iWay Software
An Information Builders Company

iWay

iWay Adapter for Manugistics for BEA WebLogic User's Guide
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Preface

This documentation describes how to use the iWay Adapter for Manugistics. It is intended for system integrators who develop client interfaces between Manugistics and other applications.

How This Manual Is Organized

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

Chapter		Contents
1	Introducing the iWay Adapter for Manugistics	Introduces components of the iWay Adapter for Manugistics, describes features, and presents a high-level description of how the adapter works.
2	Configuring Components for the iWay Adapter for Manugistics	Describes how to configure additional components for the iWay Adapter for Manugistics.
3	Generating Schema	Describes how to run schema generation utilities.
4	Creating Services for SCPO	Describes how to create services for SCPO.
5	Creating Services for Transportation	Describes how to create services for Transportation.
6	Listening for Events for SCPO	Describes how to configure events for SCPO.
7	Listening for Events for Transportation	Describes how to configure events for Transportation.
8	Using Web Services Policy-Based Security	Describes how to configure Web services policy-based security.
9	Management and Monitoring	Describes the management and monitoring tools provided by iBSE and JCA.
A	Using Application Explorer in BEA WebLogic Workshop	Describes how to use iWay Java Swing Application Explorer running in BEA WebLogic Workshop.

Chapter		Contents
B	Interfacing With SCPO Processes	Describes how the iWay Adapter for Manugistics interfaces with SCPO batch processes.

Documentation Conventions

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

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

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Do you have questions about the iWay Adapter for Manugistics?

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

If you bought the product directly from iWay Software, call Information Builders Customer Support Service (CSS) at (800) 736-6130 or (212) 736-6130. Customer Support Consultants are available Monday through Friday between 8:00 a.m. and 8:00 p.m. EST to address all your iWay Adapter for Manugistics 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.

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Help Us to Serve You Better

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

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

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

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

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

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

    .xch files

    config.xml file

    base.xml file

    repository.xml file

    ibserepo.xml file

    .dic files

.rules files

- Environment variable settings:

  IWAY55

  IWAY55OEM

  CLASSPATH

  JAVA_HOME

  ACBDIR

  CBDIR (UNIX)

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

User Feedback

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Thank you, in advance, for your comments.

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Contents

CHAPTER 1

Introducing the iWay Adapter for Manugistics

Topics:

- Features of the iWay Adapter for Manugistics
- How the iWay Adapter for Manugistics Works
- Deployment Information for the iWay Adapter for Manugistics

This section introduces the components of the iWay Adapter for Manugistics, describes its features, and presents a high-level description of how the adapter works.

Features of the iWay Adapter for Manugistics

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

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

- **Services:** Applications use this capability to initiate a Manugistics business event. Services are also referred to as Manugistics imports.
- **Events:** Applications use this capability to access Manugistics data only when a Manugistics business event occurs. Events are also referred to as Manugistics exports.

The iWay Adapter for Manugistics:

- Supports synchronous and asynchronous, bidirectional message interaction with Manugistics.
- Includes the iWay Application Explorer (iAE), a GUI tool that explores Manugistics metadata and builds XML schemas or Web services.
- Enables an organization to fully integrate its Manugistics products with virtually any other legacy mainframe system, DBMS, data warehouse, EDI, B2B, ERP, SCM, CRM, or financial application on any platform.

How the iWay Adapter for Manugistics Works

The iWay Adapter for Manugistics provides services (importing data) and events (exporting data) for the Manugistics Supply Chain Planning and Optimization (SCPO) and Transportation (TRNS) product lines. Although the underlying technology differs somewhat for SCPO and Transportation, the basic principles are the same.

Manugistics SCPO provides a fully integrated supply chain planning and optimization solution. It facilitates supply and demand planning, manufacturing scheduling, and strategic and tactical planning across the supply chain.

Transportation Management is an enterprise-wide transportation planning system. It considers both demand and available resources in all links of the supply chain simultaneously and derives efficient load considerations with least-cost carrier assignments.

For SCPO, the adapter uses the delivered Manugistics batch processes to import data to and export data from the Manugistics applications. For importing data into Manugistics (services), the Manugistics processors consume data files from specified directories.

The incoming data is validated and then loaded into the underlying database. For exporting data (events), the Manugistics processors gather specified information from the application and write output files in a predetermined directory. For both import and export data, completion/warning/error messages are written to log files.

For exporting data, the adapter also provides the capability of real-time integration from the RDBMS layer.

Understanding SCPO and Transportation

Although there are differences in implementation and terminology, both the SCPO and Transportation applications import and export data through flat files that are consumed and/or created by application bulk load processors.

In the SCPO product, the batch facility is known as Manuba. You can initiate Manuba manually from within the SCPO application, or you can invoke it from any command line processor. In SCPO, you must specify the directory and file name associated with each process.

For Transportation, the batch facilities are called the data interfaces; the data interfaces can be invoked only through the application. However, the application provides a built-in scheduling facility in addition to a run-on-demand capability.

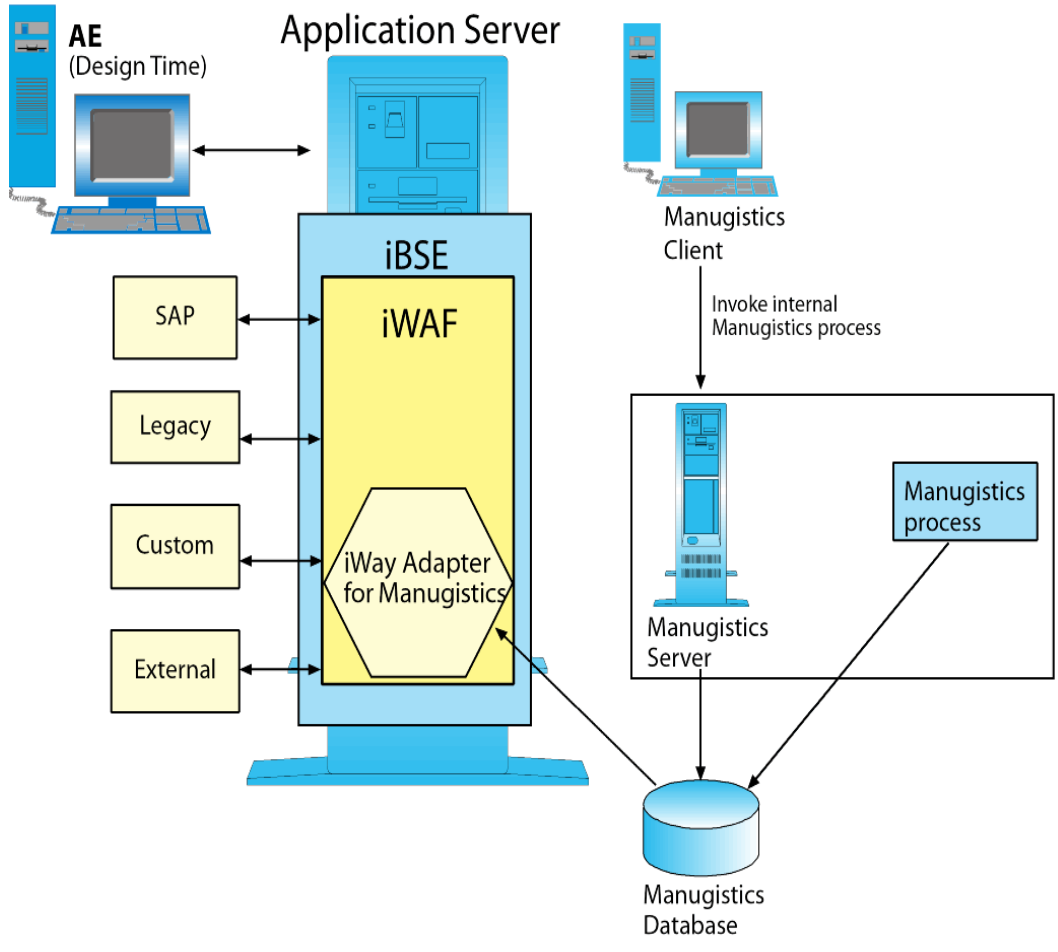
The Transportation data interfaces are either generic and non-generic. Generic interfaces can import or export data from a single named RDBMS table and do simple RDBMS edits. Non-generic interfaces invoke application programs that can process individual or multiple tables and perform complex edits. Unlike SCPO, the directory and file names for each interface are predetermined by the application and are not under your control.

For both SCPO and Transportation, you have control over the actions performed by the import processes (for example, update versus full replace), and you can specify the data to be placed in the export files. This control varies from process to process.

For more details, consult your Manugistics documentation.

Services in the iWay Adapter for Manugistics

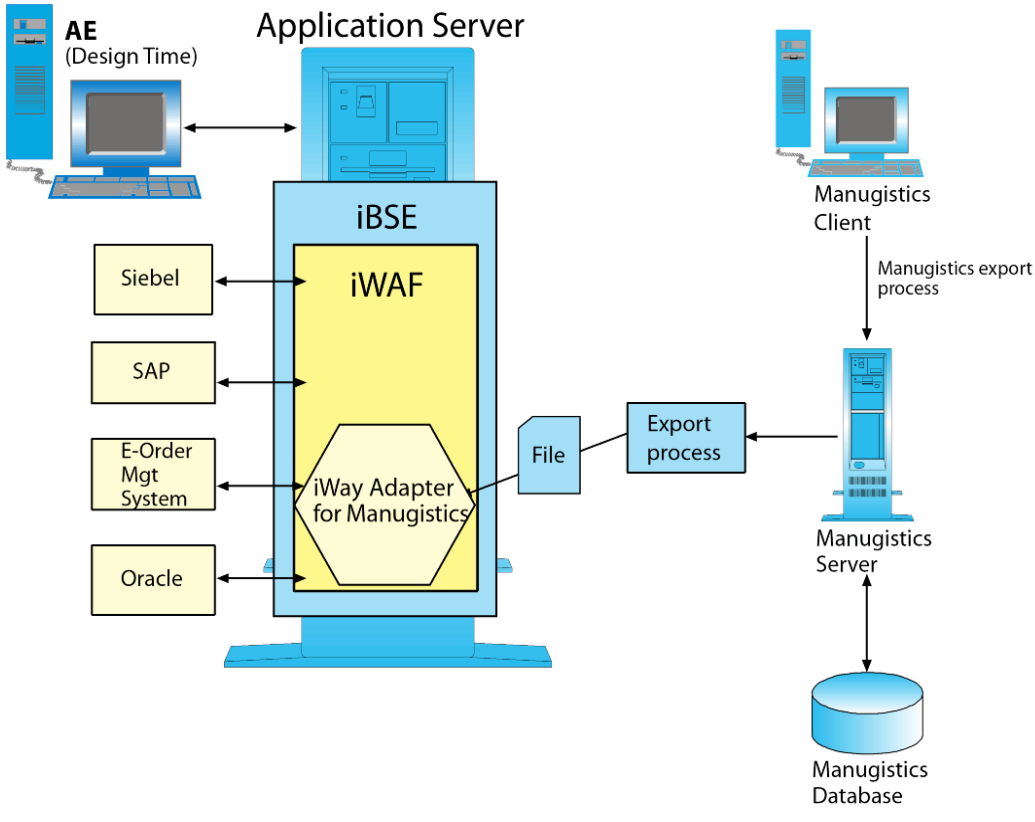
Services configured in the iWay Adapter for Manugistics enable you to use data from order processing, enterprise resource planning (ERP), and enterprise-wide data warehouse systems to update the Manugistics application database. Relevant data for Manugistics includes order and sales information, purchase orders, inventory balances, and forecasts usually available in the external systems. Relevant data for the Transportation module includes system parameters, distance and time information, locations, carrier costing information, yard slot information, commodities, and status flags. The following graphic illustrates the service architecture.



In this architecture, the adapter receives an XML document from an external system, converts it into a format suitable for the Manugistics processor, and places the resulting file in the proper location. The Manugistics processor then consumes the file according to the rules of the process. For SCPO, the adapter automatically invokes the Manuba batch process. For Transportation, the data interface must be invoked through the application. The data interface can be run immediately or as a scheduled process.

Batch Event Listeners in the iWay Adapter for Manugistics

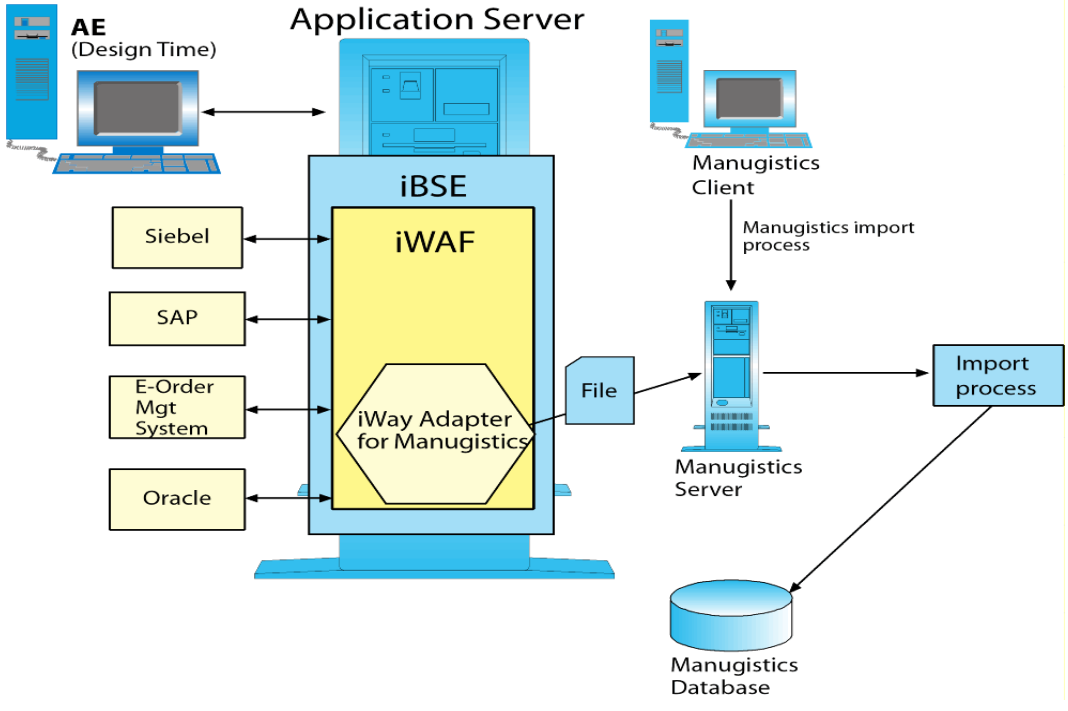
Event listeners configured in the iWay Adapter for Manugistics enable you to use data generated by Manugistics to update order processing, enterprise resource planning (ERP), and enterprise-wide data warehouse systems. Relevant data for the Manugistics SCPO solutions includes order and sales information, purchase orders, inventory balances, and forecasts. Relevant data for the Transportation modules includes routed orders, distance and time information, locations, carrier costing information, yard slot information, commodities, and status flags. The following graphic illustrates the event architecture:



In this architecture, the Manugistics export process places a file in the configured directory with the proper file name. The adapter polls the directory. When it detects the file, it converts it into an XML document and routes the XML to the designated destination. The file is deleted after processing.

SQL Event Listeners in the iWay Adapter for Manugistics

In addition to integrating at the application layer, the adapter provides the capability to listen for changes occurring in the Manugistics database. This approach bypasses the application logic and provides near real-time access to data changes. Use this technology if you need the results of an internal Manugistics process (for example, an SCPO Forecast) and do not want to initiate an export process. Depending on your enterprise requirements, you can use batch events, SQL events, or a combination of the two. The following graphic illustrates the SQL event architecture:



In this event architecture, you invoke a Manugistics process (for example, the SCPO calculate model process) to update data in your Manugistics database. The iWay Adapter for Manugistics polls the database. When the database is updated, the adapter converts the data into XML and passes it to Application Explorer so that it can be used to update external systems, such as SAP or Siebel.

For more information on the how the adapter works with Manugistics, see Appendix B, *Interfacing With SCPO Processes*.

Deployment Information for the iWay Adapter for Manugistics

The iWay Adapter for Manugistics works in conjunction with the following components:

- iWay Application Explorer

and either

- iWay Business Services Engine (iBSE)

or

- iWay Enterprise Connector for J2EE™ Connector Architecture (JCA)

iWay Application Explorer

iWay Application Explorer uses an explorer metaphor to browse the Manugistics 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 Manugistics.

Deployment Information Roadmap

The following table lists the location of deployment information for the iWay Adapter for Manugistics. 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 4, 5, 6 and 7 of this guide • i*Way Installation and Configuration for BEA WebLogic* • *iWay Servlet Application Explorer for BEA WebLogic User's Guide*
iWay Business Services Engine (iBSE)	• *iWay Installation and Configuration for BEA WebLogic* • *iWay Installation and Configuration*
iWay Enterprise Connector for J2EE Connector Architecture (JCA)	• *iWay Connector for JCA for BEA WebLogic User's Guide* • *iWay Installation and Configuration for BEA WebLogic*

The iWay Business Services Engine (iBSE)

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

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

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

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

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

The iWay Enterprise Connector for J2EE Connector Architecture (JCA)

The iWay Enterprise Connector for J2EE Connector Architecture (JCA) enables developers of JCA-compliant applications to deploy iWay adapters as JCA resources. The connector is supported on J2EE-compliant application servers such as the BEA WebLogic Server.

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

CHAPTER 2

Configuring Components for the iWay Adapter for Manugistics

Topics:

- Extracting the Schema Generation Utilities
- Editing the Schema Generation Utility Script Files
- Adding an Object to the Transportation Database
- Extracting Oracle Script Files for SQL Event Listeners
- Installing the iWay Adapter for RDBMS for Use With an Oracle Database

This section describes how to install additional components for the iWay Adapter for Manugistics.

The following topics describe how to:

- Extract the schema generation utility.
- Edit the schema generation utility script files.
- Add objects to the transportation database.
- Extract the Oracle script files.
- Install the iWay Adapter for RDBMS for use with an Oracle database.

Extracting the Schema Generation Utilities

Before you can use the schema generation utilities, you must extract the utilities and other files from the mgistics.zip file (on Windows systems) or the mgistics.manifest.tar file (for UNIX systems).

Procedure How to Extract Files for Schema Generation

To extract the required files:

1. Create a parent directory in which to place the required files.

   iWay Software suggests that you create the following directory.

   For Windows: *iway55*\adapters\mgistics

   For UNIX: *iway55*/adapters/mgistics

   where:

   iway55

   Is the full path to your iWay installation.

2. Extract the *mgistics.zip* file (for Windows) or the *mgistics.manifest.tar* file (for UNIX) from the mgistics.ear file to the directory you just created.

   On UNIX systems, the tar -xvf_mgistics.ear command extracts all the files from the EAR file.

3. Extract the following files from the mgistics.zip or the mgistics.manifest.tar file as appropriate for your system:

Windows	manu_scpo_schema.bat manu_trns_schema.bat
UNIX	manu_scpo_schema.sh manu_trns_schema.sh

   On Windows systems, a \manu_schema subdirectory is created automatically within the directory to which you extract the files.

   a. On UNIX systems, type *tar -xvf MGISTICS_8_1.manifest.tar*.

      This creates a /manu_schema subdirectory within the directory to which the files were extracted. For example, if you extract the files listed into iway55/adapters/mgistics, the files are placed in iway55/adapters/mgistics/manu_schema.

   A second directory, /manu_trns_load, also is created.

b. For more information on the files placed in this directory, see *Extracting the Schema Generation Utilities* on page 2-2.

4. Copy *ibi-edaqm.jar* from the iway55_home\lib directory into the \manu_schema (for Windows) or /manu_schema (for UNIX) directory .

Editing the Schema Generation Utility Script Files

You must edit the schema generation utility script files to run on your system.

Procedure How to Edit the Schema Generation Utility Script Files

To edit the utility script files:

1. Open the appropriate file using an ASCII editor.

On Windows systems:

- If you are creating schemas for an SCPO database, open the Manugistics_schema.bat file.
- If you are creating schemas for a Transportation database, open the manu_trns_schema.bat file.

On UNIX systems:

- If you are creating schemas for an SCPO database, open the manugistics_schema.sh file.
- If you are creating schemas for a Transportation database, open the manu_trns_schema.sh file.

2. Edit the following statements by replacing the placeholder values as follows:

Statement	Replace	With
set LIB_PATH=<my-lib-path>	<my-lib-path>	Directory where you placed the batch file, for example, iway55\adapters \mgistics\manu_schema
set JAR_FILES=%JAR_FILES%; <oracle-odbc-driver>	<oracle-odbc-driver>	Path to the Oracle JDBC driver, for example, on Windows, C:\iway\server\lib\ojdbc14.jar
set JAVAHOMEBIN=<my-java-bin>	<my-java-bin>	The proper Java Runtime bin directory, for example, C:\iway\jdk141_03\bin.

set URL=jdbc:oracle:thin:@<my-server>:<my-port>: <my-sid>	<my-server>:<my-port>:<my-sid>	URL (server name and port) of the Oracle server and the user ID to access the Oracle database, for example, jdbc:oracle:thin:@psdem03:1521:MSAM
set USER=<my-manu-access-ID>	<my-manu-access-ID>	ID of the Manugistics database owner.
set PASSWORD=<my-manu-access-password>	<my-manu-access-password>	Password for the Manugistics ID.
set SCHEMA_OWNER=<my-manu-schema-owner>	<my-manu-schema-owner>	Owner of the application tables.
SET OUTPATH="<my-schema-repository-directory>"	"<my-schema-repository-directory>"	Path where schemas will be stored. If the path has spaces, it must be enclosed in "".

3. Save the file.

Adding an Object to the Transportation Database

If you are using the adapter for the Manugistics Transportation module, you must run the manu_trns_xml_tables.sql script to create objects in the Transportation database. After the objects are created, data must be loaded into them.

Note: The manu_trns_xml_tables.sql file contains DDL that creates new tables in your Oracle Transportation database. These tables contain small quantities of data. Your Oracle DBA should review the DDL to ensure that it meets your site standards for space allocation. The largest of these tables, IWY_XML_FIELD, has approximately six thousand rows.

Procedure How to Add an Object to the Transportation Database

To add an object to the Transportation database:

1. In the mgistics.ear file, locate the file for your operating system:

- For Windows, mgistics.manifest.zip is the manifest file.
- For UNIX, mgistics.manifest.tar is the manifest file.

2. Extract the required files as follows:

On Windows	Using WinZip or another utility, extract the *manu_trns_xml_tables.sql* file from the mgistics.manifest.zip file to the DBS directory on your Oracle installation for example, *orahome*\dbs where: *orahome* Is the base installation directory for your Oracle installation.
On UNIX	Issue the following command: `tar -xvf mgistics.manifest.tar` **Note:** This UNIX command extracts all the files. Ensure you move the manu_trns_xml_tables.sql file into the *orahome*/dbs directory.

3. Open *SQL Plus*, a standard Oracle utility.
4. At the command prompt, type *@manu_trns_xml_tables*.
5. At the prompt, enter the owner of your Transportation tables.

   Note: If you see error messages the first time you run this script, you can ignore them.
6. Extract the following additional files from mgistics.manifest.zip (Windows) or mgistics.manifest.tar (UNIX):

```
manu_trns_load.bat
manu_trns_load_field.ctl
manu_trns_load_field.dat
manu_trns_load_generic01.sql
manu_trns_load_intfc.ctl
manu_trns_load_intfc.dat
manu_trns_load_rec.ctl
manu_trns_load_rec.dat
manu_trns_load_rec_hier.ctl
manu_trns_load_rec_hier.dat
```

   Note: WinZip creates the \manu_trns_load subdirectory automatically when you extract the files. For example, if you extract the files into iway55\adapters\mgistics, the files are placed in iway55\adapters\mgistics\manu_trns_load.
7. For UNIX, after you extract the files, issue the following command:

```
tar -xvf mgistics.manifest.tar
```

Note: Issuing the command creates a manu_trns_load subdirectory within the directory where the files were extracted. A second directory, manu_schema, also is created.

8. Open the *manu_trns_load.bat* file (Windows) or *manu_trns_load.sh* file (UNIX) with an ASCII editor.

9. Edit the following statements by replacing the placeholder values as follows:

Statement	Replace	With
OR_ID=<my-Oracle-ID>	<my-Oracle-ID>	User ID to access the Oracle database
OR_PW=<my-Oracle-password>	<my-Oracle-password>	Password for the user ID
WHEREISDB=<my-Oracle_SID>	<my-Oracle_SID>	Oracle SID of your Transportation database
MANU_DIR=<my-Manu-Trns-data-directory>	<my-Manu-Trns-data-directory>	Directory to which you extracted the files from mgistics.manifest.zip (Windows) or mgistics.manifest.tar (UNIX)
SCHEMA_OWNER=<my-Schema_owner>	<my-Schema_owner>	Owner of the Transportation application tables

10. Open a command prompt and navigate to the directory in which you extracted the files (for example, iway55\adapters\mgistics\manu_trns_load). For example:

    - On Windows, type the command: manu_trns_load.
    - On UNIX, type the command: ./manu_trns_load.sh.

    Note: To make the script executable, you might be required to change UNIX permissions.

In a Windows environment, a message similar to the following appears:

```
C:\iway\adapters\Mgistics\manu_trns_load>manu_trns_load
SQL*Loader: Release 8.1.7.2.1 - Production on Thu Sep 4 20:44:25 2003
(c) Copyright 2000 Oracle Corporation.  All rights reserved.
Commit point reached - logical record count 10
SQL*Loader: Release 8.1.7.2.1 - Production on Thu Sep 4 20:44:26 2003
(c) Copyright 2000 Oracle Corporation.  All rights reserved.
Commit point reached - logical record count 45
SQL*Loader: Release 8.1.7.2.1 - Production on Thu Sep 4 20:44:26 2003
(c) Copyright 2000 Oracle Corporation.  All rights reserved.
Commit point reached - logical record count 64
Commit point reached - logical record count 91
SQL*Loader: Release 8.1.7.2.1 - Production on Thu Sep 4 20:44:27 2003
(c) Copyright 2000 Oracle Corporation.  All rights reserved.
Commit point reached - logical record count 64
Commit point reached - logical record count 128
Commit point reached - logical record count 192
Commit point reached - logical record count 256
Commit point reached - logical record count 320
Commit point reached - logical record count 384
Commit point reached - logical record count 448
Commit point reached - logical record count 512
Commit point reached - logical record count 576
Commit point reached - logical record count 605
C:\bea8\adapters\Mgistics\manu_trns_load>
```

Log files are created in the same directory if errors occur. You can review the log file to correct errors.

Extracting Oracle Script Files for SQL Event Listeners

To use the iWay Adapter for Manugistics for SQL event listening, you must create additional objects in your Oracle database. Several SQL scripts are provided to simplify this process. The following procedure describes how to extract the script files and place them in your Manugistics environment.

Procedure How to Extract Oracle Script Files

To extract the script files:

1. Locate the *mgistics.zip* file (on Windows) or the *mgistics.tar* file (on UNIX) within the mgistics.ear file.
2. Extract the required files as follows:

- On Windows: Using WinZip or another utility, extract the *create_trigger01.sql* and *create_trigger02.sql* files from the mgistics.zip file to the DBS directory on your Oracle installation (for example, *orahome*\dbs).

- On UNIX, type the following command:

  ```
  tar -xvf  mgistics.tar
  ```

  This UNIX command extracts all the files. Ensure you move the *create_trigger01.sql* and *create_trigger02.sql* files into the DBS directory on your Oracle installation, for example, *orahome*/dbs

  where:

  orahome

  Is the base installation directory for your Oracle installation.

Installing the iWay Adapter for RDBMS for Use With an Oracle Database

You must install the iWay Adapter for RDBMS for use with an Oracle database.

Procedure How to Install the iWay Adapter for RDBMS

To install the iWay Adapter for RDBMS:

1. Run the *Setup.exe* file for installation.

   The required files are extracted, and the InstallShield Wizard starts. The Wizard enables you to install iWay Application Explorer and select the adapters you want to install.

2. Ensure you select *RDBMS/Oracle* as a relational database component.

3. After the installation finishes, download an Oracle JDBC driver for your version of Oracle.

   At the end of the installation process, the iWay Adapter installation program launches a browser and directs you to the RDBMS portal site. A link to each RDBMS vendor download site is available.

For more information on installing the iWay Adapter for RDBMS, refer to the *iWay Installation and Configuration* manual.

CHAPTER 3

Generating Schema

Topic:

- Running the Schema Generation Utilities

This section describes how to run schema generation utilities for the iWay Adapter for Manugistics. For information on extracting and editing the schema generation utilities, see Chapter 2, *Configuring Components for the iWay Adapter for Manugistics*.

Running the Schema Generation Utilities

XML documents that pass through the iWay Adapter for Manugistics must be in a specific format that varies according to the application and the underlying service or event that is invoked. XML schemas are an industry standard for specifying the format of XML documents.

The schemas can be used by the external application interfacing with the adapter. They also are used by iWay Adapter for Manugistics to transform the files that are sent or received by the external systems into the proper format.

The utilities place the schemas in the directory you specify when editing the manugistics_schema.bat/manugistics_schema.sh file or the manu_trns_schema.bat / manu_trns_schema.sh file. For more information on editing the files, see *Editing the Schema Generation Utility Script Files* on page 2-3.

The following procedure explains how to run the schema generation utilities. The example that follows the procedure illustrates a successful message for the command on a Windows system.

Procedure How to Run Schema Generation Utilities

To run schema generation utilities:

1. Open a command window.
2. Navigate to the directory to which you extracted the manugistics_schema.bat and ibi-edaqm.jar files.

   For more information on these files, see *Extracting the Schema Generation Utilities* on page 2-2.
3. From the command prompt, run the commands for the appropriate database and service or event:

   a. To run the commands on UNIX systems, ensure you include "./" before the command, for example, ./manu_trns_schema.sh.

   b. In addition, to make the script executable, change UNIX permissions, if required.

The following table lists the service or event, the command, and a description of the command.

Service or Event	Command	Note
SCPO batch	`manu_scpo_schema [SERVICE | EVENT] Desktop userview`	Specify whether you are running the utility for a service or event. Desktop is the name of the Manugistics desktop, and userview is the particular Manugistics userview. For example, if you are running the utility to generate a service schema for the Demand Planning desktop from the History userview, type the following at the command prompt: `manu_scpo_schema SERVICE DEMANDPLANNING HISTORY`
SCPO SQL	`manu_scpo_schema TABLE TableName`	where: *`TableName`* Is the name of the RDBMS table on which you are listening.
For Transportation batch services or events that do not use the Generic Interface.	`manu_trns_schema [SERVICE | EVENT] InterfaceName`	where: *`InterfaceName`* Is the name of the Transportation interface with which you communicate.
For Transportation batch services or events that use the Generic Interface.	`manu_trns_schema [SERVICE | EVENT] GENERIC TableName`	where: *`TableName`* Is the name of the Transportation database table with which the Generic Interface works.
Transportation SQL	`manu_trns_schema TABLE TableName`	where: *`TableName`* Is the name of the RDBMS table on which you are listening.

The utility generates a message indicating the status of the schema generation.

Example Running a Service Schema Success Message on Windows

This example illustrates service schemas successfully created for the User View.

```
        DESKTOP: DEMANDPLANNING
        USERVIEW: HISTORY
        in Directory:
        C:\Program Files\iWay Software\Application
Explorer\sessions\default\MGISTICS\psdem03\
```

CHAPTER 4

Creating Services for SCPO

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

This section describes how to create XML schemas or Web services for Supply Chain Planning and Optimization (SCPO) for the iWay Adapter for Manugistics using Application Explorer.

Overview

The iWay Adapter for Manugistics provides interoperability between your application server and Manugistics SCPO services.

External applications that access Manugistics 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 for BEA WebLogic* manual.

Starting iWay Servlet Application Explorer

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

Procedure **How to Start BEA WebLogic Server on Windows or on UNIX**

- To start BEA WebLogic Server on Windows:

1. Click the Start menu.
2. Select *Programs*, *BEA WebLogic Platform 8.1*, *User Projects*, *your domain for iWay*, and then, click *Start Server*.

- To start BEA WebLogic Server on UNIX or from a command line, type the following at the prompt:

  ```
  BEA_HOME/user_projects/domains/DOMAIN_NAME/startWebLogic.cmd
  ```

  where:

  BEA_HOME

  Is the directory where BEA WebLogic is installed.

  DOMAIN_NAME

  Is the domain you are using for iWay.

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

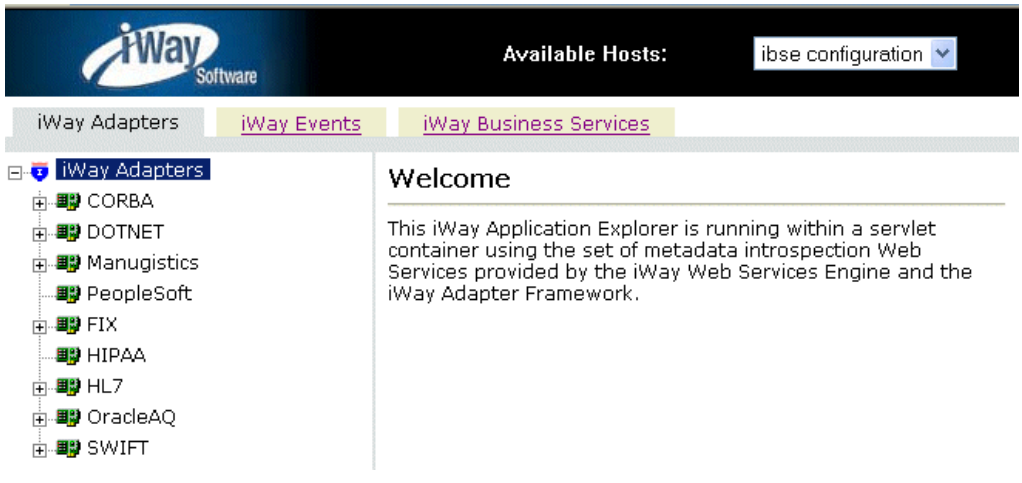
   Is the name of the machine where your application server is running.

   port

   Is the port number where your application server is listening.

   The port for the default domain is 7001.

   After you start Application Explorer, the following window opens.



   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 for BEA WebLogic* manual.

You are ready to create new targets for Manugistics.

Establishing a Target for SCPO

To browse Manugistics, 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 Manugistics for the first time, you must create a new target.

Procedure How to Create a New Target

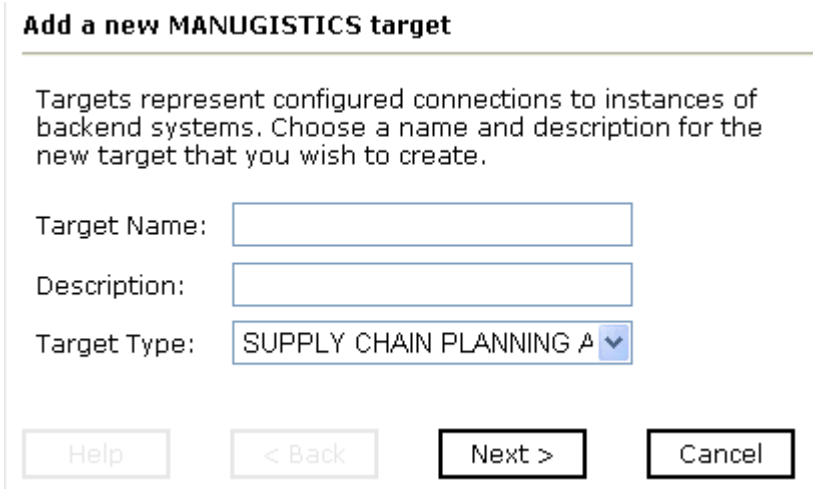
To create a new target using Application Explorer:

1. In the left pane, expand the *iWay Adapters* node and click the *Manugistics* node.

   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 Manugistics target pane opens on the right.



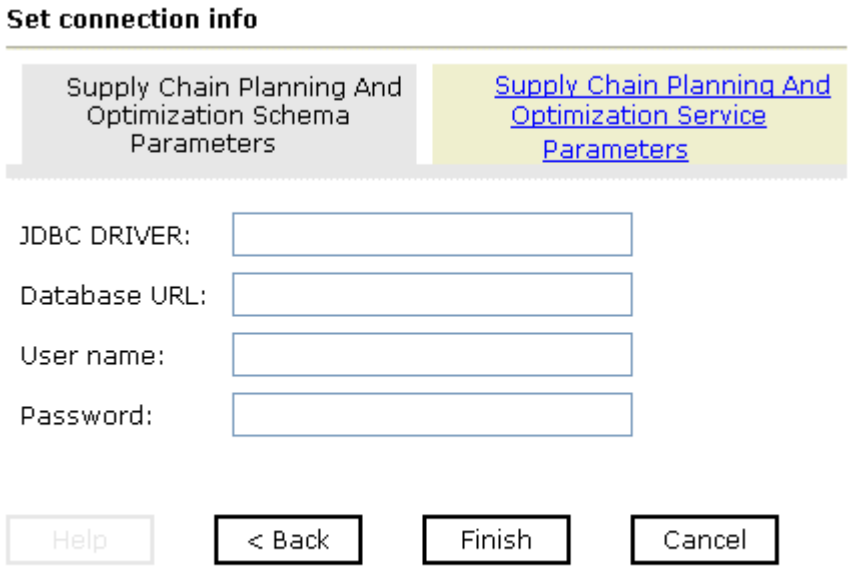
a. In the Target Name field, type a descriptive name for the target, for example, SCPOConnect.

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

c. From the Target Type drop-down list, select *SUPPLY CHAIN PLANNING AND OPTIMIZATION*.

3. Click *Next*.

The Set connection info pane opens with two tabs in the right pane.



a. In the Supply Chain Planning and Optimization Schema Parameters pane, enter values for the parameters in the following table:

Parameter	Description
JDBC Driver	JDBC driver used to access Manugistics.
Database URL	URL to use when opening the connection to the database.
User name	User name to connect to Manugistics.
Password	Password associated with the user name.

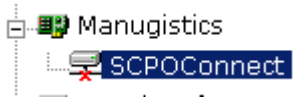
b. In the Supply Chain Planning and Optimization Service Parameters pane, enter values for the parameters in the following table:

Parameter	Description
Output File	The import file which will be read by the Manugistics batch process.

Parameter	Description
Manuba Path	The path under which your Manugistics batch program (manuba.exe) is installed.
Configuration LST file	The input parameter file for the Manugistics batch loader. This specifies the Desktop(s), Select(s), and Userview(s) that are updated. The LST file must be located in ManubaPath.
LOG File	The output log file for the Manugistics batch load process. Manugistics places the LOG file in ManubaPath.

4. Click *OK*.

   In the left pane, the Manugistics target, SCPOConnect, appears below the Manugistics node.



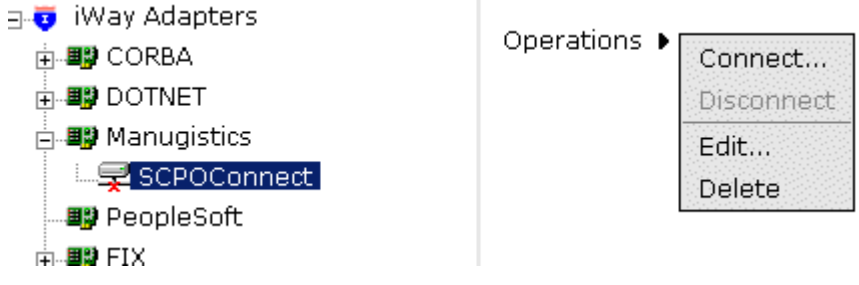
   You are ready to connect to your Manugistics target.

Connecting to a Target

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

Procedure How to Connect to a Target

To connect to a target using Application Explorer:



1. In the left pane, expand the *iWay Adapters* node and then the *Manugistics* node.
2. Select the target you defined, for example, SCPOConnect.
3. In the right pane, move the pointer over *Operations* and select *Connect*.

4. Type the password associated with the user name.
5. Click *OK*.

   In the left pane, the SCPOConnect node changes to reflect that a connection was made.

6. Expand the *SCPOConnect* 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:

1. From the left pane, click the target to which you are connected, for example, SCPOConnect.
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 SCPOConnect 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:

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

   The following Delete confirmation dialog box opens.

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

   The SCPOConnect node disappears from the left pane.

Creating an XML Schema for SCPO

After you are connected to Manugistics, Application Explorer enables you to explore and browse metadata. Application Explorer creates both the XML request schema and the XML response schema.

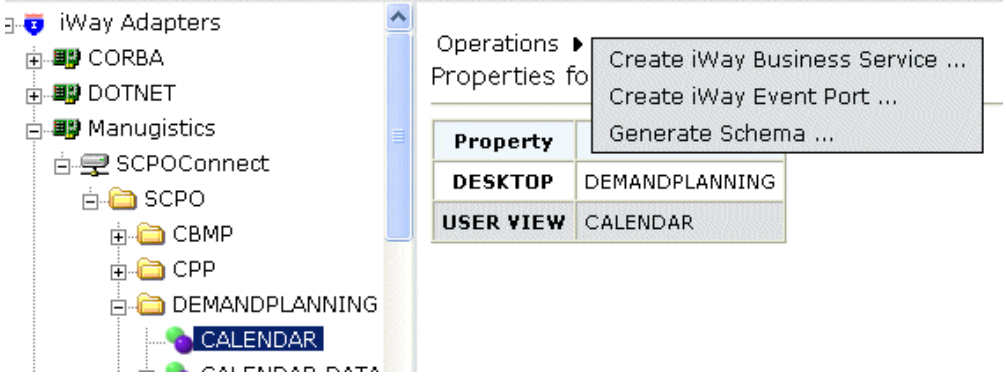
Note: In a J2EE Connector Architecture (JCA) implementation of iWay adapters, Web services are not available. When the adapters are deployed to use the iWay Connector for JCA, the Common Client Interface provides integration services using the iWay adapters. For more information, see the *iWay Installation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

Creating a Request and a Response Schema

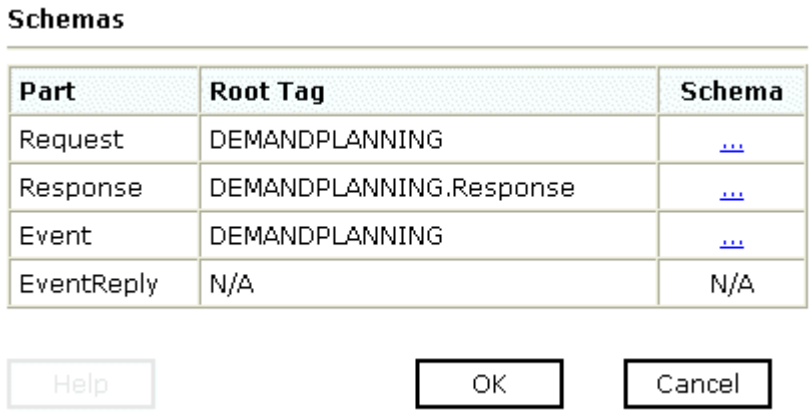
The following procedure explains how to create request and response schemas for Manugistics SCPO using Application Explorer.

