

iWay

iWay Technology Adapter
for ESRI User's Guide

Version 7.0.x and Higher

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Preface

This document describes how to use the iWay Technology Adapter for ESRI. It is intended for system integrators and users who are responsible for geocoding locations and loading geocoding data into an ESRI database for use in a geographic information system (GIS).

Note: This Release 7.0.x content is currently being updated to support iWay Release 8.0.x software. In the meantime, it can serve as a reference for your use of iWay Release 8. If you have any questions, please contact Customer_Success@ibi.com.

How This Manual Is Organized

This manual includes the following chapters:

	Chapter/Appendix	Contents
1	Introducing the iWay Technology Adapter for ESRI	Provides an overview of the adapter and how it works with a GIS system.
2	Supported Platforms Matrix	Specifies version, platform, and database support information for iWay Technology Adapter for ESRI.
3	Creating Targets	Explains how to create and manage adapter connections.
4	Creating XML Schemas and iWay Business Services	Describes how to use the adapter to generate schemas and business services for geocoding and ESRI loading.
5	Using the Adapter - A Scenario	Illustrates the use of the adapter through examples of XML request and response documents.
A	Configuring the Adapter in an iWay Environment	Describes how to configure the adapter in the Service Manager.
B	Troubleshooting	Explains the limitations and workarounds when connecting through the adapter

Documentation Conventions

The following table describes the documentation conventions that are used in this manual.

Convention	Description
<p><code>THIS TYPEFACE</code></p> <p>or</p> <p><code>this typeface</code></p>	Denotes syntax that you must enter exactly as shown.
<code><i>this typeface</i></code>	Represents a placeholder (or variable) in syntax for a value that you or the system must supply.
<code><u>underscore</u></code>	Indicates a default setting.
<code><i>this typeface</i></code>	Represents a placeholder (or variable), a cross-reference, or an important term. It may also indicate a button, menu item, or dialog box option that you can click or select.
Key + Key	Indicates keys that you must press simultaneously.
{ }	Indicates two or three choices. Type one of them, not the braces.
[]	Indicates a group of optional parameters. None are required, but you may select one of them. Type only the parameter in the brackets, not the brackets.
	Separates mutually exclusive choices in syntax. Type one of them, not the symbol.
...	Indicates that you can enter a parameter multiple times. Type only the parameter, not the ellipsis (...).
.	Indicates that there are (or could be) intervening or additional commands.

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Help Us to Serve You Better

To help our consultants answer your questions effectively, be prepared to provide specifications and sample files and to answer questions about errors and problems.

The following tables list the environment information our consultants require.

Platform	
Operating System	
OS Version	
JVM Vendor	
JVM Version	

The following table lists the deployment information our consultants require.

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

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

iWay Adapter	
iWay Release Level	
iWay Patch	

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

Request/Question	Error/Problem Details or Information
Did the problem arise through a service or event?	
Provide usage scenarios or summarize the application that produces the problem.	
When did the problem start?	
Can you reproduce this problem consistently?	

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

Following is a list of error/problem files that might be applicable.

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

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

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In an effort to produce effective documentation, the Technical Content Management staff welcomes your opinions regarding this document. Please use the Reader Comments form at the end of this document to communicate your feedback to us or to suggest changes that will support improvements to our documentation. You can also contact us through our website, <http://documentation.informationbuilders.com/connections.asp>.

Thank you, in advance, for your comments.

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Introducing the iWay Technology Adapter for ESRI

This section provides an overview of the iWay Technology Adapter for ESRI and its application in a geographic information system.

In this chapter:

- [Introduction to ESRI and Geographic Information Systems](#)
 - [About the iWay Technology Adapter for ESRI](#)
 - [Installation Notes](#)
 - [Component Information for the iWay Technology Adapter for ESRI](#)
 - [iWay Technology Adapter for ESRI Information Roadmap](#)
-

Introduction to ESRI and Geographic Information Systems

ESRI is a leader in the geographic information system industry. A geographic information system (GIS) organizes information by location. It provides a way to manipulate, analyze, and display information that is relevant to a physical location, for example, sales and marketing information for a specific city or region, or environmental data used to monitor a watershed.

Unlike standard mapping, which is a static presentation, GIS associates layers of information (physical coordinates, areas, events, business data) with a location and then interprets the relationship between those layers through a visual and tabular display. This makes it a dynamic and interactive system of data. This technology enhances communication and decision-making for a broad range of enterprises and organizations.

Integral to a GIS is data retrieval, data enrichment, and data loading. Data enrichment, or geocoding, is the process of preparing data for a GIS by adding spatial positioning information (for example, latitude, longitude, census block, census tract) to an address or locale. The geocoding information can then be loaded into an ESRI database where it is available to a GIS to depict the spatial relationships between data.

About the iWay Technology Adapter for ESRI

The iWay Technology Adapter for ESRI automates the processes of enriching data through geocoding and loading the enriched data into an ESRI database. Through the use of XML documents and business services, the adapter eliminates the need to write custom code to perform these tasks. Depending on your needs, it can perform geocoding and data loading separately, or it can perform both functions within a single service.

- ❑ In the **geocoding** process, the iWay Technology Adapter for ESRI generates the XML schema for the geocoding request and response documents. The adapter passes the address information to the geocoding service in an XML request document. The geocoding service accesses a directory that contains spatial information and matches the requested coordinates with the address. An XML response document containing the address and the geocoding information is returned to the adapter.

Though you can set up any directory to hold the spatial information (that is, the GDT data), the iWay Technology Adapter for ESRI refers to a directory named ACG for this purpose.

For geocoding purposes, the iWay Technology Adapter for ESRI works with GDT Matchmaker.

