogic Domain

To create a local WebLogic domain:

1. Log on to the WebLogic Server Console and expand your WebLogic Tuxedo Connector (WTC) Server node in the left pane.

   The following image shows that the WTCServers window opens on the right with four tabs. The General tab is active.

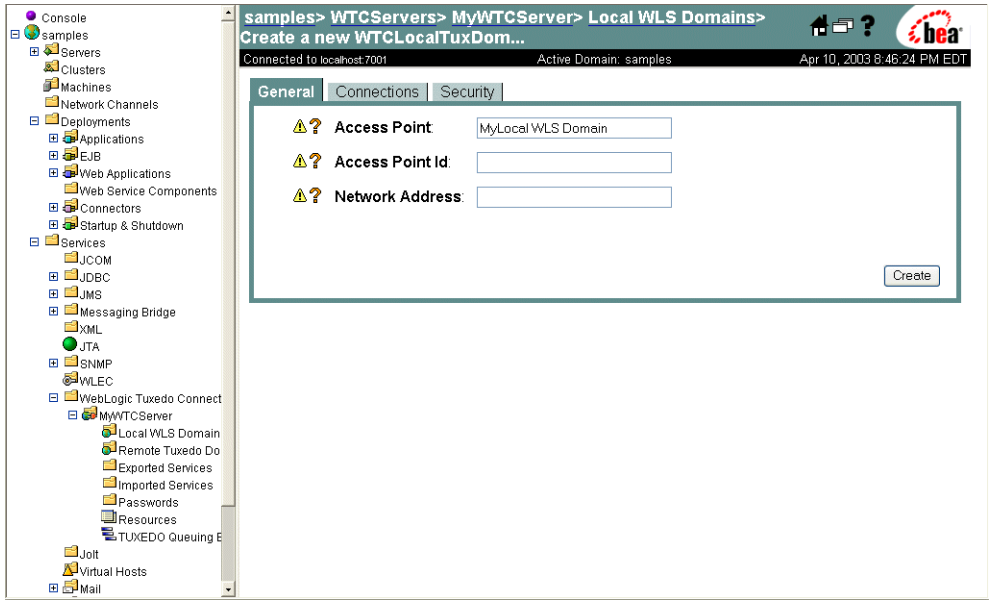


2. In the left pane, select the WTCServer *Local WLS Domains* node.

   The Local WLS Domains window opens.

3. In the right pane, click *Configure a new Local WLS Domain*.

The following image shows the Create a new WTCLocalTuxDom pane opens on the right with three tabs. The General tab is active and shows information about the Access Point.



You have successfully created a local WebLogic domain. To create a remote Tuxedo domain, see *How to Create a Remote Tuxedo Domain* on page 6-8.

If you already created a remote Tuxedo domain, you can now create services.

- To export a local WTC service, see *Exporting a Local WTC Service* on page 6-10
- To import a remote Tuxedo service, see *Importing a Remote Tuxedo Service* on page 6-11

You can export and import services in any order.

Creating a Remote Tuxedo Domain

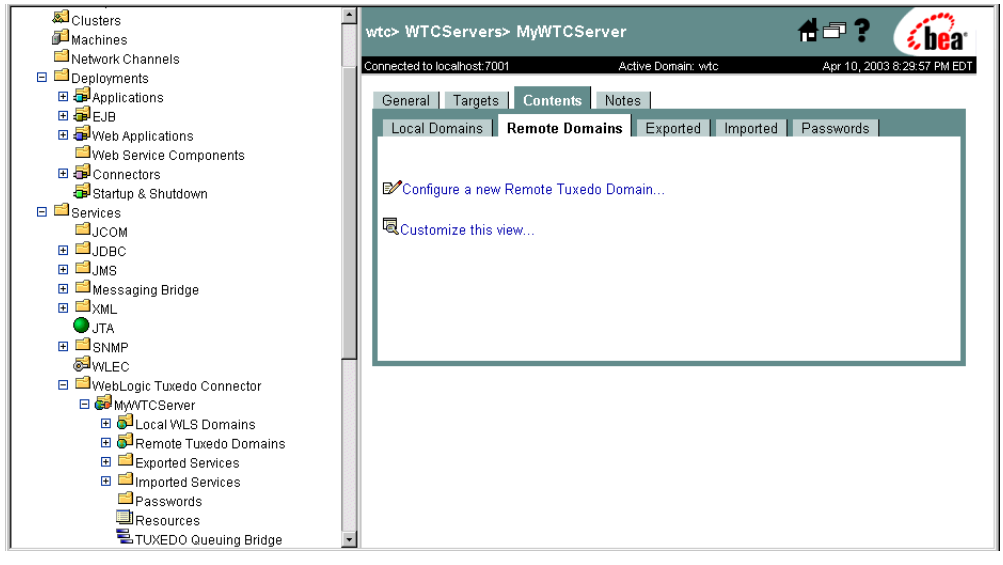
The configuration in the following procedure corresponds to the remote Tuxedo domain that is running ClarifyCRM and to which the local WebLogic Server WTC domain is communicating.