Procedure How to Create a Request Schema and a Response Schema

1. If you are not connected to a Manugistics target, connect to one, as described in *Establishing a Target for SCPO* on page 4-4.
2. Expand the Manugistics node and select the interface for which you want to create the schema.
3. Expand and then select the node beneath the interface you selected.



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



Application Explorer creates the schemas.

A table defines the root tag for each schema and provides hyperlinks.

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

For example, if you click the Request schema, the schema appears in the right pane.

6. 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 for SCPO

You can generate a business service (also known as a Web service) for Manugistics. 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.

Ensure that the servlet iBSE is properly configured. For more information on installing and deploying iWay components, see the *iWay Installation and Configuration for BEA WebLogic* manual.

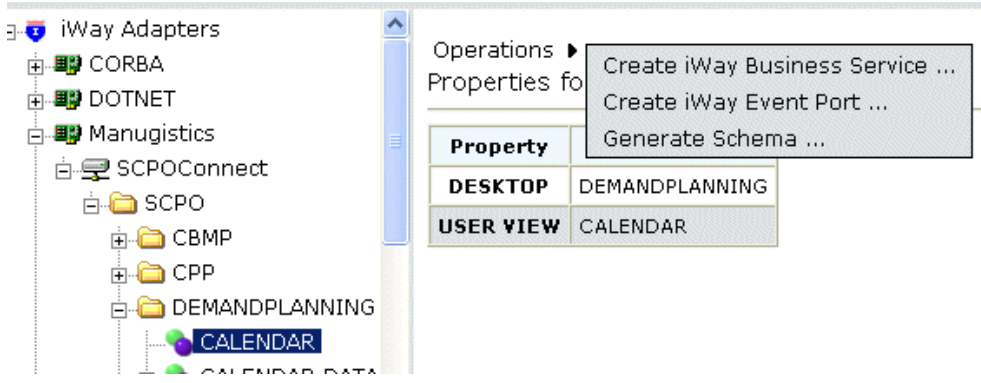
Note: In a J2EE Connector Architecture (JCA) implementation of iWay adapters, Web services are not available. When the adapters are deployed to use the iWay Connector for JCA, the Common Client Interface provides integration services using the iWay adapters. For more information, see the *iWay Installation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

Procedure How to Create an iWay Business Service

To create an iWay Business Service for Manugistics:

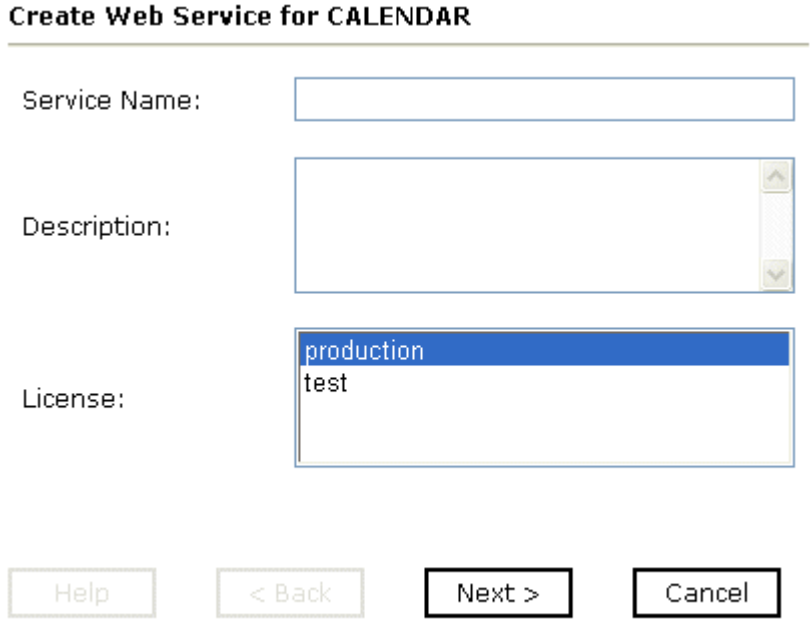
1. If you have not already done so, connect to a Manugistics target as described in *Establishing a Target for SCPO* on page 4-4.

2. Expand the Manugistics node and select the interface for which you want to create a business service.



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

   The Create Web Service pane opens on the right.

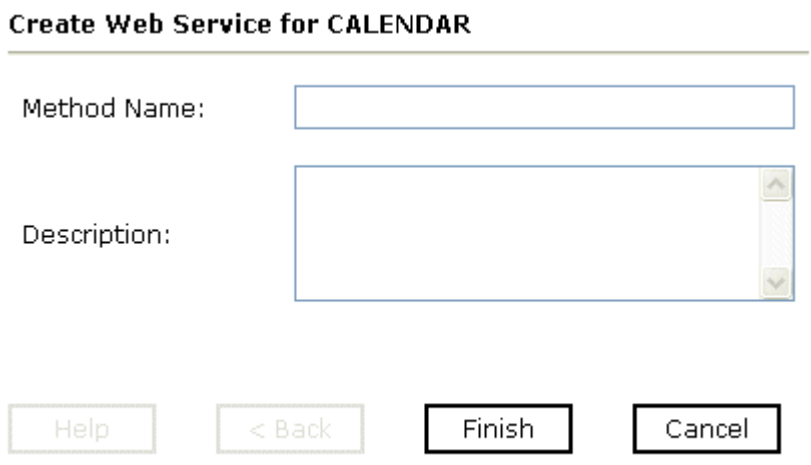


   a. In the Service Name field, type a descriptive name for the iWay Business Service.

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

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

4. Click *Next*.



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*.

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

Testing a Business Service

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

Procedure How to Test a Business Service

To test a business service:

1. If you are not on the iWay Business Services tab of Application Explorer, click the tab to access business services.

2. If it is not expanded, expand the list of business services under iWay Business Services.

3. Expand the *Services* node.

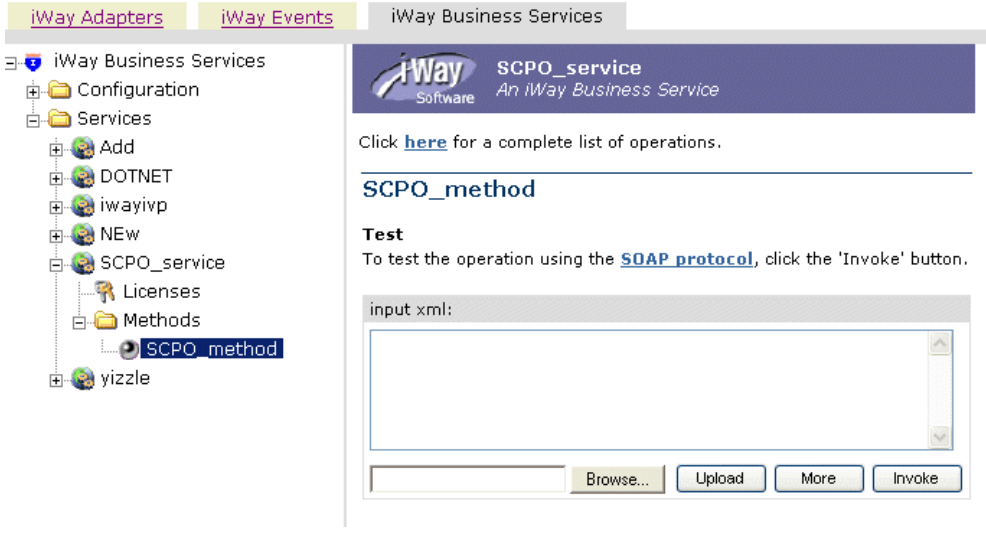
4. Select the name of the business service you want to test.

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

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

   The test option appears in the right pane.

   If you are testing a Web service that requires XML input, an input xml field appears.



6. In the input xml field, either type a sample XML document that queries the service, or browse to the location of an XML instance and click *Open*.

7. Click *Invoke*.

Application Explorer displays the results in the right pane.

The following graphic shows sample XML returned by the Business Services Engine:

Example Testing a Business Service

The following is a sample XML document that you can use to test the business service:

```
<?xml version="1.0" encoding="UTF-8"?>
<DEMANDPLANNING>
   <HISTORY>
      <GROUP>
         <DmdUnit length="10">120-18-105</DmdUnit>
         <DmdGroup length="10">CLUB</DmdGroup>
         <Loc length="5">CHI</Loc>
         <HistStream length="18">Order</HistStream>
         <ROW>
            <StartDate length="8">04/02/02</StartDate>
            <Dur length="4">30D</Dur>
            <Type length="1">1</Type>
            <Event length="18"/>
            <Qty length="10">1010</Qty>
         </ROW>
         <ROW>
            <StartDate length="8">04/03/02</StartDate>
            <Dur length="4">30D</Dur>
            <Type length="1">1</Type>
            <Event length="18"/>
```

```
            <Qty length="10">1111</Qty>
         </ROW>
      </GROUP>
   </HISTORY>
</DEMANDPLANNING>
```

Credential Mapping

For each SOAP request that is received, iBSE checks to see if a user name and password is included in the SOAP header. If a user name and password is available, iBSE acquires this information and replaces the values retrieved from the repository when pushing the request to the iWay Adapter.

Verifying the Manugistics Import File for SCPO

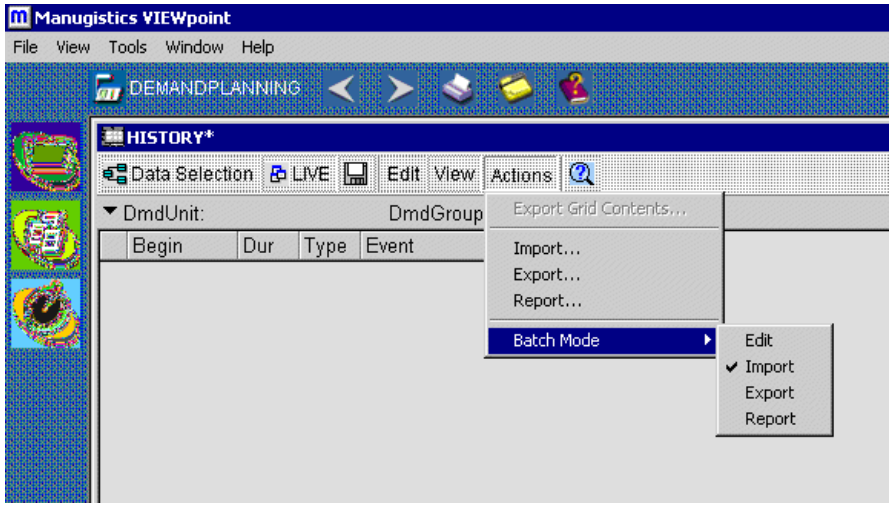
The following topic describes how to verify the Manugistics import file for SCPO.

Procedure How to Verify the Manugistics Import File for SCPO

To verify the Manugistics import file for SCPO:

1. Start a Manugistics Viewpoint session.
2. Select the designated Desktop and Userview, for example, the DEMANDPLANNING Desktop and the HISTORY Userview.

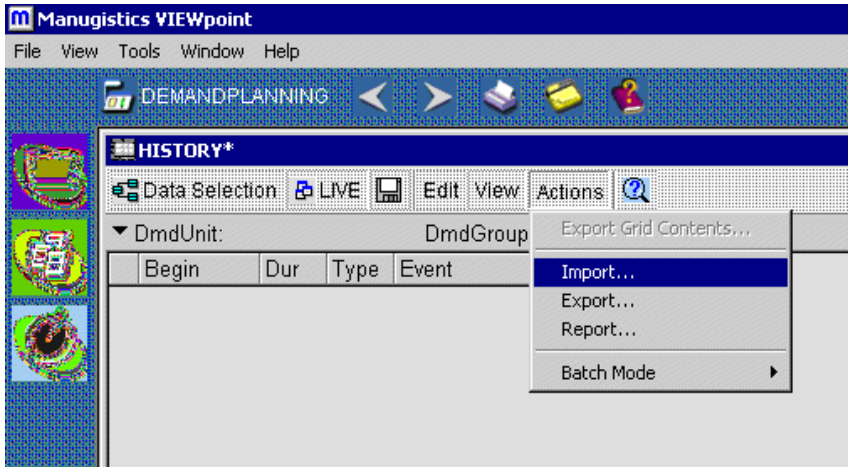
   To verify that Batch Mode is set to Import:



   a. From the Actions menu, select *Batch Mode*.

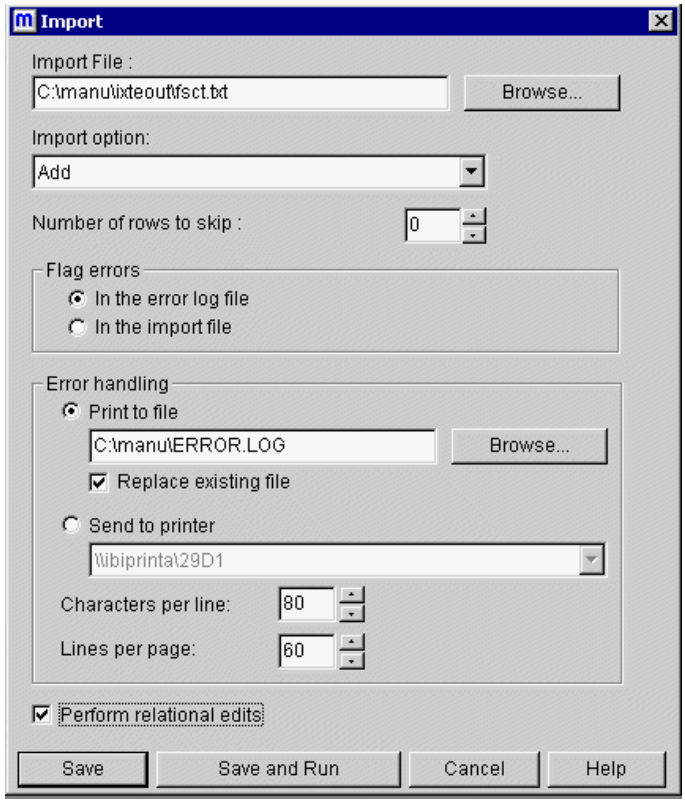
   b. On the pop-up menu, ensure that the *Import* command is checked.

3. Click *Actions*.



4. Select *Import*.

The name of the Import file appears in the text box at the top of the Import window.



CHAPTER 5

Creating Services for Transportation

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

This section describes how to create XML schemas or Web services for Transportation for the iWay Adapter for Manugistics using Application Explorer.

Note: The following Transportation interfaces are supported:

- CARRIER
- LOCATION
- ROUTED_ORDER
- GENERIC
- TL_RATES
- LTL_BASE_RATES
- LTL_RATES
- ORDER

Overview

The iWay Adapter for Manugistics provides interoperability between your application server and Manugistics services for Transportation.

External applications that access Manugistics 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 for BEA WebLogic* manual.

Starting iWay Servlet Application Explorer

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

Procedure **How to Start BEA WebLogic Server on Windows or on UNIX**

- To start BEA WebLogic Server on Windows:

1. Click the Start menu.
2. Select *Programs*, *BEA WebLogic Platform 8.1*, *User Projects*, *your domain for iWay*, and then, click *Start Server*.

- To start BEA WebLogic Server on UNIX or from a command line, type the following at the prompt:

  ```
  BEA_HOME/user_projects/domains/DOMAIN_NAME/startWebLogic.cmd
  ```

  where:

  BEA_HOME

  Is the directory where BEA WebLogic is installed.

  DOMAIN_NAME

  Is the domain you are using for iWay.

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

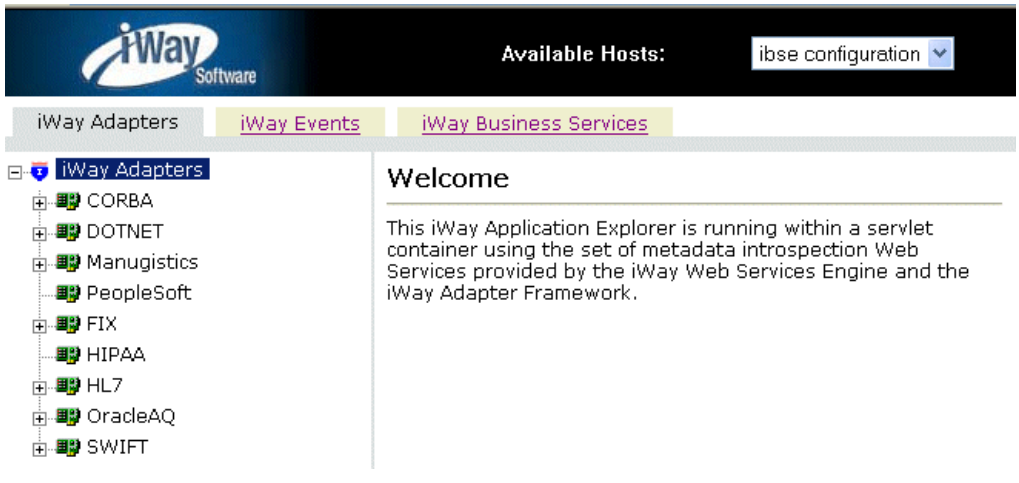
   Is the name of the machine where your application server is running.

   port

   Is the port number where your application server is listening.

   The port for the default domain is 7001.

   After you start Application Explorer, the following window opens.



   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 for BEA WebLogic* manual.

You are ready to create new targets for Manugistics.

Establishing a Target for Transportation

To browse Manugistics, 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 Manugistics for the first time, you must create a new target.

Procedure How to Create a New Target

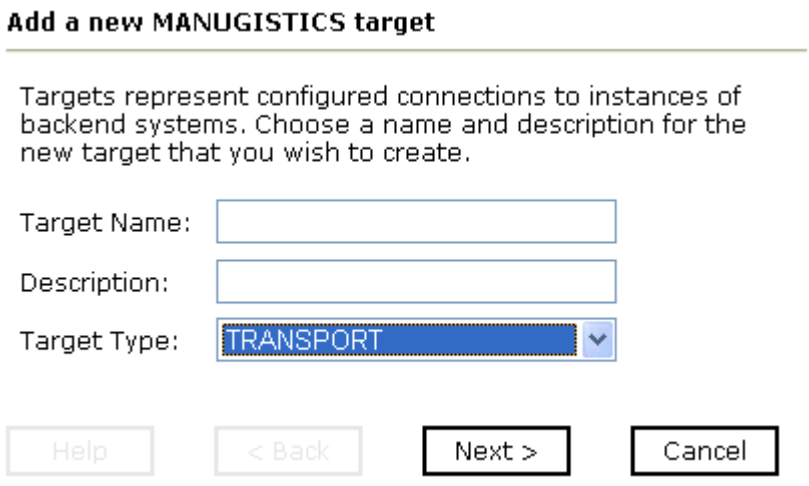
To create a new target using Application Explorer:

1. In the left pane, expand the *iWay Adapters* node and click the *Manugistics* node.

   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 Manugistics target pane opens on the right.



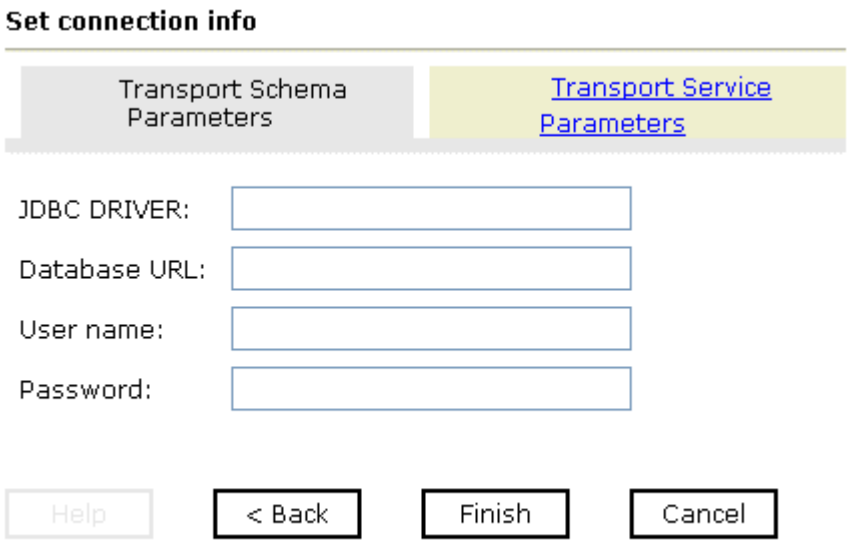
a. In the Target Name field, type a descriptive name for the target, for example, TransConnect.

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

c. From the Target Type drop-down list, select *TRANSPORT*.

3. Click *Next*.

The Set connection info pane opens with two tabs in the right pane.



a. In the Transport Schema Parameters tab, enter values for the parameters in the following table:

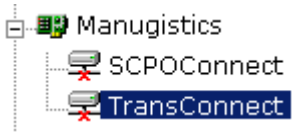
Parameter	Description
JDBC Driver	JDBC driver used to access Manugistics.
Database URL	URL to use when opening the connection to the database.
User name	User name to connect to Manugistics.
Password	Password associated with the user name.

b. In the Transport Service Parameters tab, enter values for the parameters in the following table:

Parameter	Description
Output Path	The directory path for the Transportation import process.

4. Click *OK*.

In the left pane, the Manugistics target, TransConnect, appears below the Manugistics node.



You are ready to connect to your Manugistics target.

Connecting to a Target

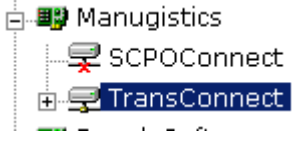
To connect to Manugistics, you must use the target you defined.

Procedure How to Connect to a Target

To connect to a target using Application Explorer:

1. In the left pane, expand the *iWay Adapters* node and then the *Manugistics* node.
2. Select the target you defined, for example, TransConnect.
3. In the right pane, move the pointer over *Operations* and select *Connect*.
4. Type the password associated with the user name.
5. Click *OK*.

   In the left pane, the TransConnect node changes to reflect that a connection was made.



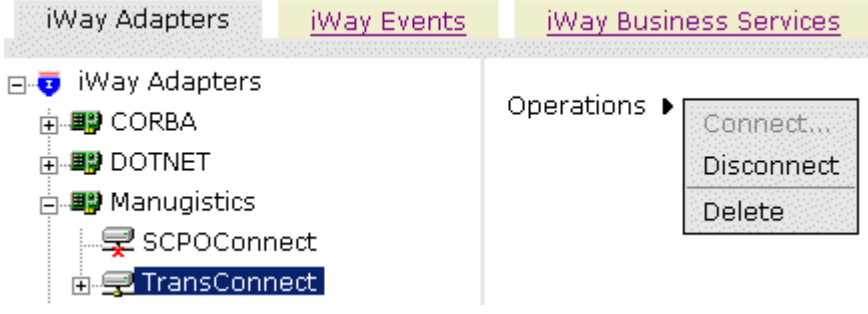
6. Expand the *TransConnect* node.

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:



1. From the left pane, click the target to which you are connected, for example, TransConnect.
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.

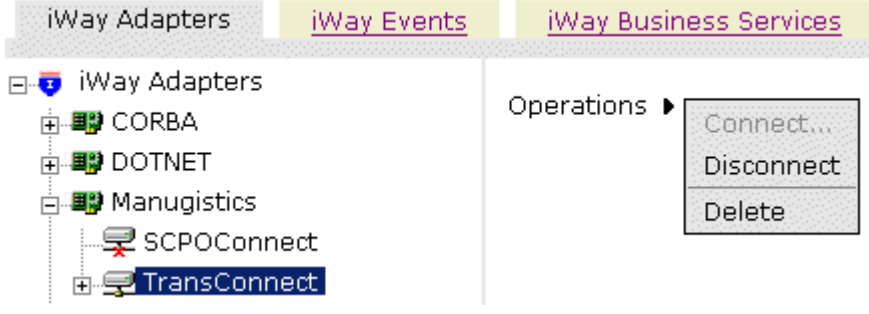
The TransConnect node in the left pane changes to reflect that a connection was closed.

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.

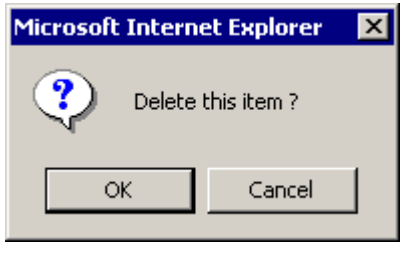
Procedure How to Delete a Target

To delete a target using Application Explorer:



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

   The following Delete confirmation dialog box opens.



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

   The TransConnect node disappears from the left pane.

Creating an XML Schema for Transportation

After you are connected to Manugistics, Application Explorer enables you to explore and browse metadata. Application Explorer creates both the XML request schema and the XML response schema.

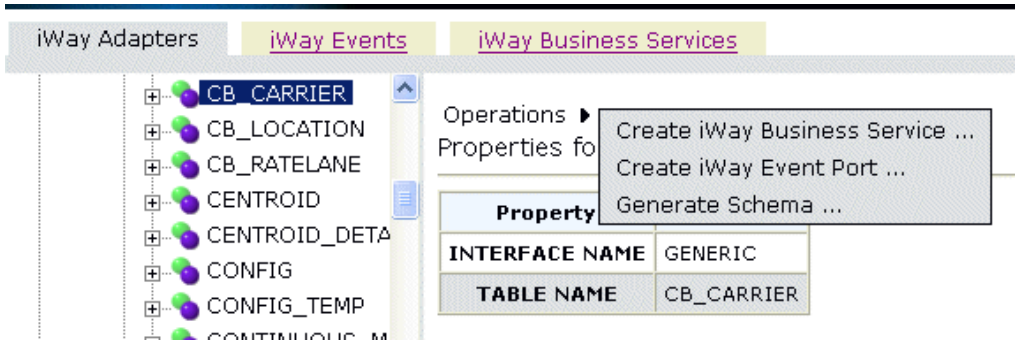
Note: In a J2EE Connector Architecture (JCA) implementation of iWay adapters, Web services are not available. When the adapters are deployed to use the iWay Connector for JCA, the Common Client Interface provides integration services using the iWay adapters. For more information, see the *iWay Installation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

Creating a Request and a Response Schema

The following procedure explains how to create request and response schemas for Transportation using Application Explorer.

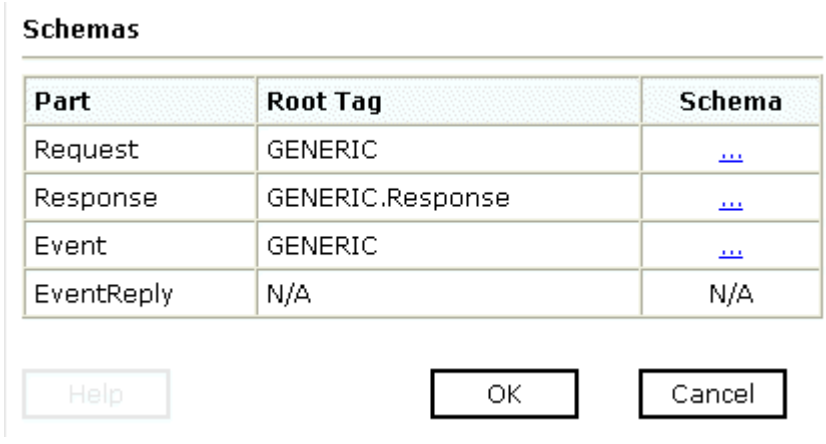
Procedure How to Create a Request Schema and a Response Schema

1. If you are not connected to a Manugistics target, connect to one, as described in *Establishing a Target for Transportation* on page 5-4.
2. Expand the Manugistics node and select the interface for which you want to create the schema.
3. Expand and then select the node beneath the interface you selected.



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

The schemas pane opens.

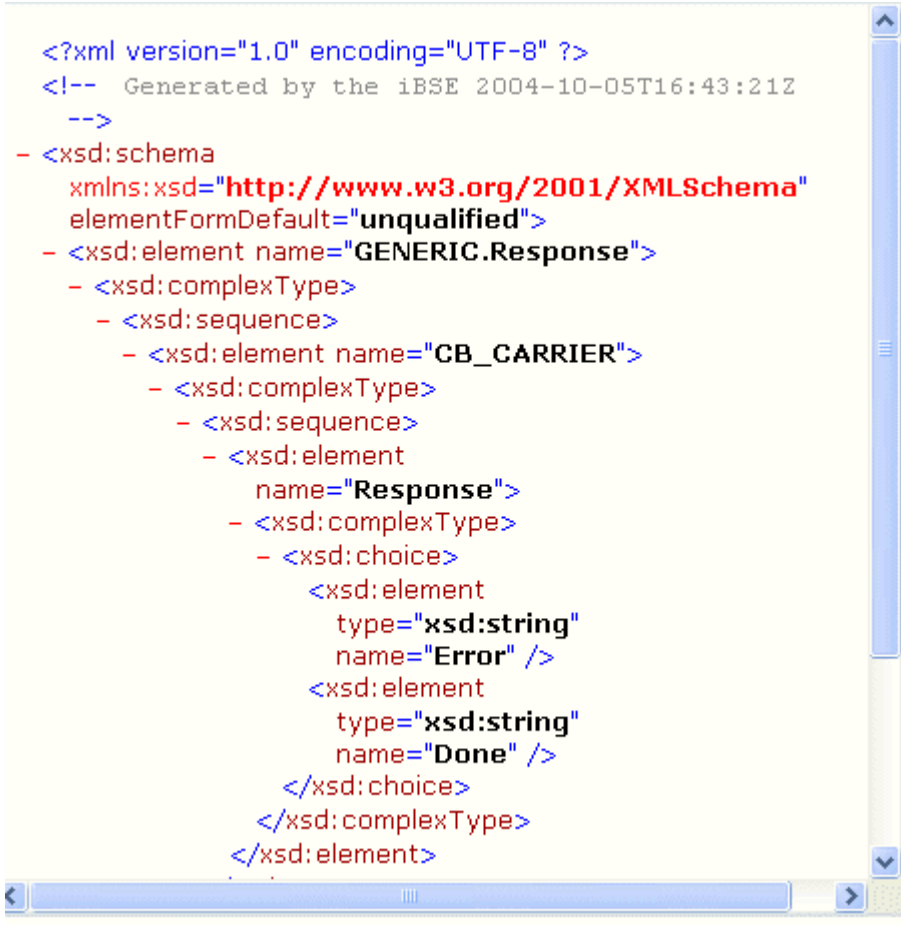


Application Explorer creates the schemas.

A table defines the root tag for each schema and provides hyperlinks.

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

For example, if you click the Response schema, the schema appears in the right pane.



6. 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 for Transportation

You can generate a business service (also known as a Web service) for Manugistics. 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.

Ensure that the servlet iBSE is properly configured. For more information on installing and deploying iWay components, see the *iWay Installation and Configuration for BEA WebLogic* manual.

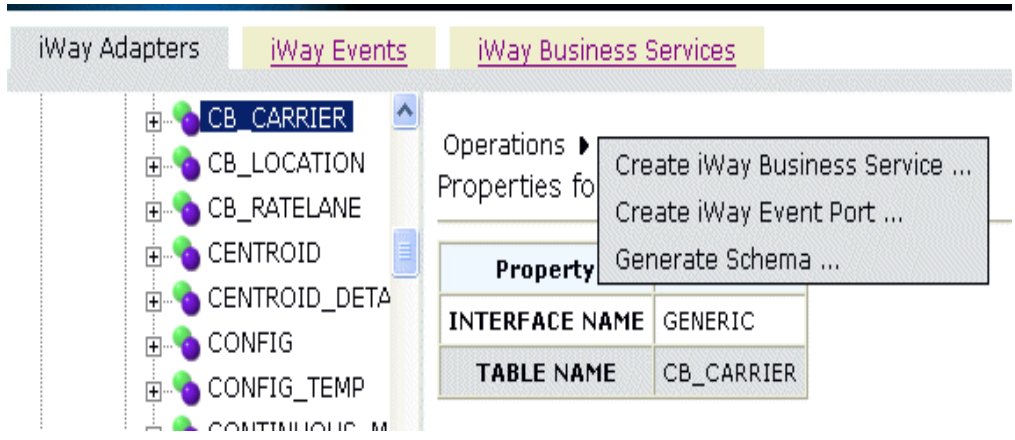
Note: In a J2EE Connector Architecture (JCA) implementation of iWay adapters, Web services are not available. When the adapters are deployed to use the iWay Connector for JCA, the Common Client Interface provides integration services using the iWay adapters. For more information, see the *iWay Installation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

Procedure How to Create an iWay Business Service

To create an iWay Business Service for Manugistics:

1. If you have not already done so, connect to a Manugistics target as described in *Establishing a Target for Transportation* on page 5-4.

2. Expand the Manugistics node and select the interface for which you want to create a business service.

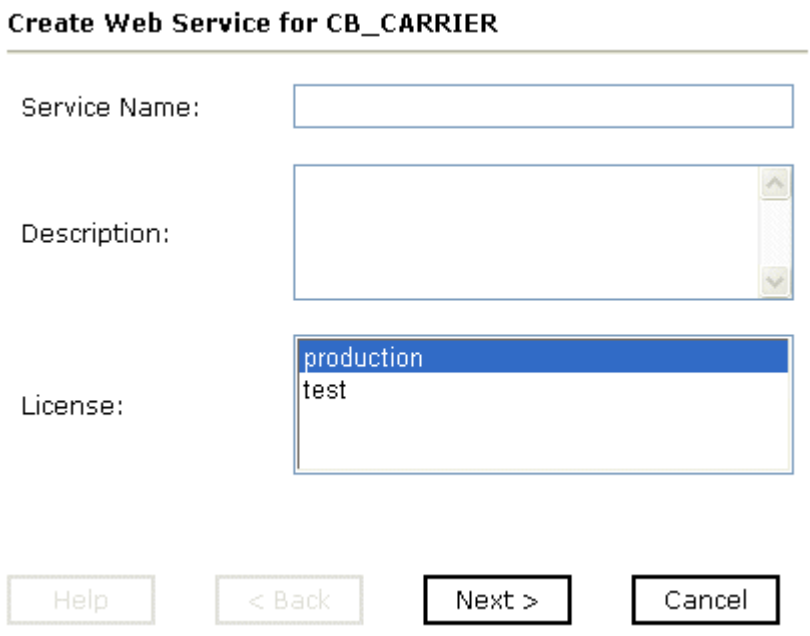


3. In the right pane, move the pointer over *Operations* and select *Create iWay Business Service*.

   The Create Web Service pane opens on the right.

4. Select the *Create a new service* option button or the *Use an existing service* option button.
5. Click *Next*.

If you select Create a new service, the following pane opens:

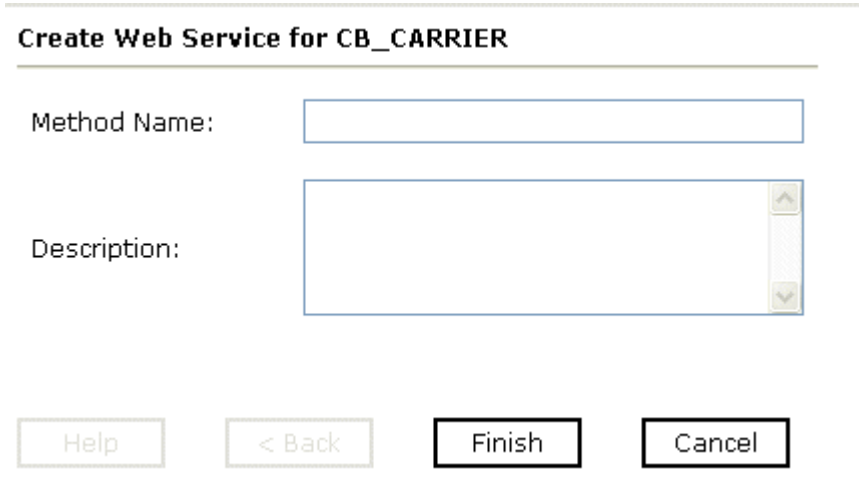


a. In the Service Name field, type a descriptive name for the iWay Business Service.

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

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

6. Click *Next*.



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.

7. Click *Finish*.

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

Testing a Business Service

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

Procedure How to Test a Business Service

To test a business service:

1. If you are not on the iWay Business Services tab of Application Explorer, click the tab to access business services.

2. If it is not expanded, expand the list of business services under iWay Business Services.

3. Expand the *Services* node.

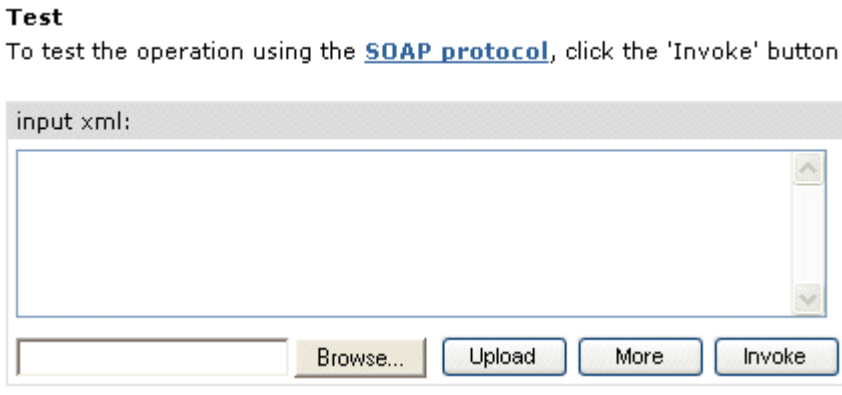
4. Select the name of the business service you want to test.

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

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

The test option appears in the right pane.

If you are testing a Web service that requires XML input, an input xml field appears.



6. In the input xml field, either type a sample XML document that queries the service, or browse to the location of an XML instance and click *Open*.
7. Click *Invoke*.

Application Explorer displays the results in the right pane.

Example Testing a Business Service

The following is a sample XML document that you can use to test the business service:

```
<GENERIC>
   <TIME_ZONE>
      <row>
         <GM_LAG length="3">-1</GM_LAG>
         <DSO_FLAG length="1">0</DSO_FLAG>
         <ID length="3">CE0</ID>
         <OFFSET length="3">6</OFFSET>
         <STD_LABEL length="10">GMT+01:00</STD_LABEL>
         <DST_LABEL length="10">GMT+01:00</DST_LABEL>
         <DST_RULE_ID length="12"/>
         <DESCRIPTION length="30">CET, no DST</DESCRIPTION>
      </row>
      <row>
         <GM_LAG length="3">0</GM_LAG>
         <DSO_FLAG length="1">1</DSO_FLAG>
         <ID length="3">GMT</ID>
         <OFFSET length="3">5</OFFSET>
         <STD_LABEL length="10">GMT</STD_LABEL>
         <DST_LABEL length="10">GMT+01:00</DST_LABEL>
         <DST_RULE_ID length="12">UNITEDKING</DST_RULE_ID>
         <DESCRIPTION length="30">Greenwich Mean Time</DESCRIPTION>
      </row>
   </TIME_ZONE>
</GENERIC>
```

Credential Mapping

For each SOAP request that is received, iBSE checks to see if a user name and password is included in the SOAP header. If a user name and password is available, iBSE acquires this information and replaces the values retrieved from the repository when pushing the request to the iWay Adapter.

CHAPTER 6

Listening for Events for SCPO

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

This section describes how to use iWay Servlet Application Explorer to connect to Manugistics and listen for events for Supply Chain Planning and Optimization (SCPO). 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, Manugistics 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.

- **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*.

- **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 6-16.

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 Manugistics 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
- MQSeries
- Mail

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

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

- File
- JMS
- MQ
- HTTP

Creating an Event Port for the File Disposition

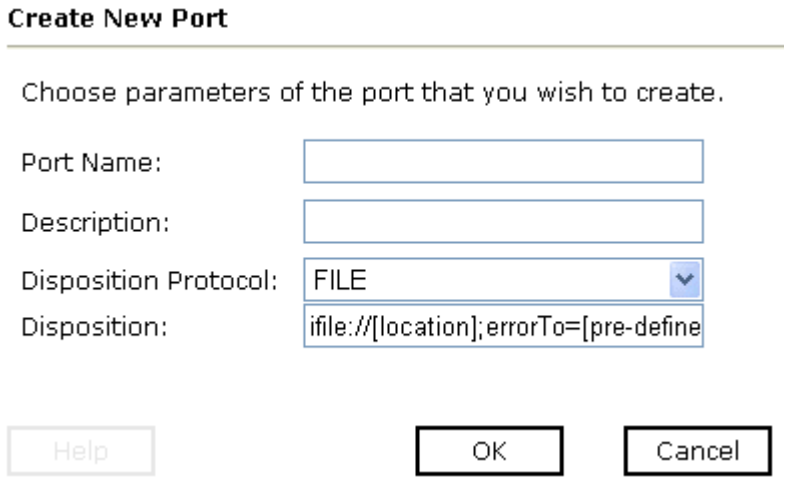
The File disposition uses a file URL to specify the destination file name or directory where the event document will be written. During run time, the destination file name may require indexing to avoid overwriting.

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 Events* tab and expand the Manugistics node.
2. Select the *ports* node.
3. In the right pane, move the pointer over *Operations* and select *Add a new port*.

   The Create New Port pane opens on the right.



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

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

d. In the Disposition 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.

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.