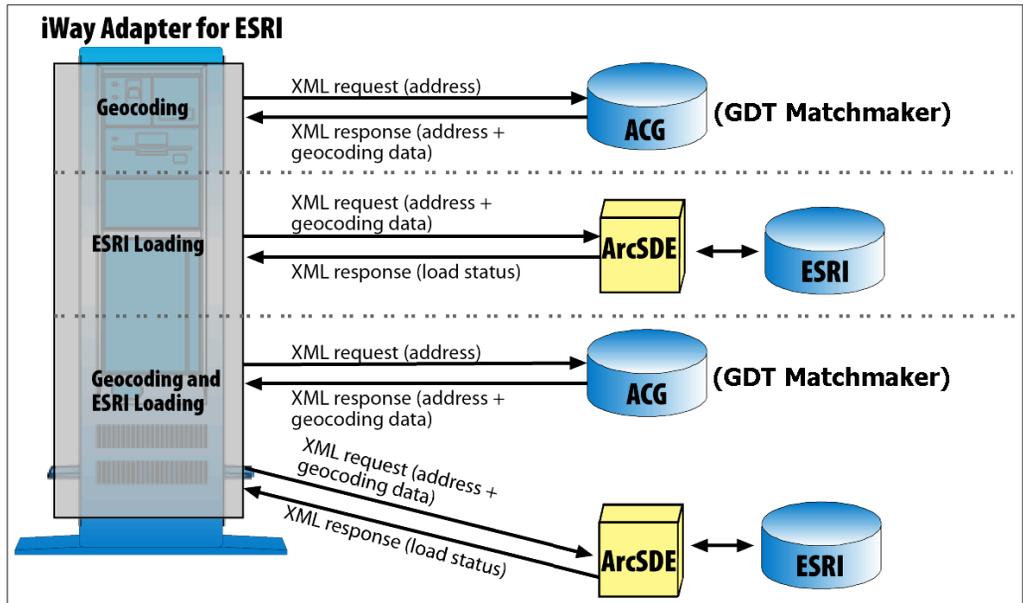
- ❑ In the **ESRI loading** process, the adapter uses XML request and response documents to load the enriched data into the ESRI database. The adapter generates schemas based on the ESRI database tables that will hold the information you want to load. The response document contains the status of the load.

The iWay Technology Adapter for ESRI works with ArcSDE APIs from ESRI.

- ❑ In **geocoding and ESRI loading**, the adapter allows you to combine the functions of geocoding and ESRI loading into a single service.

The adapter interfaces with the ESRI database through the ArcSDE spatial data server. This server is the gateway for storing, managing and accessing spatial data in the ESRI database and is key to managing a multi-user spatial database.

To illustrate these processes, the following image shows the flow of XML request and response documents for geocoding function, the ESRI loading function, and the combined geocoding and ESRI loading function.



One application of GIS would be to analyze crime patterns so that a community could evaluate a prevention strategy and estimate their need for police resources. The police department typically has a database of crime information that includes, among other items, the type of crime, the date of the crime, and the address where the crime occurred. To utilize this data in a GIS, a crime location needs to be enriched with latitude and longitude coordinates and then delivered to the ESRI database where it is available for mapping and analysis.

The iWay Technology Adapter for ESRI sends the crime location data to a geocoding service in an XML request document and retrieves the latitude and longitude data for that location in an XML response document. The adapter can deliver that data to the ESRI database using the ESRI Load function through an XML insert request document. The adapter can also perform a delete, an update, or a query of a record in the ESRI database.

Without the adapter, you would have to write programs to match your address data with geospatial data found in another application, retrieve that information, and then move it to the GIS database. The adapter automates these functions for you.

See [Using the Adapter - A Scenario](#) on page 65, for an illustration of geocoding and ESRI loading applied to crime data.

Supported Data Types

The iWay Technology Adapter for ESRI supports the following data types:

- SMALLINT
- INTEGER
- FLOAT
- DOUBLE
- STRING
- NSTRING
- DATE
- SHAPE

Limitations

This section lists known limitations for the iWay Technology Adapter for ESRI.

- In terms of spatial features, the iWay Technology Adapter for ESRI currently works only with points (latitude and longitude). Lines and shapes (for example, a polygon) are not supported.
- Versioning enabled geodatabase is not supported.
- Retrieving the values for x and y coordinates are not supported through the adapter's query operation.
- Event handling is not supported.

Installation Notes

This section provides installation notes for the iWay Technology Adapter for ESRI , which includes supported software and platform information. In addition, a list of required library files and their location is provided as a reference.

Supported Software

The iWay Technology Adapter for ESRI supports the following software:

- ArcSDE Version 9.0, 9.2, and 9.3 (For ESRILOAD)

Note: ArcSDE is a part of ArcGIS Version 9.2 and 9.3. However, ArcSDE is still only supported through the ArcSDE API. It is not supported through any other API, including ArcObjects.

- GDT Matchmaker Version 6 (For Geocoding)

Supported Platforms

The iWay Technology Adapter for ESRI is only supported on the Microsoft Windows platform.

Required Library Files

When installing the iWay Technology Adapter for ESRI, you must verify that the following library files are available and installed in the corresponding directory.

ArcSDE Version 9.0 (For ESRILOAD):

- jpe90_sdk.jar
- jsde90_sdk.jar

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

```
C:\Program Files\iWay7\lib
```

ArcSDE Version 9.2 (For ESRILOAD):

- jsde92_sdk.jar
- jpe92_sdk.jar
- icu4j_3_2.jar
- concurrent.jar

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

```
C:\Program Files\iWay7\lib
```

ArcSDE Version 9.3 (For ESRILOAD):

- jsde_sdk.jar
- jpe_sdk.jar
- icu4j_3_2.jar
- concurrent.jar

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

`C:\Program Files\iWay7\lib`

GDT Matchmaker Version 6 (For Geocoding):

- mmaxwus3.dll
- usgeo.dll
- usattr.dll

On Windows platforms, these files must be copied into the system32 directory, for example:

`C:\WINNT\system32`

or

`C:\WINDOWS\system32`

Component Information for the iWay Technology Adapter for ESRI

The iWay Technology Adapter for ESRI works in conjunction with one of the following components:

- iWay Service Manager
- iWay Business Services Provider (iBSP)

When hosted in an iWay environment, the adapter is configured through iWay Service Manager and iWay Explorer. iWay Explorer is used to configure ESRI connections, create web services, and configure event capabilities.

When the adapter is hosted in a third-party application server environment, iWay Explorer can be configured to work in a web services environment in conjunction with iBSP.

iWay Service Manager

iWay Service Manager is the heart of the Universal Adapter Framework and is an open transport service bus. Service Manager uses graphical tools to create sophisticated integration services without writing custom integration code by:

- Creating metadata from target applications.
- Transforming and mapping interfaces.
- Managing stateless processes.