Procedure: How to Create a Remote Tuxedo Domain

To create a remote Tuxedo domain:

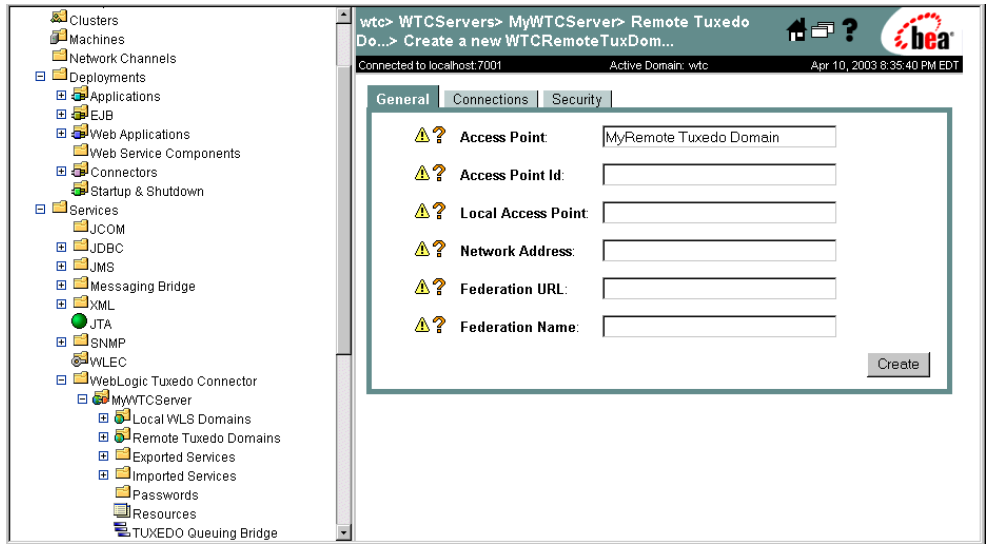
1. Log on to the WebLogic Server Console and expand your WebLogic Tuxedo Connector (WTC) Server node in the left pane.

   The following image shows the WTCServer pane on the right with nine tabs. The Contents tab is active.



2. Select the WTC Server Remote Tuxedo Domains node in the left pane.
3. Click *Configure a new Remote Tuxedo Domain*.

The following image shows the General tab active in the right pane.



a. In the Access Point field, type the name of the remote Tuxedo domain.

b. In the Access Point Id field, type the ID of the Tuxedo domain as listed in the DMCONFIG configuration on Tuxedo.

c. In the Local Access Point field, type the name of the local WLS domain to connect to this remote Tuxedo domain.

d. In the Network Address field, type the TCP/IP //host:port of the remote Tuxedo domain.

e. In the Federation URL field, type the URL for a foreign name service that is federated into JNDI (optional).

f. In the Federation Name field, type the context at which to federate to a foreign name service (optional).

4. To activate the configuration you have defined, click *Create*.

You also can modify default values on the Connections and Security tabs. For more information about modifying these values, see your *WebLogic Tuxedo Connector Administration* manual.

You have successfully created a remote Tuxedo domain. To create a local WebLogic domain, see *How to Create a Local WebLogic Domain* on page 6-6.

If you have already created a local WebLogic domain, you can now create services.

- To export a local WTC service, see *Exporting a Local WTC Service* on page 6-10.
- To import a remote Tuxedo service, see *Importing a Remote Tuxedo Service* on page 6-11.

You can export and import services in any order.