4. Click *OK*.

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

You are ready to associate the event port with a channel. For more information, see *Adding, Modifying, or Deleting a Channel* on page 6-16.

Creating an Event Port for the iBSE Disposition

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

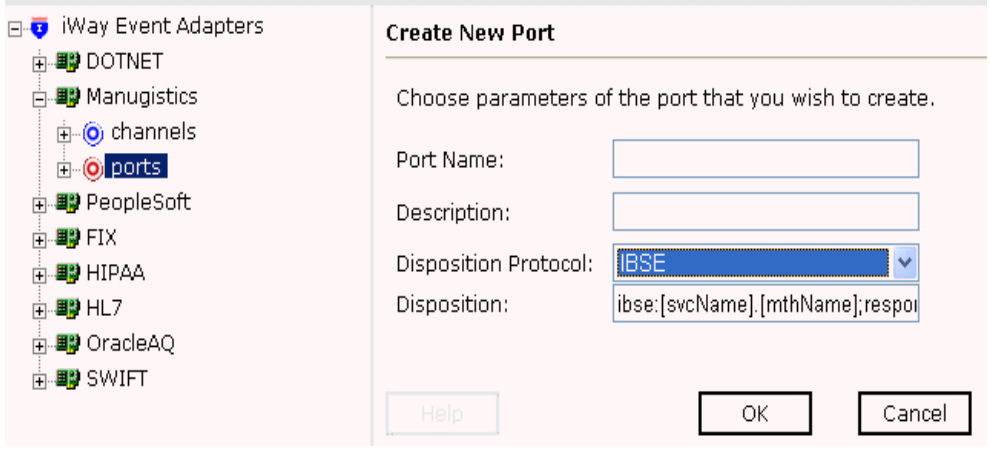
Procedure How to Create a Port for the iBSE Disposition

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

1. Click the *iWay Events* tab and expand the Manugistics node.

2. Select the *ports* node.
3. In the right pane, move the pointer over *Operations* and select *Add a new port*.

   The Create New Port pane opens on the right.



   a. In the Port Name field, type a name.
   b. In the Description field, type a brief description.
   c. From the Disposition Protocol drop-down list, select *IBSE*.
   d. In the Disposition field, enter an iBSE destination in the form of:

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

   The following table 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.

4. Click *OK*.

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

Operations ▸	
Port Name	SCPO_iBSE
Description	
Disposition	ibse:[svcName].[mthName];responseTo=[pre-defined port name or another disposition url];errorTo=[pre-defined port name or another disposition url]
Target	Mgistics

You are ready to associate the event port with a channel. For more information, see *Adding, Modifying, or Deleting a Channel* on page 6-16.

Creating an Event Port for the MSMQ Disposition

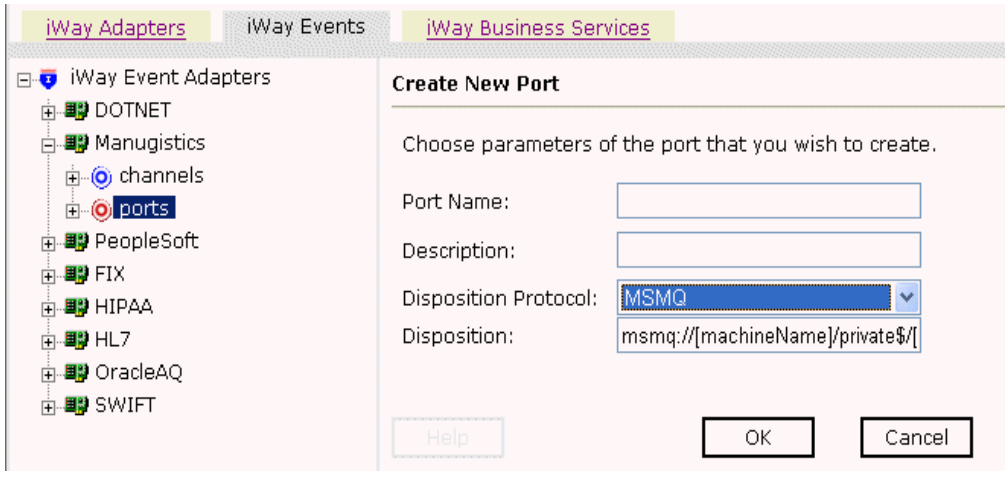
The MSMQ disposition supports public and private queues.

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 Events* tab and expand the Manugistics node.
2. Select the *ports* node.
3. In the right pane, move the pointer over *Operations* and select *Add a new port*.

   The Create New Port pane opens on the right.



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

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

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

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

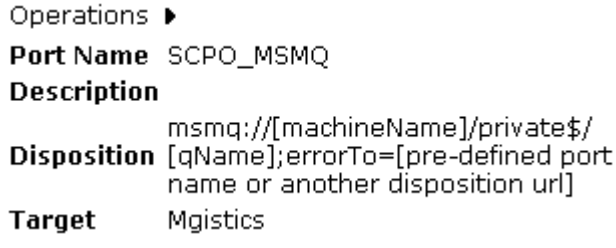
```
msmq:/host/queueType/queueName[;errorTo=errorDest]
```

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.
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.

4. Click *OK*.

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



You are ready to associate the event port with a channel. For more information, see *Adding, Modifying, or Deleting a Channel* on page 6-16.

Creating an Event Port for the JMS Queue Disposition

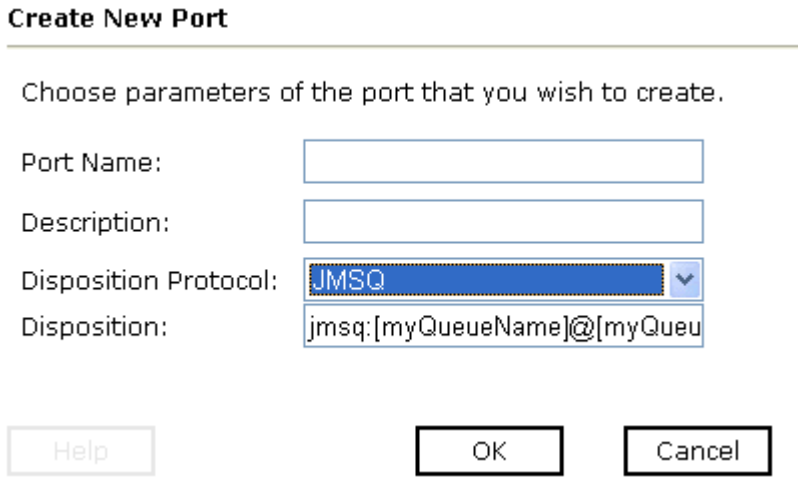
The JMS queue disposition allows an event to be enqueued to a JMS queue.

Procedure How to Create a Port for the JMS Queue Disposition

To create a port for a JMS queue disposition using Application Explorer:

1. Click the *iWay Events* tab and expand the Manugistics node.
2. Select the *ports* node.
3. In the right pane, move the pointer over *Operations* and select *Add a new port*.

   The Create New Port pane opens on the right.



   a. In the Port Name field, type a name.
   b. In the Description field, type a brief description.
   c. From the Disposition Protocol drop-down list, select *JMSQ*.
   d. 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=;
```

The WebLogic connection factory is:

`javax.jms.QueueConnectionFactory`

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. The WebLogic connection factory is: `javax.jms.QueueConnectionFactory`
jndi_url	The URL of the application server. For BEA WebLogic Server, the URL is `t3://host:port` where: *host* Is the machine name where BEA WebLogic Server resides. *port* Is the port on which BEA WebLogic Server is listening. The default port if not changed at installation, is 7001.
jndi_factory	Is JNDI context.INITIAL_CONTEXT_FACTORY and is provided by the JNDI service provider. For WebLogic Server, the WebLogic factory is weblogic.jndi.WLInitialContextFactory.
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.

4. Click *OK*.

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

You are ready to associate the event port with a channel. For more information, see *Adding, Modifying, or Deleting a Channel* on page 6-16.

Procedure How to Create a Port for the SOAP Disposition

To create a port for a SOAP disposition:

1. Click the *iWay Events* tab.

   The iWay Event Adapters window opens.

2. In the left pane, expand the *Manugistics* node.

3. Select the *ports* node.

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

   The Create Event Port window opens in the right pane.

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

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

   c. In the Disposition field, enter an SOAP destination, using the following format:

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

   The following table defines the parameters for the disposition.

Parameter	Description
wsdl-url	The URL to the WSDL file that is required to create the SOAP message. For example: `http://localhost:7001/ibse/IBSEServlet/test/sw2xml2003MQ.ibs?wsdl` This value can be found by navigating to the iWay Business Services tab and opening the *Service Description* link in a new window. The WSDL URL appears in the Address field. You can also open the WSDL file in a third party XML editor (for example, XMLSPY) and view the SOAP request settings to find this value.

Parameter	Description

soapaction	The method that will be called by the disposition. For example:
	`MANUMT200.mt200Request@test@@`
	where
	`MANU`
	Is the name of the Web service you created using Application Explorer.
	`mt200`
	Is the method being used.
	`test`
	Is the license that is being used by the Web service.
	This value can be found by navigating to the iWay Business Services tab and opening the *Service Description* link in a new window. Perform a search for *soapAction*.
	You can also open the WSDL file in a third party XML editor (for example, XMLSPY) and view the SOAP request settings to find this value.

responseTo	The location to which responses are posted. A predefined port name or another full URL. Optional. A predefined port name or another disposition URL. The URL must be complete, including the protocol.
errorTo	The location to which error logs are sent. Optional. A predefined port name or another disposition URL. The URL must be complete, including the protocol.

5. Click *OK*.

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

You are ready to associate the event port with a channel. For more information, see *Adding, Modifying, or Deleting a Channel* on page 6-16.

Creating an Event Port for the HTTP Disposition

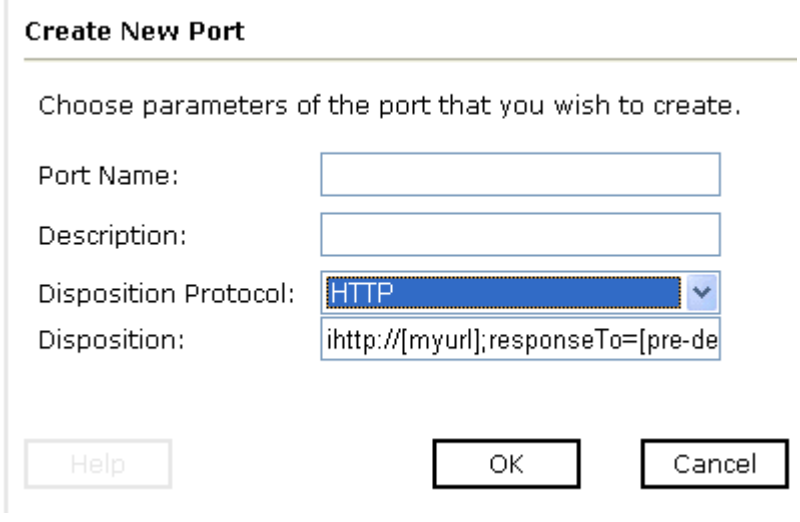
The HTTP disposition uses an HTTP URL to specify an HTTP end point to which the event document is posted.

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 Events* tab and expand the Manugistics node.
2. Select the *ports* node.
3. In the right pane, move the pointer over *Operations* and select *Add a new port*.

   The Create New Port pane opens on the right.



   a. In the Port Name field, type a name.
   b. In the Description field, type a brief description.
   c. From the Disposition Protocol drop-down list, select *HTTP*.
   d. In the Disposition field, enter a 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.

4. Click *OK*.

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

Operations ▸	
Port Name	SCPO_HTTP
Description	
Disposition	ihttp://[myurl];responseTo=[pre-defined port name or another disposition url]
Target	Mgistics

You are ready to associate the event port with a channel. For more information, see *Adding, Modifying, or Deleting a Channel* on page 6-16.

Creating an Event Port for the MQSeries Disposition

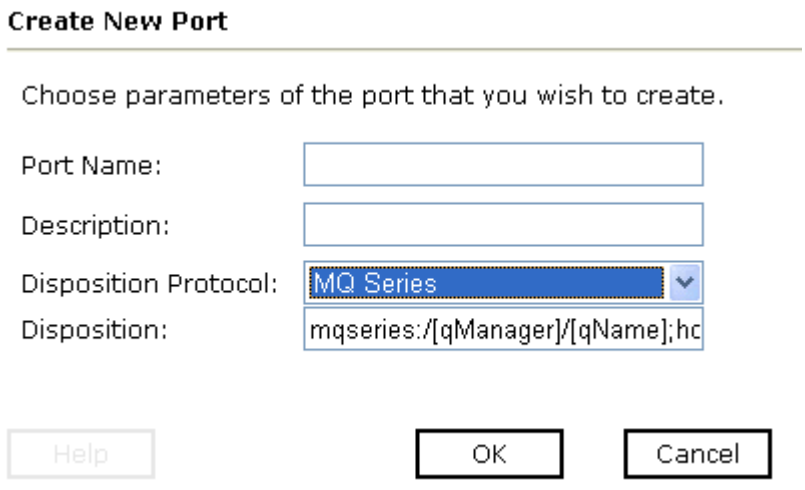
The MQSeries disposition enables an event to be enqueued to an MQSeries queue. Both queue manager and queue name may be specified.

Procedure How to Create a Port for the MQSeries Disposition

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

1. Click the *iWay Events* tab and expand the Manugistics node.
2. Select the *ports* node.
3. In the right pane, move the pointer over *Operations* and select *Add a new port*.

The Create New Port pane opens on the right.



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

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

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

d. In the Disposition field, enter a MQSeries 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=
```

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).

Parameter	Description
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.

4. Click *Finish*.

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

   You are ready to associate the event port with a channel. For more information, see *Adding, Modifying, or Deleting a Channel* on page 6-16.

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 confirmation dialog box opens.

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

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

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.

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

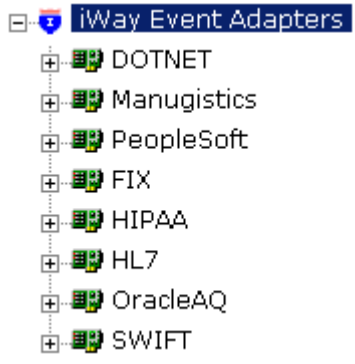
- SCPO using File
- Table Listener

Procedure How to Create a Channel for SCPO Using File

To create a channel using Application Explorer:

1. Click the *iWay Events* tab.

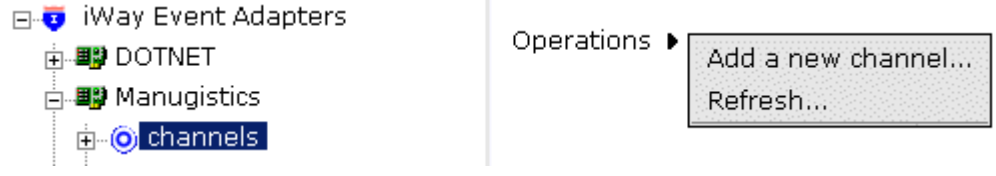
The iWay Event Adapters window opens.



The list of iWay adapters that support events appears in the left pane.

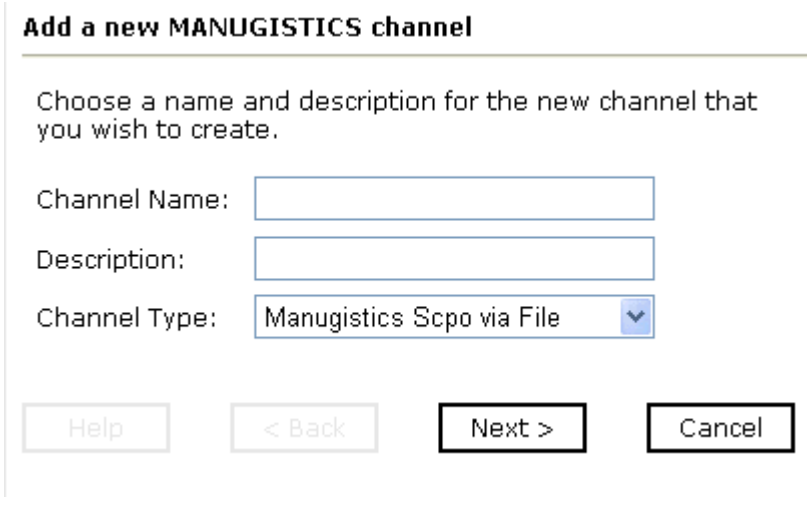
2. Expand the *Manugistics* node.

   The ports and channels nodes appear in the left pane.



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

The Add a new Manugistics channel pane opens on the right.



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 Channel Type drop-down list, select *MgisticsScpo via File*.

5. Click *Next*.

The Edit channels pane opens, with four tabs in the right pane.

a. In the Request tab, enter values for the parameters listed in the following table. The table includes a description of each parameter.

Parameter	Description
Polling Location	The target file system location for the Manugistics XML file.
File Mask	The file name to be used for the output file generated as a result of this operation.

b. In the Response tab, enter values for the parameters listed in the following table. The table includes a description of each parameter.

Parameter	Description
Synchronization Type	Choose from three options: • REQUEST • REQUEST_RESPONSE • REQUEST_ACK
Response/Ack Directory	The target file system location for the Manugistics XML file.

c. In the Advanced tab, enter values for the parameters listed in the following table. The table includes a description of each parameter.

Parameter	Description
Error Directory	Directory to which documents with errors are written.
Poll interval (msec)	The interval (in milliseconds) when to check for new input. Optional. The default is 3 seconds.
Processing Mode	Choose Sequential or Threaded. • Sequential indicates single processing of requests. • Threaded indicates processing of multiple requests simultaneously.
Thread limit	If you selected threaded processing, indicate the maximum number of requests that can be processed simultaneously.

d. In the Preparser tab, enter values for the parameters listed in the following table. The table includes a description of each parameter.

Parameter	Description
JDBC Driver	Enter the fully-qualified name of the JDBC driver used to access the database, for example: `oracle.jdbc.driver.OracleDriver`

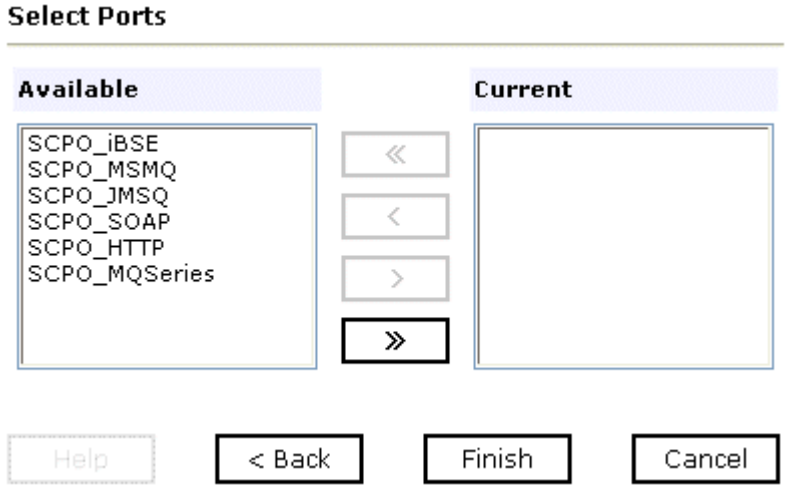
Parameter	Description

Database URL	Enter the URL of the JDBC driver used to communicate to the Manugistics Oracle database in the following format:
	`jdbc:oracle:thin:@Oracle-server-name:Oracle-port:Oracle-SID`
	For example:
	`jdbc:oracle:thin:@myserver:1521:msam`

User name	Enter the user name that has select and delete capabilities to the database (temporary input holding table).
Password	Type the password associated with the user name.
User View	Name of the Manugistics user view where you are listening for data.
Desktop	Name of the Manugistics Desktop for the specified user view.

6. Click *Next*.

The Select Ports pane opens on the right, with available and current ports.



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

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

7. Click *Finish*.

The summary window opens.

A summary provides the channel description, channel status, and available ports. All the information is associated with the channel you created.

The channel also 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.

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

   The channel you created becomes active.

   The X that was over the icon disappears.

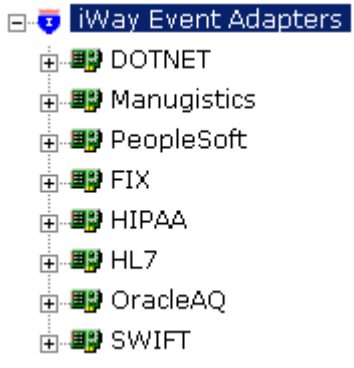
9. To stop the channel, move the pointer over *Operations* and select *Stop the channel*.

Procedure **How to Create a Channel for SCPO Using the Table Listener**

To create a channel using Application Explorer:

1. Click the *iWay Events* tab.

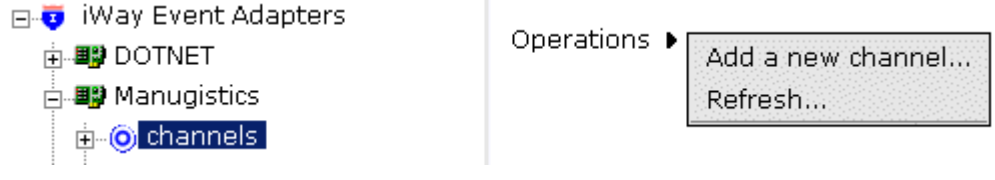
   The iWay Event Adapters window opens.



   The list of iWay adapters that support events appears in the left pane.

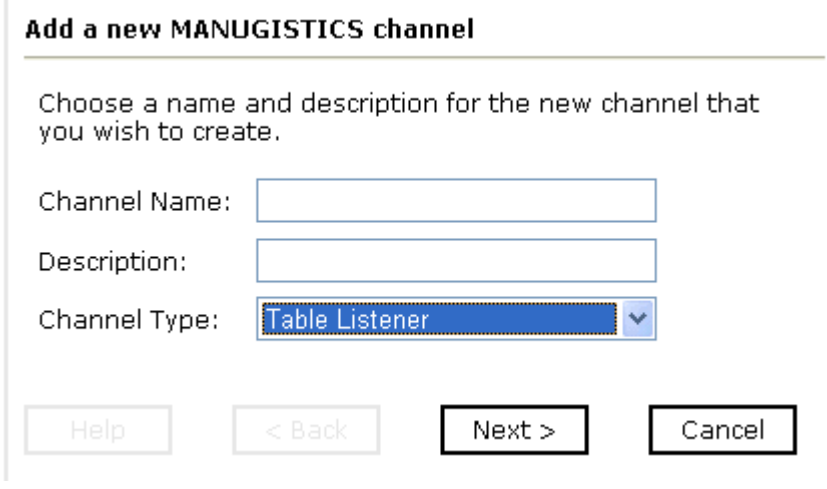
2. Expand the *Manugistics* node.

   The ports and channels nodes appear in the left pane.



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

   The Add a new Manugistics channel pane opens on the right.



   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 Channel Type drop-down list, select *Table Listener*.
5. Click *Next*.

   The Edit channels pane opens, with four tabs in the right pane.

   a. In the JDBC-ODBC Bridge Parameters tab, enter values for the parameters listed in the following table. The table includes a description of each parameter.

Parameter	Description
Data Source	JDBC data source.
User	User name that has select and delete capabilities to the database (temporary input holding table).
Password	Password associated with the user name.
Polling Interval	Enter the interval, in seconds, at which to check for new input. 2 seconds is the default value.

Parameter	Description
SQL Query	Enter an SQL query statement to poll the holding table: `SELECT ACTION,DMDUNIT,DMDGROUP,LOC,to_char (START DATE, 'YYYY-MM-DD') AS "STARTDATE",DUR, TYPE,FCSTID,QTY,SCEN,SCENBITS,MODEL from IWY_FCST` Note the use of an Oracle to_char function for the date.
Post Query	Not applicable for Manugistics.
Delete Keys	A case-sensitive parameter triggered from the SQL Query. Enter a comma separated list of keys to be used to build the delete statement. `ACTION,DMDUNIT,DMDGROUP,LOC,STARTDATE,TYPE`

b. In the Oracle Parameters tab, enter values for the parameters listed in the following table. The table includes a description of each parameter.

Parameter	Description
Host	The name of the server on which the database instance resides.
Port	The port number on which the database is listening.
SID	A unique name of the database service, chosen by the database administrator or the person who installed Oracle Applications.
User	The Oracle database user ID to access the Oracle database. The user ID must have database access to the interface tables being accessed.
Password	Password associated with the user name.
Polling Interval	Enter the interval, in seconds, at which to check for new input. 2 seconds is the default value.
SQL Query	Enter an SQL query statement to poll the holding table: `SELECT ACTION,DMDUNIT,DMDGROUP,LOC,to_char (START DATE, 'YYYY-MM-DD') AS "STARTDATE",DUR, TYPE,FCSTID,QTY,SCEN,SCENBITS,MODEL from IWY_FCST` Note the use of an Oracle to_char function for the date.

Parameter	Description
Post Query	Not applicable for Manugistics.
Delete Keys	A case-sensitive parameter triggered from the SQL Query. Enter a comma separated list of keys to be used to build the delete statement. `ACTION,DMDUNIT,DMDGROUP,LOC,STARTDATE,TYPE`

c. In the SQL Server Parameters tab, enter values for the parameters listed in the following table. The table includes a description of each parameter.

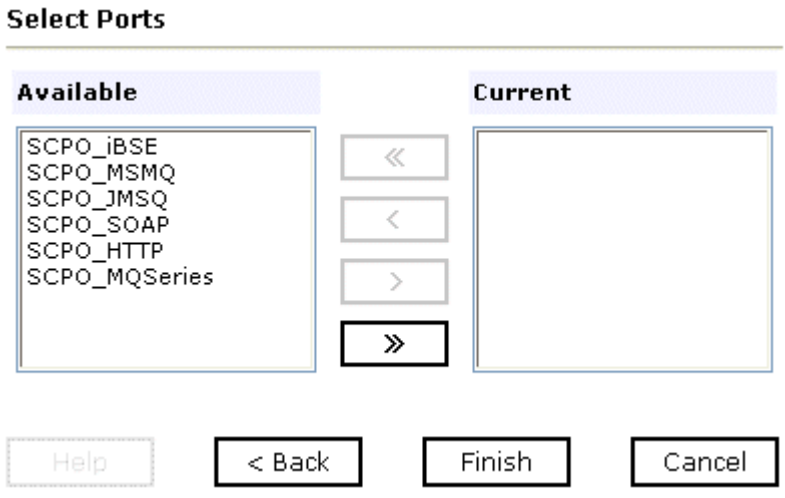
Parameter	Description
Host	The name of the server on which the database instance resides.
Port	The port number on which the database is listening.
Database Name	Name of SQL database.
User	Enter the user name that has select and delete capabilities to the database (temporary input holding table).
Password	Type the password associated with the user name.
Polling Interval	Enter the interval, in seconds, at which to check for new input. 2 seconds is the default value.
SQL Query	Enter an SQL query statement to poll the holding table: `SELECT ACTION,DMDUNIT,DMDGROUP,LOC,to_char (START DATE, 'YYYY-MM-DD') AS "STARTDATE",DUR, TYPE,FCSTID,QTY,SCEN,SCENBITS,MODEL from IWY_FCST` Note the use of an Oracle to_char function for the date.
Post Query	Not applicable for Manugistics.
Delete Keys	A case-sensitive parameter triggered from the SQL Query. Enter a comma separated list of keys to be used to build the delete statement. `ACTION,DMDUNIT,DMDGROUP,LOC,STARTDATE,TYPE`

d. In the EDA Server Parameters tab, enter values for the parameters listed in the following table. The table includes a description of each parameter.

Parameter	Description
Host	The name of the server on which the database instance resides.
Port	The port number on which the database is listening.
Database Name	Name of EDA database.
User	Enter the user name that has select and delete capabilities to the database (temporary input holding table).
Password	Type the password associated with the user name.
Polling Interval	Enter the interval, in seconds, at which to check for new input. 2 seconds is the default value.
SQL Query	Enter an SQL query statement to poll the holding table: `SELECT ACTION,DMDUNIT,DMDGROUP,LOC,to_char (START DATE, 'YYYY-MM-DD') AS "STARTDATE",DUR, TYPE,FCSTID,QTY,SCEN,SCENBITS,MODEL from IWY_FCST` Note the use of an Oracle to_char function for the date.
Post Query	Not applicable for Manugistics.
Delete Keys	A case-sensitive parameter triggered from the SQL Query. Enter a comma separated list of keys to be used to build the delete statement. `ACTION,DMDUNIT,DMDGROUP,LOC,STARTDATE,TYPE`

6. Click *Next*.

The Select Ports pane opens on the right, with available and current ports.



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

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

7. Click *Finish*.

The summary window opens.

A summary provides the channel description, channel status, and available ports. All the information is associated with the channel you created.

The channel also 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.

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

The channel you created becomes active.

The X that was over the icon disappears.

9. 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 confirmation dialog box opens.

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

   The channel disappears from the list in the left pane.

Testing the Event Listener

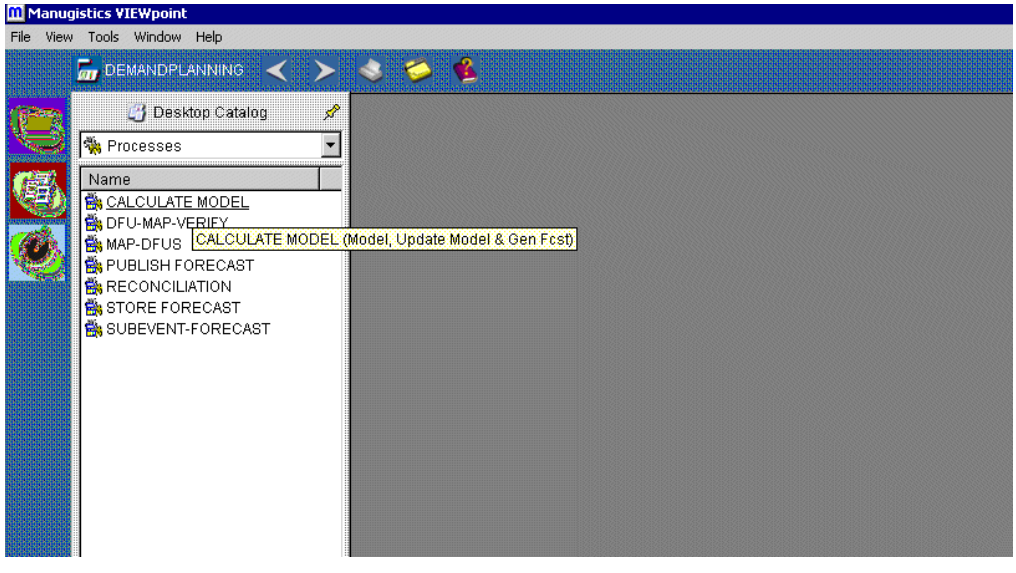
To test the iWay Adapter for Manugistics to ensure it routes SQL events (outbound data) successfully, you must initiate a process within your Manugistics application that creates and/or alters data on the underlying RDBMS table to which you are listening. The following procedure uses the SCPO application, but the concepts are identical for Transportation.

Procedure How to Test the Listener

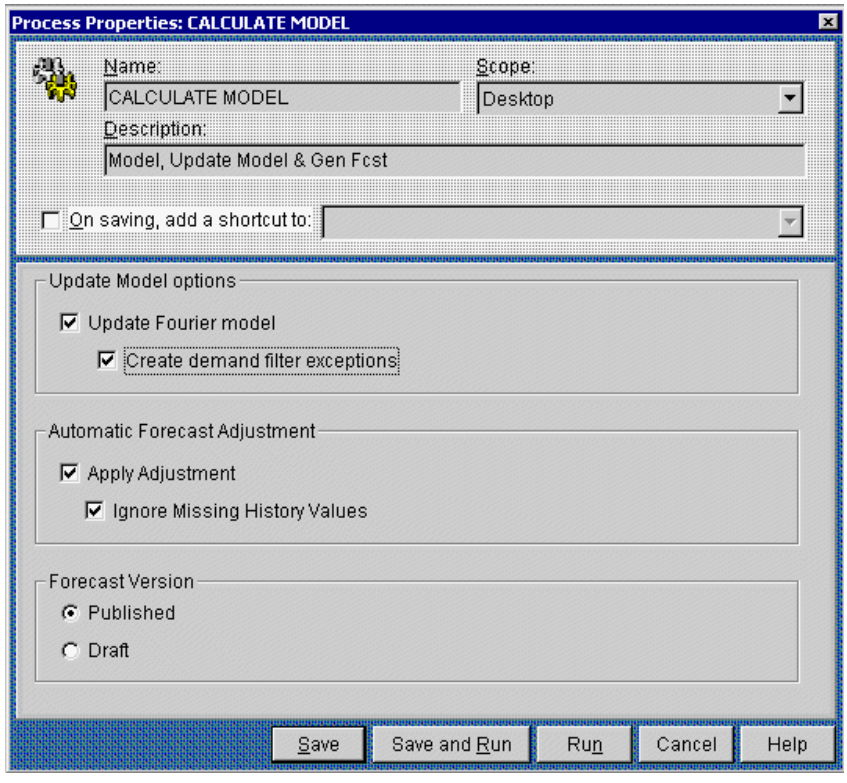
To test the listener for outbound events:

1. Start a Manugistics Viewpoint session and select the designated Desktop and Userview.

   For example, access the DEMANDPLANNING Desktop and the Calculate-Model process.



The Process Properties window opens.



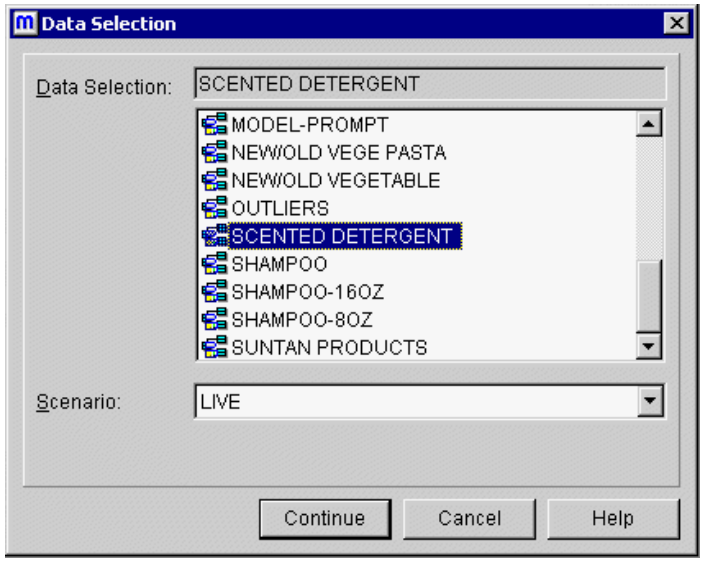
a. In the Update Model options box, select the check box next to *Update Fourier model* and *Create demand filter exceptions*.

b. In the Automatic Forecast Adjustment box, select the check box next to *Apply Adjustment* and *Ignore Missing History Values*.

c. In the Forecast Version box, select the *Published* option button.

2. Click *Run*.

The Data Selection window opens.



3. Select an appropriate data selection.
4. Click *Continue*.
5. When the process is complete, verify the output file.

CHAPTER 7

Listening for Events for Transportation

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

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

Note: The following Transportation interfaces are supported:

- CARRIER
- LOCATION
- ROUTED_ORDER
- GENERIC
- TL_RATES
- LTL_BASE_RATES
- LTL_RATES
- ORDER

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, Manugistics 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.

- **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*.

- **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 7-16.

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 Manugistics 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
- Mail

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

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

- File
- JMS
- MQ
- HTTP

Creating an Event Port for the File Disposition

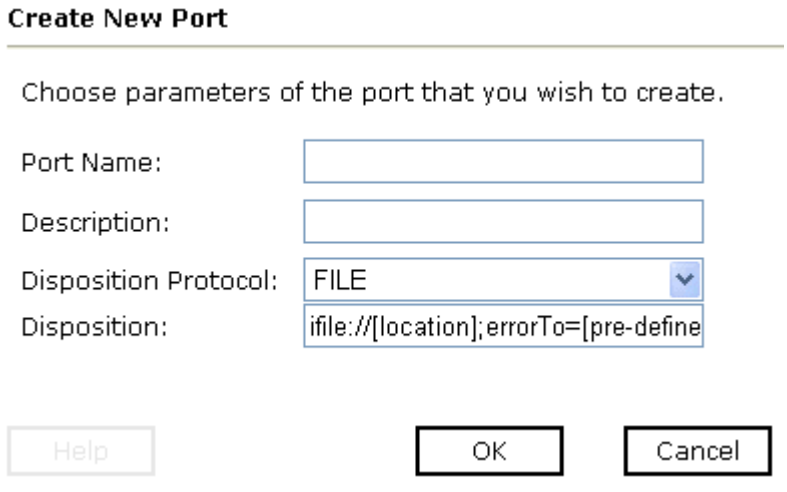
The File disposition uses a file URL to specify the destination file name or directory where the event document will be written. During run time, the destination file name may require indexing to avoid overwriting.

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 Events* tab and expand the Manugistics node.
2. Select the *ports* node.
3. In the right pane, move the pointer over *Operations* and select *Add a new port*.

   The Create New Port pane opens on the right.



   a. In the Port Name field, type a name.
   b. In the Description field, type a brief description.
   c. From the Disposition Protocol drop-down list, select *FILE*.

d. In the Disposition 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]
```

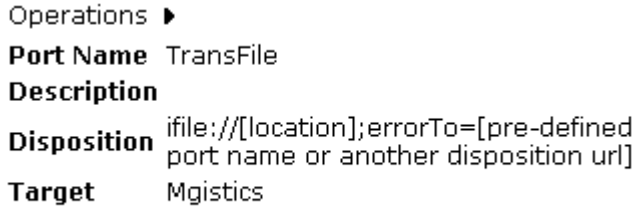
When pointing Application Explorer to a **JCA** deployment, provide the full path to the directory.

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.

4. Click *OK*.

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



You are ready to associate the event port with a channel. For more information, see *Adding, Modifying, or Deleting a Channel* on page 7-16.

Creating an Event Port for the iBSE Disposition

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

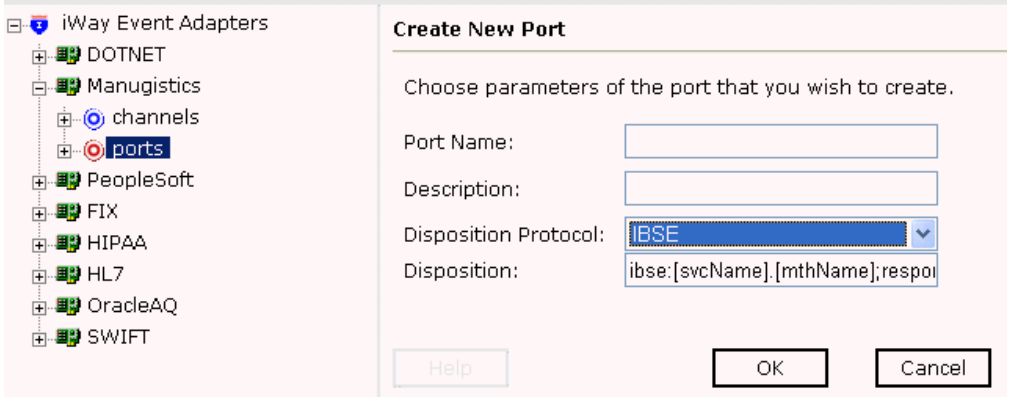
Procedure How to Create a Port for the iBSE Disposition

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

1. Click the *iWay Events* tab and expand the Manugistics node.

2. Select the *ports* node.
3. In the right pane, move the pointer over *Operations* and select *Add a new port*.

   The Create New Port pane opens on the right.



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

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

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

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

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

   The following table 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.

4. Click *OK*.

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

Operations ▸	
Port Name	TransiBSE
Description	
Disposition	ibse:[svcName].[mthName];responseTo=[pre-defined port name or another disposition url];errorTo=[pre-defined port name or another disposition url]
Target	Mgistics

You are ready to associate the event port with a channel. For more information, see *Adding, Modifying, or Deleting a Channel* on page 7-16.

Creating an Event Port for the MSMQ Disposition

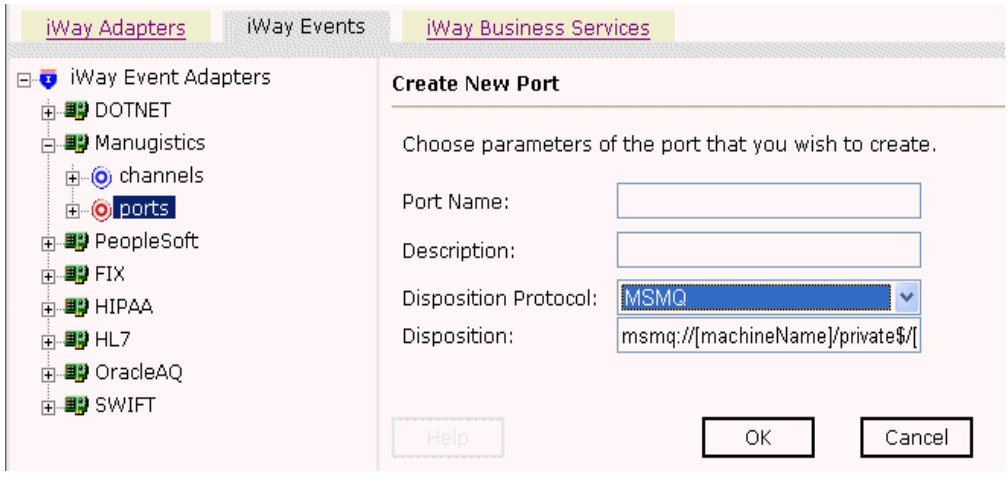
The MSMQ disposition supports public and private queues.

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 Events* tab and expand the Manugistics node.
2. Select the *ports* node.
3. In the right pane, move the pointer over *Operations* and select *Add a new port*.

   The Create New Port pane opens on the right.



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

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

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

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

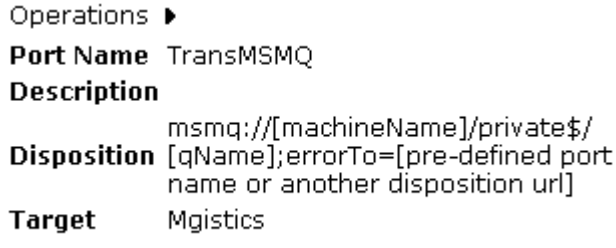
`msmq:/host/queueType/queueName[;errorTo=errorDest]`

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.
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.

4. Click *OK*.

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



You are ready to associate the event port with a channel. For more information, see *Adding, Modifying, or Deleting a Channel* on page 7-16.

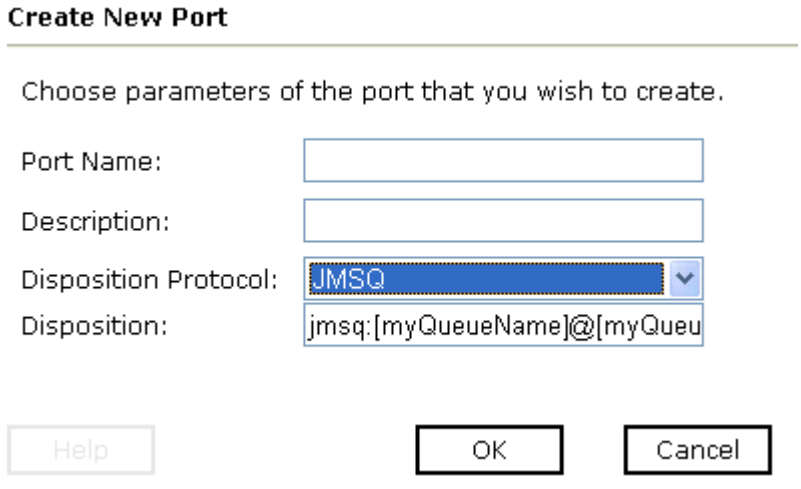
Creating an Event Port for the JMS Queue Disposition

The JMS 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 JMS queue disposition using Application Explorer:

1. Click the *iWay Events* tab and expand the Manugistics node.
2. Select the *ports* node.
3. In the right pane, move the pointer over *Operations* and select *Add a new port*.



The Create New Port pane opens on the right.

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

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

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

d. 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=;
```

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. The WebLogic connection factory is: `javax.jms.QueueConnectionFactory`
jndi_url	The URL of the application server. For BEA WebLogic Server, the URL is `t3://host:port` where: *host* Is the machine name where BEA WebLogic Server resides. *port* Is the port on which BEA WebLogic Server is listening. The default port if not changed at installation, is 7001.
jndi_factory	Is JNDI context.INITIAL_CONTEXT_FACTORY and is provided by the JNDI service provider. For WebLogic Server, the WebLogic factory is weblogic.jndi.WLInitialContextFactory.
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.