Its capability to manage complex adapter interactions makes it ideally suited to be the foundation of a service-oriented architecture.

iWay Explorer

iWay Explorer uses a tree metaphor to introspect the ESRI system 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 ESRI. External applications that access ESRI through the iWay Technology Adapter for ESRI use either XML schemas or web services to pass data between the external application and the adapter.

iWay Business Services Provider

iWay Business Services Provider (iBSP) exposes (as web services) enterprise assets that are accessible from adapters regardless of the programming language or the particular operating system.

iBSP 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.

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.

iWay Technology Adapter for ESRI Information Roadmap

The following table lists the location of deployment and user information for components of the iWay Technology Adapter for ESRI.

Deployed Component	For more information, see
iWay Service Manager	Appendix A of this guide <i>iWay Service Manager User's Guide</i>

Deployed Component	For more information, see
iWay Explorer	Chapters 2 of this guide <i>iWay Installation and Configuration</i>
iWay Business Services Provider (iBSP)	<i>iWay Installation and Configuration</i>

Supported Platforms Matrix

iWay Software is committed to support the diverse environments and varied systems of our users through support for leading enterprise applications, platforms, and databases.

This section specifies version, platform, and database support information for iWay Technology Adapter for ESRI. It is designed to provide a consolidated view of ESRI releases and the various operating systems and databases, on which they are supported.

In this chapter:

- [Geoload Adapter Overview](#)
 - [Supported Versions for iWay Technology Adapter for ESRI](#)
 - [Operating Systems for Geoload Adapter](#)
 - [Databases for Geoload Adapter](#)
 - [Java Development Kit \(JDK\) for iWay Technology Adapter for ESRI](#)
 - [Communication Modes for iWay Technology Adapter for ESRI](#)
 - [Object Types and Interfaces for iWay Technology Adapter for ESRI](#)
 - [Communication Types for iWay Technology Adapter for ESRI](#)
 - [Operations for iWay Technology Adapter for ESRI](#)
 - [Data Types for iWay Technology Adapter for ESRI](#)
 - [Other Functions for iWay Technology Adapter for ESRI](#)
 - [Known Limitations for iWay Technology Adapter for ESRI](#)
 - [Related Information for Specific iWay Releases for iWay Technology Adapter for ESRI](#)
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Geoload Adapter Overview

The Geoload adapter integrates for the Geo database of ESRI and GDT Matchmaker. For the Geo database of ESRI, integration is done using the ARCSDE APIs of ESRI. Integration with GDT Matchmaker is done using Geocoding APIs provided by GDT Matchmaker. Note that the Geoload adapter works with two different APIs from different software, and is accomplished by creating different types of targets for the adapter in the Application Explorer.

Supported Versions for iWay Technology Adapter for ESRI

iWay Technology Adapter for ESRI supports the following versions:

ArcSDE:

Version 9.0

Version 9.2

Version 9.3 (For ESRILOAD)

Note: ArcSDE is a part of ArcGIS Version 9.2 and 9.3. However, ArcSDE is still only supported through the ArcSDE API. It is not supported through any other API, including ArcObjects.

GDT Matchmaker Version 6 (For Geocoding)

Operating Systems for Geoload Adapter

The Geoload adapter supports only the Windows Operating Systems found in the *iWay Installation and Configuration Guide* under *Operating System Requirements*.

Databases for Geoload Adapter

The Geoload adapter functions with the ArcSDE APIs for working with databases and the following Microsoft SQL Server versions:

2000

2005

2008

Java Development Kit (JDK) for iWay Technology Adapter for ESRI

iWay Technology Adapter for ESRI supports the Java Development Kit (JDK) versions that are listed in the *iWay Installation and Configuration Guide* under *Java Requirements*.

Communication Modes for iWay Technology Adapter for ESRI

iWay Technology Adapter for ESRI supports the following communication modes:

- Services (Outbound).** iWay Technology Adapter for ESRI can send messages to ESRI ArcSDE database and GDT Matchmaker.
- Events (Inbound).** This is not supported by iWay Technology Adapter for ESRI.

Object Types and Interfaces for iWay Technology Adapter for ESRI

iWay Technology Adapter for ESRI supports the following Object Types and Interfaces:

- ArcSDE APIs.** The APIs of ESRI are used for integrating with the Geo database of ESRI. Objects with the type as points (latitude and longitude) are supported. Lines and shapes (for example, a polygon) are not supported.
- GDT Matchmaker APIs.** The GDT Matchmaker APIs are used for geocoding.

Communication Types for iWay Technology Adapter for ESRI

iWay Technology Adapter for ESRI supports the following communication types:

- ArcSDE APIs (ESRI Geo database):** Synchronous
- GDT Matchmaker APIs:** Synchronous

Operations for iWay Technology Adapter for ESRI

iWay Technology Adapter for ESRI supports the following operations:

- ArcSDE APIs:** Limited to the permissions and privileges administered by the database and ArcSDE. At the operation level, only insert, update, query, and delete are supported.
- GDT Matchmaker APIs:** Query only.

Data Types for iWay Technology Adapter for ESRI

iWay Technology Adapter for ESRI supports the following data types in the Geo database:

- SMALLINT
- INTEGER
- FLOAT

- DOUBLE
- STRING
- NSTRING
- DATE
- SHAPE

Other Functions for iWay Technology Adapter for ESRI

There is no known list related to other functions for iWay Technology Adapter for ESRI.

Known Limitations for iWay Technology Adapter for ESRI

This section lists known issues for iWay Technology Adapter for ESRI.

- In terms of spatial features, the iWay Technology Adapter for ESRI currently works only with points (latitude and longitude). Lines and shapes (for example, a polygon) are not supported.
- Versioning enabled geo database is not supported.
- Retrieving the values for x and y coordinates are not supported through the Query operation of the adapter.
- Events communication mode is not supported.

Related Information for Specific iWay Releases for iWay Technology Adapter for ESRI

For more information, see the *iWay New Features Bulletin and Release Notes* documentation for a specific release (for example, iWay Version 7.0.3).

Chapter 3

Creating Targets

You will use iWay Explorer to explore ESRI metadata and to generate XML request and response documents. This section provides instructions to start iWay Explorer and to create an iWay configuration if you are using the Java Swing version of iWay Explorer.

The remaining topics explain how to create and work with targets, which are the connection points to the geocoding data and the ESRI database.