Exporting a Local WTC Service

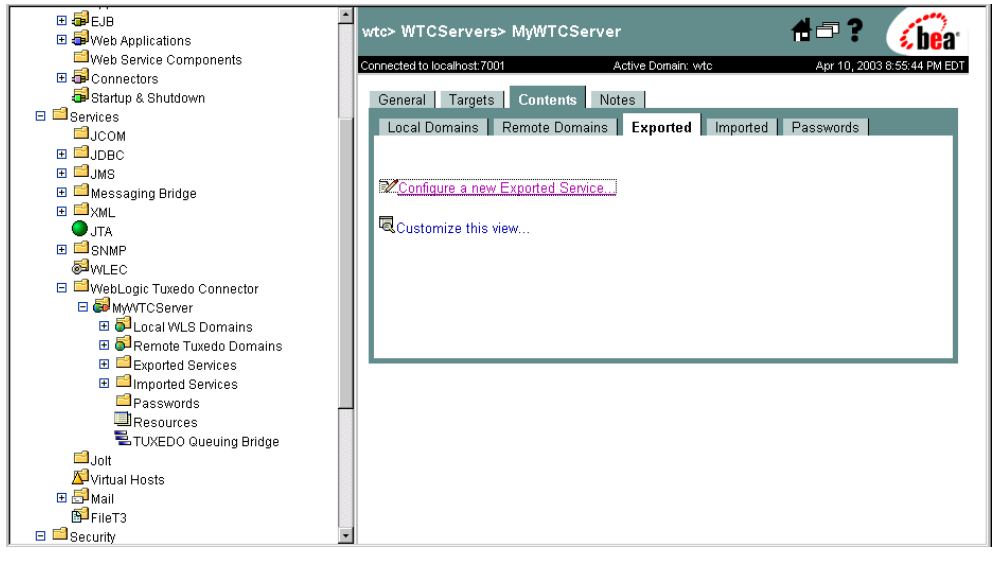
Exported local WebLogic Tuxedo Connector (WTC) services are services hosted on the WebLogic Server, implemented through Enterprise JavaBeans (EJBs) that implement the weblogic.wtc.jatmi.TuxedoService interface. The iWay Transaction Adapter for BEA Tuxedo supplies an EJB to support the inbound invocation of service requests and to post the constructed XML event document into WebLogic Integration. These local WTC services support the event adapter.

Procedure: How to Export a Local WTC Service

To export a local WTC service:

1. Log on to the WebLogic Server Console and expand your WTC Server node in the left pane.

   The following image shows the WTCServer pane on the right with nine tabs. The Contents tab is active.



2. In the left pane, select the WTC Server Exported Services node.

3. Click *Configure a new Exported Service*.

   a. In the Resource Name field, type the locally known name of the service.

   b. In the Local Access Point field, type the name of the local WebLogic WTC domain access point containing the service.

   c. In the EJB Name field, type the JNDI name of the EJB implementing the Tuxedo service locally on the WebLogic Server.

   d. In the Remote Name field, type the name that the local service is known as when accessed in the remote Tuxedo domains.

4. To activate the configuration entries, click *Create*.

You have successfully exported the local WTC service. To import a remote Tuxedo service, see *Importing a Remote Tuxedo Service* on page 6-11.

Importing a Remote Tuxedo Service

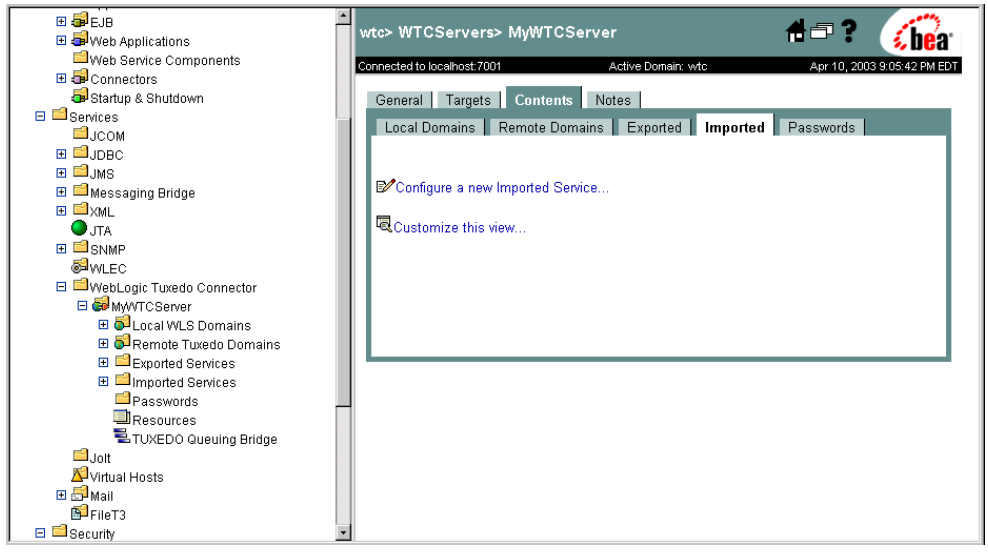
Imported remote Tuxedo services are services hosted on the remote Tuxedo server. ClarifyCRM supplies a routing service, CB_EXESUB, that takes Tuxedo requests and calls into ClarifyCRM ClearBasic routines.