4. Click *OK*.

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

Operations ▸	
Port Name	TransJMSQ
Description	
Disposition	jmsq:[myQueueName]@[myQueueFac];jndiurl=[myurl];jndifactory=[myfactory];user=[user];password=[xxx];errorTo=[pre-defined port name or another disposition url]
Target	Mgistics

You are ready to associate the event port with a channel. For more information, see *Adding, Modifying, or Deleting a Channel* on page 7-16.

Procedure How to Create a Port for the SOAP Disposition

To create a port for a SOAP disposition:

1. Click the *iWay Events* tab.

   The iWay Event Adapters window opens.

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

   The Create Event Port window opens in the right pane.

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

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

   c. In the Disposition field, enter an SOAP destination, using the following format:

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

The following table defines the parameters for the disposition.

Parameter	Description
wsdl-url	The URL to the WSDL file that is required to create the SOAP message. For example: `http://localhost:7001/ibse/IBSEServlet/test/sw2xml2003MQ.ibs?wsdl` This value can be found by navigating to the iWay Business Services tab and opening the *Service Description* link in a new window. The WSDL URL appears in the Address field. You can also open the WSDL file in a third party XML editor (for example, XMLSPY) and view the SOAP request settings to find this value.

soapaction	The method that will be called by the disposition. For example:
	`MANUMT200.mt200Request@test@@`
	where
	`MANU`
	Is the name of the Web service you created using Application Explorer.
	`mt200`
	Is the method being used.
	`test`
	Is the license that is being used by the Web service.
	This value can be found by navigating to the iWay Business Services tab and opening the *Service Description* link in a new window. Perform a search for *soapAction*.
	You can also open the WSDL file in a third party XML editor (for example, XMLSPY) and view the SOAP request settings to find this value.

responseTo	The location to which responses are posted. A predefined port name or another full URL. Optional. A predefined port name or another disposition URL. The URL must be complete, including the protocol.

Parameter	Description
errorTo	The location to which error logs are sent. Optional. A predefined port name or another disposition URL. The URL must be complete, including the protocol.

5. Click *OK*.

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

   You are ready to associate the event port with a channel. For more information, see *Adding, Modifying, or Deleting a Channel* on page 7-16.

Creating an Event Port for the HTTP Disposition

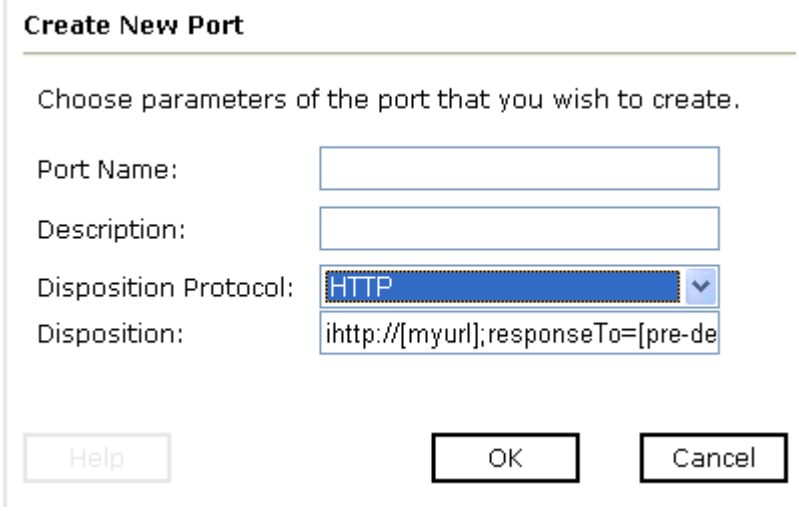
The HTTP disposition uses an HTTP URL to specify an HTTP end point to which the event document is posted.

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 Events* tab and expand the Manugistics node.
2. Select the *ports* node.

   The Create New Port pane opens on the right.



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

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

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

d. In the Disposition field, enter a 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.

3. Click *OK*.

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

You are ready to associate the event port with a channel. For more information, see *Adding, Modifying, or Deleting a Channel* on page 7-16.

Creating an Event Port for the MQSeries Disposition

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

Procedure How to Create a Port for the MQSeries Disposition

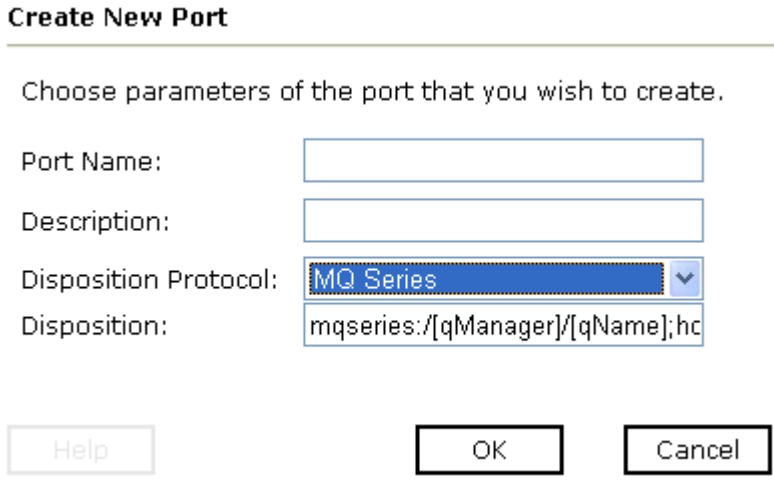
To create a port for an MQSeries disposition using iWay Application Explorer:

1. Click the *iWay Events* tab and expand the Manugistics node.

2. Select the *ports* node.

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

The Create New Port pane opens on the right.