In this chapter:

- [About Targets](#)
 - [Starting iWay Explorer](#)
 - [Creating a New Configuration in Java Swing iWay Explorer](#)
 - [Creating and Managing a Connection](#)
-

About Targets

Through iWay Explorer and the adapter, you will create targets that are the connection points to raw geospatial data and to the ESRI database. These targets allow you to use iWay Explorer to generate XML schemas that define the request and response documents needed to perform database table functions. Targets also allow you to create business services, known as web services.

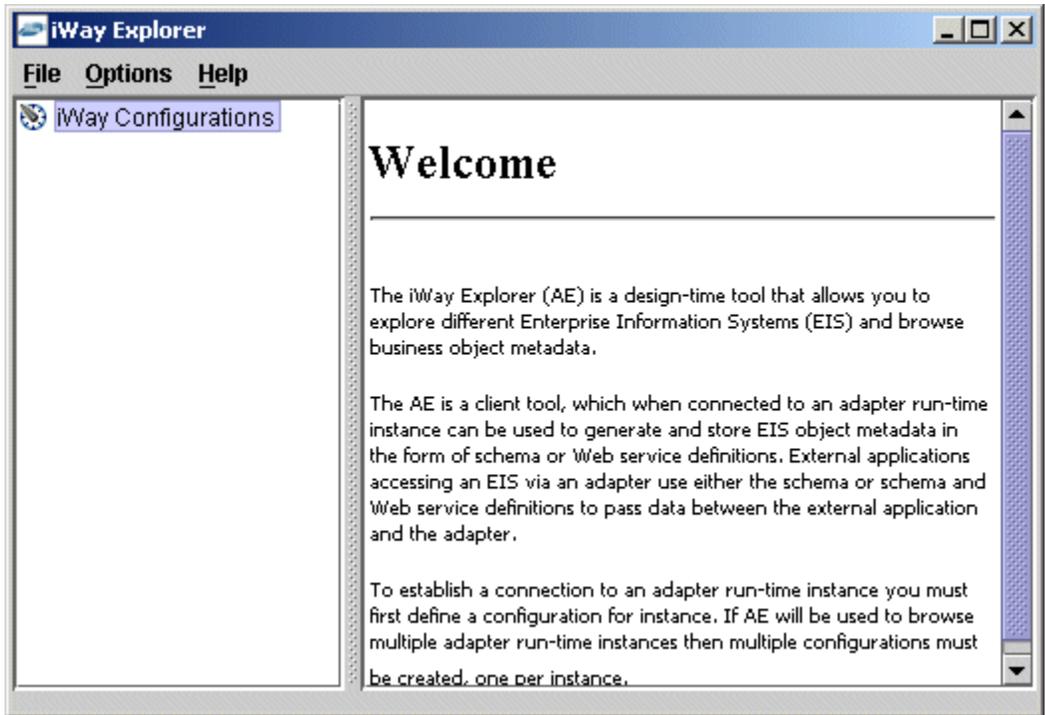
Starting iWay Explorer

There are several variations of iWay Explorer, as described in [Introducing the iWay Technology Adapter for ESRI](#) on page 13. The procedures presented in this chapter use the Java Swing version of iWay Explorer.

Procedure: How to Start Java Swing iWay Explorer

Start Java Swing iWay Explorer as you would any other application on your system.

iWay Explorer opens, displaying the *iWay Configurations* node on the left and welcome information on the right, as shown in the following image.



Creating a New Configuration in Java Swing iWay Explorer

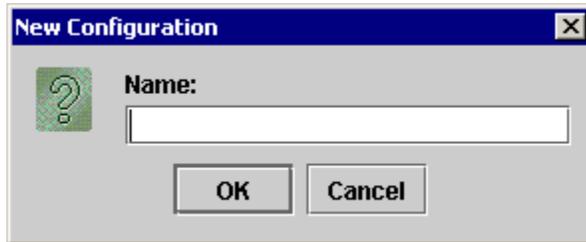
When you first use the Java Swing version of iWay Explorer, you must define a new configuration for iBSP. Once a configuration is created, it will appear under the iWay Configurations node each time you open iWay Explorer.

Procedure: How to Create a New Configuration for iBSP

To create a new configuration:

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

The New Configuration dialog box opens, as shown in the following image.



2. In the Name field, type a name for the new configuration and click *OK*.
Another New Configuration dialog box opens requesting service provider information.

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

4. Click *OK*.
A node representing the new *iBSE* instance appears below the root *iWay Configurations* node. When you select a node under *iWay Configurations*, the right pane provides details about that node.

Connecting to an iWay Configuration

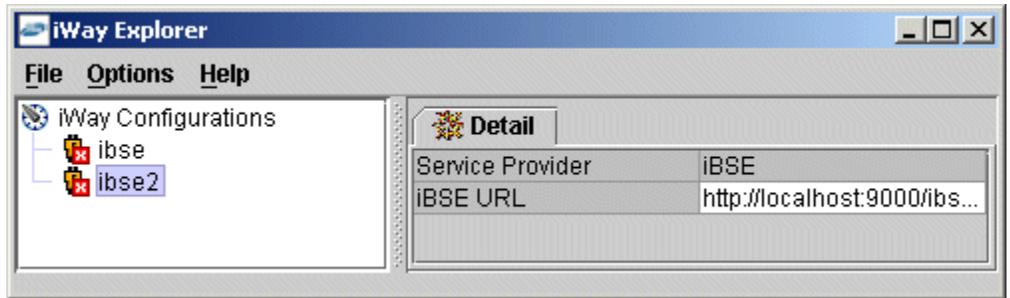
After you add your configuration, you must connect to it to access the supported adapters.

Procedure: How to Connect to an iWay Configuration

To connect to a configuration:

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

The following image shows a selected node with its right-click menu on the left and details about the node on the right.



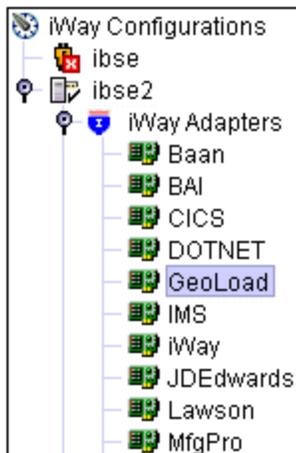
When a connection is made, the iWay Adapters, iWay Events, and iWay Business Services nodes appear under the configuration, as shown in the following image.