Procedure: How to Import a Remote WTC Service

To export a remote WTC service:

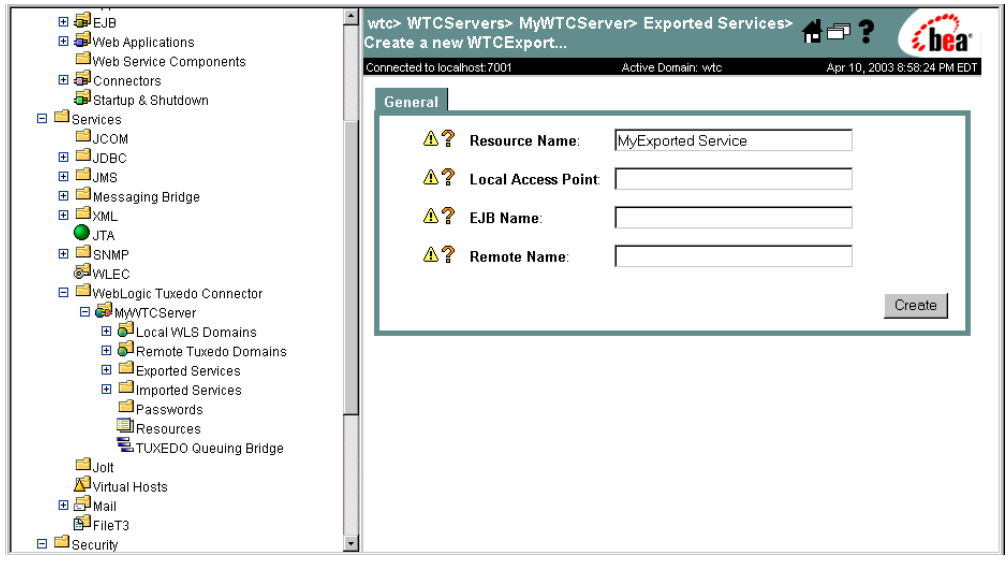
1. Log on to the WebLogic Server Console and expand your WTC Server node in the left pane.

The following image shows the WTCServer pane on the right with nine tabs. The Contents tab is active.



2. In the left pane, select the WTC Server Imported Services node.
3. Click *Configure a new Imported Service*.

   The following image shows the General tab active in the right pane.



   a. In the Resource Name field, type the locally-known name of the service.

b. In the Local Access Point field, type the name of the local WebLogic WTC domain access point in which the service is made available.

c. In the Remote Access Point List field, type the list of all defined remote Tuxedo domains that can be called to execute the imported service.

d. In the Remote Name field, type the name of the remote service as it exists in the Tuxedo domains.

4. To activate the configuration entries, click *Create*.

You have successfully imported the remote Tuxedo service. To export a local Tuxedo service, see *Exporting a Local WTC Service* on page 6-10.

Configuring the WebLogic Tuxedo Connector EJBs

The iWay Transaction Adapter for BEA Tuxedo requires Enterprise JavaBeans (EJBs) to access the Java-based Application to Monitor Interface (JATMI) of the WebLogic Tuxedo Connector (WTC). The following two EJBs are supplied:

- TuxConnectorEJB for WLAI service invocation.
- TuxEventConnectorEJB for Tuxedo service invocation and WLAI event posting.