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

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

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

d. In the Disposition field, enter a MQSeries 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=
```

The following table defines the parameters for the disposition.

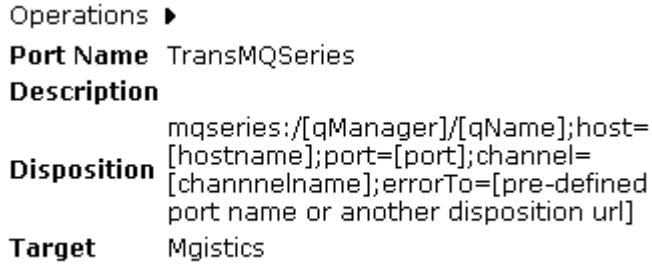
:

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.

Parameter	Description
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.

4. Click *Finish*.

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



   You are ready to associate the event port with a channel. For more information, see *Adding, Modifying, or Deleting a Channel* on page 7-16.

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 confirmation dialog box opens.

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

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

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.

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

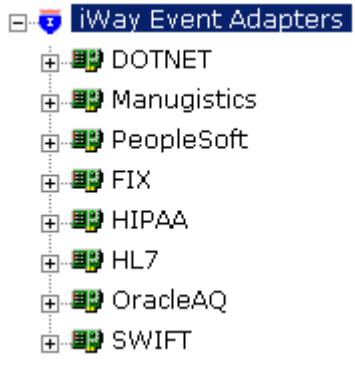
- Transportation using File
- Table Listener

Procedure How to Create a Channel for Transportation Using File

To create a channel using Application Explorer:

1. Click the *iWay Events* tab.

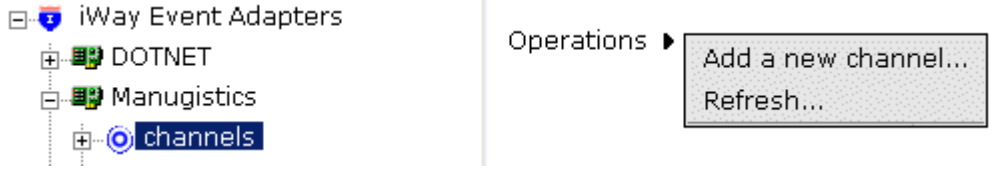
   The iWay Event Adapters window opens.



   The list of iWay adapters that support events appears in the left pane.

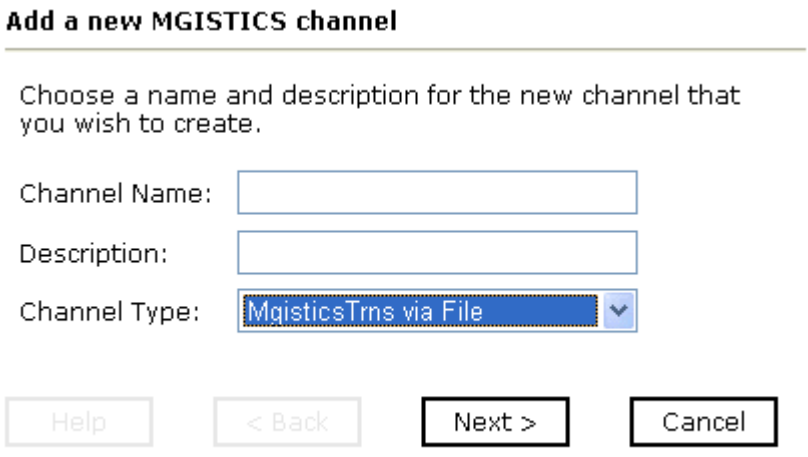
2. Expand the *Mgistics* node.

   The ports and channels nodes appear in the left pane.



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

The Add a new Mgistics channel pane opens on the right.



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 Channel Type drop-down list, select *MgisticsTrns via File*.

5. Click *Next*.

The Edit channels pane opens, with four tabs in the right pane.

a. In the Request tab, enter values for the parameters listed in the following table. The table includes a description of each parameter.

Parameter	Description
Polling Location	The target file system location for the Manugistics XML file.
File Mask	The file name to be used for the output file generated as a result of this operation.

b. In the Response tab, enter values for the parameters listed in the following table. The table includes a description of each parameter.

Parameter	Description
Synchronization Type	Choose from three options: • REQUEST • REQUEST_RESPONSE • REQUEST_ACK
Response/Ack Directory	The target file system location for the Manugistics XML file.

c. In the Advanced tab, enter values for the parameters listed in the following table. The table includes a description of each parameter.

Parameter	Description
Error Directory	Directory to which documents with errors are written.
Poll interval (msec)	The interval (in milliseconds) when to check for new input. Optional. The default is 3 seconds.
Processing Mode	Choose Sequential or Threaded. • Sequential indicates single processing of requests. • Threaded indicates processing of multiple requests simultaneously.
Thread limit	If you selected threaded processing, indicate the maximum number of requests that can be processed simultaneously.

d. In the Preparser tab, enter values for the parameters listed in the following table. The table includes a description of each parameter.

Parameter	Description
JDBC Driver	Enter the fully-qualified name of the JDBC driver used to access the database, for example: `oracle.jdbc.driver.OracleDriver`

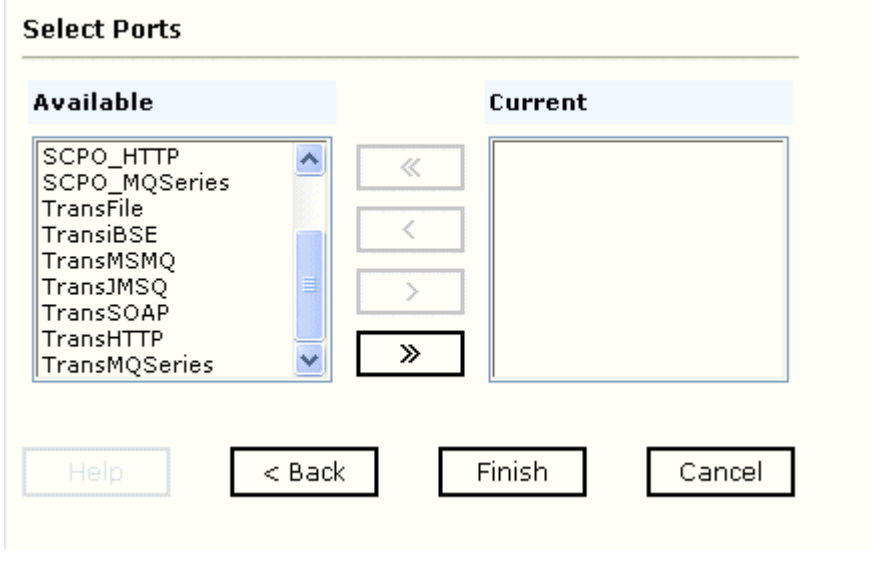
Parameter	Description

Database URL	Enter the URL of the JDBC driver used to communicate to the Manugistics Oracle database in the following format:
	`jdbc:oracle:thin:@Oracle-server-name:Oracle-port:Oracle-SID`
	For example:
	`jdbc:oracle:thin:@myserver:1521:msam`

User name	Enter the user name that has select and delete capabilities to the database (temporary input holding table).
Password	Type the password associated with the user name.
User View	Name of the Manugistics user view where you are listening for data.
Desktop	Name of the Manugistics Desktop for the specified user view.

6. Click *Next*.

The Select Ports pane opens on the right, with available and current ports.



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

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

7. Click *Finish*.

   The summary window opens.

   A summary provides the channel description, channel status, and available ports. All the information is associated with the channel you created.

   The channel also 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.

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

   The channel you created becomes active.

   The X that was over the icon disappears.

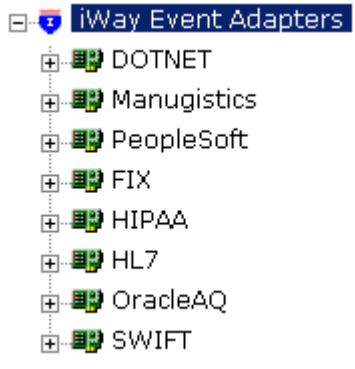
9. To stop the channel, move the pointer over *Operations* and select *Stop the channel*.

Procedure **How to Create a Channel for Transportation Using the Table Listener**

To create a channel using Application Explorer:

1. Click the *iWay Events* tab.

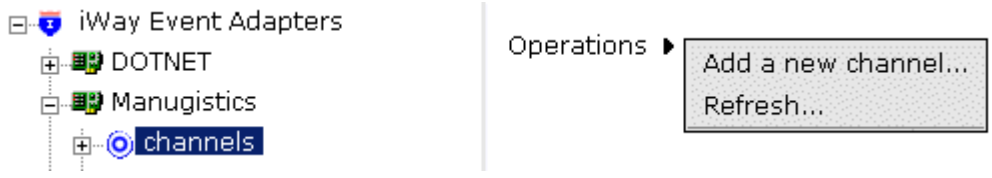
   The iWay Event Adapters window opens.



   The list of iWay adapters that support events appears in the left pane.

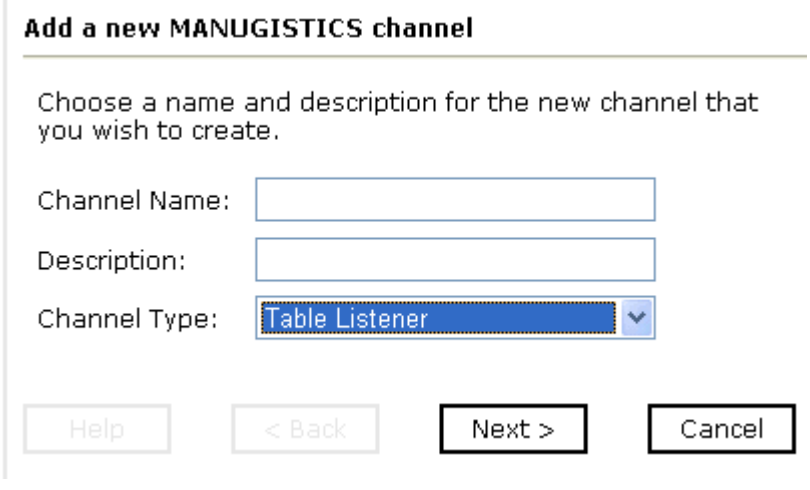
2. Expand the *Manugistics* node.

The ports and channels nodes appear in the left pane.



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

   The Add a new Manugistics channel pane opens on the right.



   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 Channel Type drop-down list, select *Table Listener*.
5. Click *Next*.

   The Edit channels pane opens, with four tabs in the right pane.

   a. In the JDBC-ODBC Bridge Parameters tab, enter values for the parameters listed in the following table. The table includes a description of each parameter.

Parameter	Description
Data Source	JDBC data source.

Parameter	Description
User	User name that has select and delete capabilities to the database (temporary input holding table).
Password	Password associated with the user name.
Polling Interval	Enter the interval, in seconds, at which to check for new input. 2 seconds is the default value.
SQL Query	Enter an SQL query statement to poll the holding table: `SELECT ACTION,DMDUNIT,DMDGROUP,LOC,to_char (START DATE, 'YYYY-MM-DD') AS "STARTDATE",DUR, TYPE,FCSTID,QTY,SCEN,SCENBITS,MODEL from IWY_FCST` Note the use of an Oracle to_char function for the date.
Post Query	Not applicable for Manugistics.
Delete Keys	A case-sensitive parameter triggered from the SQL Query. Enter a comma separated list of keys to be used to build the delete statement. `ACTION,DMDUNIT,DMDGROUP,LOC,STARTDATE,TYPE`

b. In the Oracle Parameters tab, enter values for the parameters listed in the following table. The table includes a description of each parameter.

Parameter	Description
Host	The name of the server on which the database instance resides.
Port	The port number on which the database is listening.
SID	A unique name of the database service, chosen by the database administrator or the person who installed Oracle Applications.
User	The Oracle database user ID to access the Oracle database. The user ID must have database access to the interface tables being accessed.
Password	Password associated with the user name.
Polling Interval	Enter the interval, in seconds, at which to check for new input. 2 seconds is the default value.

Parameter	Description
SQL Query	Enter an SQL query statement to poll the holding table: `SELECT ACTION,DMDUNIT,DMDGROUP,LOC,to_char (START DATE, 'YYYY-MM-DD') AS "STARTDATE",DUR, TYPE,FCSTID,QTY,SCEN,SCENBITS,MODEL from IWY_FCST` Note the use of an Oracle to_char function for the date.
Post Query	Not applicable for Manugistics.
Delete Keys	A case-sensitive parameter triggered from the SQL Query. Enter a comma separated list of keys to be used to build the delete statement. `ACTION,DMDUNIT,DMDGROUP,LOC,STARTDATE,TYPE`

c. In the SQL Server Parameters tab, enter values for the parameters listed in the following table. The table includes a description of each parameter.

Parameter	Description
Host	The name of the server on which the database instance resides.
Port	The port number on which the database is listening.
Database Name	Name of SQL database.
User	Enter the user name that has select and delete capabilities to the database (temporary input holding table).
Password	Type the password associated with the user name.
Polling Interval	Enter the interval, in seconds, at which to check for new input. 2 seconds is the default value.
SQL Query	Enter an SQL query statement to poll the holding table: `SELECT ACTION,DMDUNIT,DMDGROUP,LOC,to_char (START DATE, 'YYYY-MM-DD') AS "STARTDATE",DUR, TYPE,FCSTID,QTY,SCEN,SCENBITS,MODEL from IWY_FCST` Note the use of an Oracle to_char function for the date.
Post Query	Not applicable for Manugistics.

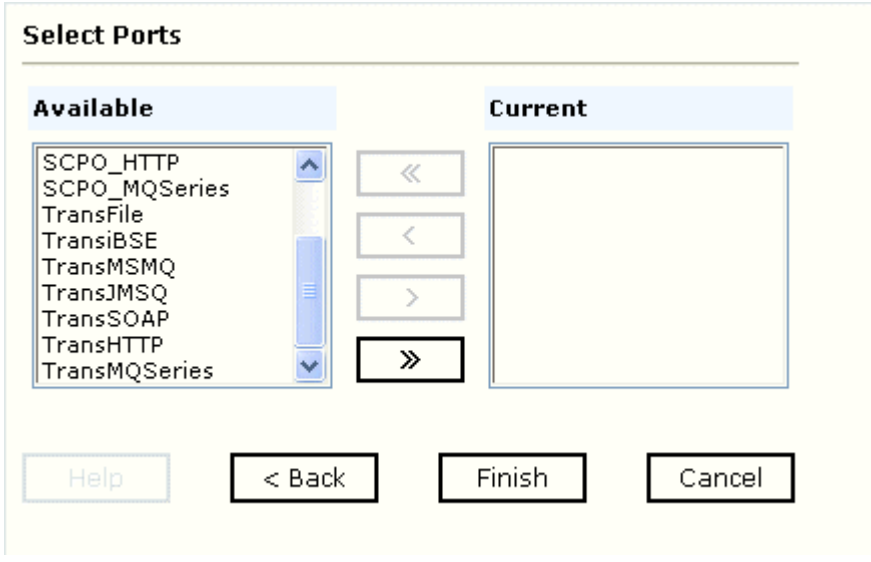
Parameter	Description
Delete Keys	A case-sensitive parameter triggered from the SQL Query. Enter a comma separated list of keys to be used to build the delete statement. `ACTION,DMDUNIT,DMDGROUP,LOC,STARTDATE,TYPE`

d. In the EDA Server Parameters tab, enter values for the parameters listed in the following table. The table includes a description of each parameter.

Parameter	Description
Host	The name of the server on which the database instance resides.
Port	The port number on which the database is listening.
Database Name	Name of EDA database.
User	Enter the user name that has select and delete capabilities to the database (temporary input holding table).
Password	Type the password associated with the user name.
Polling Interval	Enter the interval, in seconds, at which to check for new input. 2 seconds is the default value.
SQL Query	Enter an SQL query statement to poll the holding table: `SELECT ACTION,DMDUNIT,DMDGROUP,LOC,to_char (START DATE, 'YYYY-MM-DD') AS "STARTDATE",DUR, TYPE,FCSTID,QTY,SCEN,SCENBITS,MODEL from IWY_FCST` Note the use of an Oracle to_char function for the date.
Post Query	Not applicable for Manugistics.
Delete Keys	A case-sensitive parameter triggered from the SQL Query. Enter a comma separated list of keys to be used to build the delete statement. `ACTION,DMDUNIT,DMDGROUP,LOC,STARTDATE,TYPE`

6. Click *Next*.

The Select Ports pane opens on the right, with available and current ports.



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

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

7. Click *Finish*.

The summary window opens.

A summary provides the channel description, channel status, and available ports. All the information is associated with the channel you created.

The channel also 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.

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

The channel you created becomes active.

The X that was over the icon disappears.

9. 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 confirmation dialog box opens.

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

   The channel disappears from the list in the left pane.

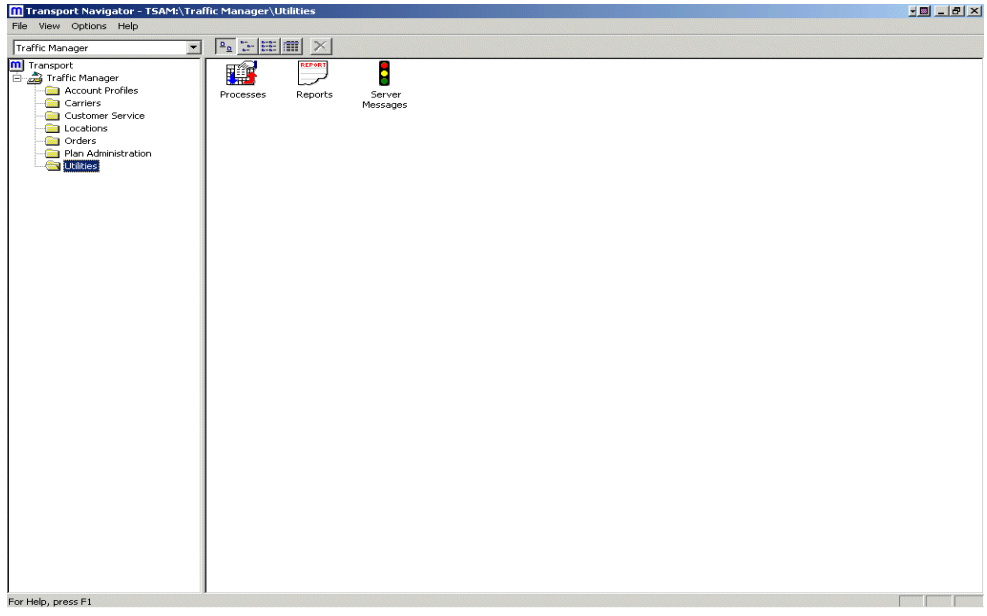
Testing the Event Listener

To test the iWay Adapter for Manugistics to make sure it routes SQL events (outbound data) successfully, you must initiate a process within your Manugistics application that creates data.

Procedure How to Test the Listener

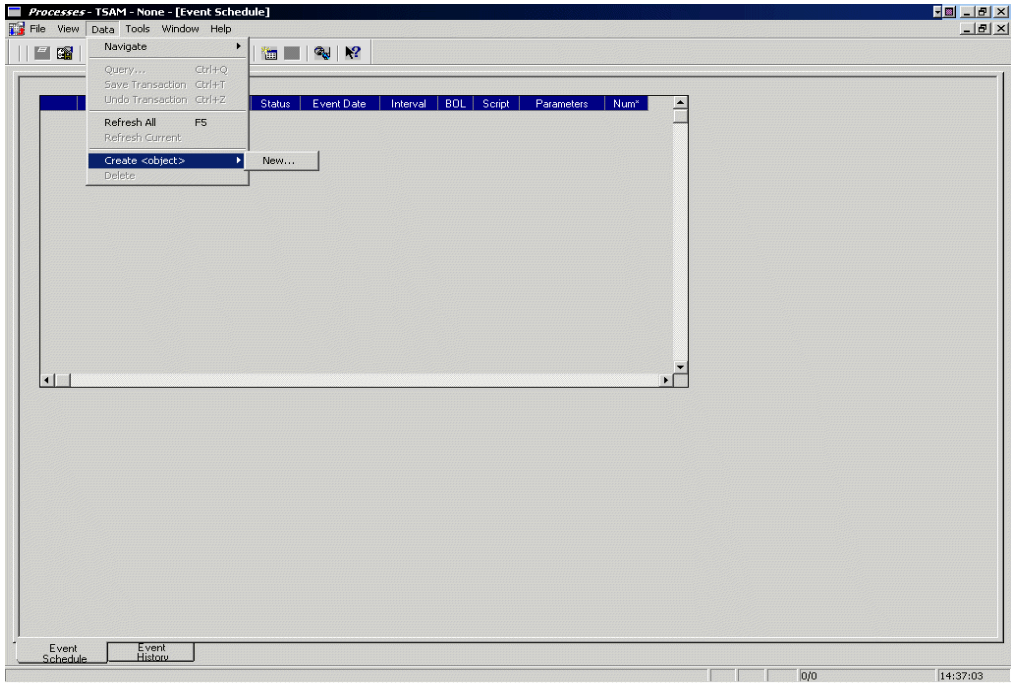
To test the listener for outbound events:

1. Open the Manugistics Transport Navigator.

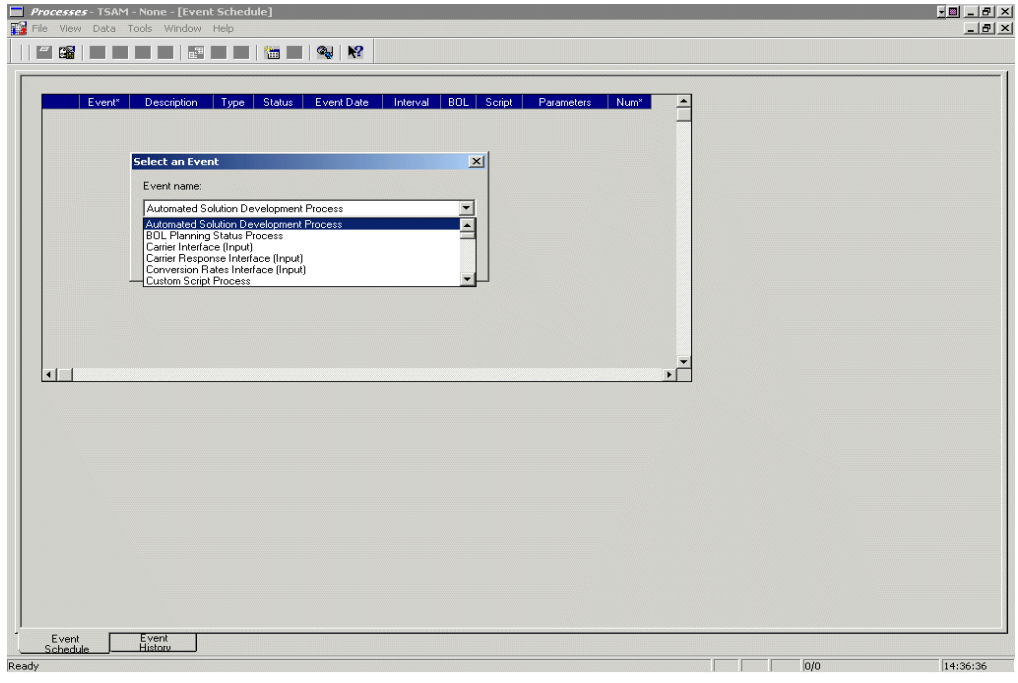


2. Click *Processes*.

The Processes window opens.

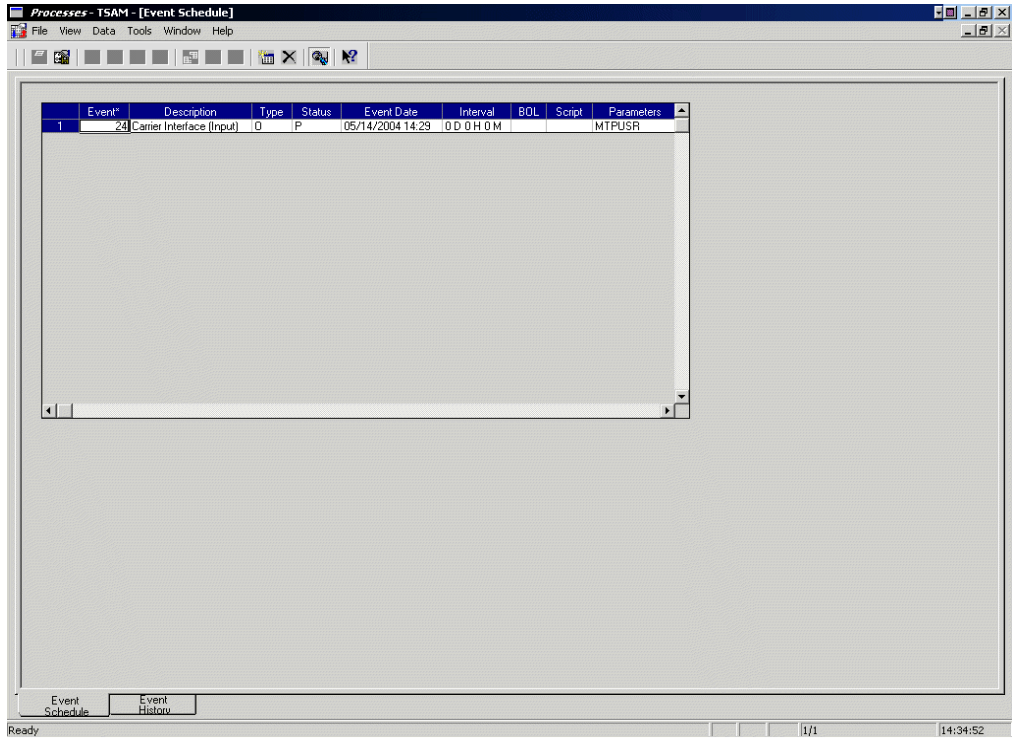


3. Select *Create Object* and then, *New*.



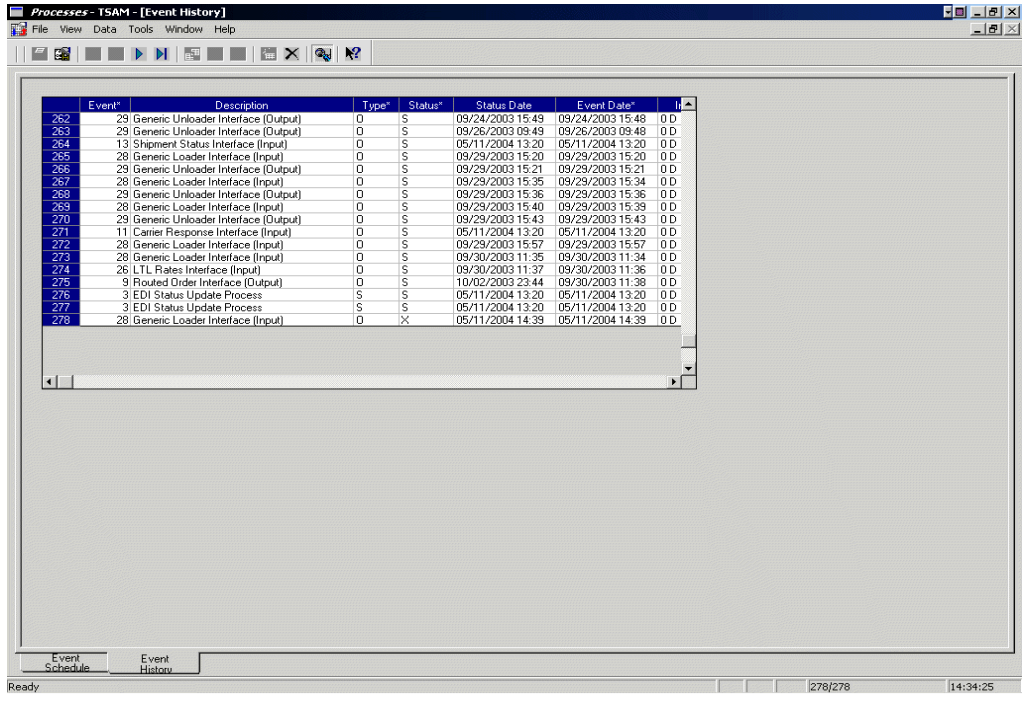
4. Click *Event* and then, select *Automated Solution Development Process* from the Select an Event drop-down list.

The following window opens.



5. Click the *Event Schedule* tab.

The event history displays.



	Event*	Description	Type*	Status*	Status Date	Event Date*	I
262	29	Generic Unloader Interface (Output)	O	S	09/24/2003 15:49	09/24/2003 15:48	0 D
263	29	Generic Unloader Interface (Output)	O	S	09/26/2003 09:49	09/26/2003 09:48	0 D
264	13	Shipment Status Interface (Input)	O	S	05/11/2004 13:20	05/11/2004 13:20	0 D
265	28	Generic Loader Interface (Input)	O	S	09/29/2003 15:20	09/29/2003 15:20	0 D
266	29	Generic Unloader Interface (Output)	O	S	09/29/2003 15:21	09/29/2003 15:21	0 D
267	28	Generic Loader Interface (Input)	O	S	09/29/2003 15:35	09/29/2003 15:34	0 D
268	29	Generic Unloader Interface (Output)	O	S	09/29/2003 15:36	09/29/2003 15:36	0 D
269	28	Generic Loader Interface (Input)	O	S	09/29/2003 15:40	09/29/2003 15:39	0 D
270	29	Generic Unloader Interface (Output)	O	S	09/29/2003 15:43	09/29/2003 15:43	0 D
271	11	Carrier Response Interface (Input)	O	S	05/11/2004 13:20	05/11/2004 13:20	0 D
272	28	Generic Loader Interface (Input)	O	S	09/29/2003 15:57	09/29/2003 15:57	0 D
273	28	Generic Loader Interface (Input)	O	S	09/30/2003 11:35	09/30/2003 11:34	0 D
274	26	LTL Rates Interface (Input)	O	S	09/30/2003 11:37	09/30/2003 11:36	0 D
275	9	Routed Order Interface (Output)	O	S	10/02/2003 23:44	09/30/2003 11:38	0 D
276	3	EDI Status Update Process	S	S	05/11/2004 13:20	05/11/2004 13:20	0 D
277	3	EDI Status Update Process	S	S	05/11/2004 13:20	05/11/2004 13:20	0 D
278	28	Generic Loader Interface (Input)	O	X	05/11/2004 14:39	05/11/2004 14:39	0 D

6. When the process is complete, verify the output file.

CHAPTER 8

Using Web Services Policy-Based Security

Topics:

- Web Services Policy-Based Security
- Configuring Web Services Policy-Based Security

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

Web Services Policy-Based Security

Web services provide a layer of abstraction between the back-end business logic they invoke and the user or application running the Web 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 Web service.

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

A policy is a set of privileges dealing with the execution of an iWay Business Service (iBS) that can be applied to an existing or new iBS. When you set specific rights or privileges inside a policy, you do not have to recreate privileges for every iBS that has security concerns in common with other iWay Business Services. Instead, you can use one policy for many iWay Business Services.

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

The iBS administrator creates an "instance" of a policy type, names it, associates individual users and/or groups (a collection of users), and then applies that policy to one or more iWay 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 that specific iBS. The policy type that is supported is Resource Execution, which 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, anybody can execute the iBS, until the Resource Execution policy is associated to the iBS. At that time, only those granted execution permission, or users who are not part of a group that was denied execution permissions, have access to the iBS.

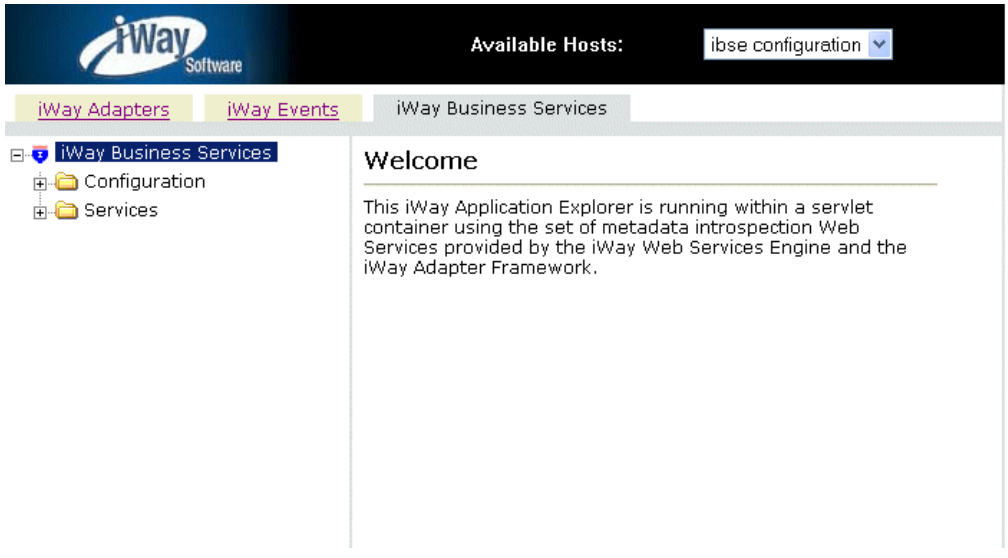
Configuring Web Services Policy-Based Security

The following procedure describes how to configure iBSE policy-based security.

Procedure How to Create and Associate a User With a Policy

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 iWay Servlet Application Explorer.

1. Open *iWay Servlet Application Explorer*.



   a. Select the *iWay Business Services* tab.

   b. Expand the *Configuration* node.

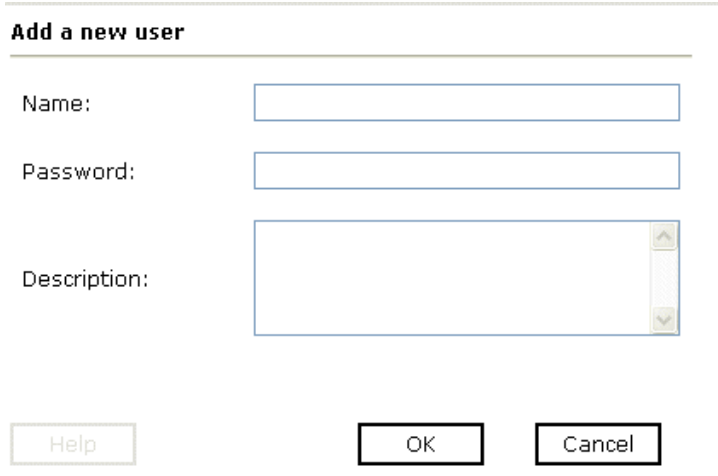
   c. Expand the *Security* node.

   d. Expand the *Users and Groups* node.

   e. Select *Users*.

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

The Add a new user pane opens.



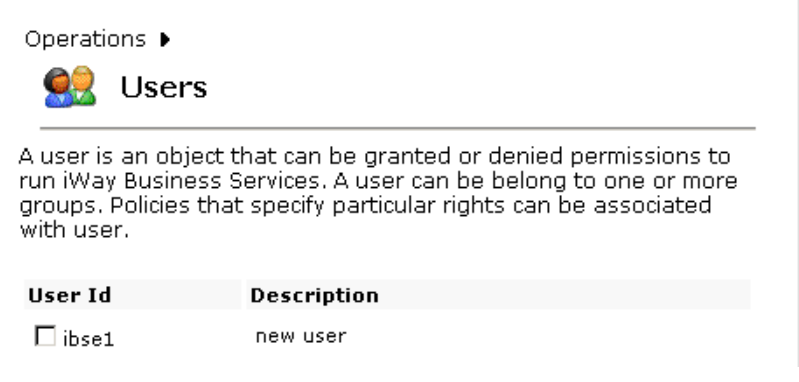
a. In the Name field, type a user ID.

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 new user is added to the configuration.

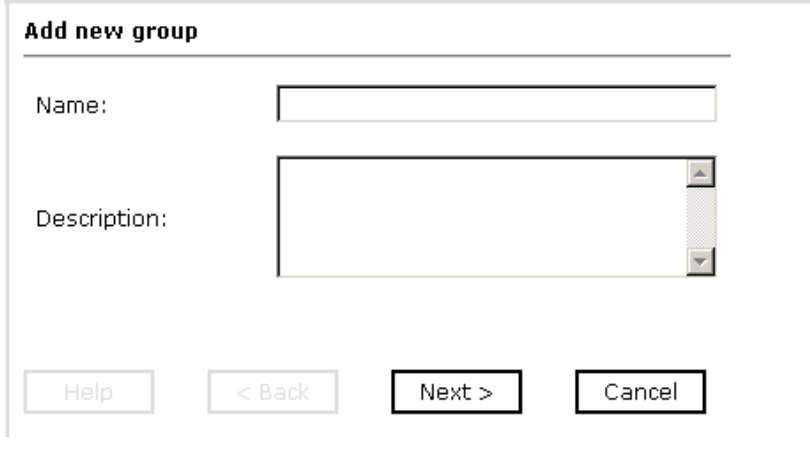


Procedure How to Create a Group to Use With a Policy

To create a group to use with a policy:

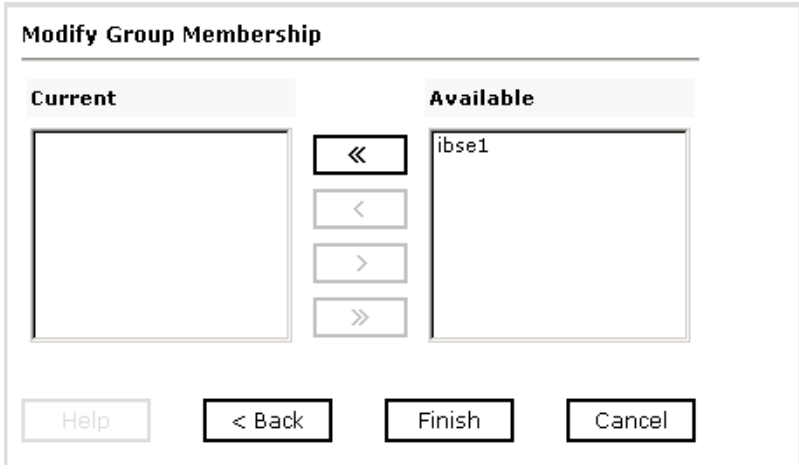
1. Open *iWay Servlet Application Explorer*.
   a. Select the *iWay Business Services* tab.
   b. Expand the *Configuration* node.
   c. Expand the *Security* node.
   d. Expand the *Users and Groups* node.
   e. Select *Groups*.
2. In the right pane, move the pointer over *Operations* and click *Add*.

   The Add new group pane opens.



   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*.

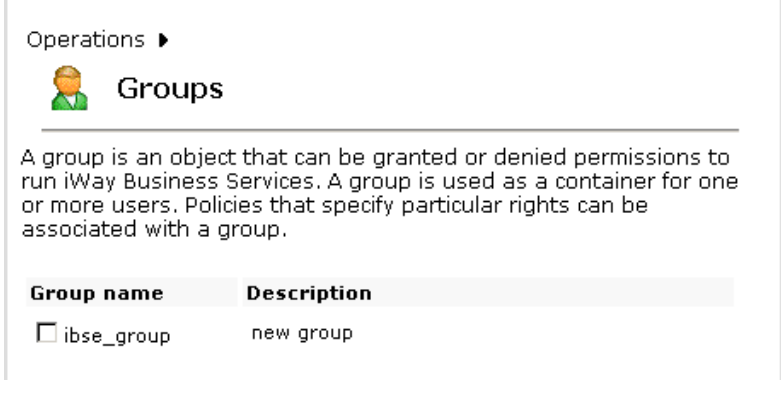
The Modify Group Membership pane opens.



You can either highlight a single user in the list of available users and add it 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 to the configuration.



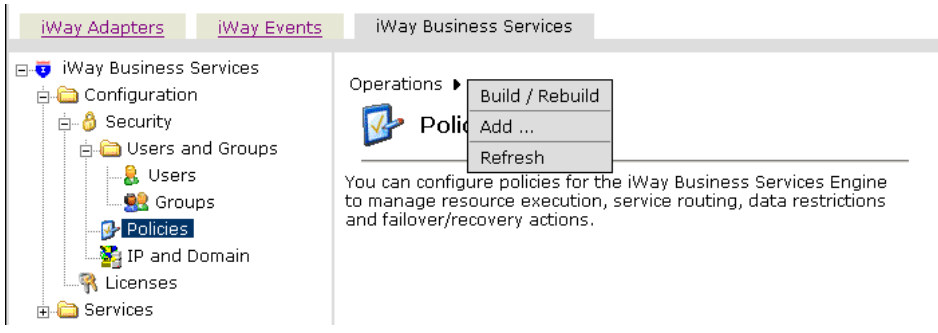
Procedure How to Create an Execution Policy

An execution policy governs who can execute the iBS to which the policy is applied.

To create a group to use with a policy:

1. Open *iWay Servlet Application Explorer*.
   a. Select the *iWay Business Services* tab.

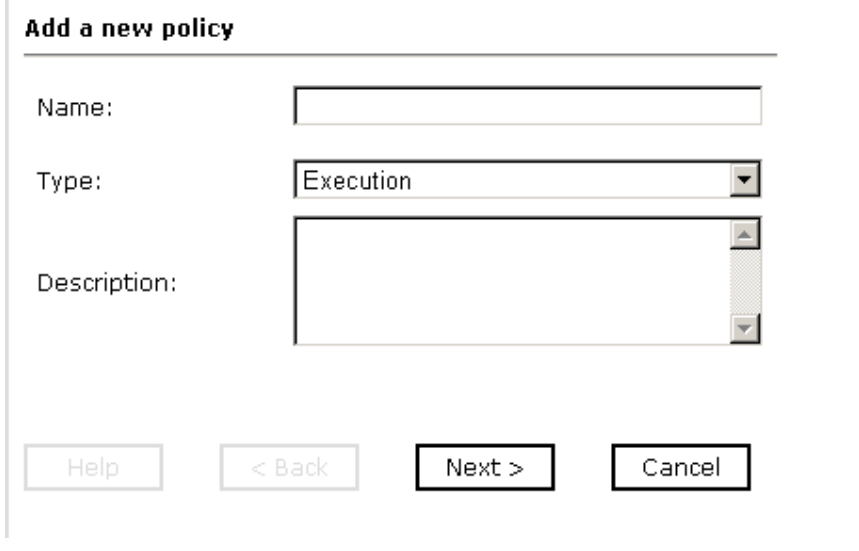
b. Expand the *Configuration* node.



c. Select *Policies*.

2. In the right pane, move the pointer over *Operations* and click *Add*.

The Add a new policy pane opens.



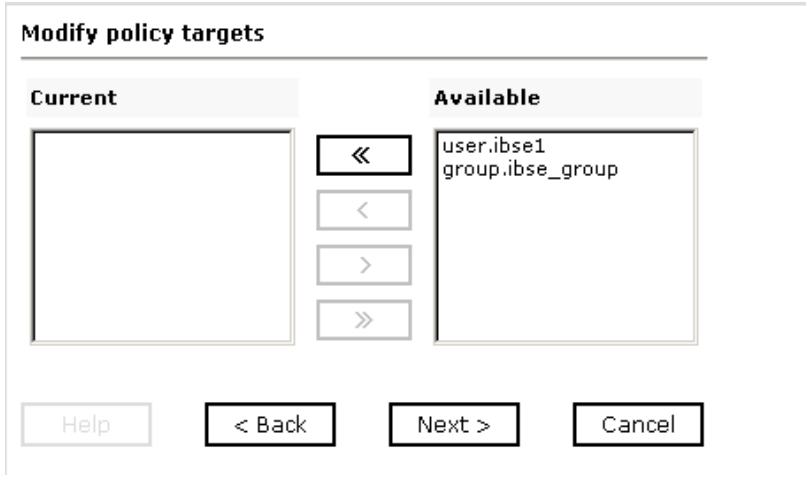
a. In the Name field, type a a name for the policy.

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 Modify policy targets pane opens.

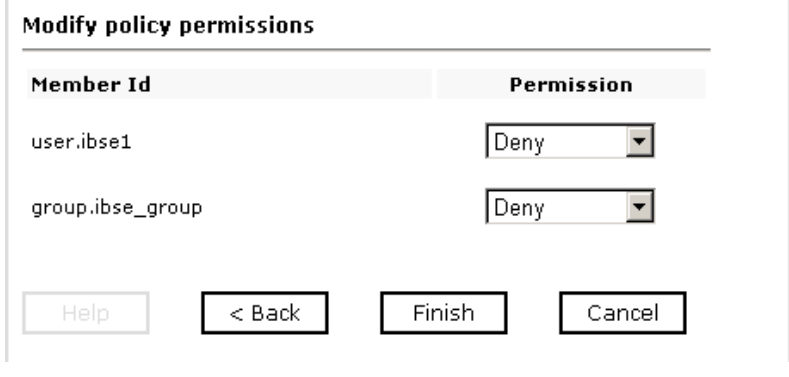


4. Select a minimum of one user or group from the Available pane.

   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 Modify policy permissions pane opens.

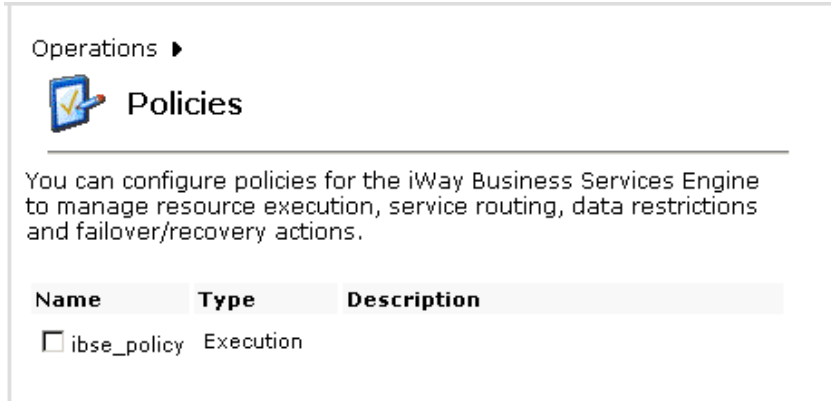


   You select whether users or groups may execute the iBS.

6. From the Permission drop-down lists, select *Grant* to permit execution or *Deny* to restrict execution.

7. Click *Finish*.

The following pane summarizes your configuration.



Configuring the IP and Domain Restrictions Policy Type

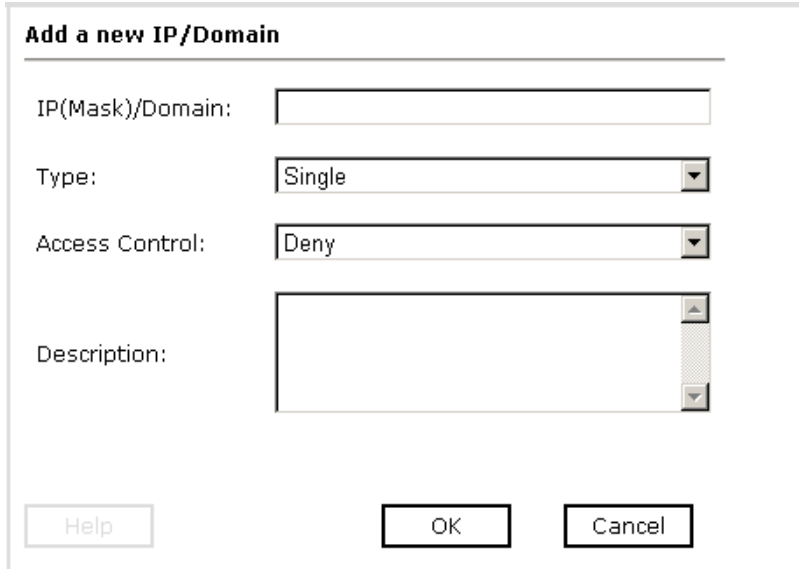
You configure the IP and Domain Restriction policy type slightly differently from other policy types. The IP and Domain Restriction policy type controls connection access to iBSE and therefore need not be applied to individual Web services. You need not create a policy, however, you must enable the Security Policy option in iWay Servlet Application Explorer.

Procedure How to Configure IP and Domain Restrictions

1. Open *iWay 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 Add a new IP/Domain pane opens.



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.

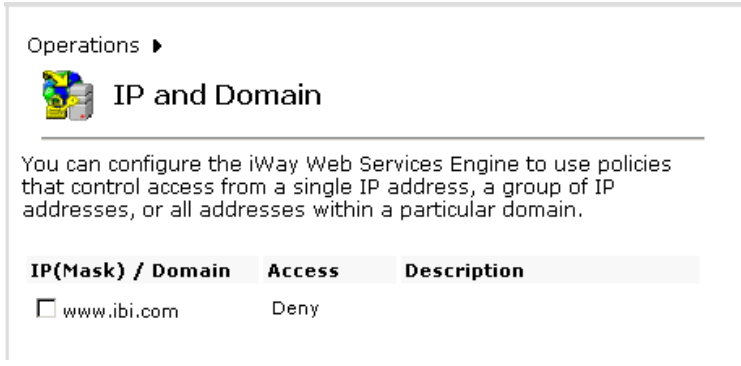
If you select Group (of Computers), you must provide the IP address and subnet mask for the computer group.

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 pane summarizes your configuration.



CHAPTER 9

Management and Monitoring

Topics:

- Managing and Monitoring Services and Events Using iBSE
- Managing and Monitoring Services and Events Using the IVP
- Setting Engine Log Levels
- Configuring Connection Pool Sizes

When you have created services and events using iWay Application Explorer, you can use managing and monitoring tools provided by iBSE and JCA to gauge the performance of your run-time environment. This section describe how to configure and use these features.

Managing and Monitoring Services and Events Using iBSE

iBSE provides a console to manage and monitor services and events currently in use and 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 Access the Monitoring Console

To access the monitoring console:

1. Ensure that BEA WebLogic Server is started.
2. Enter the following URL in your Web browser:

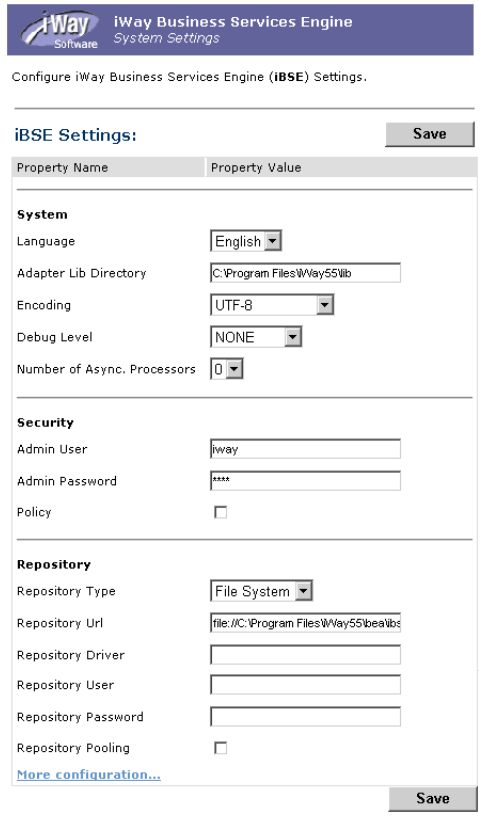
   `http://localhost:7001/ibse/IBSEConfig`

   where:

   localhost

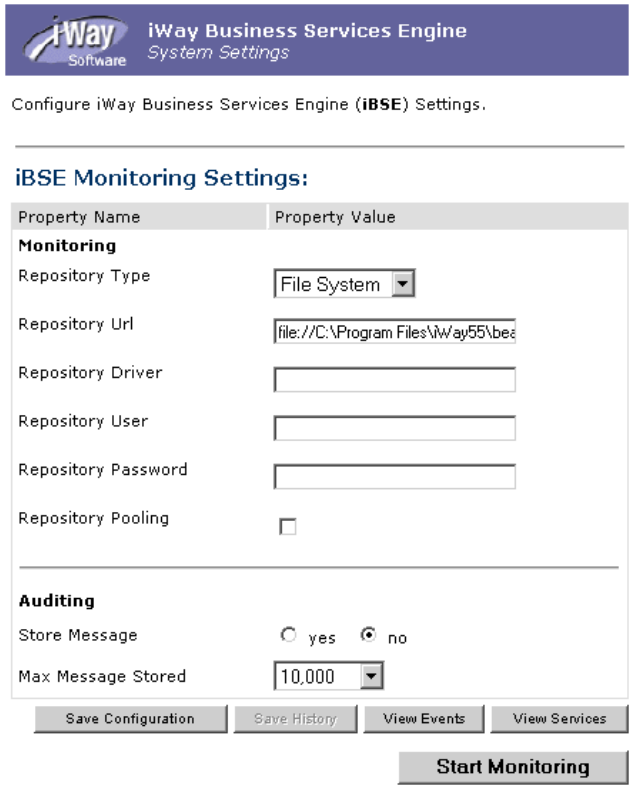
   Is where your application server is running.

The iBSE Settings page opens:



3. Scroll to the bottom of the page and click *More configuration*.

The iBSE Monitoring Settings page opens:



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

`http://localhost:7001/ibse/IBSEStatus`

where:

localhost

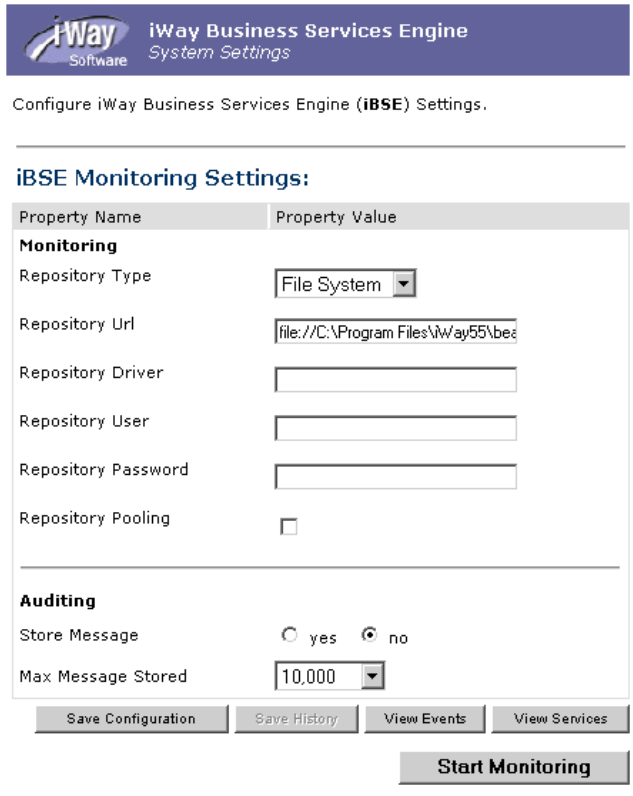
Is where your application server is running.

Procedure How to Configure Monitoring Settings

To configure monitoring settings:

1. Ensure that BEA WebLogic Server is started.
2. Access the monitoring console.

The iBSE Monitoring Settings page opens:



3. Perform the following steps in the Monitoring section:

   a. Select the type of repository you are using from the Repository Type drop-down list.

   b. Enter a JDBC URL to connect to the database in the Repository URL field.

   c. Enter a JDBC Class to connect to the database in the Repository Driver field.

   d. Enter a user ID and password to access the monitoring repository database.

   e. Click the *Repository pooling* check box if you want to enable pooling.

4. Perform the following steps in the Auditing section:

   a. 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.

   b. 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's resources, consult your system administrator.

5. Click *Save Configuration*.
6. Click *Start Monitoring*.

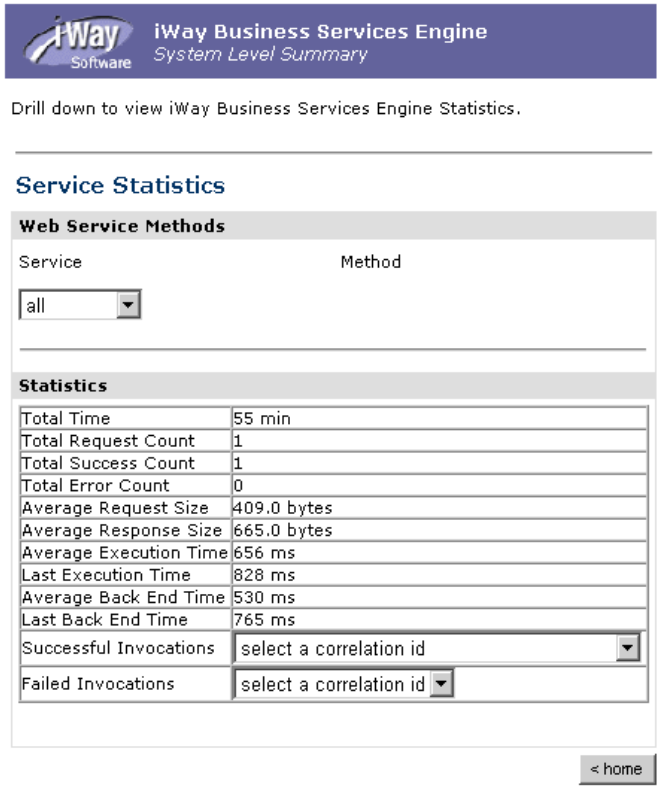
iBSE begins to monitor all services and events currently in use and store messages, if you selected this option. To stop monitoring, click *Stop Monitoring*.

Procedure **How to Monitor Services**

To monitor services:

1. Ensure that BEA WebLogic Server is started.
2. Click *Start Monitoring* from the iBSE Monitoring Settings page.
3. Click *View Services*.

The System Level Summary page opens.



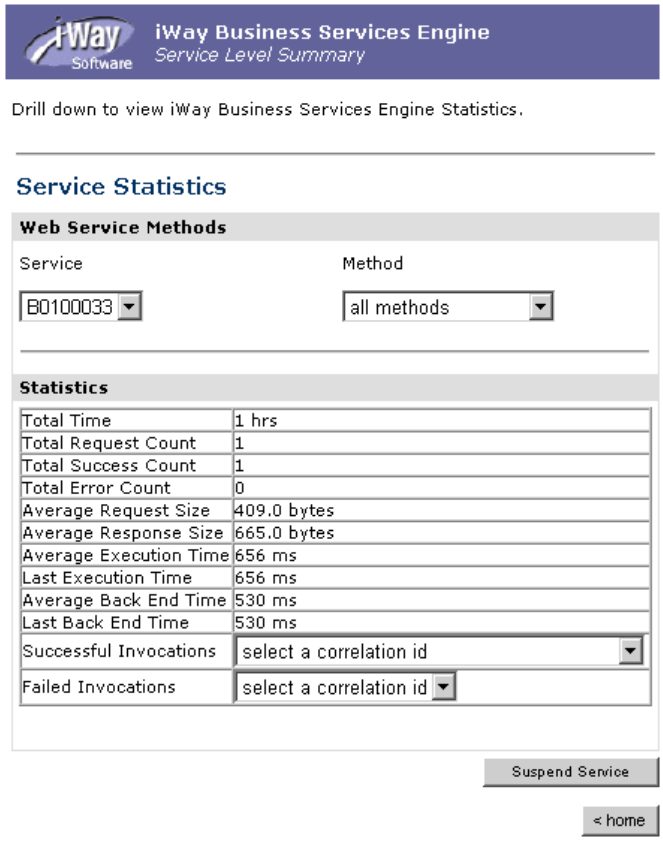
The system level summary provides services statistics at a system level. The following table provides a description of each statistic.

Statistic	Description
Total Time	The total amount of time iBSE is monitoring services. This time starts when you click *Start Monitoring* from the iBSE Monitoring Settings page.
Total Request Count	The total number of services requests that were made during this monitoring session.
Total Success Count	The total number of successful service executions.

Statistic	Description
Total Error Count	The total number of errors that were encountered.
Average Request Size	The average size of a service request that is available.
Average Response Size	The average size of a service response size that is available.
Average Execution Time	The average execution time for a service.
Last Execution Time	The last execution time for a service.
Average Back End Time	The average back end time.
Last Back End Time	The last back end time.
Successful Invocations	A list of successful services listed by correlation ID. Select a service from the drop-down list to retrieve more information for that service.
Failed Invocations	A list of failed services listed by correlation ID. Select a service from the drop-down list to retrieve more information for that service.

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

The Service Level Summary page opens.



A list of available methods for that service appears in the Method drop-down list.

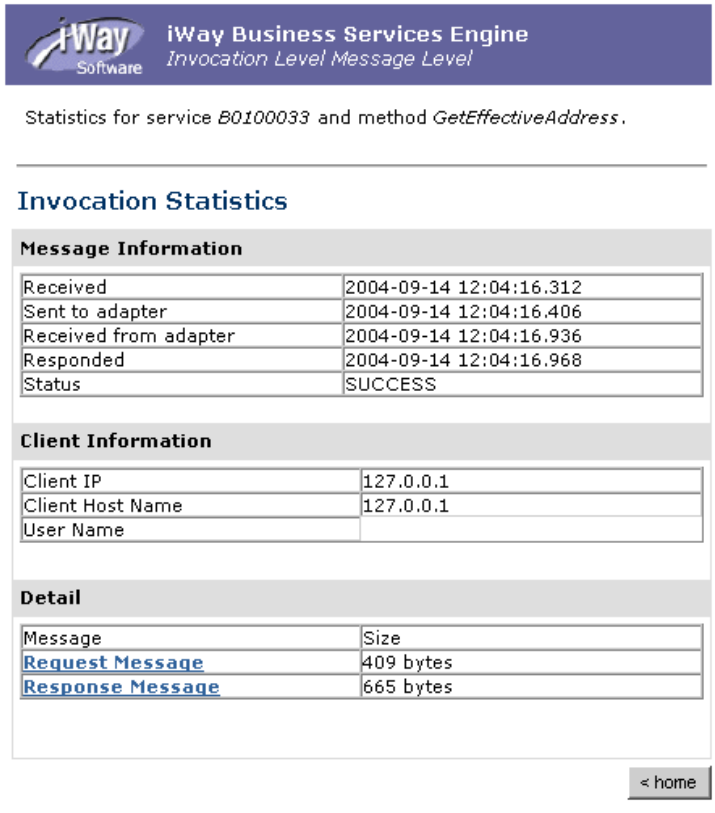
To stop a service at any time, click *Suspend Service*. To start the service, click *Resume Service*.

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

The Method Level Summary page opens.

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

The Invocation Level Statistics page opens.



Information pertaining to the message and client is provided.

7. Click the *Request Message* link to view the XML request document in your Web browser.

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

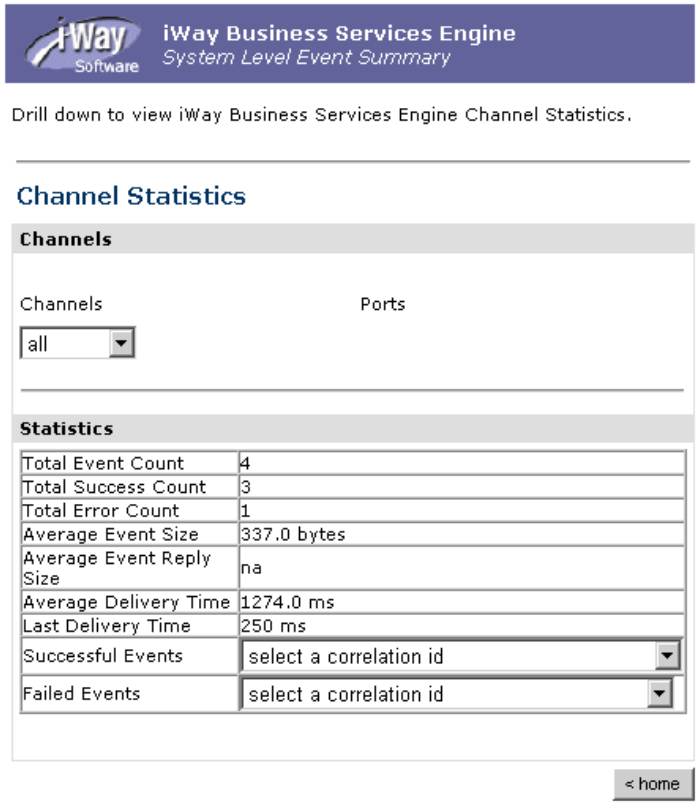
8. Click *home* to return to the iBSE Monitoring Settings page.

Procedure How to Monitor Events

To monitor events:

1. Ensure that BEA WebLogic Server is started.
2. Click *Start Monitoring* from the iBSE Monitoring Settings page.
3. Click *View Events.*

   The System Level Summary page opens.



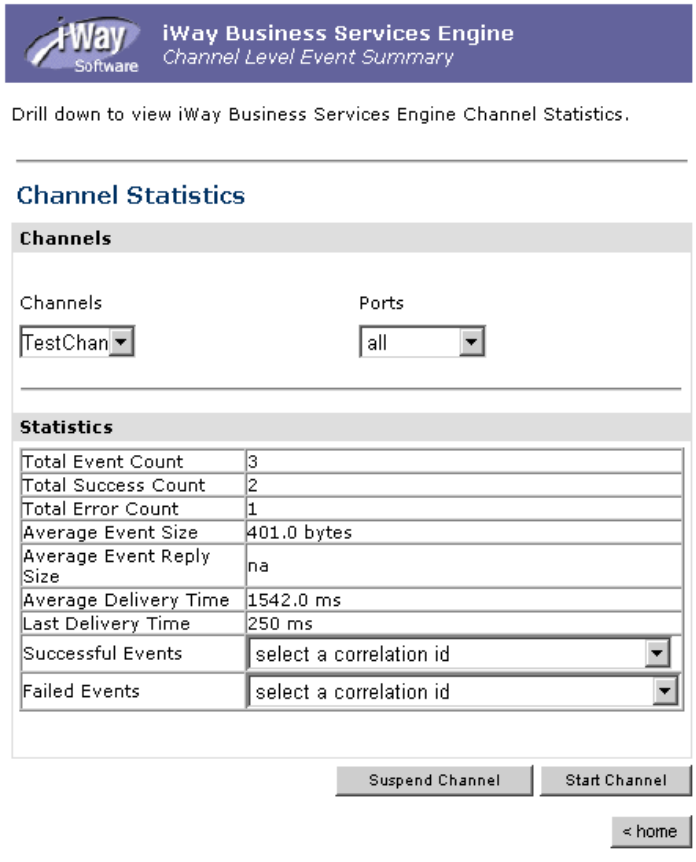
The system level summary provides event statistics at a system level. The following table provides a description of each statistic.

Statistic	Description
Total Event Count	The total number of events.
Total Success Count	The total number of successful event executions.
Total Error Count	The total number of errors that were encountered.
Average Event Size	The average size of an event request that is available.
Average Event Reply Size	The average size of an event response that is available.

Statistic	Description
Average Delivery Time	The average delivery time for an event.
Last Execution Time	The last execution time for an event.
Last Delivery Time	The last delivery time.
Successful Events	A list of successful events listed by correlation ID. Select an event from the drop-down list to retrieve more information for that event.
Failed Events	A list of failed events listed by correlation ID. Select an event from the drop-down list to retrieve more information for that event.

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

The Channel Level Event Summary page opens.

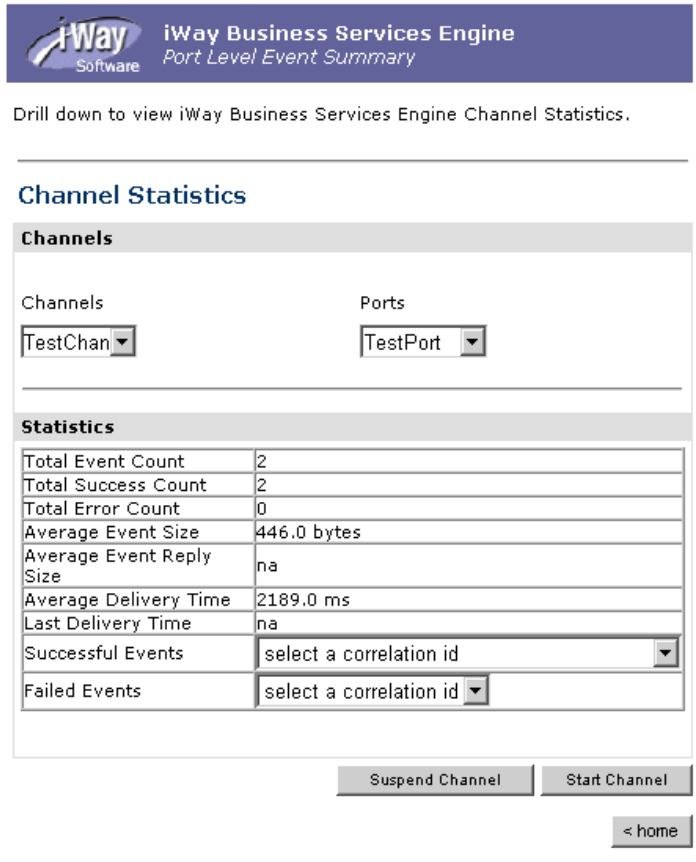


A list of available ports for that channel appears in the Ports drop-down list.

To stop a channel at any time, click *Suspend Channel*. To start the service, click *Start Channel*.

5. Select a port for the channel from the Ports drop-down list.

The Port Level Event Summary page opens.



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

The Event Level Statistics page for the channel and port you selected opens.

Information pertaining to the event message is provided.

7. Click the *Event Message* link to view the XML event document in your Web browser.
8. Click *home* to return to the iBSE Monitoring Settings page.

Managing and Monitoring Services and Events Using the IVP

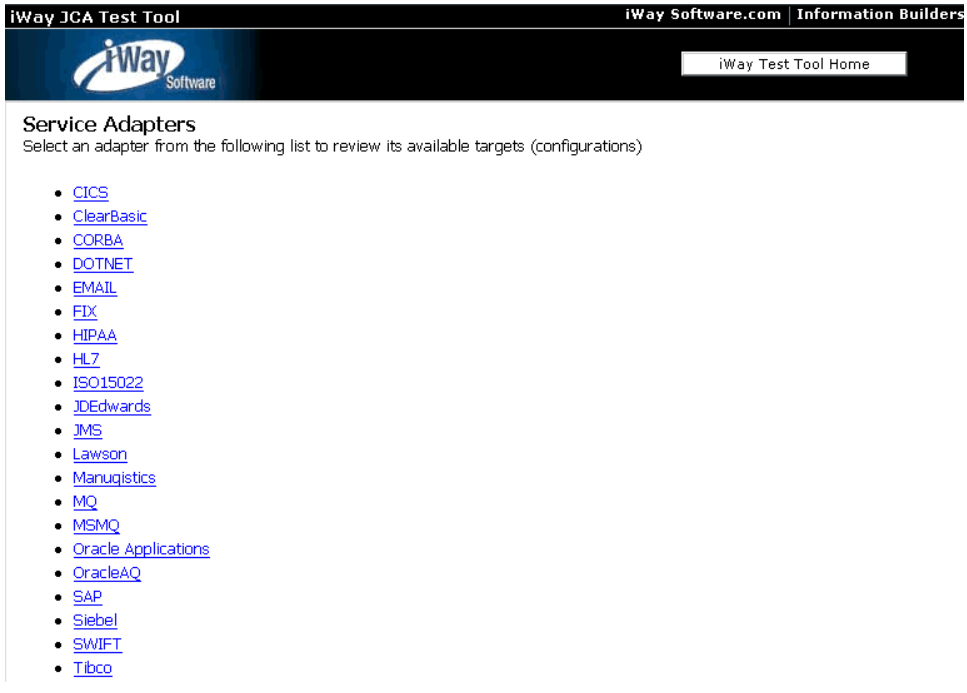
The following topics describe how to test service and event adapters using the iWay JCA Installation Verification Program (IVP).

Procedure How to Test the iWay Service Adapters

To test the iWay service adapters using the IVP:

1. To ensure that the targets you configured in iWay Application Explorer appear in the IVP, click *Refresh Manage Connection Factory.*
2. To display the available adapters, click the *Service adapters* link.

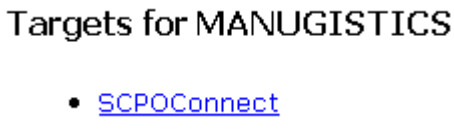
The following window, showing the list of deployed service adapters, opens.



3. Select the adapter that you want to test.

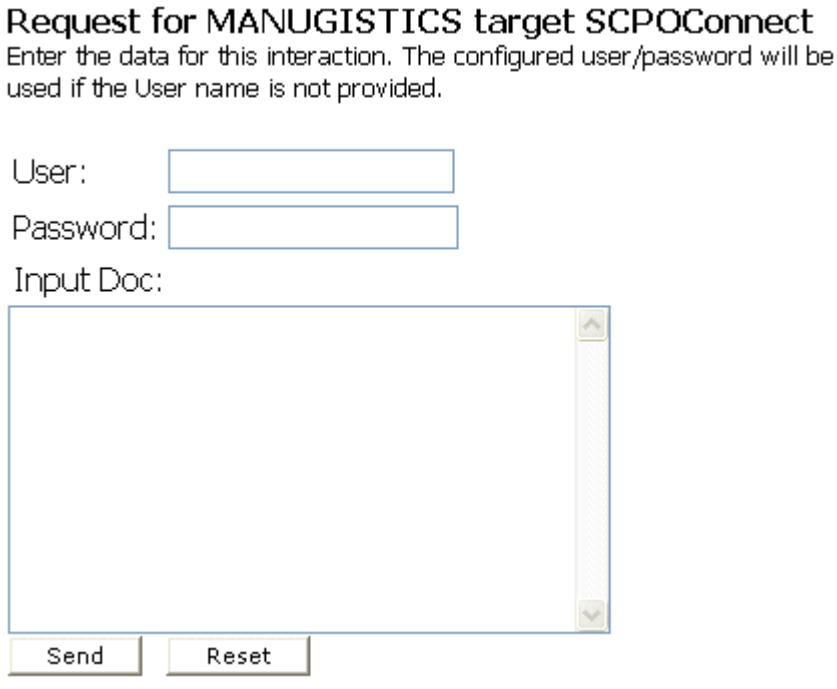
The adapter displays all of the targets currently configured in the iWay repository for that adapter.

The following window shows that there is one target, PSConnect, configured for the iWay Adapter for Manugistics.



4. Click the desired target, for example, *SCPOConnect*.

   The following pane, showing an input area in which you can provide XML code with which to test the adapter, opens.



5. Enter a username and password to connect to Manugistics.
6. In the input area, enter a request document built from the iWay request schema.
7. Click *Send*.

   A response is returned from Manugistics.

Testing the iWay Event Adapters Using the IVP

The iWay JCA Installation Verification Program (IVP) enables you to start and stop iWay event channels.

The tool also enables you to monitor events and provides statistics on channels.

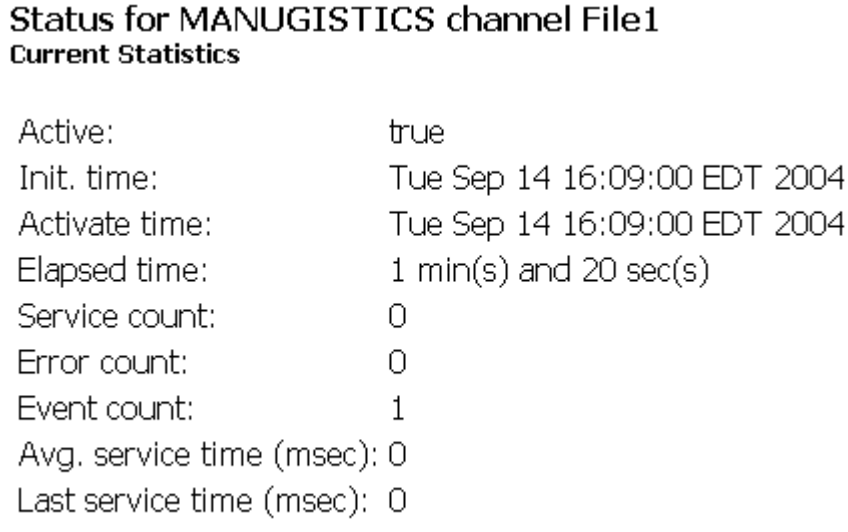
Procedure How to Test the iWay Event Adapters

To test the iWay event adapters using the IVP:

1. Click *Refresh Manage Connection Factory.*
2. To display the available adapters, click the *Events adapter* link.
3. Select the adapter that you want to monitor, for example, Manugistics.

   The tool displays the channels that you already configured.

4. Click the *start* hyperlink to start the channel.



   Statistics for the event channel are returned, including:

   - The status of the channel.
   - The time the channel was initialized.
   - The number of events.
   - The event response time.

5. To stop the channel, click the *stop* hyperlink.

Monitoring Services

The following section describes how to use the iWay JCA Installation Verification Program (IVP) in Managed mode and monitor services in BEA WebLogic.

Procedure How to Use iWay JCA IVP in Managed Mode.

To use iWay JCA IVP in managed mode:

1. Open the *web.xml* file in a text editor.

   It is located in the following directory:

   ```
   <installDir>\bea\iwjcaivp\WEB-INF\web.xml
   ```

   where:

   ```
   <installDir>
   ```

   Is the location of your iWay 5.5 installation.

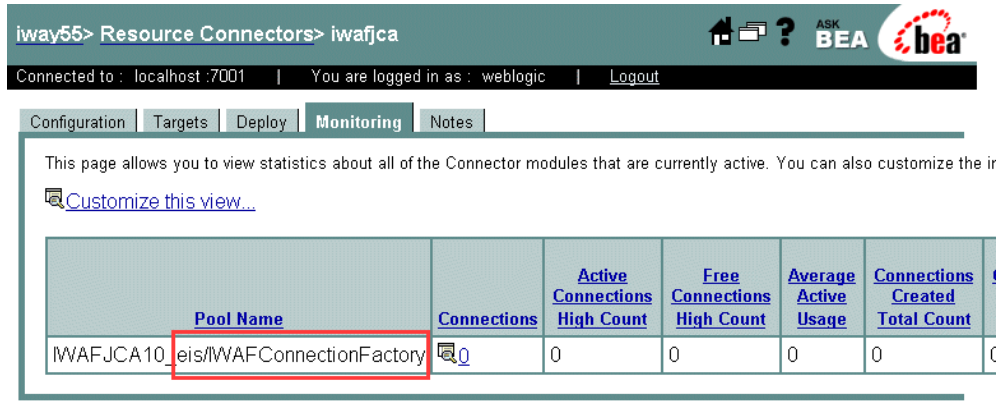
2. Locate the following lines:

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

3. Enter the path to the JCA module for the iway.jndi parameter, for example:

   ```
   <param-value>eis/IWAFConnectionFactory</param-value>
   ```

   You can find this value by browsing to the Resource Connectors section in BEA WebLogic and checking the Pool Name for the JCA connector module. For example:



4. Restart WebLogic Server or redeploy the JCA connector module.

5. Open a browser to:

`http://hostname:port/iwjcaivp`

where:

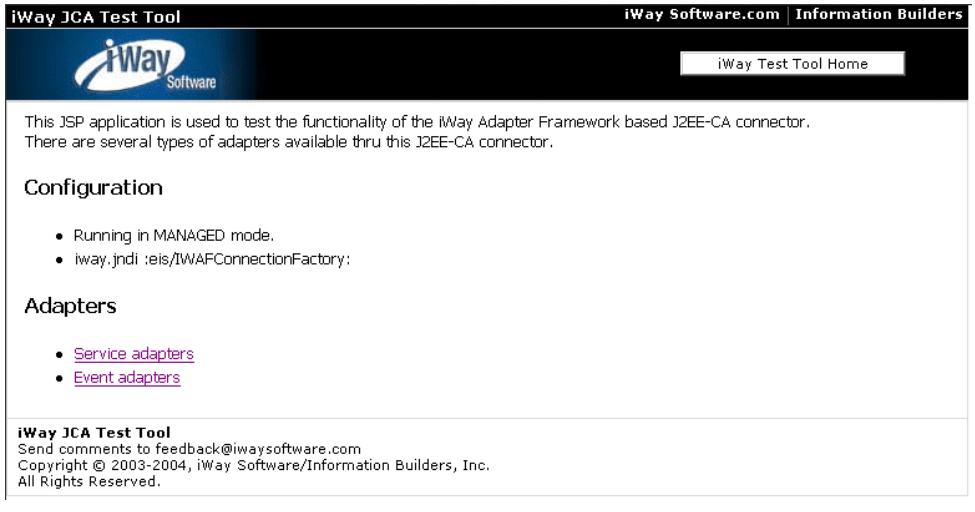
hostname

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

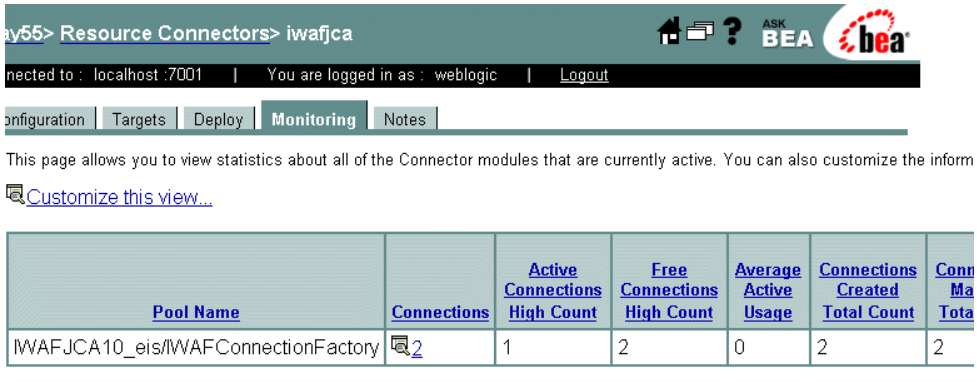
port

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

The iWay JCA Test Tool window opens and provides links for viewing iWay Service or Event adapters. Notice that it is now running in managed mode.



6. Test a service you have created for an iWay Adapter using Application Explorer.
7. Return to the Resource Connectors section in BEA WebLogic.



Monitoring statistics pertaining to the services you have executed are now available.

Setting Engine Log Levels

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

Procedure How to Enable Tracing for Servlet iBSE

To enable tracing for Servlet iBSE:

1. Open the Servlet iBSE configuration page:

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

   where:

   hostname

   Is the hostname of the application server machine.

   port

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

   For example:

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

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

The default location for the trace information on Windows is:

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

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 can be set to DEBUG, INFO, or ERROR.

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

For example:

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

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

Leave the remainder of this file unchanged.

3. Save the file and exit the editor.
4. Redeploy the connector.

Configuring Connection Pool Sizes

The following topic describes how to configure connection pool sizes using JCA.

Procedure How to Configure Connection Pool Sizes

To configure connection pool sizes:

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

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

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

3. Save the file and exit the editor.
4. Redeploy the connector.

APPENDIX A

Using Application Explorer in BEA WebLogic Workshop

Topics:

- Starting Application Explorer in BEA WebLogic Workshop
- Creating a New Configuration
- Connecting to Manugistics
- Viewing Metadata and Creating an XML Schema
- Creating an iWay Business Service
- Understanding iWay Event Functionality
- Creating an Event Port
- Modifying an Event Port
- Creating a Channel
- Modifying a Channel
- Deploying iWay Components in a Clustered BEA WebLogic Environment
- Adding a Control for an iWay Resource in BEA WebLogic Workshop
- Extensible CCI Control

This section describes how to use iWay Java Swing Application Explorer running in BEA WebLogic Workshop to create XML schemas for Manugistics. In addition, this section provides information on listening for events in Manugistics and creating Web services that are published by the iWay Business Services Engine (iBSE).

Starting Application Explorer in BEA WebLogic Workshop

The server must be started where iWay Application Explorer is running. Before you can use Application Explorer, you must start BEA WebLogic server.

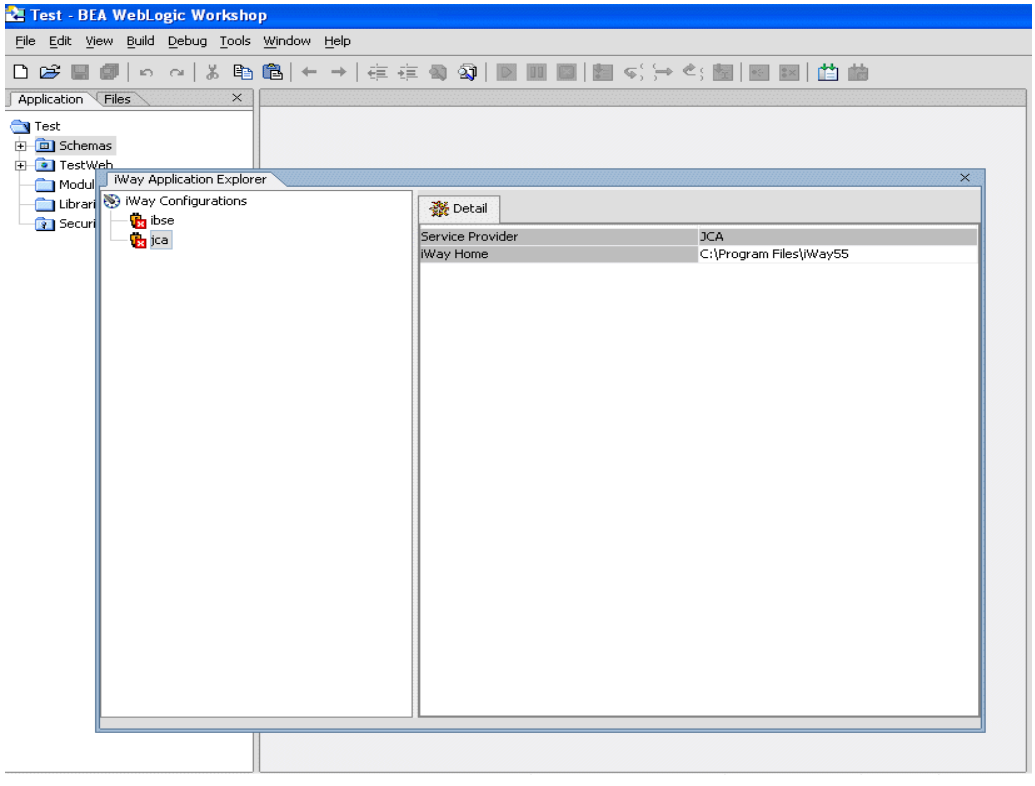
You can run Application Explorer in BEA WebLogic Workshop using an iWay Business Services Engine (iBSE) configuration. If you want to use Application Explorer with a JCA configuration instead of iBSE, you must use the servlet version of Application Explorer that runs outside of WebLogic Workshop. For more information about the servlet version, see Chapter 4, *Creating Services for SCPO* and Chapter 5, *Creating Services for Transportation*.

Procedure How to Start Application Explorer in BEA WebLogic Workshop

To start Application Explorer running in BEA WebLogic Workshop:

1. Before starting Application Explorer, ensure that BEA WebLogic Server is running.
2. Start BEA WebLogic Workshop.
3. From the BEA WebLogic Workshop View menu, select *Windows* and then, *iWay Application Explorer.*

Application Explorer opens in BEA WebLogic Workshop.



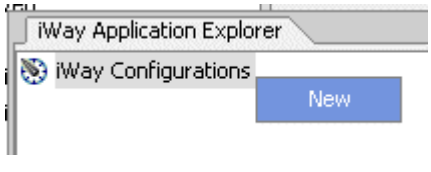
You can resize and drag-and-drop the Application Explorer window within BEA WebLogic Workshop. For example, you can drag it to the upper part of BEA WebLogic Workshop.

Creating a New Configuration

Before you can start using Application Explorer, you must define a new configuration for iBSE or JCA.

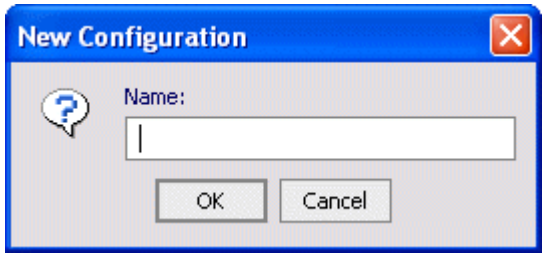
Procedure How to Create a New Configuration for iBSE or JCA

To create a new configuration:



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

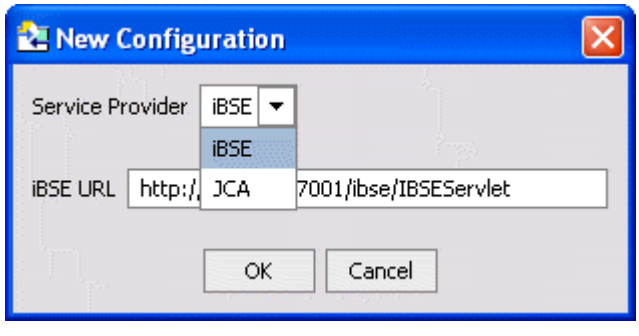
   The New Configuration dialog box opens.



2. Type the name of the new configuration and click *OK*.

   Note: If you are creating a new JCA configuration, type *base* in the name field. This value must be used if you are pointing to the default iWay configuration.

   The following dialog box opens.



3. From the Service Provider drop-down list, select *iBSE* or *JCA*.

   If you select **iBSE**, type the URL for iBSE, for example,

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

   where:

   localhost

   Is where your application server is running.

   If you select **JCA**, enter the full path to the directory where iWay 5.5 is installed, for example,

C:\Program Files\iWay55

where:

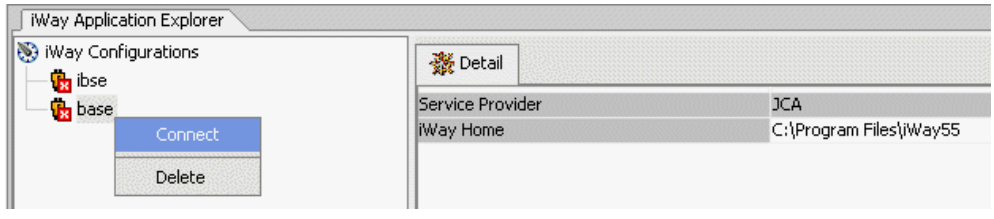
iWay55

Is the full path to your iWay installation.

A node representing the new configuration appears under the iWay Configurations node. The right pane provides details of the configuration you created.

4. Click *OK*.

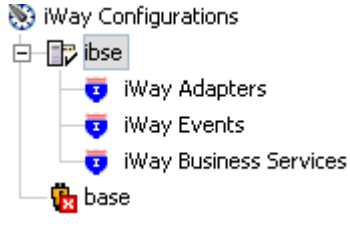
After you add your configuration, you must connect to it.



5. Right-click the configuration to which you want to connect and select *Connect*.

When you connect to base, the iWay Adapters and iWay Events nodes appear.

When you connect to iBSE, the iWay Adapters, iWay Events, and iWay Business Services nodes appear.



6. To display the service and event adapters that are installed, expand each node.

The Service Adapters list includes a Manugistics node that enables you to connect to Manugistics metadata and create XML request and response schemas to use to listen for events or create Web Services. For more information, see *Creating an iWay Business Service* on page A-16.

The Event Adapters list includes a Manugistics node that enables you to create ports and channels for Manugistics event handling. For more information, see *Understanding iWay Event Functionality* on page A-21.

Connecting to Manugistics

To browse Manugistics, you must create a Manugistics target and connect to it. The target serves as your connection point. You must establish a connection to Manugistics every time you start iWay Application Explorer or after you disconnect from Manugistics.

The left pane displays the application systems supported by Application Explorer. These are based on the iWay adapters you installed and are licensed to use.

Creating and Connecting to a Target

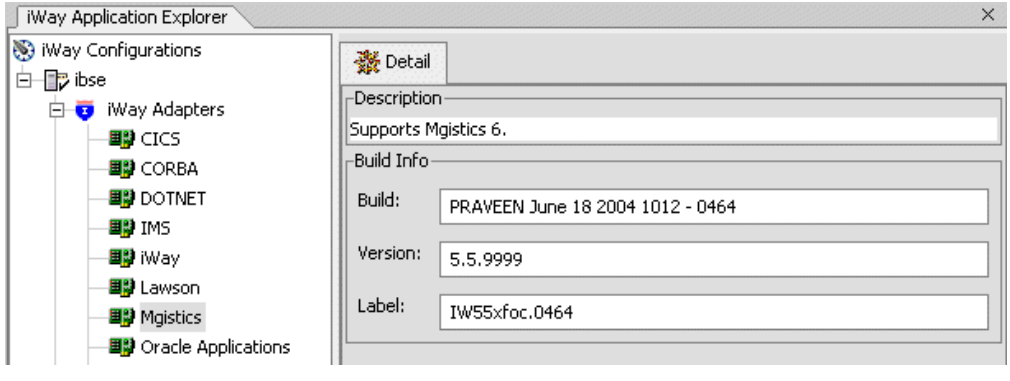
To connect to Manugistics for the first time, you must create a new target. The target is automatically saved after it is created.

Procedure How to Create a New Target

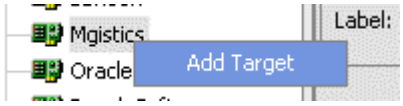
To create a target:

1. In the left pane, expand *iWay Service Adapters* and click the *Mgistics* node.

   Descriptive information (for example, title and product version) for the iWay Adapter for Manugistics appears in the right pane.

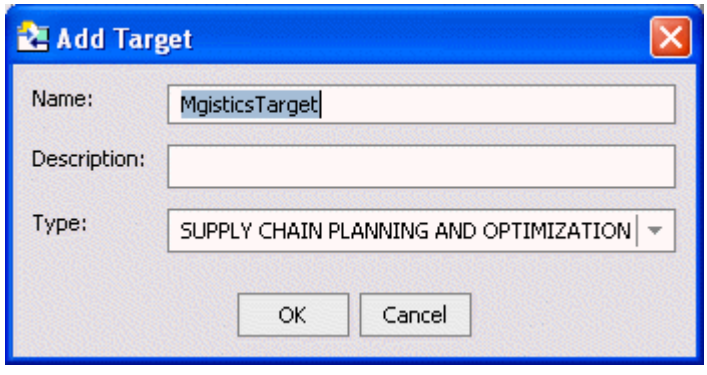


2. To view the options, right-click the *Mgistics* node.



3. Select *Add Target*.

The Add target dialog box opens.



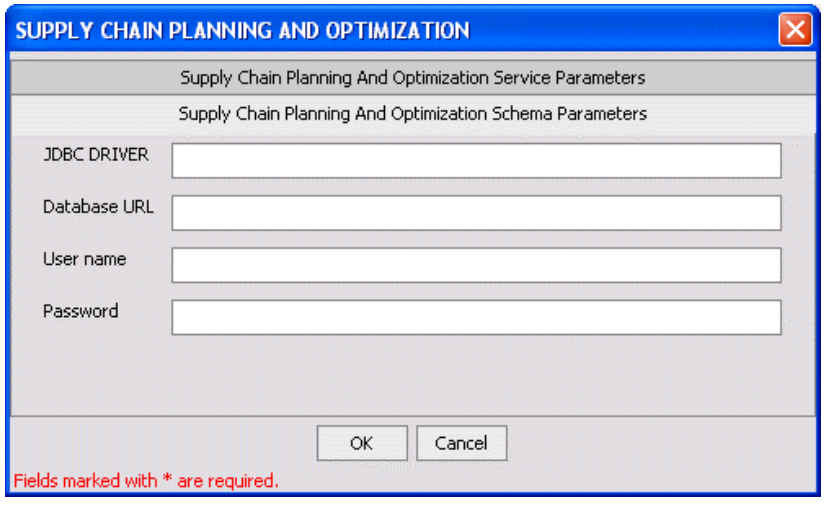
a. In the Name field, type a descriptive name for the target, for example, MgisticsTarget.

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

c. From the Type drop-down list, select the target type: Supply Chain Planning and Optimization, or Transport.

4. Click *OK*.

The Application Server dialog box opens where you must specify connection information for Manugistics and the application server that is hosting Manugistics.

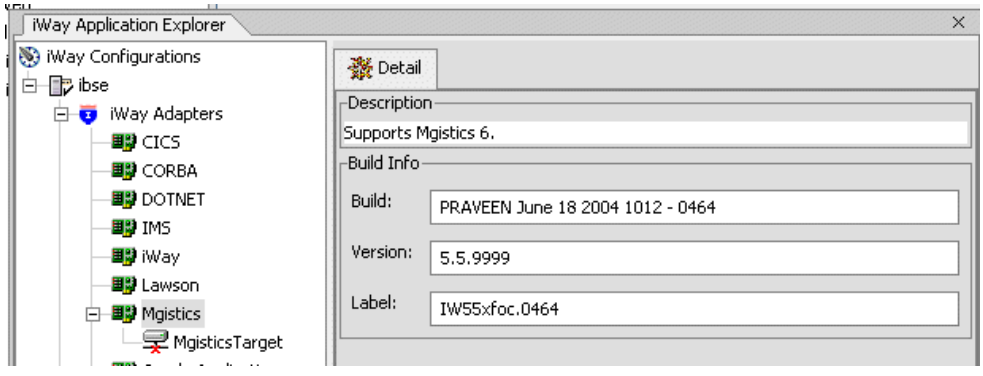


5. Specify the following information:

Field	Description
JDBC Driver	JDBC driver used to access Manugistics.
Database URL	URL to use when opening the connection to the database.
User name	Valid user name to access Manugistics.
Password	Valid password associated with the user name.

6. Click *OK*.

In the left pane, the new target (Mgistics Target) appears below the Manugistics node.

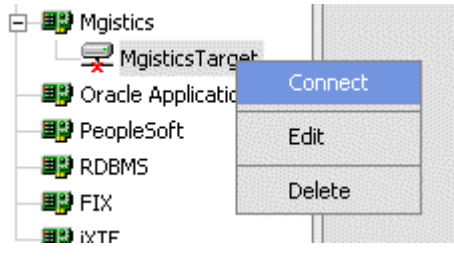


You can now connect to the target you defined.

Procedure How to Connect to a Target

To connect to a Manugistics target:

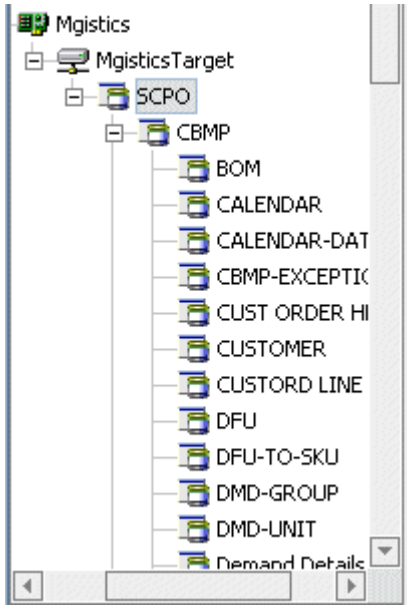
1. In the left pane, expand the *Mgistics* node and select the target to which you want to connect, for example, MgisticsTarget.
2. In the right pane, enter a password for that target.



3. In the left pane, right-click the target and select *Connect*.

   The MgisticsTarget node in the left pane changes to reflect that a connection was made.

4. Expand the target node to reveal the list of Manugistics interfaces.



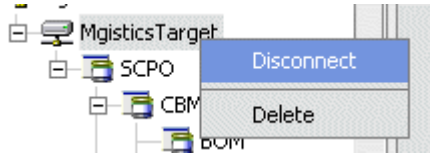
Managing a Target

Although you can maintain multiple open connections to different application systems, iWay Software recommends that you close connections when they are not in use. After you disconnect, you can modify an existing target.

You can modify the connection parameters when your system properties change. You also can delete a target. The following procedures describe how to disconnect from a target, edit a target, and delete a target.

Procedure How to Disconnect From a Target

To disconnect from a target:



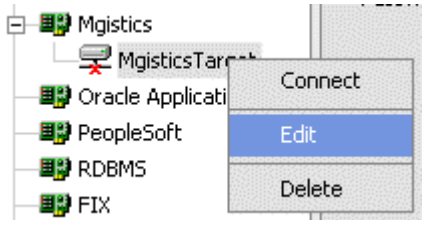
1. Right-click the Manugistics target from which you want to disconnect.
2. Select *Disconnect*.

Disconnecting from the application system drops the connection, but the node remains. The MgisticsTarget node in the left pane changes to reflect that you disconnected from the target.

Procedure How to Edit a Target

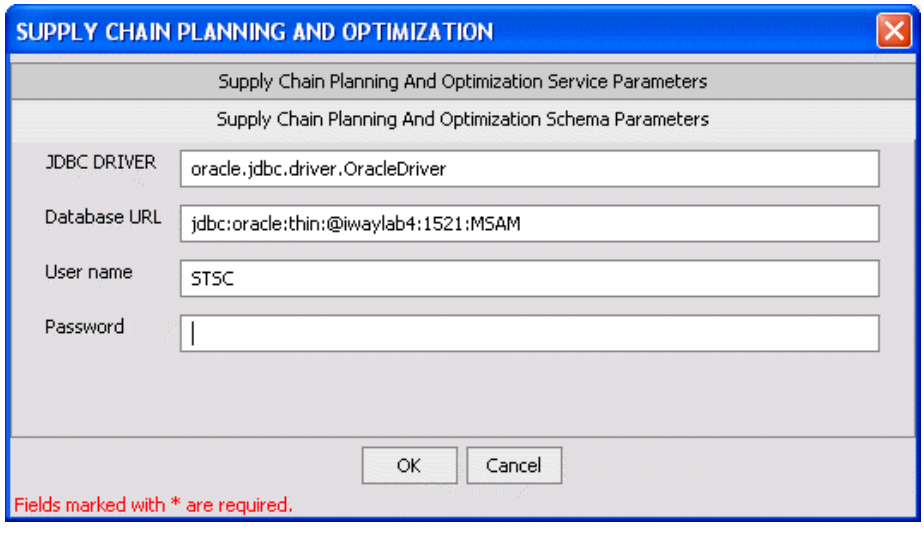
To edit a target:

1. Ensure that the target you want to edit is disconnected.



2. In the left pane, right-click the target and select *Edit*.

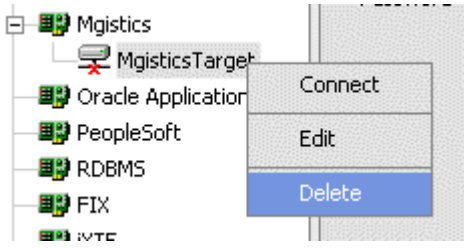
   The following dialog box opens.



3. Change the properties in the dialog box as required and click *OK*.

Procedure How to Delete a Target

To delete a target:



1. In the left pane, right-click the target.
2. Select *Delete*.

   The MgisticsTarget node disappears from the left pane.

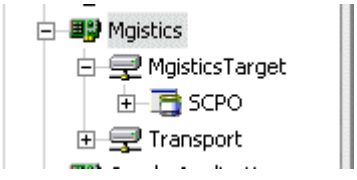
Viewing Metadata and Creating an XML Schema

After you create a new configuration and connect to Manugistics, iWay Application Explorer enables you to explore and browse metadata.

The iWay Adapter for Manugistics enables Insert, Delete, Update, and Select.

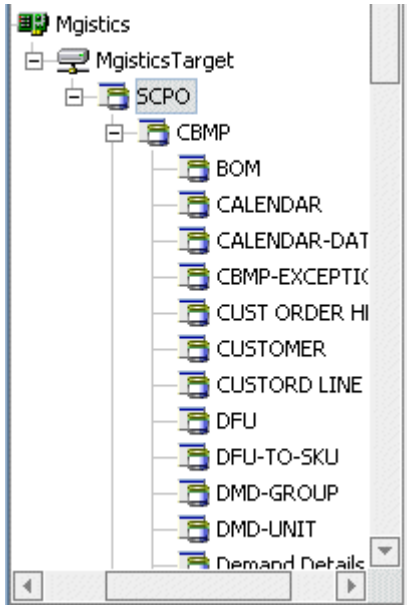
Procedure How to View Metadata in Manugistics

To view metadata in Manugistics:



1. Click the icon to the left of a target name, for example, MgisticsTarget.
2. To expand the Manugistics node you want to explore, click the icon to the left of the node, for example, SCPO.

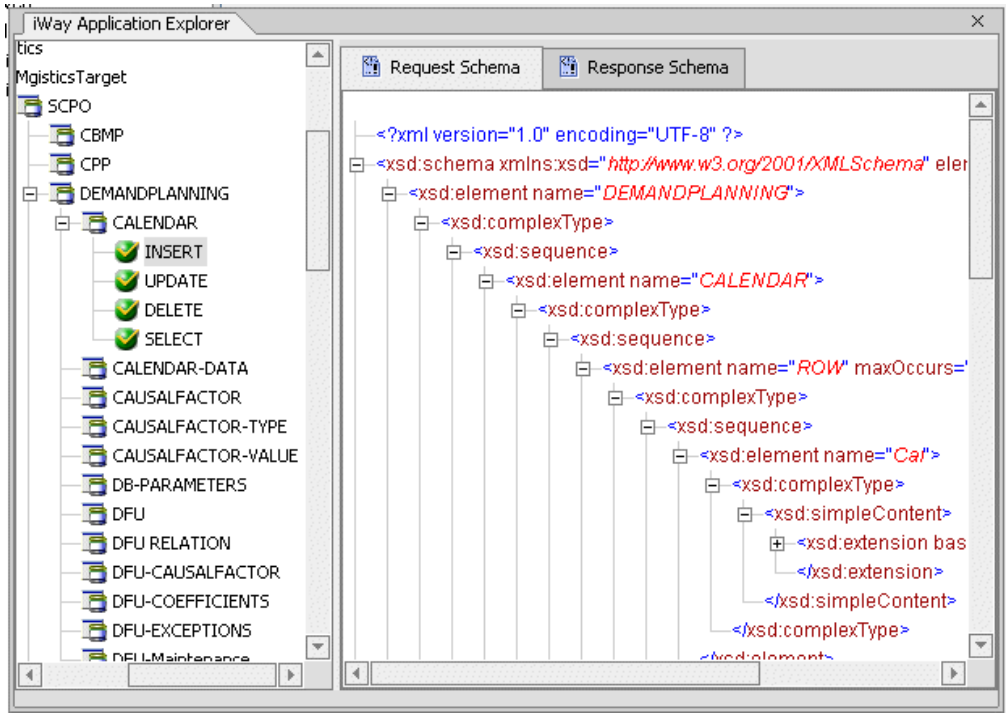
The available interfaces appear.



3. Expand and then select the node beneath the interface you selected.

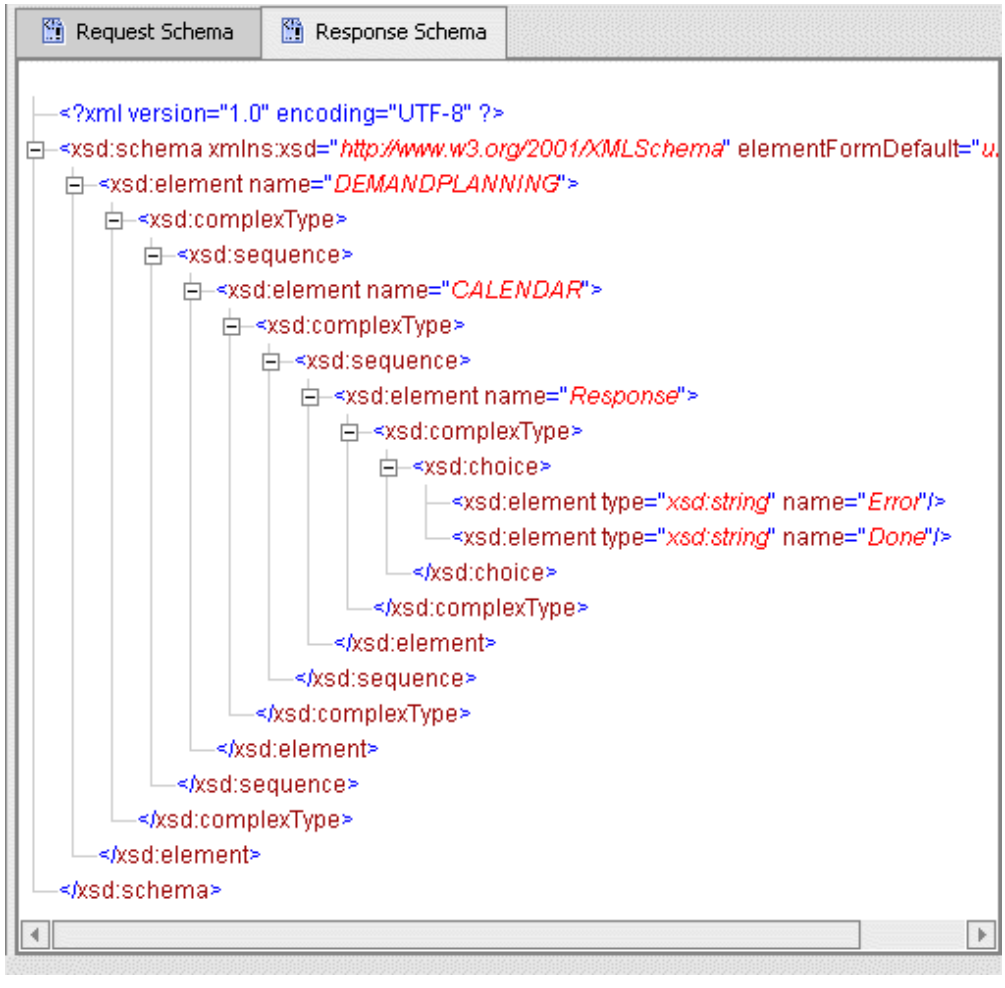
The following XML schemas appear for the interface:

- Request
- Response



4. To view the appropriate schema in the right pane, click the *Request Schema* or the *Response Schema* tab.

The schema you select appears in the pane.



Reference Schema Location

After you browse the Component Interfaces and make a selection, the request and response XML schemas are automatically created for that Component Interface and stored in the repository you created, for example:

```
drive:\Program Files\iWay55\bea\ibse\wsdl\schemas\service\Mgistics
\MgisticsTarget\SFBC5F20
```

where:

MgisticsTarget

Is the name of the Manugistics target.

SFBC5F20

Is a randomly generated folder name indicating where the schemas are stored.

Creating an iWay Business Service

You can create an iWay business service (also known as a Web service) for objects you want to use with your adapter. To generate a business service, you must deploy the iWay Adapter for Manugistics using the 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 as a "black box" that may require input and delivers a result. Web services integrate 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.

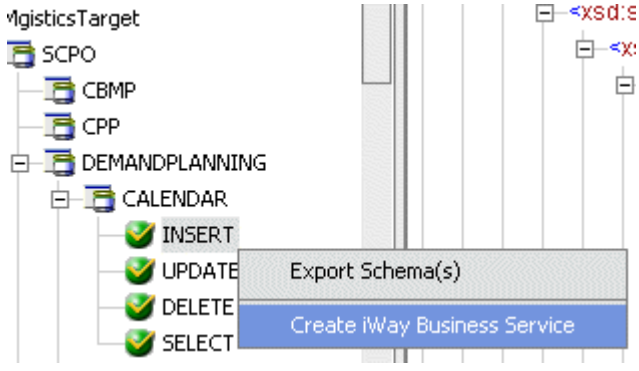
Because Application Explorer runs within BEA WebLogic Workshop, you can easily incorporate iWay Web services into BEA WebLogic Workflows. To enable BEA WebLogic Workshop to use iWay Web services, you export the WSDL to a directory accessible to BEA WebLogic Workshop.

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

Procedure How to Create an iWay Business Service

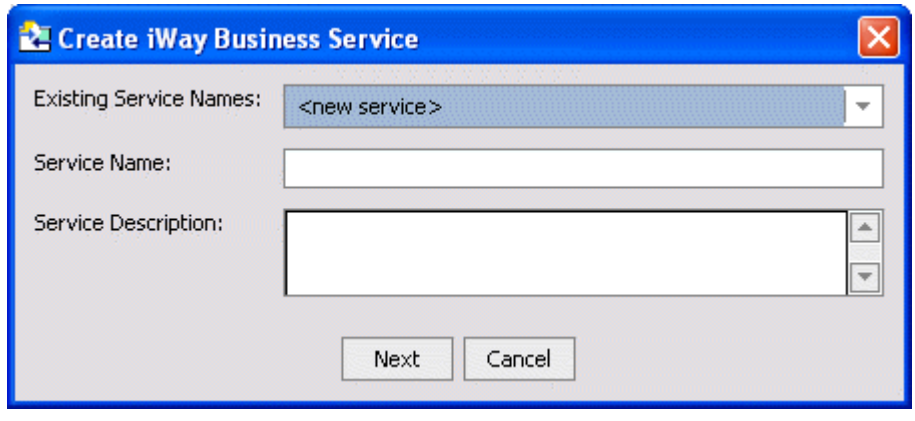
To create an iWay Business service:

1. Expand the Manugistics node and select the interface for which you want to create a business service.



2. Right-click and select *Create iWay Business Service*.

The Create iWay Business Service dialog box opens.



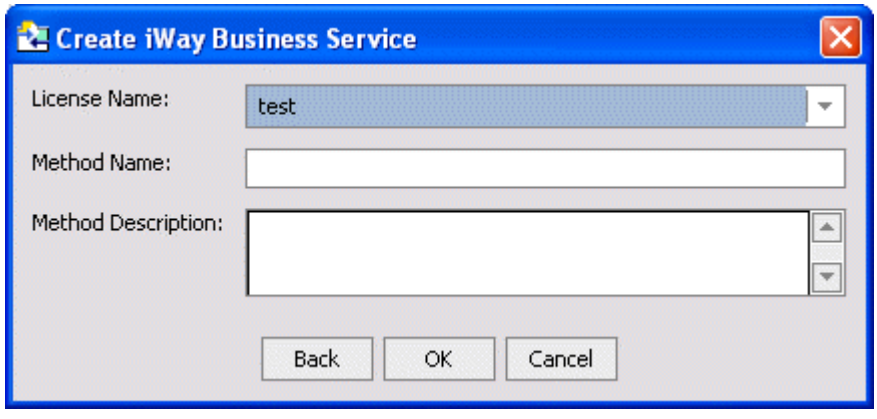
a. From the Existing Service Names drop-down list, select whether you want to create a new service name or use an existing service name.

b. In the Service Name field, type a name for the business service, for example, MgisticsService.

c. In the Service Description field, type a brief description of the business service.

3. Click *Next*.

The Create iWay Business Service dialog box displays additional fields.



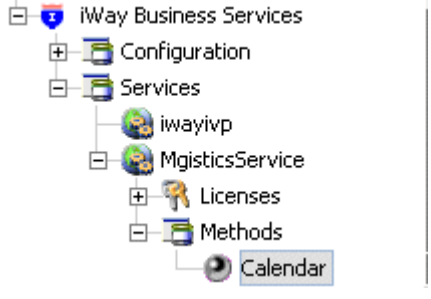
a. From the License Name drop-down list, select a license.

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

c. In the Method Description field, type a brief description for the method.

4. Click *OK*.

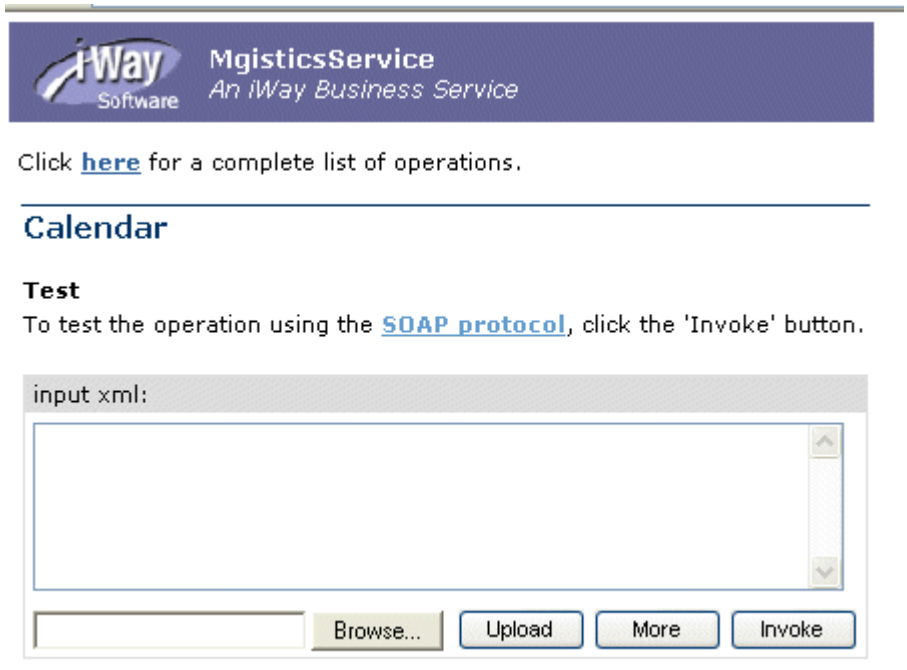
The business service and method appear below the iWay Business Services node.



In the left pane, all the available business services that were created appear.

5. Click the node for which you created the business service in the right pane.

On the right, the test pane opens.



6. To invoke the service, enter a sample XML document in the input xml field.

   For sample input XML, see *Testing a Business Service* on page A-19.

7. Click *Invoke*.

   The result appears in the right pane.

Example **Testing a Business Service**

The following is a sample XML document that you can use to test the business service:

```
<?xml version="1.0" encoding="UTF-8"?>
<DEMANDPLANNING>
   <HISTORY>
      <GROUP>
         <DmdUnit length="10">120-18-105</DmdUnit>
         <DmdGroup length="10">CLUB</DmdGroup>
         <Loc length="5">CHI</Loc>
         <HistStream length="18">Order</HistStream>
         <ROW>
            <StartDate length="8">04/02/02</StartDate>
            <Dur length="4">30D</Dur>
```

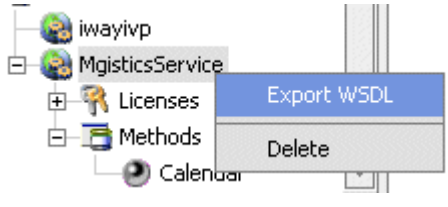
```
            <Type length="1">1</Type>
            <Event length="18"/>
            <Qty length="10">1010</Qty>
         </ROW>
         <ROW>
            <StartDate length="8">04/03/02</StartDate>
            <Dur length="4">30D</Dur>
            <Type length="1">1</Type>
            <Event length="18"/>
            <Qty length="10">1111</Qty>
         </ROW>
      </GROUP>
   </HISTORY>
</DEMANDPLANNING>
```

Exporting iWay WSDL for Use in BEA WebLogic Workshop Workflows

Because iWay Application Explorer runs within BEA WebLogic Workshop, you can easily incorporate iWay Web services into BEA WebLogic Workflows. To enable BEA WebLogic Workshop to use iWay Web services, you simply export the WSDL to a directory accessible to BEA WebLogic Workshop.

Procedure How to Export iWay WSDL for Use in BEA WebLogic Workshop Workflows

To export WSDL to a directory accessible to BEA WebLogic Workshop:

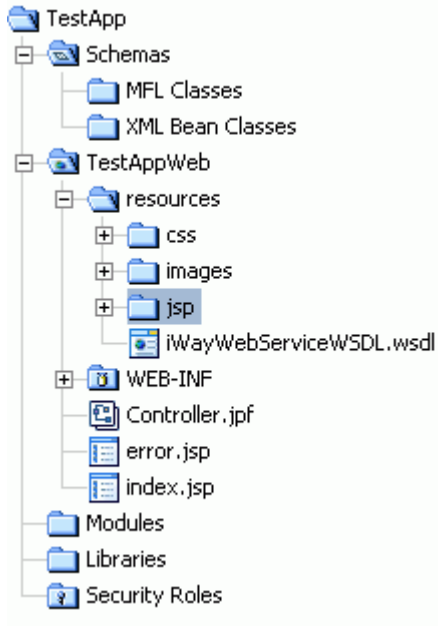


1. After you create a Web service, right-click the Web service name and select *Export WSDL*.

   The Save dialog box appears.

2. Save the WSDL to a directory accessible to BEA WebLogic Workshop, for example, the \resources directory in your BEA WebLogic Workshop Web application directory structure.

The WSDL file appears under the resources folder of your Web application:



Credential Mapping

For each SOAP request that is received, iBSE checks to see if a user name and password is included in the SOAP header. If a user name and password is available, iBSE acquires this information and replaces the values retrieved from the repository when pushing the request to the iWay Adapter.

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, Manugistics may generate an event when customer information is updated. If your application must perform in response to activity, your application is a consumer of this event.

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

- Port

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

- Channel

  A channel represents configured connections to particular instances of back-end systems. A channel binds one or more event ports to a particular listener managed by the adapter. For more information, see *Creating a Channel* on page A-39.

Creating an Event Port

The following procedures describe how to create an event port using iWay Application Explorer. The following port dispositions are available when using Application Explorer in conjunction with an iBSE deployment:

- FILE
- HTTP
- IBSE
- MSMQ
- JMSQ
- MQSeries
- SOAP
- MAIL

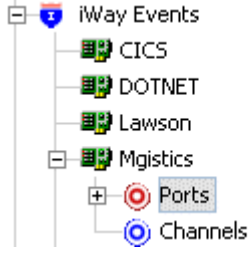
Note: The MAIL disposition option will be supported in a future release.

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

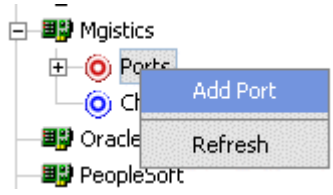
- File
- JMS
- MQ
- HTTP

Procedure How to Create an Event Port for File

To create an event port for File:

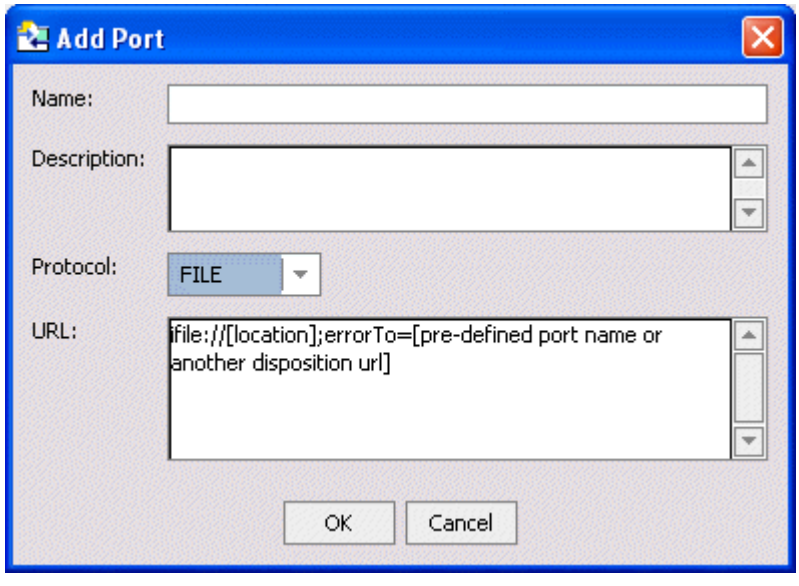


1. In the left pane of Application Explorer, expand the Manugistics node under iWay Events, and then select *Ports*.



2. Right-click and select *Add Port*.

   The Create Event Port dialog box opens.



   a. In the Name field, type a name for the event port, for example, MgisticsFile.

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

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

   d. In the URL field, type a destination file to which the event data is written, using the following format:

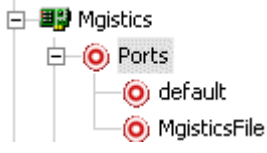
   ```
   file://location[;errorTo=errorDest]
   ```

   The following table describes the URL parameters.

Parameter	Description
location	The full directory path and file name to which the data is written.
errorTo	Location where error logs are sent. Optional. A predefined port name or another disposition URL. The URL must be complete, including the protocol.

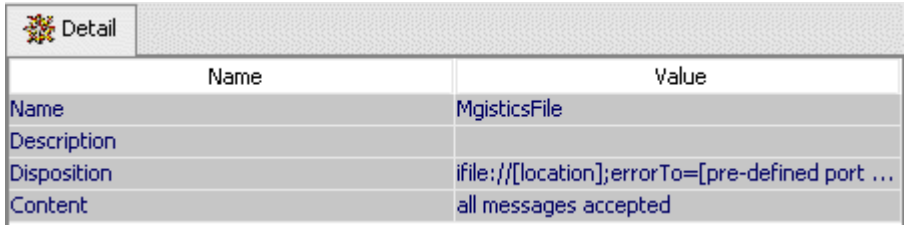
3. Click *OK*.

   In the left pane, the event port appears below the Ports node.



4. To review the port settings, select the port name.

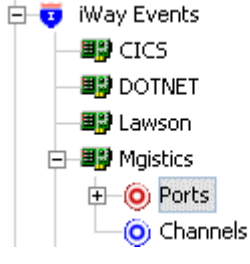
   In the right pane, a table appears that summarizes the information associated with the event port you created.



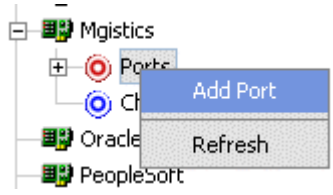
   You are ready to associate the event port with a channel. For more information, see *Creating a Channel* on page A-39.

Procedure How to Create an Event Port for iBSE

To create an event port for iBSE:

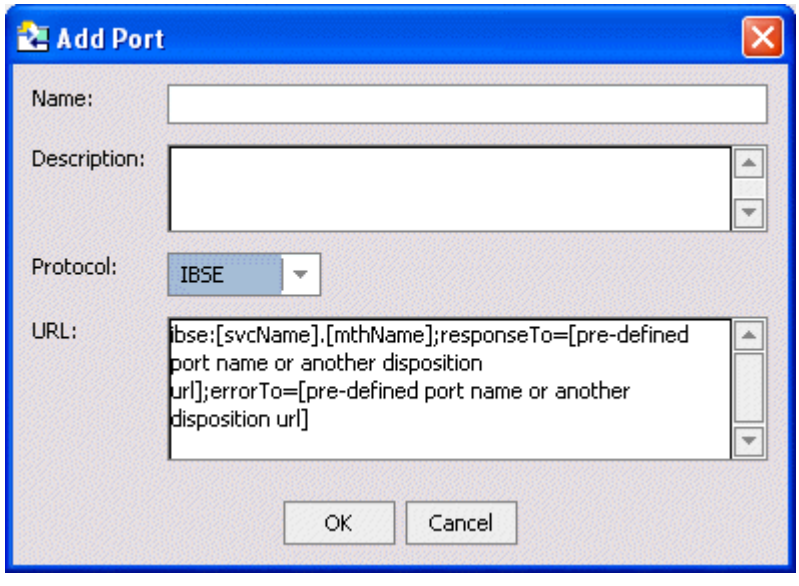


1. In the left pane of Application Explorer, expand the Manugistics node under iWay Events, and then select *Ports*.



2. Right-click and select *Add Port*.

   The Create Event Port dialog box opens.



   a. In the Name field, type a name for the event port, for example, MgisticsiBSE.

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

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

   d. In the URL field, enter an iBSE destination using the following format:

   ```
   ibse:/svcName.methName[;responseTo=respDest][;errorTo=errorDest]
   ```

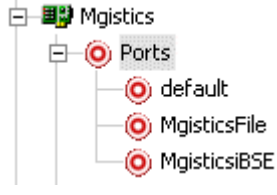
   The following table describes the disposition parameters.

Parameter	Description
svcName	Name of the service created with iBSE.

Parameter	Description
methName	Name of the method created for the Web service.
respDest	Location where responses to the Web service are posted. Optional. A predefined port name or another disposition URL. The URL must be complete, including the protocol.
errorDest	Location where error logs are sent. Optional. A predefined port name or another disposition URL. The URL must be complete, including the protocol.

3. Click *OK*.

The event port appears below the Ports node in the left pane.



4. To review the port settings, select the port name.

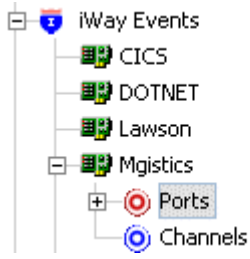
In the right pane, a table appears that summarizes the information associated with the event port you created.

Name	Value
Name	MgisticsiBSE
Description	
Disposition	ibse:[svcName].[mthName];responseTo=[...
Content	all messages accepted

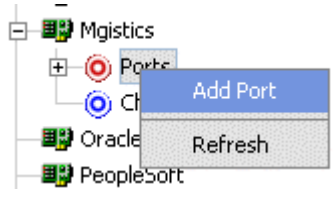
You are ready to associate the event port with a channel. For more information, see *Creating a Channel* on page A-39.

Procedure How to Create an Event Port for MSMQ

To create an event port for a Microsoft Message Queuing (MSMQ) queue:

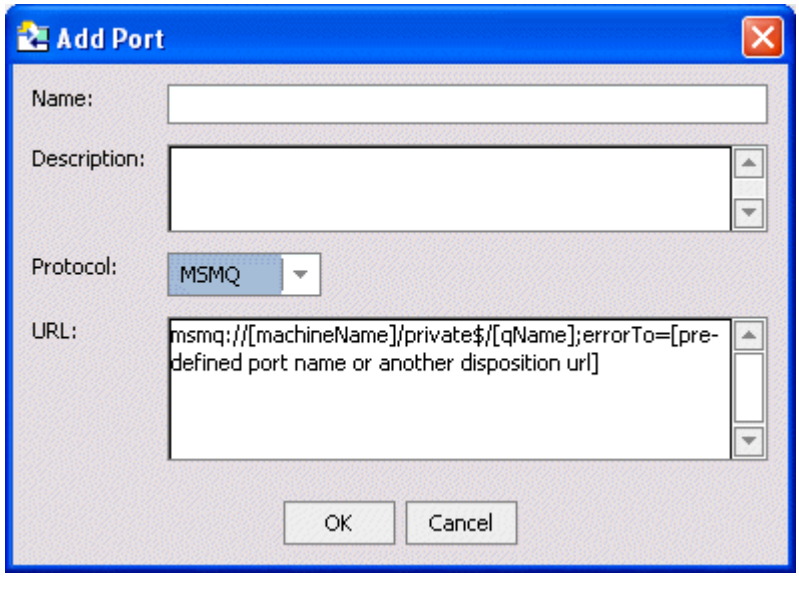


1. In the left pane of Application Explorer, expand the Manugistics node under iWay Events, and then select *Ports*.



2. Right-click and select *Add Port*.

   The Create Event Port dialog box opens.



   a. In the Name field, type a name for the connection, for example, MgisticsMSMQ.

b. In the Description field, type a description for the target name you just created.

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

d. In the URL field, enter an MSMQ destination in the following format:

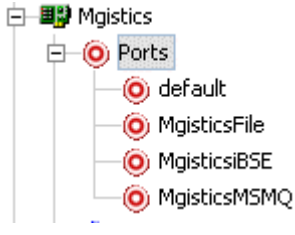
```
msmq:/host/queueType/queueName[;errorTo=errorDest]
```

The following table defines the disposition parameters.

Parameter	Description
host	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	Name of the queue where messages are placed.
errorDest	Location where error logs are sent. Optional. A predefined port name or another disposition URL. The URL must be complete, including the protocol.

3. Click *OK*.

In the left pane, the event port appears below the Ports node.

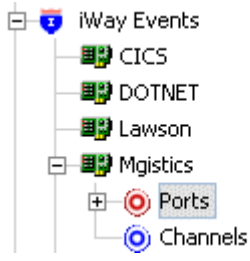


4. To review the port settings, select the port name.

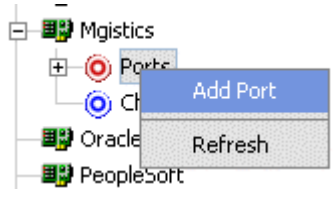
In the right pane, a table appears that summarizes the information associated with the port you created. You are ready to associate the event port with a channel. For more information, see *Creating a Channel* on page A-39.

Procedure How to Create a Port for JMS

To create a port for a JMS queue:

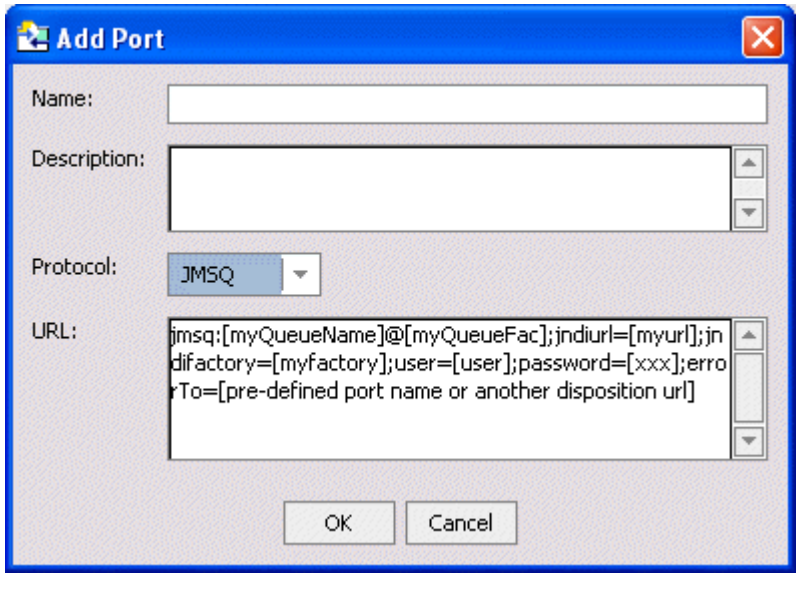


1. In the left pane of Application Explorer, expand the Manugistics node under iWay Events, and then select *Ports*.



2. Right-click and select *Add Port*.

   The Create Event Port dialog box opens.



   a. In the Name field, type a name for the event port, for example, MgisticsJMSQ.

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

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

d. In the URL field, enter a JMSQ destination using the following format:

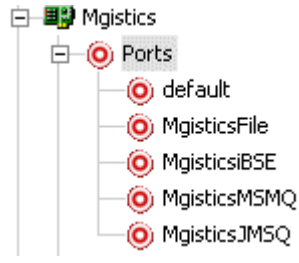
```
jmsq:queue@conn_factory;jndiurl=jndi_url;jndifactory=jndi_factory;
user=userID;password=pass[;errorTo=errorDest]
```

The following table describes the URL parameters.

Parameter	Description
queue	Name of a queue to which events are emitted.
conn_factory	The connection factory, a resource that contains information about the JMS Server. The WebLogic connection factory is: `javax.jms.QueueConnectionFactory`
jndi_url	The URL of the application server. For BEA WebLogic Server, the URL is `t3://host:port` where: *host* Is the machine name where BEA WebLogic Server resides. *port* Is the port on which BEA WebLogic Server is listening. The default port if not changed at installation, is 7001.
jndi_factory	Is JNDI context.INITIAL_CONTEXT_FACTORY and is provided by the JNDI service provider. For BEA WebLogic Server, the WebLogic factory is weblogic.jndi.WLInitialContextFactory.
userID	User ID associated with this queue.
pass	Password associated with this user ID.
errorDest	Location where error logs are sent. Optional. A predefined port name or another disposition URL. The URL must be complete, including the protocol.

3. Click *OK*.

The event port appears below the Ports node in the left pane.



4. To review the port settings, select the port name.

   In the right pane, a table appears that summarizes the information associated with the event port you created.

Name	Value
Name	MgisticsJMSQ
Description	
Disposition	jmsq:[myQueueName]@[myQueueFac];jnd...
Content	all messages accepted

   You are ready to associate the event port with a channel. For more information, see *Creating a Channel* on page A-39.

Procedure How to Create a Port for the SOAP Disposition

To create a port for a SOAP disposition:

1. Click the *iWay Events* tab.

   The iWay Event Adapters window opens.

2. In the left pane, expand the *Manugistics* node.

3. Select the *ports* node.

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

   The Create Event Port window opens in the right pane.

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

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

   c. In the Disposition field, enter an SOAP destination, using the following format:

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

The following table defines the parameters for the disposition.

Parameter	Description
wsdl-url	The URL to the WSDL file that is required to create the SOAP message. For example: `http://localhost:7001/ibse/IBSEServlet/test/sw2xml2003MQ.ibs?wsdl` This value can be found by navigating to the iWay Business Services tab and opening the *Service Description* link in a new window. The WSDL URL appears in the Address field. You can also open the WSDL file in a third party XML editor (for example, XMLSPY) and view the SOAP request settings to find this value.

soapaction	The method that will be called by the disposition. For example:
	`MANUMT200.mt200Request@test@@`
	where
	`MANU`
	Is the name of the Web service you created using Application Explorer.
	`mt200`
	Is the method being used.
	`test`
	Is the license that is being used by the Web service.
	This value can be found by navigating to the iWay Business Services tab and opening the *Service Description* link in a new window. Perform a search for *soapAction*.
	You can also open the WSDL file in a third party XML editor (for example, XMLSPY) and view the SOAP request settings to find this value.

responseTo	The location to which responses are posted. A predefined port name or another full URL. Optional. A predefined port name or another disposition URL. The URL must be complete, including the protocol.

Parameter	Description
errorTo	The location to which error logs are sent. Optional. A predefined port name or another disposition URL. The URL must be complete, including the protocol.

5. Click *OK*.

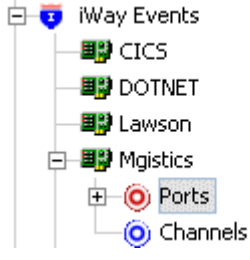
   The event port appears under the ports node in the left pane. In the right pane, a table appears that summarizes the information associated with the event port you created.

   You are ready to associate the event port with a channel. For more information, see *Creating a Channel* on page A-39.

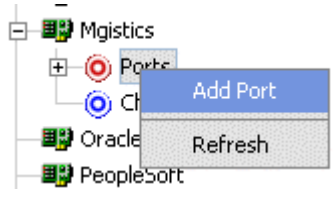
Procedure How to Create an Event Port for HTTP

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

To create an event port for HTTP disposition:

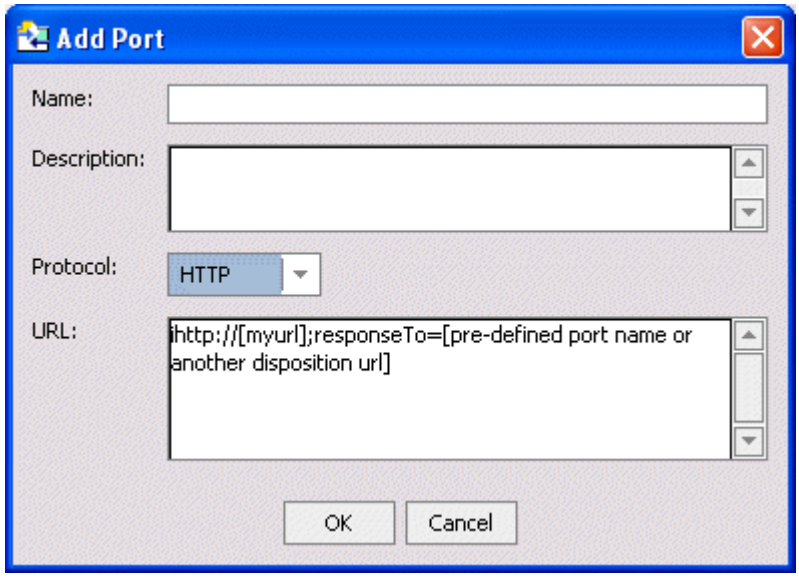


1. In the left pane of Application Explorer, expand the Manugistics node under iWay Events, and then select *Ports*.



2. Right-click and select *Add Port*.

The Create Event Port dialog box opens.



a. In the Name field, type a name for the event port, for example, MgisticsHTTP.

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

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

d. In the URL field, enter an HTTP destination using the following format:

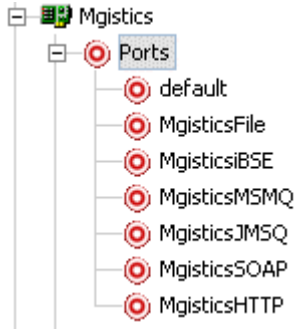
```
ihttp://url;responseTo=respDest
```

The following table describes the URL parameters.

Parameter	Description
url	The URL target for the post operation.
respDest	Location where responses are posted. Optional. A predefined port name or another disposition URL. The URL must be complete, including the protocol.
host	Name of the host on which the Web server resides.
port	Port number on which the Web server is listening.

3. Click *OK*.

The event port appears below the Ports node in the left pane.



4. To review the port settings, select the port name.

   In the right pane, a table appears that summarizes the information associated with the event port you created.

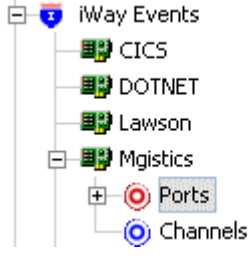
Name	Value
Name	MgisticsHTTP
Description	
Disposition	ihttp://[myurl];responseTo=[pre-defined p…
Content	all messages accepted

   You are ready to associate the event port with a channel. For more information, see *Creating a Channel* on page A-39.

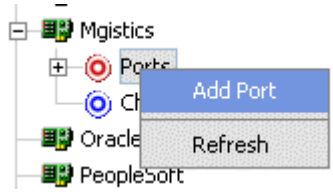
Procedure How to Create an Event Port for MQSeries

The MQSeries disposition allows an event to be enqueued to an MQSeries queue. Both queue manager and queue name may be specified.

To create a port for an MQSeries queue:

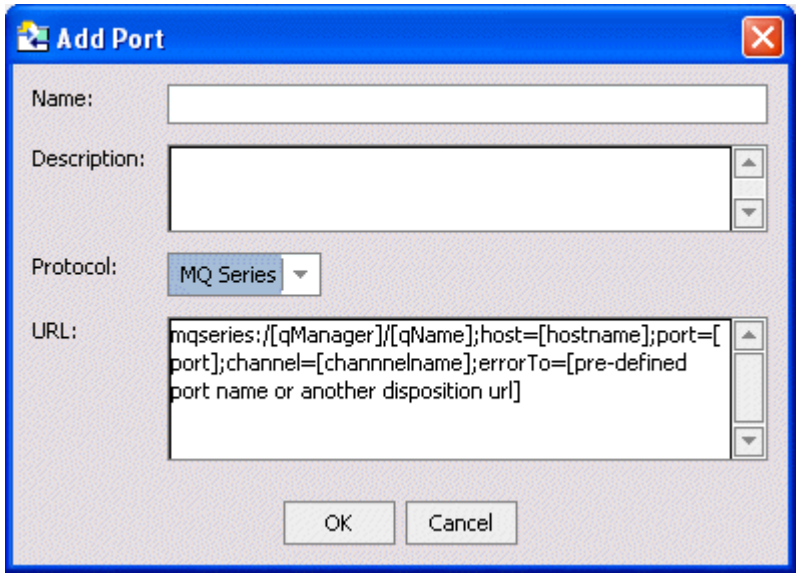


1. In the left pane of Application Explorer, expand the Manugistics node under iWay Events, and then select *Ports*.



2. Right-click and select *Add Port*.

   The Create Event Port dialog box opens.



   a. In the Name field, type a name for the event port, for example, MgisticsMQSeries.

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

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

   d. In the URL field, enter an MQSeries destination using the following format:

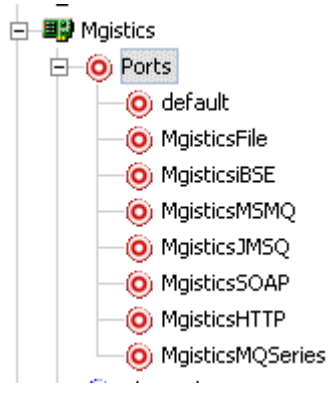
```
mqseries:/qManager/qName;host=hostName;port=portNum;
channel=chanName[;errorTo=errorDest]
```

The following table describes the URL parameters.

Parameter	Description
qManager	Name of queue manager to which the server must connect.
qName	Name of the queue where messages are placed.
hostName	Name of the host on which MQSeries resides (MQ client only).
portNum	Port number for connecting to an MQ Server queue manager (MQ client only).
chanName	Case-sensitive name of the channel that connects with the remote MQ Server queue manager (MQ client only). The default MQSeries channel name is SYSTEM.DEF.SVRCONN.
errorDest	Location where error logs are sent. Optional. A predefined port name or another disposition URL. The URL must be complete, including the protocol.

3. Click *OK*.

The event port appears below the Ports node in the left pane.



4. To review the port settings, select the port name.

In the right pane, a table appears that summarizes the information associated with the event port you created.

Name	Value
Name	MgisticsMQSeries
Description	
Disposition	mqseries:/[qManager]/[qName];host=[hos...
Content	all messages accepted

You are ready to associate the event port with a channel. For more information, see *Creating a Channel* on page A-39.

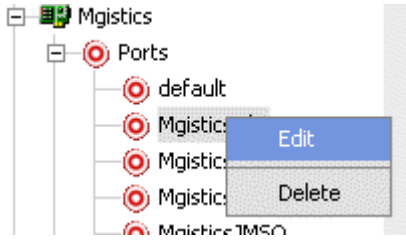
Modifying an Event Port

The following procedures describe how to edit and delete an event port using iWay Application Explorer. To review the port settings, select the port name. In the right pane, a table appears that summarizes the information associated with the event port you created.

Procedure How to Edit an Event Port

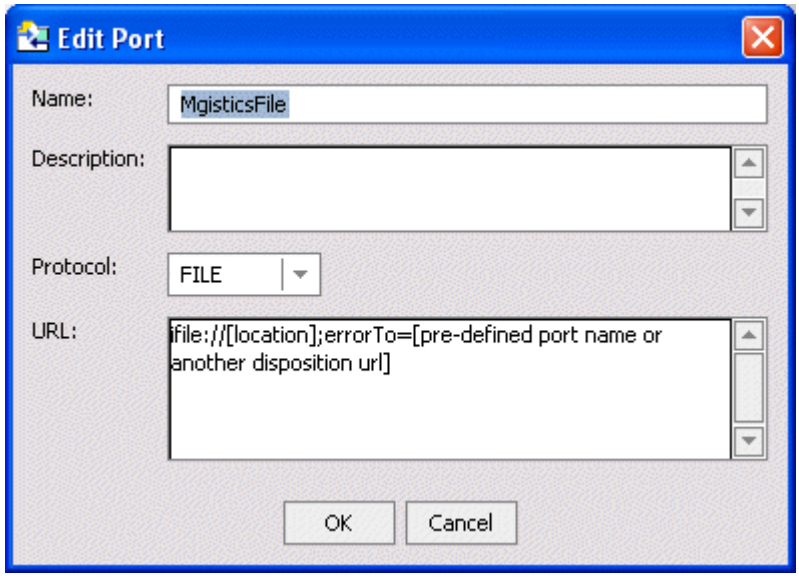
To edit an event port:

1. To view the available ports, click the *Ports* node in the left pane.



2. Right-click the port you want to edit, and select *Edit*.

The Edit Port dialog box opens.

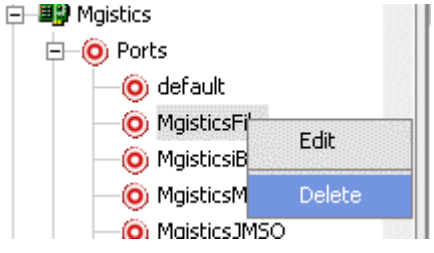


3. Make the required changes and click *OK*.

Procedure How to Delete an Event Port

To delete an existing event port:

1. To view the available ports, click the *Ports* node in the left pane.



2. Right-click the port you want to remove, and select *Delete*.

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

Creating a Channel

The following procedure describes how to create a channel for a Manugistics event. All defined event ports must be associated with a channel.

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

- SCPO using File
- Table Listener
- Trans using File

Procedure How to Create a Channel Using SCPO

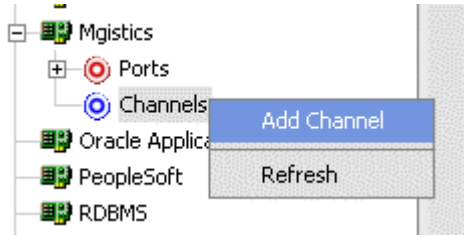
To create a channel using SCPO:

1. In the left pane, below the configuration you created, expand the *iWay Events* node.

   The list of adapters appears.

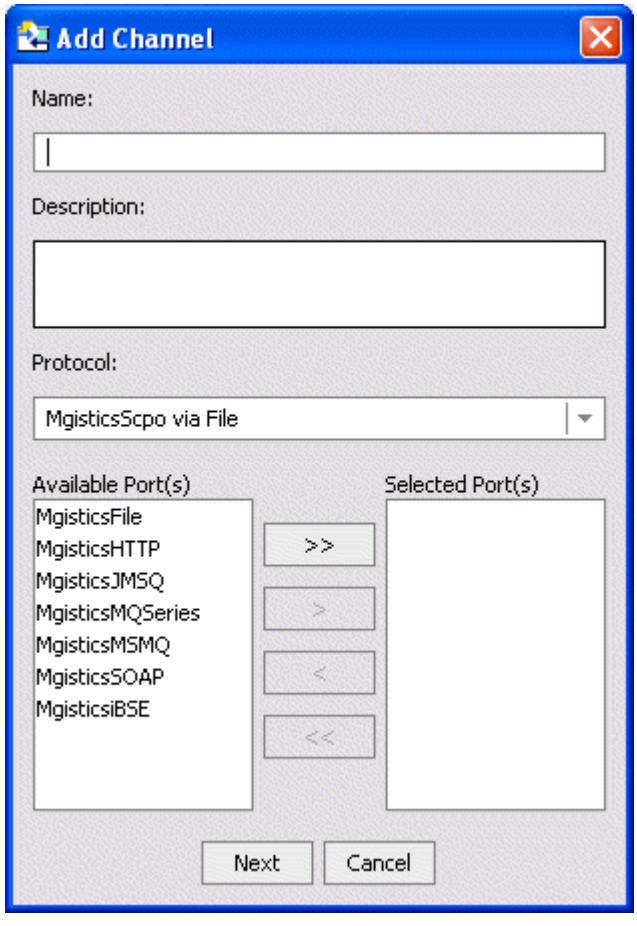
2. Click the adapter node, for example, Manugistics.

   The node expands and displays the Ports and Channels nodes.



3. Right-click the *Channels* node and select *Add Channel*.

The Add Channel dialog box opens.



a. In the Name field, type a name for the channel, for example, MgisticsChannel.

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

c. From the Protocol drop-down list, select *MgisticsScpo via File*.

d. To associate one or more available ports with this channel, select the port in the Available box and click the double right arrow (>>) button to move it to the Selected box.

4. Click *Next*.

The File Listener dialog box opens, with four tabs in the right pane.

a. In the Request tab, enter values for the parameters listed in the following table. The table includes a description of each parameter.

Parameter	Description
Polling Location	The target file system location for the Manugistics XML file.
File Mask	The file name to be used for the output file generated as a result of this operation.

b. In the Response tab, enter values for the parameters listed in the following table. The table includes a description of each parameter.

Parameter	Description
Synchronization Type	Choose from three options: • REQUEST • REQUEST_RESPONSE • REQUEST_ACK
Response/Ack Directory	The target file system location for the Manugistics XML file.

c. In the Advanced tab, enter values for the parameters listed in the following table. The table includes a description of each parameter.

Parameter	Description
Error Directory	Directory to which documents with errors are written.
Poll interval (msec)	The interval (in milliseconds) when to check for new input. Optional. The default is 3 seconds.
Processing Mode	Choose Sequential or Threaded. • Sequential indicates single processing of requests. • Threaded indicates processing of multiple requests simultaneously.
Thread limit	If you selected threaded processing, indicate the maximum number of requests that can be processed simultaneously.

d. In the Preparser tab, enter values for the parameters listed in the following table. The table includes a description of each parameter.

Parameter	Description
JDBC Driver	Enter the fully-qualified name of the JDBC driver used to access the database, for example: `oracle.jdbc.driver.OracleDriver`

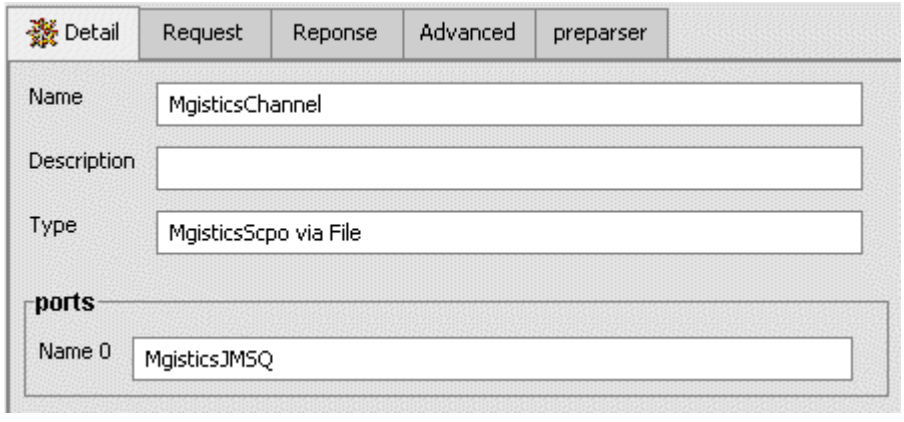
Database URL	Enter the URL of the JDBC driver used to communicate to the Manugistics Oracle database in the following format:
	`jdbc:oracle:thin:@Oracle-server-name:Oracle-port:Oracle-SID`
	For example:
	`jdbc:oracle:thin:@myserver:1521:msam`

User name	Enter the user name that has select and delete capabilities to the database (temporary input holding table).
Password	Type the password associated with the user name.
User View	Name of the Manugistics user view where you are listening for data.
Desktop	Name of the Manugistics Desktop for the specified user view.

5. Click *OK*.

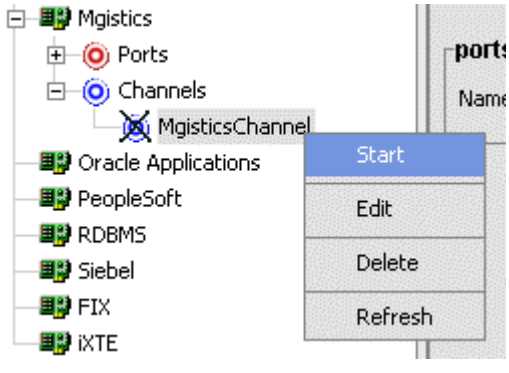
The channel appears below the Channels node in the left pane.

When you select the event port, the channel information appears in the right pane.



A Ports area appears on the Details tab that displays the name of the event port you assigned to this channel.

You are ready to start your channel to listen for events.



6. To activate your event configuration, right-click the channel node, for example, MgisticsChannel.

   a. Select *Start*.

   b. To stop the channel at any time, right-click the channel and select *Stop*.

Procedure How to Create a Channel Using the Table Listener

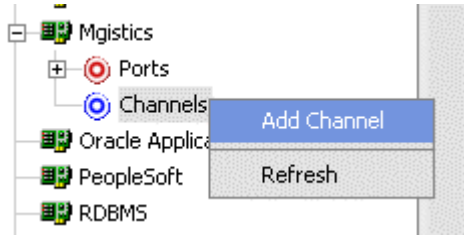
To create a channel using the table listener:

1. In the left pane, below the configuration you created, expand the *iWay Events* node.

   The list of adapters appears.

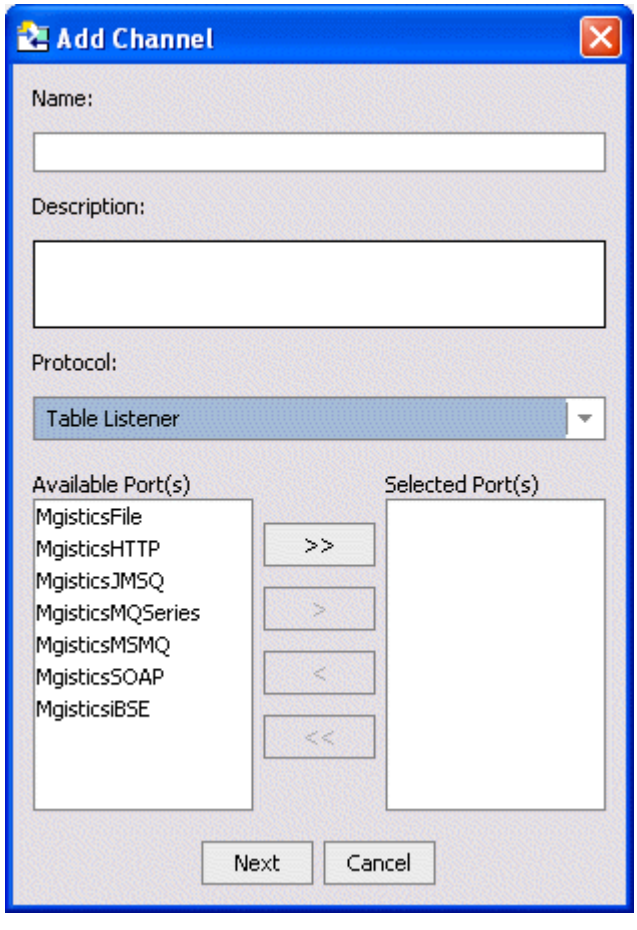
2. Click the adapter node, for example, Manugistics.

   The node expands and displays the Ports and Channels nodes.



3. Right-click the *Channels* node and select *Add Channel*.

   The Add Channel dialog box opens.



a. In the Name field, type a name for the channel, for example, MgisticsChannel.

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

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

d. To associate one or more available ports with this channel, select the port in the Available box and click the double right arrow (>>) button to move it to the Selected box.

4. Click *Next*.

The Table Listener dialog box opens, with four tabs in the right pane.

a. In the JDBC-ODBC Bridge Parameters tab, enter values for the parameters listed in the following table. The table includes a description of each parameter.

Parameter	Description
Data Source	JDBC data source.
User	User name that has select and delete capabilities to the database (temporary input holding table).
Password	Password associated with the user name.
Polling Interval	Enter the interval, in seconds, at which to check for new input. 2 seconds is the default value.
SQL Query	Enter an SQL query statement to poll the holding table: `SELECT ACTION,DMDUNIT,DMDGROUP,LOC,to_char (START DATE, 'YYYY-MM-DD') AS "STARTDATE",DUR, TYPE,FCSTID,QTY,SCEN,SCENBITS,MODEL from IWY_FCST` Note the use of an Oracle to_char function for the date.
Post Query	Not applicable for Manugistics.
Delete Keys	A case-sensitive parameter triggered from the SQL Query. Enter a comma separated list of keys to be used to build the delete statement. `ACTION,DMDUNIT,DMDGROUP,LOC,STARTDATE,TYPE`

b. In the Oracle Parameters tab, enter values for the parameters listed in the following table. The table includes a description of each parameter.

Parameter	Description
Host	The name of the server on which the database instance resides.
Port	The port number on which the database is listening.
SID	A unique name of the database service, chosen by the database administrator or the person who installed Oracle Applications.
User	The Oracle database user ID to access the Oracle database. The user ID must have database access to the interface tables being accessed.
Password	Password associated with the user name.
Polling Interval	Enter the interval, in seconds, at which to check for new input. 2 seconds is the default value.
SQL Query	Enter an SQL query statement to poll the holding table: `SELECT ACTION,DMDUNIT,DMDGROUP,LOC,to_char (START DATE, 'YYYY-MM-DD') AS "STARTDATE",DUR, TYPE,FCSTID,QTY,SCEN,SCENBITS,MODEL from IWY_FCST` Note the use of an Oracle to_char function for the date.
Post Query	Not applicable for Manugistics.
Delete Keys	A case-sensitive parameter triggered from the SQL Query. Enter a comma separated list of keys to be used to build the delete statement. `ACTION,DMDUNIT,DMDGROUP,LOC,STARTDATE,TYPE`

c. In the SQL Server Parameters tab, enter values for the parameters listed in the following table. The table includes a description of each parameter.

Parameter	Description
Host	The name of the server on which the database instance resides.
Port	The port number on which the database is listening.

Parameter	Description
Database Name	Name of SQL database.
User	Enter the user name that has select and delete capabilities to the database (temporary input holding table).
Password	Type the password associated with the user name.
Polling Interval	Enter the interval, in seconds, at which to check for new input. 2 seconds is the default value.
SQL Query	Enter an SQL query statement to poll the holding table: `SELECT ACTION,DMDUNIT,DMDGROUP,LOC,to_char (START DATE, 'YYYY-MM-DD') AS "STARTDATE",DUR, TYPE,FCSTID,QTY,SCEN,SCENBITS,MODEL from IWY_FCST` Note the use of an Oracle to_char function for the date.
Post Query	Not applicable for Manugistics.
Delete Keys	A case-sensitive parameter triggered from the SQL Query. Enter a comma separated list of keys to be used to build the delete statement. `ACTION,DMDUNIT,DMDGROUP,LOC,STARTDATE,TYPE`

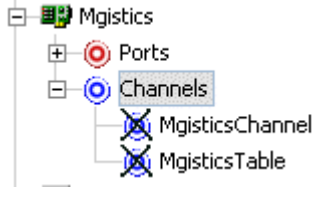
d. In the EDA Server Parameters tab, enter values for the parameters listed in the following table. The table includes a description of each parameter.

Parameter	Description
Host	The name of the server on which the database instance resides.
Port	The port number on which the database is listening.
Database Name	Name of EDA database.
User	Enter the user name that has select and delete capabilities to the database (temporary input holding table).
Password	Type the password associated with the user name.
Polling Interval	Enter the interval, in seconds, at which to check for new input. 2 seconds is the default value.

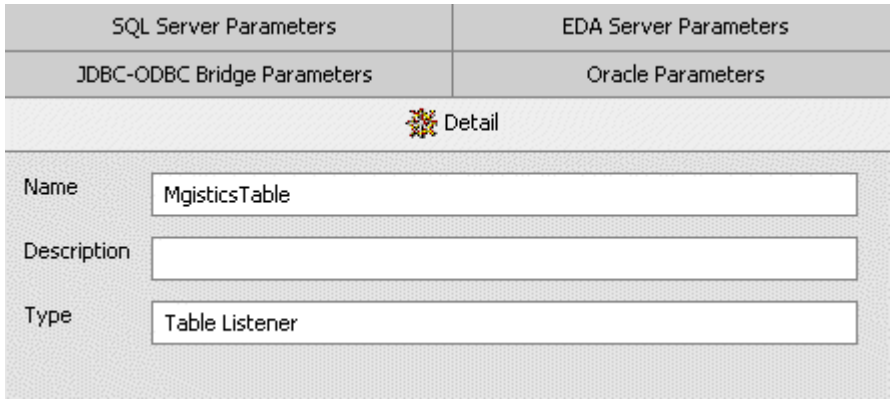
Parameter	Description
SQL Query	Enter an SQL query statement to poll the holding table: `SELECT ACTION,DMDUNIT,DMDGROUP,LOC,to_char (STARTDATE, 'YYYY-MM-DD') AS "STARTDATE",DUR, TYPE,FCSTID,QTY,SCEN,SCENBITS,MODEL from IWY_FCST` Note the use of an Oracle to_char function for the date.
Post Query	Not applicable for Manugistics.
Delete Keys	A case-sensitive parameter triggered from the SQL Query. Enter a comma separated list of keys to be used to build the delete statement. `ACTION,DMDUNIT,DMDGROUP,LOC,STARTDATE,TYPE`

5. Click *OK*.

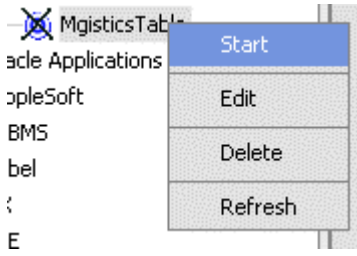
The channel appears below the Channels node in the left pane.



When you select the event port, the channel information appears in the right pane.



You are ready to start your channel to listen for events.



6. To activate your event configuration, right-click the channel node, for example, MgisticsChannel.

   a. Select *Start*.

   b. To stop the channel at any time, right-click the channel and select *Stop*.

Procedure How to Create a Channel Using Transport

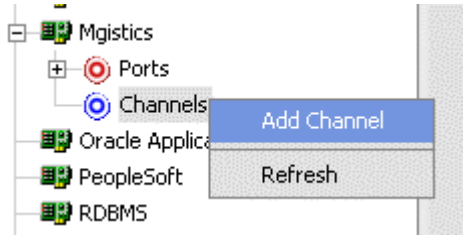
To create a channel using Transport:

1. In the left pane, below the configuration you created, expand the *iWay Events* node.

   The list of adapters appears.

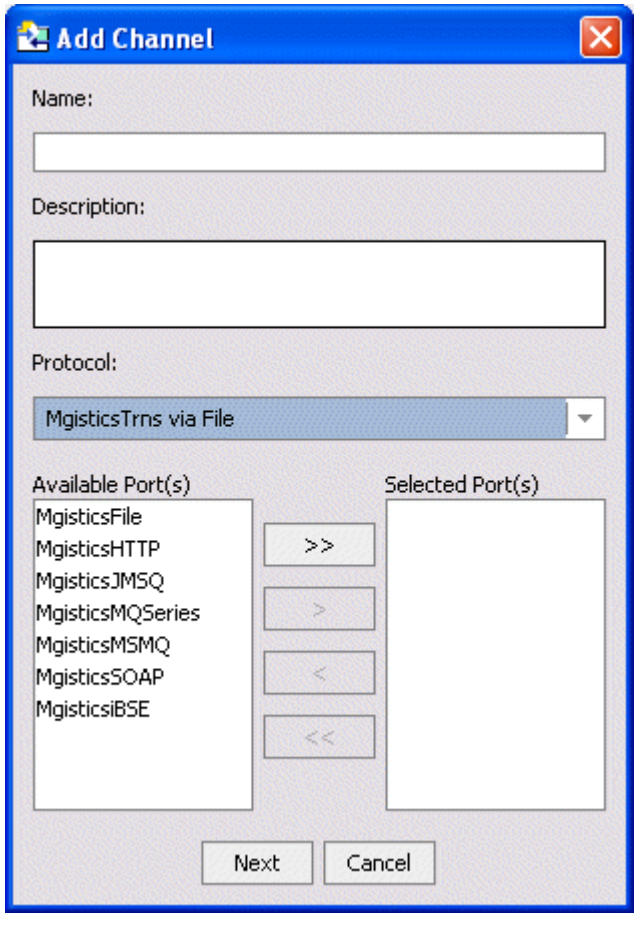
2. Click the adapter node, for example, Manugistics.

   The node expands and displays the Ports and Channels nodes.



3. Right-click the *Channels* node and select *Add Channel*.

The Add Channel dialog box opens.



a. In the Name field, type a name for the channel, for example, MgisticsChannel.

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

c. From the Protocol drop-down list, select *MgisticsTrns via File*.

d. To associate one or more available ports with this channel, select the port in the Available box and click the double right arrow (>>) button to move it to the Selected box.

4. Click *Next*.

The File Listener dialog box opens, with four tabs in the right pane.

a. In the Request tab, enter values for the parameters listed in the following table. The table includes a description of each parameter.

Parameter	Description
Polling Location	The target file system location for the Manugistics XML file.
File Mask	The file name to be used for the output file generated as a result of this operation.

b. In the Response tab, enter values for the parameters listed in the following table. The table includes a description of each parameter.

Parameter	Description
Synchronization Type	Choose from three options: • REQUEST • REQUEST_RESPONSE • REQUEST_ACK
Response/Ack Directory	The target file system location for the Manugistics XML file.

c. In the Advanced tab, enter values for the parameters listed in the following table. The table includes a description of each parameter.

Parameter	Description
Error Directory	Directory to which documents with errors are written.
Poll interval (msec)	The interval (in milliseconds) when to check for new input. Optional. The default is 3 seconds.
Processing Mode	Choose Sequential or Threaded. • Sequential indicates single processing of requests. • Threaded indicates processing of multiple requests simultaneously.
Thread limit	If you selected threaded processing, indicate the maximum number of requests that can be processed simultaneously.

d. In the Preparser tab, enter values for the parameters listed in the following table. The table includes a description of each parameter.

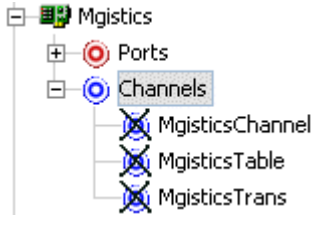
Parameter	Description
JDBC Driver	Enter the fully-qualified name of the JDBC driver used to access the database, for example: `oracle.jdbc.driver.OracleDriver`

Database URL	Enter the URL of the JDBC driver used to communicate to the Manugistics Oracle database in the following format:
	`jdbc:oracle:thin:@Oracle-server-name:Oracle-port:Oracle-SID`
	For example:
	`jdbc:oracle:thin:@myserver:1521:msam`

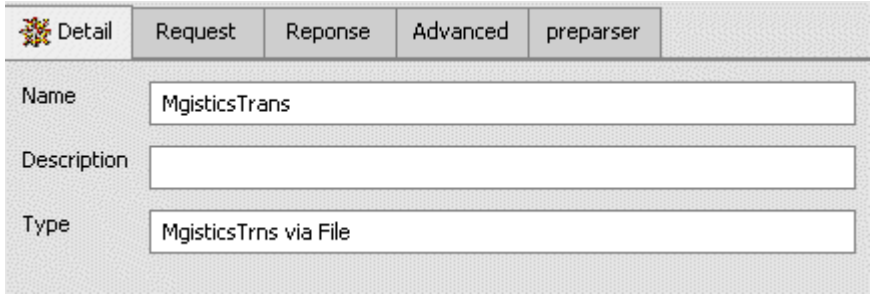
User name	Enter the user name that has select and delete capabilities to the database (temporary input holding table).
Password	Type the password associated with the user name.
User View	Name of the Manugistics user view where you are listening for data.
Desktop	Name of the Manugistics Desktop for the specified user view.

5. Click *OK*.

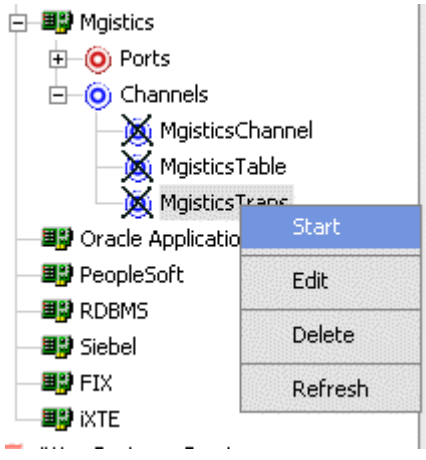
The channel appears below the Channels node in the left pane.



When you select the event port, the channel information appears in the right pane.



You are ready to start your channel to listen for events.



6. To activate your event configuration, right-click the channel node, for example, MgisticsChannel.

   a. Select *Start*.

   b. To stop the channel at any time, right-click the channel and select *Stop*.

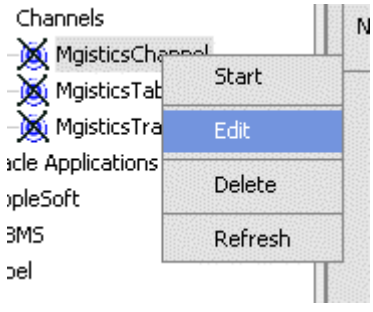
Modifying a Channel

The following procedures describe how to edit and delete a channel using Application Explorer. To review the channel settings, you select the channel name. In the right pane, a table appears that summarizes the information associated with the channel you created.

Procedure How to Edit a Channel

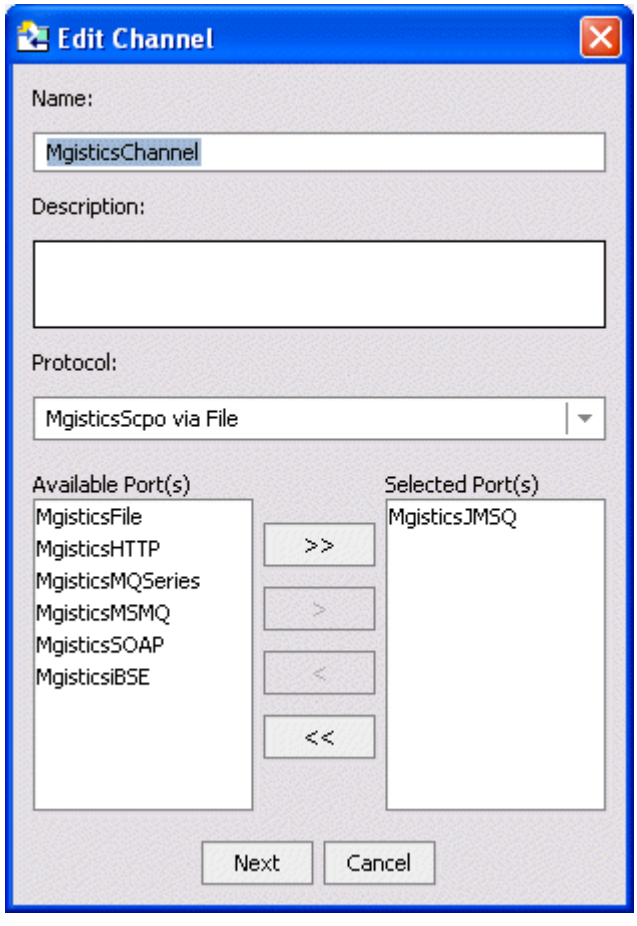
To edit a channel:

1. To view the available channels, click the *Channels* node in the left pane.



2. Right-click the channel you want to edit, for example, MgisticsChannel, and select *Edit*.

The Edit Channel dialog box opens.



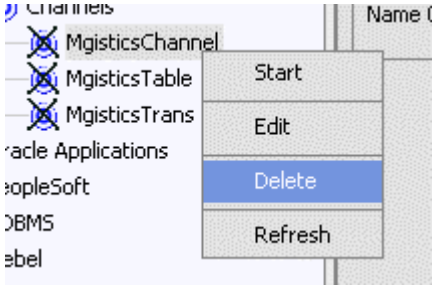
3. Make the required changes to the channel configuration.
4. Click *Next*.

   The Message Server dialog box opens with three tabs, System, User, and Advanced. If changes are required, activate the appropriate tab and make the required changes.
5. Click *OK*.

Procedure How to Delete a Channel

To delete an existing channel:

1. In the left pane, right-click the channel, for example, MgisticsChannel.



2. Select *Delete*.

   The channel disappears from the Channels list.

Deploying iWay Components in a Clustered BEA WebLogic Environment

iWay events can be configured in a clustered BEA WebLogic environment.

A cluster consists of multiple server instances running simultaneously, yet appears to clients to be a single server instance. The server instances that contain a cluster can be run on one machine, but are usually run on multiple machines.

Clustering provides the following benefits:

- Load balancing
- High availability

Service requests are processed through the HTTP router and routed to an available managed server.

Events are server-specific and are not processed through the HTTP router. You must configure each server separately.

Procedure How to Deploy iWay Components in a Clustered Environment

To deploy iWay components in a clustered environment:

1. Using the BEA Configuration Wizard:
   a. Configure an administrative server to manage the managed servers.
   b. Add and configure as many managed servers as required.

c. Add and configure an HTTP router. This does not have to be a part of WebLogic and can be an outside component.

d. If you configure the HTTP router within WebLogic, start it by entering the following command:

```
StartManagedWebLogic HTTPROUTER http://localhost:7001
```

where:

HTTPROUTER

Is the name of the server on which the HTTP router is running.

`http://localhost:7001`

Is the location of the admin console.

e. Add the managed servers to your cluster/clusters.

For more information on configuring WebLogic Integration for deployment in a clustered environment, see *Deploying WebLogic Integration Solutions*.

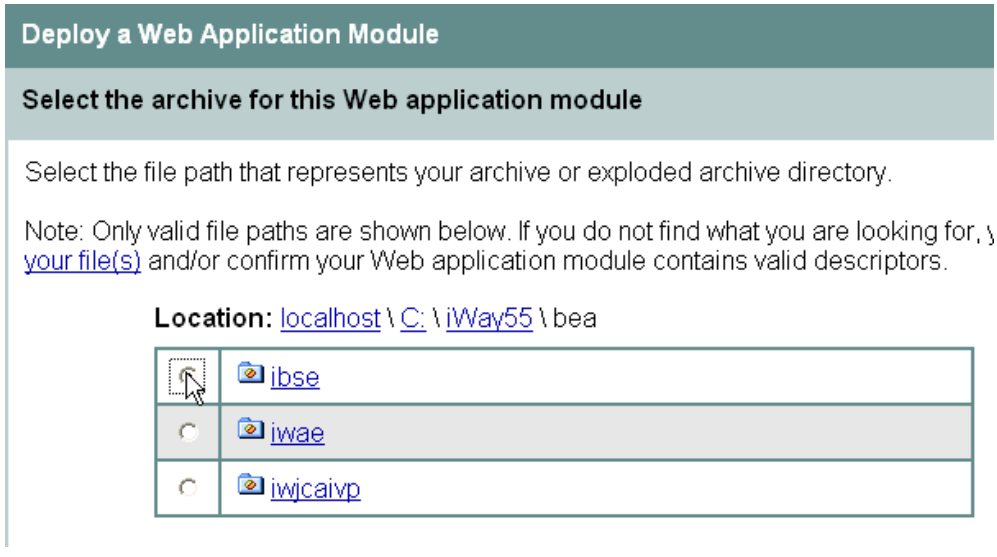
2. Start the WebLogic Server and open WebLogic Server Console.

3. Deploy iBSE to the cluster by selecting *Web Application Modules* from the Domain Configurations section, and clicking *Deploy a new Web Application Module*.

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

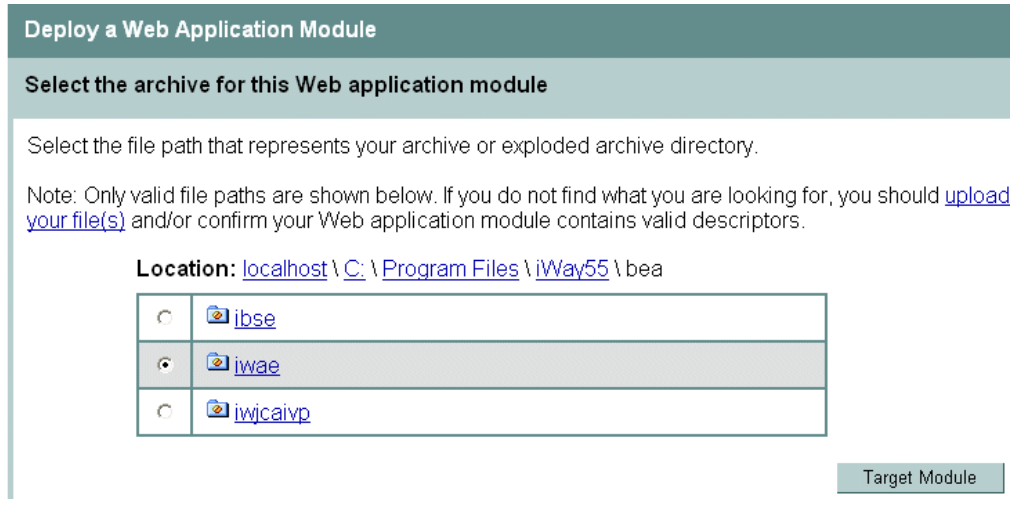
Note: You can deploy JCA to a cluster, but you can only point it to one directory, and to the machine on which it is installed.

4. To deploy iBSE, select the option button next to the ibse directory and then click *Target Module*.

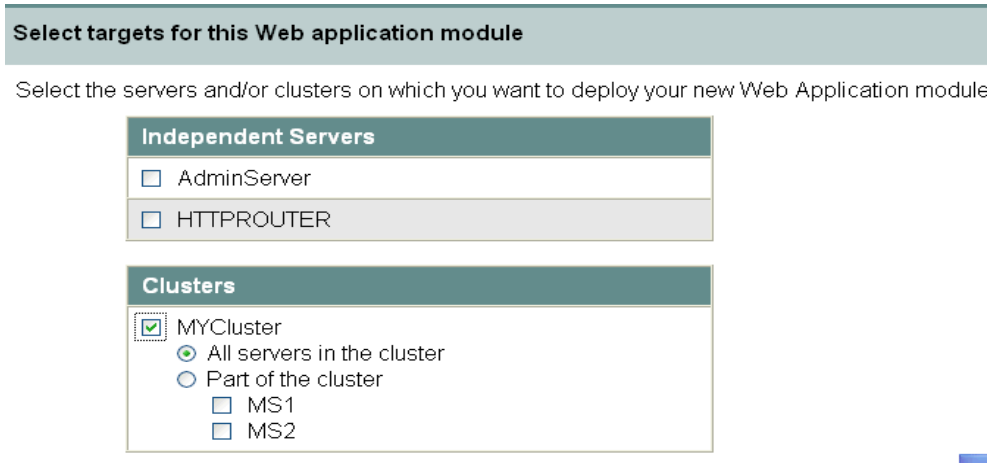


5. To deploy servlet Application Explorer, select the option button next to the iwae directory and then click *Target Module*.

If you are using servlet Application Explorer, deploy it only on the admin server or one of the managed servers.

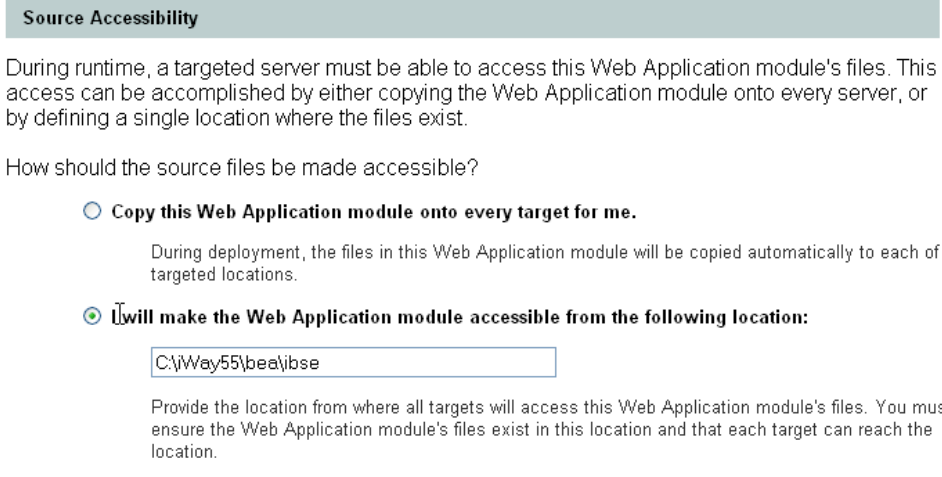


The following window opens.



6. Select the servers and/or clusters on which you want to deploy the application and click *Continue*.

The following window opens.



7. Select the *I will make the Web Application module accessible from the following location* option button and provide the location from which all targets will access iBSE.

iWay Software recommends that you use a single instance of iBSE, rather than copying iBSE onto every target.

Note: iBSE must use a database repository (SQL or Oracle). Do not use a file repository. You can select this in the Repository Type drop-down list in the iBSE monitoring page. After configuring a database repository, you must restart all of the managed servers.

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

where:

hostname

Is where your application server is running. Use the IP address or machine name in the URL; do not use localhost.

port

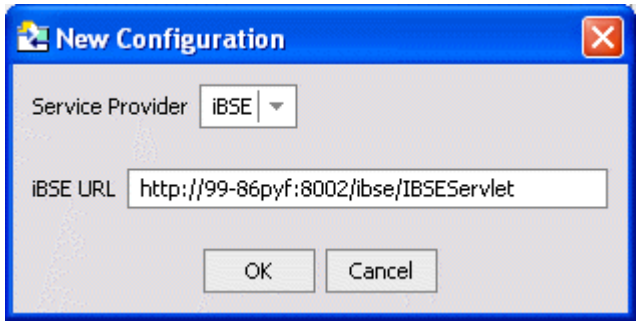
Is the port specific to each server, since you deploy iBSE to an entire cluster. For example, 8001, 8002, or any other port that is specified for each managed node.

8. Click *Deploy*.

Procedure Configuring Ports and Channels in a Clustered Environment

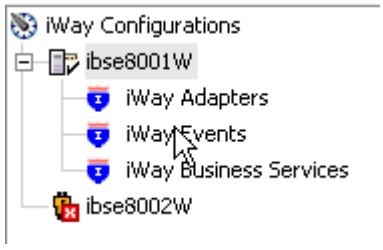
To configure ports and channels in a clustered environment:

1. Open Swing Application Explorer in BEA WebLogic Workshop.
2. Create a new connection to the iBSE instance. For information on creating a new configuration, see *Creating a New Configuration* on page A-3.

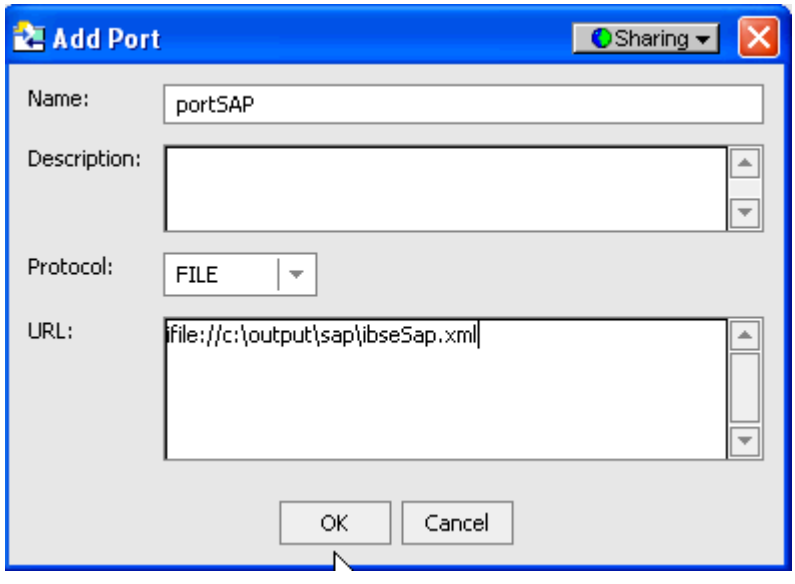


Note: Use the IP address or machine name in the URL; do not use localhost.

3. Connect to the new configuration and select the iWay Events node in the left pane of Application Explorer.



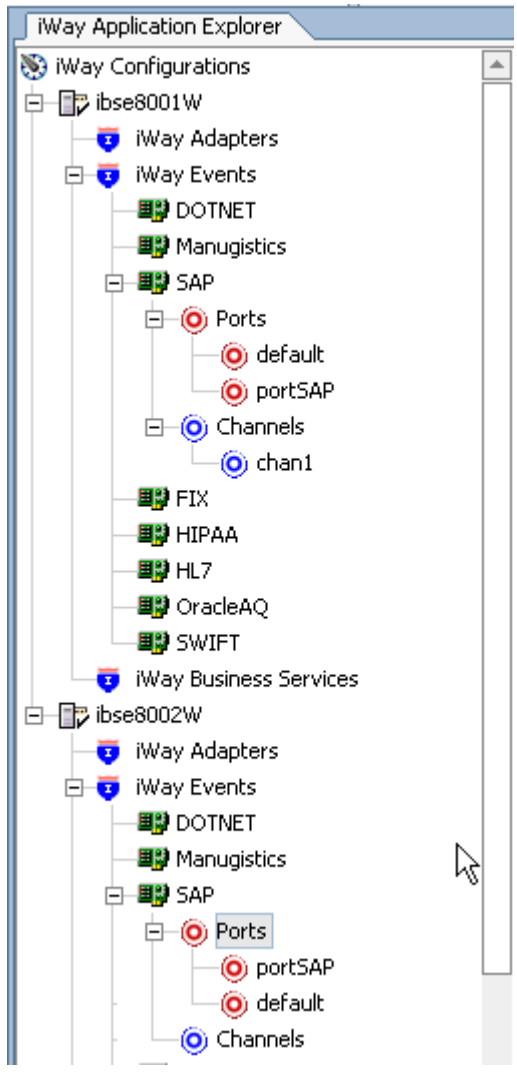
4. Select an adapter from the adapter list (in this example, SAP) and add a new port. For more information, see *Creating an Event Port* on page A-22.



5. Create a channel and add the port you created. For more information, see *Creating a Channel* on page A-39.
6. Click *Next* and enter the application server parameters.
7. Start the channel.
8. Create a new configuration and connect to the second iBSE instance.

   The connection to iBSE must be configured to each instance of the managed server.

The following graphic shows two configurations.



The following operations performed on one managed server will be replicated on all other managed servers:

- Create port and channel: Creates the channel and port under all available servers.
- Delete port and channel. Deletes the port and channel under all available servers.

The following operations must be performed on each server:

- Start channel. Starts the channel for the specific server.

- Stop channel. Stops the channel for the specific server.

Adding a Control for an iWay Resource in BEA WebLogic Workshop

Java controls provide a convenient way to incorporate access to iWay resources. You can add controls in BEA WebLogic Workshop to use Web services created by Application Explorer, or you can add controls that enable you to take advantage of the JCA resources of Application Explorer.

Adding a Web Service Control to a BEA WebLogic Workshop Application

After you create an iWay Web service using Application Explorer and export the WSDL file, you can create a control for the Web service.

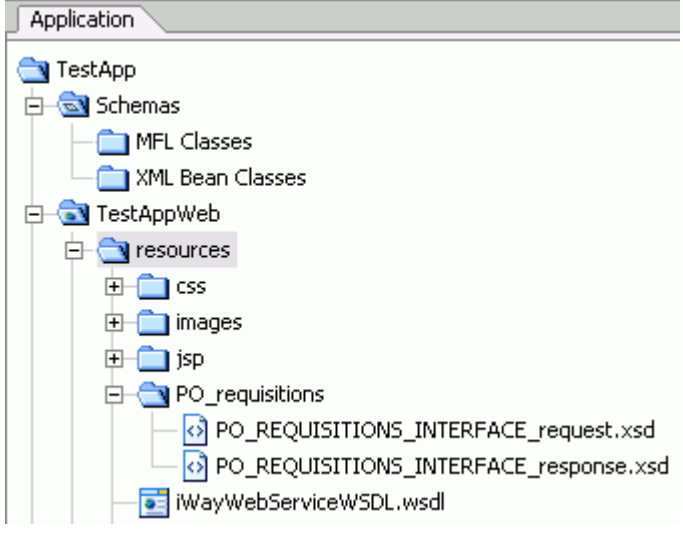
For more information on exporting a WSDL file, see *How to Export iWay WSDL for Use in BEA WebLogic Workshop Workflows* on page A-20.

Procedure How to Add a Web Service Control

To add a Web service control:

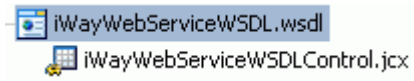
1. After exporting the WSDL file from Application Explorer, locate the file in the Application tab of your BEA WebLogic Workshop application.

   For example, a WSDL file saved to the \resources directory in your BEA WebLogic Workshop Web application directory structure appears as follows:



2. Right-click the *WSDL* file and select *Generate Service Control*.

   The control for the WSDL appears below the WSDL file in the resources tree.



Extensible CCI Control

This topic describes the enhanced CCI control, which is extensible and provides JCX with typed inputs and outputs for JCA in BEA WebLogic Workshop.

The iWay CCI control offers:

- **Method and tag validation.** BEA WebLogic Workshop provides warnings about invalid methods and tags.
- **Improved error handling.**

1. You can define new methods that rely on the generic *service* and *authService* methods. You can define a JCX with a new method such as the following, without having to write casting code or explicit transformations, for example:

   ```
   sapComDocumentSapRfcFunctions.BAPIMATERIALGETDETAILResponseDocument
   getDetail(sapComDocumentSapRfcFunctions.BAPIMATERIALGETDETAILDocument
   aRequest) throws java.lang.Exception
   ```

2. In addition, the extensible CCI control generates a JCX file to which you can add your own methods.

Using the Extensible CCI Control

The extensible CCI control functions much like a database control, because it generates JCX files to which you can add your own methods.

Your methods can use the correct input and output types rather than the generic XmlObject types that the JCA control uses. Since the control is just a proxy that uses a reflection to call the relevant method, it will take care of the casting for you. You are no longer required to write custom code that manages the cast or transformations that are cast between an XmlObject.

For example, instead of the generic XmlObject:

```
XmlObject service(XmlObject input) throws java.lang.Exception;
```

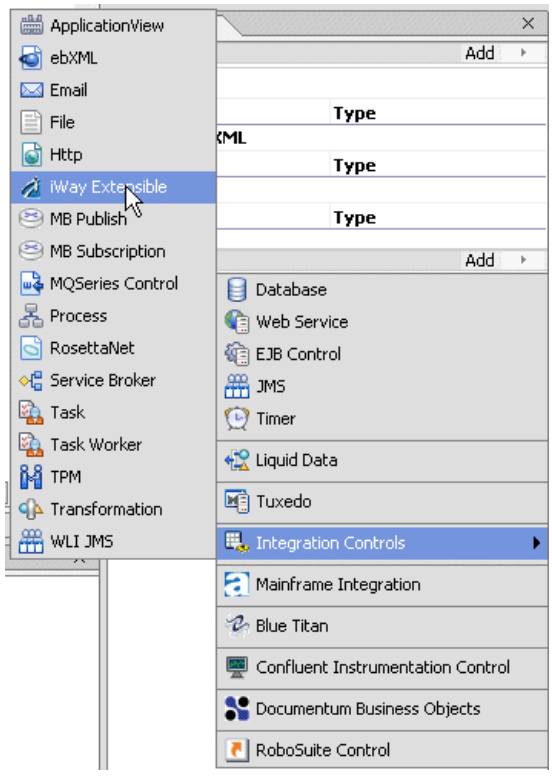
you can call:

```
BAPIMATERIALGETDETAILResponseDocument
getDetail(BAPIMATERIALGETDETAILDocument aRequest) throws
java.lang.Exception;
```

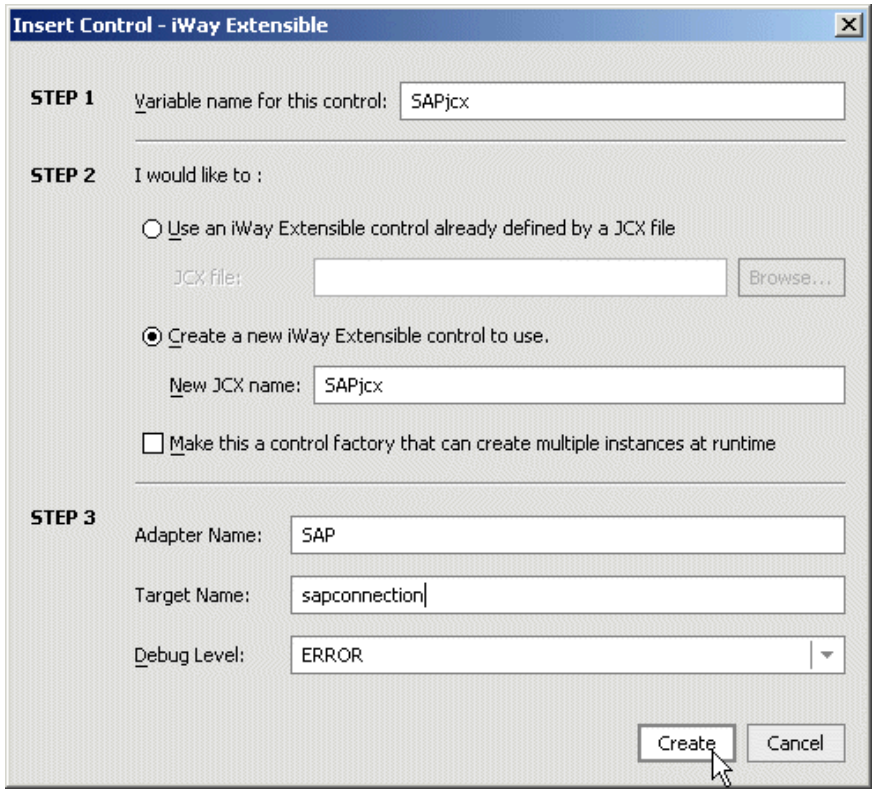
Example Defining a Control Using the Extensible CCI Control

The following sample JCX demonstrates how to define a control that uses the SAP BAPI_MATERIAL_GET_DATA using the extensible CCI control in BEA WebLogic Workshop.

1. Start BEA WebLogic Workshop and create a new project.
2. Click *Integration Control*.
3. Select *iWay Extensible*.



The Insert Control - iWay Extensible dialog box opens.



a. Provide a variable name for this control.

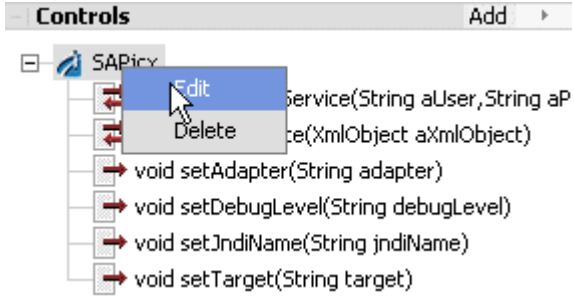
b. Click *Create a new iWay Extensible control* to use and provide a new JCX name.

c. Enter the adapter name, target name, and select a debug level from the drop-down list.

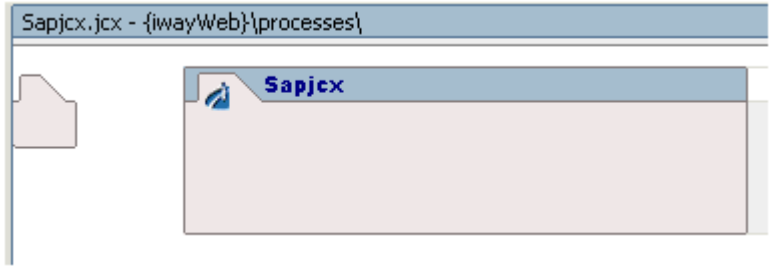
4. Click *Create*.

A new JCX file is created.

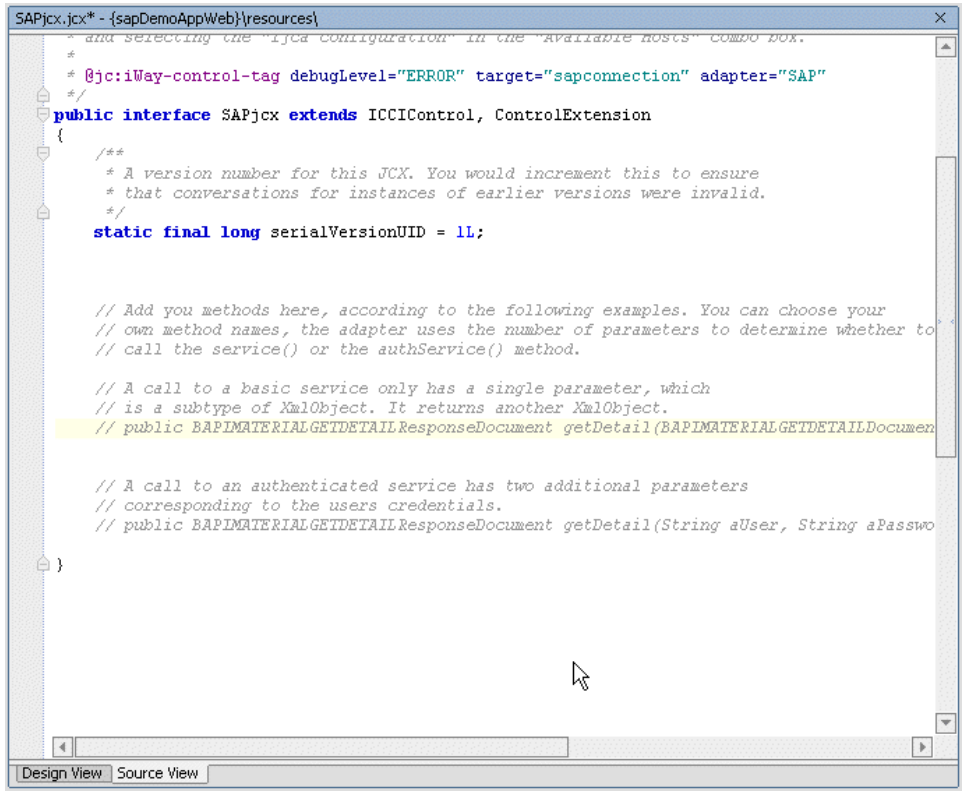
To edit an existing control, right-click the control and select *Edit*.



The Design view appears.



5. Click *Source View*.



You can add your own methods that call the adapter's services.

APPENDIX B

Interfacing With SCPO Processes

Topic:

- How the Adapter Interfaces With SCPO Batch Processes

This section describes how the iWay Adapter for Manugistics interfaces with Supply Chain Planning and Optimization (SCPO) batch processes.

How the Adapter Interfaces With SCPO Batch Processes

The iWay Adapter for Manugistics relies on the Manugistics Manuba batch process to import data to and export data from the Manugistics database to ensure the integrity of the data. The Manuba batch process requires a configuration file before it can be invoked by the adapter.

Note: You must create the Manugistics configuration (.lst) file for use by the Manuba process before you configure listeners and agents. For more information on creating configuration files, see your Manugistics documentation.

The configuration file contains information such as the userview. In VIEWpoint, userviews are objects that display data and enable you to interact with the system. Any time you work with data in a database table or in a what-if simulation, you are working with a userview. In addition, the configuration file contains information about data selection and process.

For example, a typical export process is as follows:

```
manuba fcst_export.lst fcst_export.log
```

The configuration file fcst_export.lst has the following components:

```
DESKTOP DEMANDPLANNING
SELECTION FCST_TYPE_1
USERVIEW FCST_EXPORT
```

The USERVIEW FCST_EXPORT component is in the Demand database and has all the format patterns of the FCST table, the location of the file to be exported, and the file name. The Manuba batch process uses this information to carry out the export of data from the Manugistics database.

The iWay Adapter for Manugistics receives data from systems such as SAP and transforms the data into XML. After the data is in XML, the adapter can convert the data to the format that can be used by the Manugistics Manuba process to update the Manugistics database.

When you configure services, you must provide information about your Manugistics system, such as the location of the Manuba batch file that allows the adapter to invoke the Manuba process.

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