2. Double-click the *iWay Adapters* node

The installed adapters for that configuration appear under the iWay Adapters node.

The following image shows an example of a list of adapters under the iWay Adapters node. The Adapter for ESRI, GeoLoad, is selected and details about this adapter appear on the right.



You are ready to create connections for the iWay Technology Adapter for ESRI.

Creating and Managing a Connection

To access an application database, you must create a target that connects the adapter to the database. The iWay Technology Adapter for ESRI uses connections to a data directory and a database. After the target is created, it is automatically saved. You must establish a connection to the target each time you start iWay Explorer or after disconnecting from the target.

This topic explains how to create a new target and how to connect to a target. It also explains how to disconnect from a target, as well as edit and delete a target.

Note: The iWay Technology Adapter for ESRI is listed as GeoLoad in iWay Explorer.

Creating a Target

You can create three types of targets for the iWay Adapter for ESRI. They are:

1. Geocoding

This target allows you to retrieve spatial information (for example, latitude and longitude) for an address.

2. ESRI Loading

This target allows you to load geocoded data into an ESRI database.

3. Geocoding and ESRI Loading

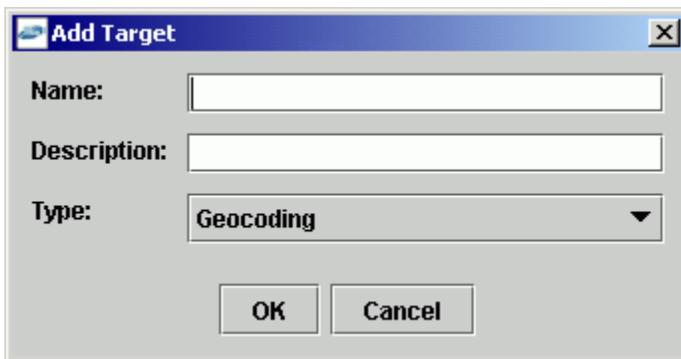
This target allows you to perform both geocoding and ESRI loading for a specific set of data.

Procedure: How to Create a New Target for Geocoding

To create a new Geocoding target for the iWay Technology Adapter for ESRI:

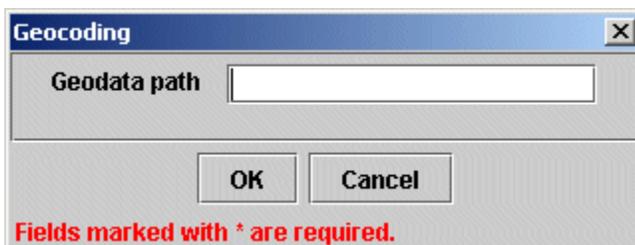
1. In the left pane of iWay Explorer, expand the *iWay Adapters* node.
2. Right-click the *GeoLoad* node and select *Add Target*.

The Add Target dialog box opens, as shown in the following image. This dialog box provides fields to define the target.



- a. In the Name field, type a descriptive name for the target.
 - b. In the Description field, type a brief description of the target.
 - c. From the Type drop-down list, select *Geocoding*.
3. Click *OK*.

The Geocoding dialog box appears, as shown in the following image. This dialog box provides a single field to define a path to the geocoding data and two action buttons.



4. Enter the following connection information.

The following table lists and defines the connection parameters related to a Geocoding target.

Parameter	Definition
Geocoding path	<p>Path to the directory where GDT Matchmaker software is installed, for example, the C:/ACG directory. This software provides the geospatial (latitude and longitude) data needed to perform geocoding.</p> <p>This directory must reside on the machine where iWay Explorer is installed, or be accessible either directly through the network or a mapped drive.</p>

5. Click *OK*.

In the left pane, the new Geocoding target appears under the GeoLoad node.

You are finished creating the new target.

Procedure: How to Create a New Target for ESRI Loading

To create a new ESRI Loading target for the iWay Technology Adapter for ESRI:

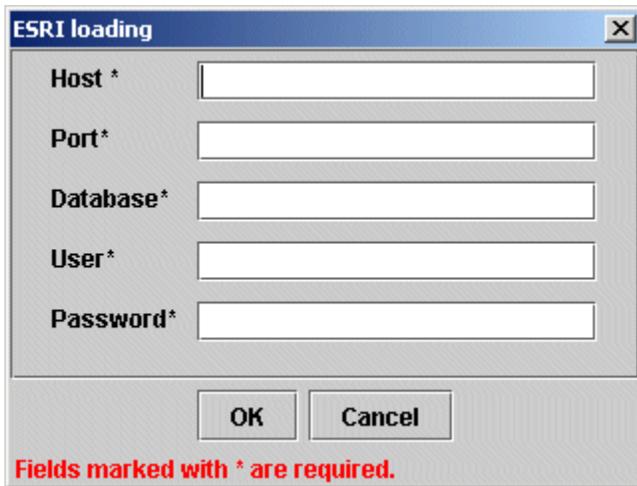
1. In the left pane of iWay Explorer, expand the *iWay Adapters* node.
2. Right-click the *GeoLoad* node and select *Add Target*.

The Add Target dialog box opens, as shown in the following image. This dialog box provides fields to define the target.

- a. In the Name field, type a descriptive name for the target.
- b. In the Description field, type a brief description of the target.

- c. From the Type drop-down list, select *ESRI Loading*.
3. Click *OK*.

The ESRI loading dialog box opens, as shown in the following image. This dialog box provides several fields to define access to the ESRI database and two action buttons.



4. Enter the connection information specific to the type of target you are creating.

The following table lists and defines the connection parameters related to the ESRI Loading target.

Parameter	Definition
Host	The name of the server hosting the ESRI database to which you want to connect.
Port	Port number to access the ESRI database.
Database	Name of the ESRI database.
User	User ID that allows access to the ESRI database.
Password	Password associated with the user ID.

5. Click *OK*.

In the left pane, the new ESRI Loading target appears under the GeoLoad node.

You are finished creating the new target.

Procedure: How to Create a New Target for Geocoding and ESRI Loading

To create a new Geocoding and ESRI Loading target for the iWay Technology Adapter for ESRI:

1. In the left pane of iWay Explorer, expand the *iWay Adapters* node.
2. Right-click the *GeoLoad* node and select *Add Target*.

The Add Target dialog box opens, as shown in the following image. This dialog box provides fields to define the target.