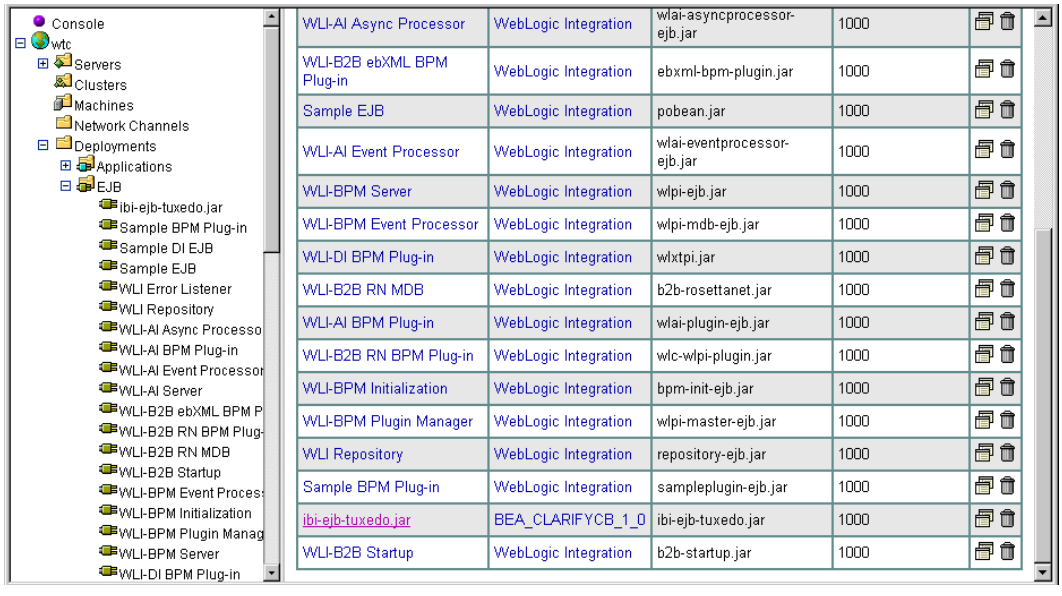
The EJBs automatically are installed and deployed when the Web Application EAR file of the adapter is installed. This topic describes the configuration options available to the Tuxedo Connector EJBs.

Procedure: How to Configure the Tuxedo Connector EJBs

1. Log on to the WebLogic Server Console.

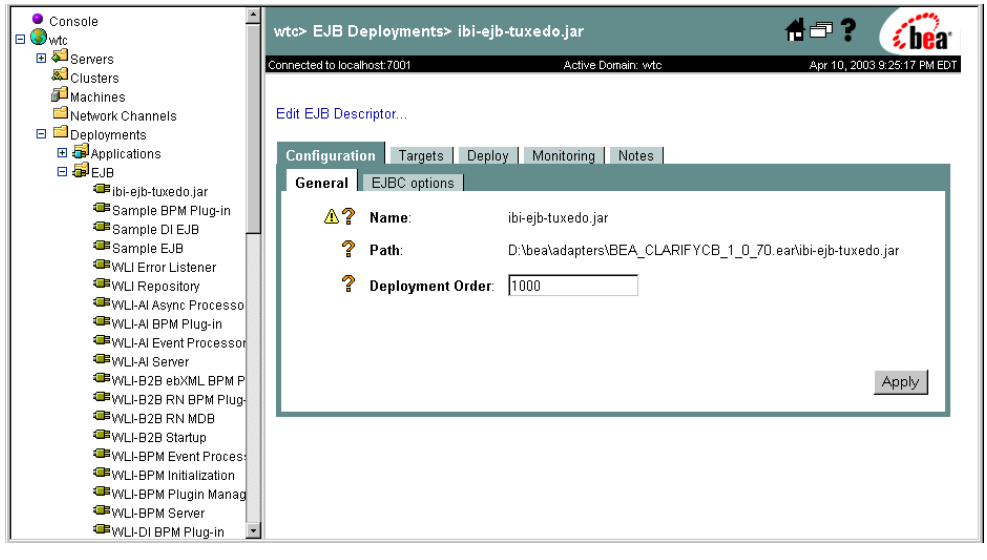
2. In the left pane, select *Deployments* and then, *EJB*.

The following image shows the list of all EJBs deployed on your WebLogic Server.



3. Click *ibi-ejb-tuxedo.jar*, the EJB JAR file that is supplied with the adapter.

Both EJBs are contained in this file. The following image shows that the ibi-ejb-tuxedo.jar summary window opens in the right pane with seven tabs. The General tab is active.