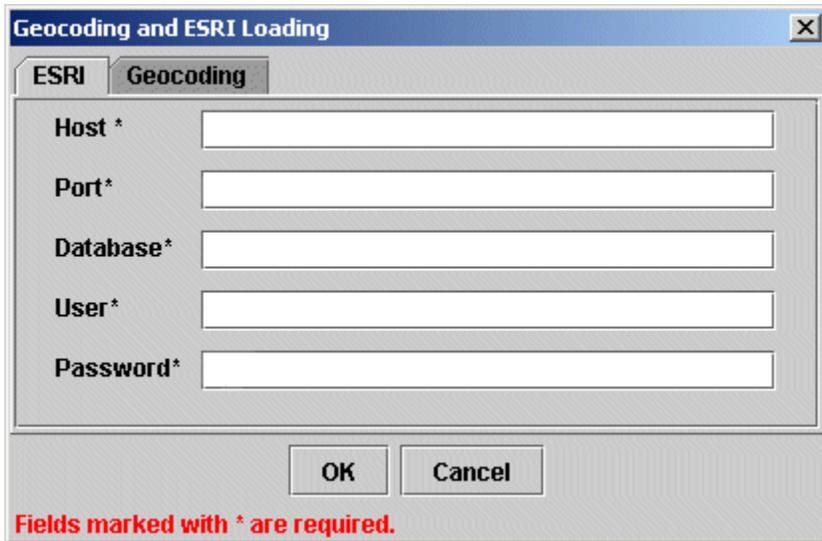


The image shows a standard Windows-style dialog box titled "Add Target". It features a title bar with a close button (X) on the right. The main area contains three labeled fields: "Name:" followed by a text input box, "Description:" followed by a text input box, and "Type:" followed by a dropdown menu. The dropdown menu is currently set to "Geocoding and ESRI loading". At the bottom of the dialog are two buttons: "OK" and "Cancel".

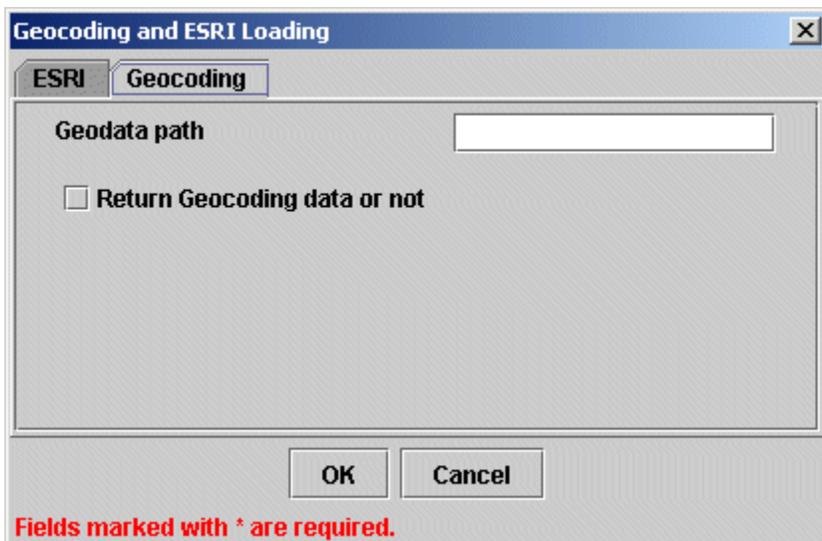
- a. In the Name field, type a descriptive name for the target.
 - b. In the Description field, type a brief description of the target.
 - c. From the Type drop-down list, select *Geocoding and ESRI loading*.
3. Click *OK*.

The Geocoding and ESRI Loading dialog box opens. This dialog box contains two tabs that provide connection parameter fields for both geocoding and ESRI loading.

The following image shows the Geocoding and ESRI Loading dialog box with the ESRI tab displayed. This tab provides several fields to define access to the ESRI database and two action buttons.



The following image shows the Geocoding and ESRI Loading dialog box with the Geocoding tab displayed. This tab provides a single field to define a path to the geocoding data, a check box to return the geocoding data, and two action buttons.



4. Enter the connection information specific to the type of target you are creating.

The following table lists and defines the connection parameters related to the Geocoding and ESRI Loading target.

Parameter	Definition
Host	The name of the server hosting the ESRI database to which you want to connect.
Port	Port number to access the ESRI database.
Database	Name of the ESRI database.
User	User ID that allows access to the ESRI database.
Password	Password associated with the user ID.
Geocoding path	<p>Path to the directory where GDT Matchmaker software is installed, for example, the C:/ACG directory. This software provides the geospatial (latitude and longitude) data needed to perform geocoding.</p> <p>This directory must reside on the machine where iWay Explorer is installed, or be accessible either directly through the network or a mapped drive.</p>
Return Geocoding data or not	<p>If selected, the adapter returns the geocoding information in an XML response document.</p> <p>This is a parameter for a Geocoding and ESRI Loading target, which normally loads the geocoding data into the ESRI database without retaining the geocoded data in an XML response document.</p>

5. Click *OK*.

In the left pane, the new Geocoding and ESRI Loading target appears under the GeoLoad node.

You are finished creating the new target.

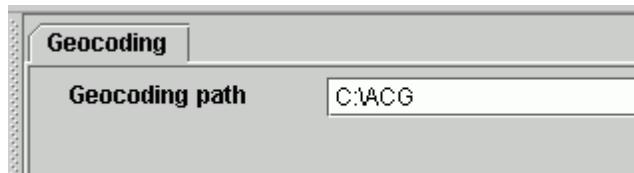
Connecting to a Target

You must establish a connection to a target each time you start iWay Explorer or if a target is disconnected. A connected target shows a plus sign next to target node.

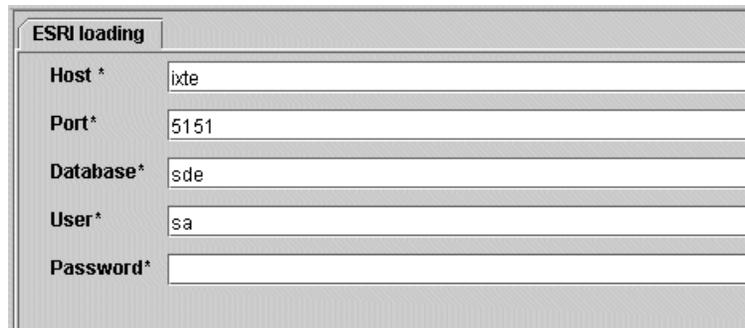
Procedure: How to Connect to a Target

To connect to a target:

1. In the left pane of iWay Explorer, expand the *iWay Adapters* node and the *GeoLoad* node.
2. Select the target node you want to open.
 - When you select a **Geocoding** target, the path to the ACG directory that was specified when the target was created appears on the right. The following image is an example of this display.



- When you select an **ESRI Loading** target, the connection parameters defined when the target was created are displayed on the right. The following image is an example of this display.



- When you select a **Geocoding and ESRI Loading** target, the pane on the right displays two tabs, ESRI and Geocoding. When selected, each tab shows the parameters that were defined when the target was created. The following image is an example of this display with the ESRI loading tab highlighted and the parameter fields containing the related values.

The image shows a configuration pane with two tabs: 'ESRI' and 'Geocoding'. The 'Geocoding' tab is selected and highlighted. Below the tabs are five input fields, each with a label and an asterisk indicating it is required:

- Host ***: Contains the text 'ixte'.
- Port ***: Contains the text '5151'.
- Database ***: Contains the text 'sde'.
- User ***: Contains the text 'sa'.
- Password ***: The field is empty.

- Connect to the target. This step depends on the type of target to which you are connecting, as follows.
 - For a **Geocoding** target, right-click the target node and select *Connect*.
The target connects and an AddressRoot node appears under the target node.
 - For an **ESRI loading** or a **Geocoding and ESRI Loading** target, enter a password in the Password field on the right. Then right-click the target node and select *Connect*.
The target connects and a ESRIRoot node appears under the target node.
Note: A message appears if you select Connect before entering a password or if you did not fully define the ESRI loading parameters when the target was created. The message asks you to provide the connection information before connecting.

Disconnecting a Target

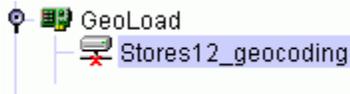
Although you can maintain multiple open connections, we recommend that you disconnect from targets that are not in use.

Procedure: How to Disconnect a Target

To disconnect a target:

- In the left pane of iWay Explorer, expand the *iWay Adapters* node.
- Expand the *GeoLoad* node.
- Right-click the connection you want to close and select *Disconnect*.

Disconnecting from ESRI drops the connection, but the target definition and its node remain accessible from the left pane. The following image shows a disconnected target, Stores12_geocoding, which appears with a red X below the node.



Editing a Target

After you create a target using iWay Explorer, you can edit any information that you provided when it was created.

Procedure: How to Edit a Target

To edit a target:

1. In the left pane of iWay Explorer, expand the *iWay Adapters* node and the *GeoLoad* node.
2. Be sure the target you want to edit is disconnected. See [Disconnecting a Target](#) on page 37 for instructions.
3. Right-click the target and select *Edit*.
 - If you selected a **Geocoding** target, the Geocoding dialog box opens displaying the Geocoding path field with the current path.
 - If you selected an **ESRI loading** target, the ESRI loading dialog box opens displaying the current settings for the connection parameters.
 - If you selected a **Geocoding and ESRI Loading** target, the Geocoding and ESRI Loading dialog box opens displaying a tab for each parameter set and the current settings.
4. Modify the connection parameters, as needed.
5. Click *OK*.

The target parameters are updated with the new settings.

Deleting a Target

You can also delete a target. When you delete the target, the node disappears from the list of GeoLoad targets in the left pane of the explorer.

Procedure: How to Delete a Target

To delete a target:

1. In the left pane of iWay Explorer, expand the *iWay Adapters* node, and the *GeoLoad* node to view the list of targets.

2. Right-click the target you want to delete and select *Delete*. (The target can be connected or disconnected to perform a delete.)

A message appears, prompting you to confirm the deletion of the node.

3. Click OK.

The node disappears from the list of available connections.

Creating XML Schemas and iWay Business Services

This section describes how to use the iWay Technology Adapter for ESRI within iWay Explorer to:

- Generate XML schemas that define request and response documents for use in business services.
- Create iWay Business Services (also known as web services).

In this chapter:

- [Overview of Schemas and iWay Business Services](#)
 - [Generating Schemas](#)
 - [Creating an iWay Business Service](#)
-

Overview of Schemas and iWay Business Services

An iWay Business Service (or 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.

The iWay Technology Adapter for ESRI facilitates data movement between databases and applications through XML documents. iWay Explorer creates the XML schema for both the request and response documents used by a business service. The iWay Technology Adapter for ESRI supports the following database table services:

- Insert
- Delete
- Update
- Query

Generating Schemas

You can generate both XML request and response document schemas using iWay Explorer. This topic describes how to generate these schemas for the three GeoLoad target types.

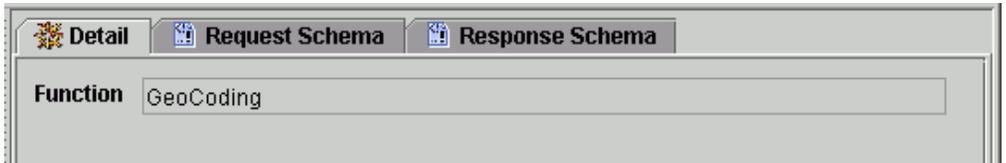
Generating Schemas for Geocoding

The following procedure explain how to generate schemas for request and response documents for a geocoding target.

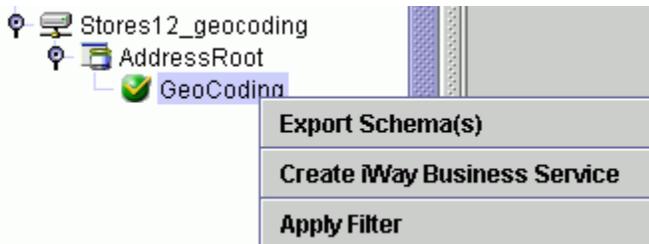
Procedure: How to Generate Schemas for Geocoding

1. Connect to the Geocoding target for which you want to generate the schema.
2. Expand the target and the *AddressRoot* node.
3. Select the *GeoCoding* node.