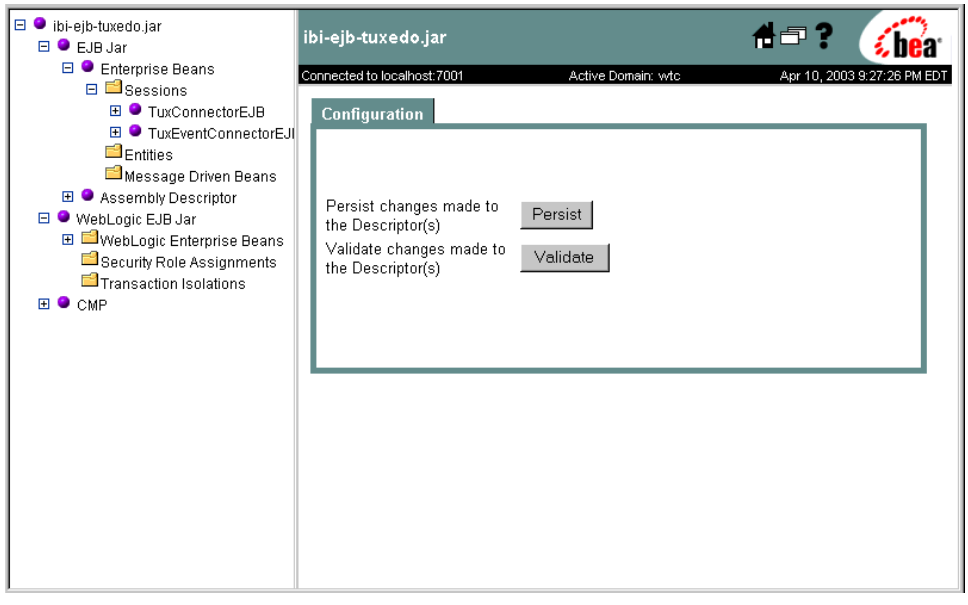


4. Click *Edit EJB Descriptor*.

   A separate WebLogic Server Console window opens, with ibi-ejb-tuxedo.jar as the root node in the left pane.

5. In the left pane, expand *ibi-ejb-tuxedo.jar*, then *JB Jar*, *Enterprise Beans*, and *Sessions*.

   The following image shows that the nodes for the two EJBs appear in the left pane. The Configuration tab is active in the right pane.



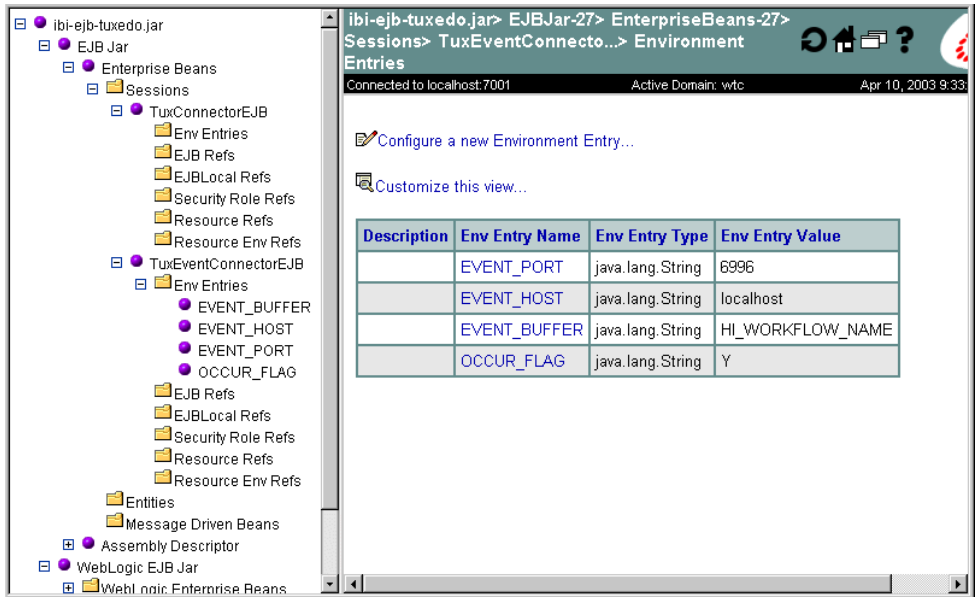
6. In the left pane, expand the two EJB nodes.

   TuxEventConnectorEJB receives Tuxedo service requests, translates the Tuxedo data into XML, and posts into the WebLogic Integration event adapter. TuxEventConnectorEJB has environment entries (run-time properties that control the behavior of the EJB). You configure its properties.

   TuxConnectorEJB receives XML request documents and invokes Tuxedo service calls through the JATMI layer of WTC. It receives the corresponding response data and creates response documents from the data. No properties must be configured.

7. Open the *TuxEventConnectorEJB Env Entries* folder.

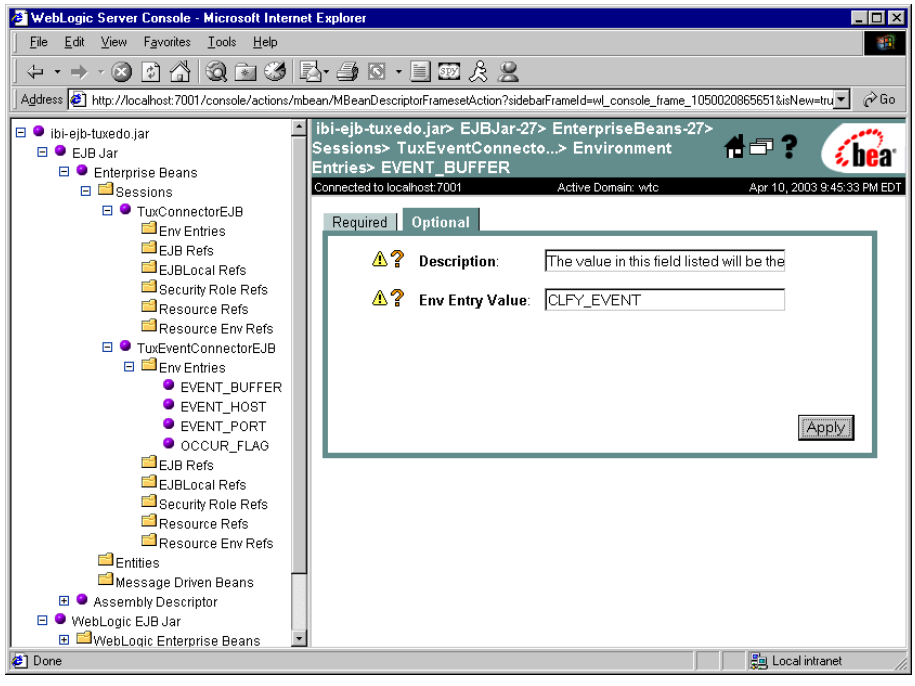
The following image shows that the EJB environment entries appear in the left pane.



This EJB has the following environment entries:

- EVENT_PORT specifies the port to which the event XML file is posted by the EJB.
- EVENT_HOST specifies the host to which the event XML file is posted by the EJB.
- EVENT_BUFFER specifies the Tuxedo FML field from which the root XML element is obtained.
- OCCUR_FLAG indicates whether OCCURRENCE attributes are added to the created XML document elements to ensure addressability of repeating XML elements. (Y indicates that OCCURRENCE attributes are created for every field. N indicates that no OCCURRENCE attributes are created.)

The following image shows how to change EJB environment entry after you select the entry and make the Optional tab active.



a. In the left pane, select the EJB environment entry.

b. Select the *Optional* tab.

c. In the Env Entry Value field, type a new value.

d. Click *Apply*.

You have finished configuring the WTC EJBs.

Creating Domain Access Permissions for WTC Server

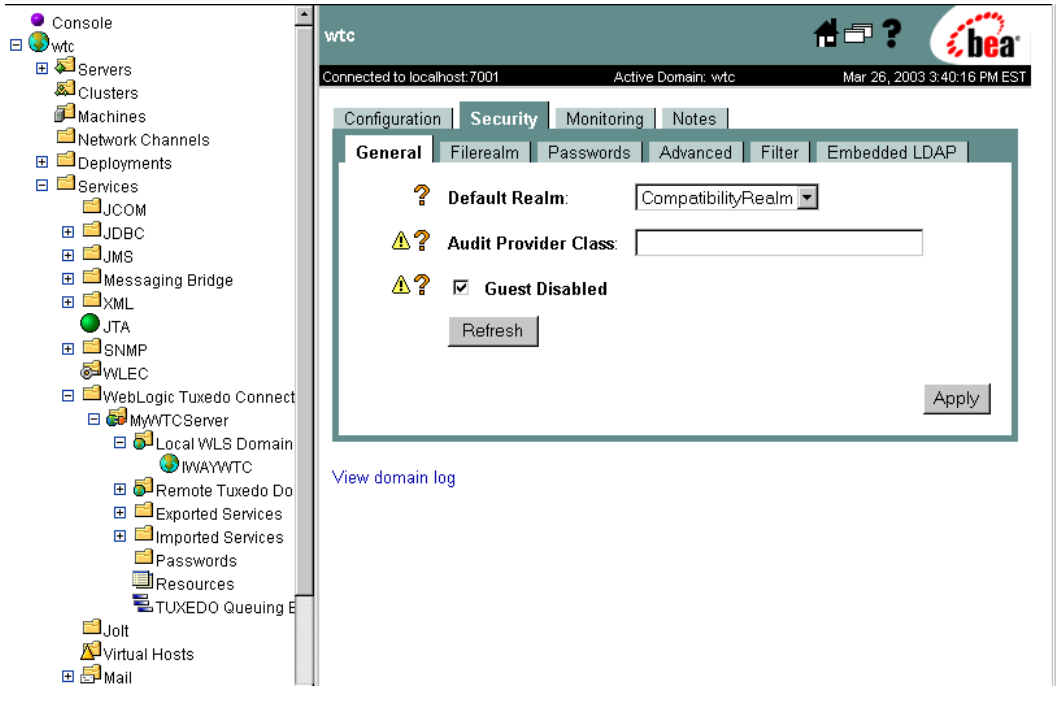
The Local WLS-based WTCdomain and the remote Tuxedo domain have several security settings. By default, there is no domain-to-domain security configured for a WebLogic Server WebLogic Tuxedo Connector (WTC) to Tuxedo domain setup. For information about other security options that restrict access at the domain level, consult your WTC manual.

Regardless of the security levels selected (none, application password, or domain password) on the local and remote domains, a connection principle is required for the remote Tuxedo domain. Under this account the remote domain invokes local WTC-based service requests. By default, the connection principle or user ID under which a remote domain connects is its Access Point ID. An account must be created in the active security realm under which the remote domain request can be executed.

WebLogic Interface adapters must run in a domain that supports application integration, and these domains run under CompatibilityRealm security. For this reason, you must create a user account for the remote Tuxedo domain.

Procedure: How to Create a User Account for the Remote Tuxedo Domain

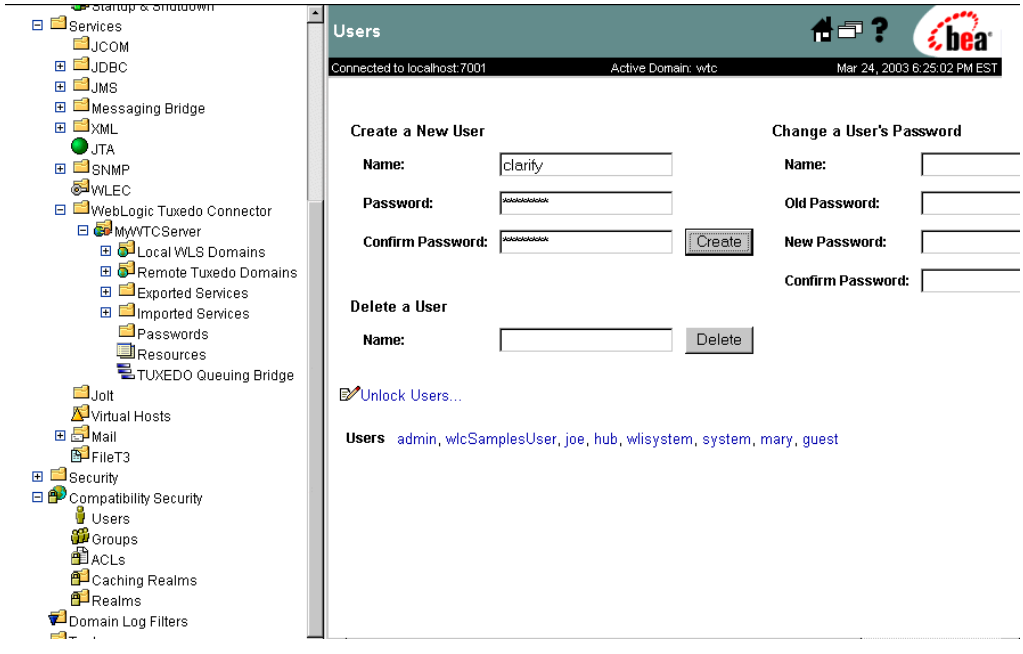
The following image shows the domain security settings.



To create a user account for the remote Tuxedo domain:

1. From the WebLogic Console, expand the *Compatibility Security* branch and select *Users*.
   a. Type a name that matches the remote Tuxedo Access Point ID.
   b. Type a password, which can be anything, as it is not checked when domain security is set to "none."
2. Click *Create* and then, *Click here* to save these changes to the realm implementation.

   The following image shows the new account configuration.



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