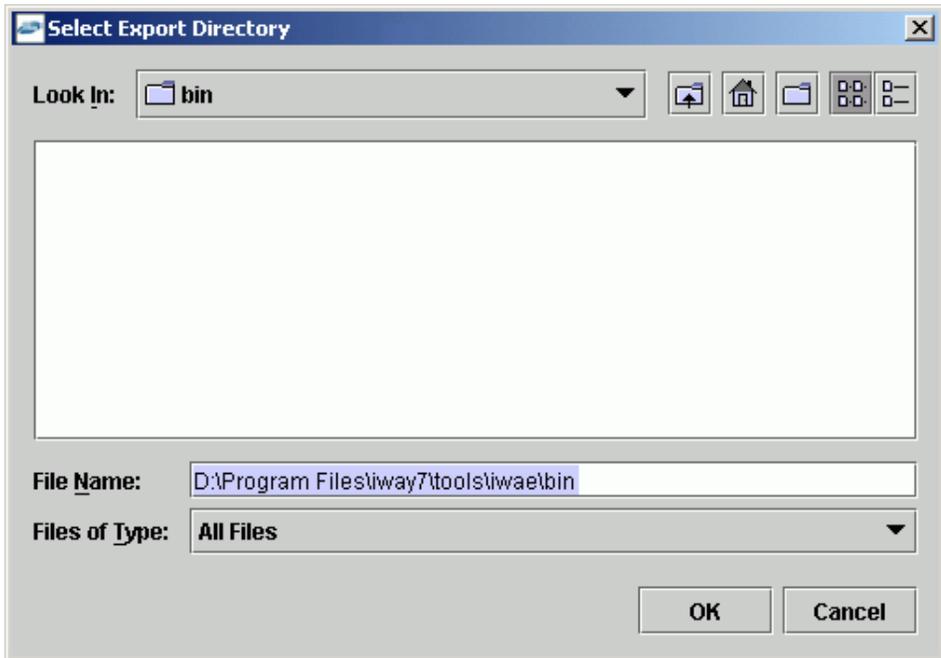
Three tabs (Details, Request Schema, Response Schema) appear on the right, as shown in the following image.



4. Select either the *Request Schema* tab or the *Response Schema* tab, as needed.
The schema appears on the right under the selected tab.
5. To save the schema to a file, right-click the *GeoCoding* node and select *Export Schema(s)*, as shown in the following image.



The Select Export Directory window opens, as shown in the following image. This window allows you to navigate to a directory, name the file, and select the file type to save.



- a. Select the directory in which you want the schema files to reside, type a name for the file (if you want a name other than the default), and select the file type.
- b. Click *OK*.

Both the request and response schemas are saved to the named directory as text files.

6. Import the schema files into an XML editor, such as XML Spy.
7. In the XML editor, create the request and response documents for the specific geocoding task.

The following reference items show the request document schema and response document schema generated by the iWay Technology Adapter for ESRI.

Reference: Geocoding Request Schema

The following is the schema for a Geocoding request document.

```
<?xml version="1.0" encoding="UTF-8" ?>
  <!-- Generated by the iBSE 2004-12-28T20:22:04Z -->
  - <xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
    - <xs:element name="address_geocoding_request">
      - <xs:complexType>
        - <xs:sequence>
          - <xs:element name="record" minOccurs="0" maxOccurs="unbounded">
            - <xs:complexType>
              - <xs:sequence>
                <xs:element name="street" type="xs:string" />
                <xs:element name="city" type="xs:string" />
                <xs:element name="state" type="xs:string" />
                <xs:element name="country" minOccurs="0" type="xs:string" />
                <xs:element name="zipcode" type="xs:string" />
              </xs:sequence>
            </xs:complexType>
          </xs:element>
        </xs:sequence>
      </xs:complexType>
    </xs:element>
  </xs:schema>
```

Reference: Geocoding Response Schema

The following is the schema for a Geocoding response document.

```

<?xml version="1.0" encoding="UTF-8" ?>
<!-- Generated by the iBSE 2004-12-28T20:22:04Z -->
- <xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
- <xs:element name="address_geocoding_response">
- <xs:complexType>
- <xs:sequence>
- <xs:element name="record" minOccurs="0" maxOccurs="unbounded">
- <xs:complexType>
- <xs:sequence>
<xs:element name="street" type="xs:string" />
<xs:element name="city" type="xs:string" />
<xs:element name="state" type="xs:string" />
<xs:element name="country" minOccurs="0" type="xs:string" />
<xs:element name="zipcode" type="xs:string" />
</xs:sequence>
</xs:complexType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
<xs:element name="Locator" minOccurs="0" maxOccurs="unbounded">
- <xs:complexType>
- <xs:sequence>
<xs:element name="locationX" type="xs:string" />
<xs:element name="locationY" type="xs:string" />
<xs:element name="XYScale" type="xs:string" />
<xs:element name="Standard_Street_Name" minOccurs="0"
type="xs:string" />
<xs:element name="Standard_City_Name" type="xs:string" />
<xs:element name="Standard_State_Name" type="xs:string" />
<xs:element name="Standard_Country_Name" type="xs:string" />
<xs:element name="Standard_Zipcode" type="xs:string" />
<xs:element name="Rationale" minOccurs="0" type="xs:string" />
<xs:element name="Block" type="xs:string" />
<xs:element name="Block_Group" type="xs:string" />
<xs:element name="Cbsa" type="xs:string" />
<xs:element name="County" type="xs:string" />
<xs:element name="Matched_Side" minOccurs="0" type="xs:string" />
<xs:element name="Matched_Status" type="xs:string" />
<xs:element name="Mcd" type="xs:string" />
<xs:element name="Msa" type="xs:string" />
<xs:element name="Place" type="xs:string" />
<xs:element name="Previous_Msa" minOccurs="0" type="xs:string" />

<xs:element name="State_Fips" type="xs:string" />
<xs:element name="Tract" type="xs:string" /> </xs:sequence>
</xs:complexType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
</xs:schema>

```

Generating Schemas for ESRI Loading

The following procedure explains how to generate schemas for request and response documents for an ESRI Loading target.

Procedure: How to Generate Schemas for ESRI Loading

To generate schemas for ESRI Loading:

1. Connect to the ESRI Loading target for which you want to generate schema.
2. Expand the target and the *ESRIRoot* node.
3. Select the database table for which you want to generate schema.

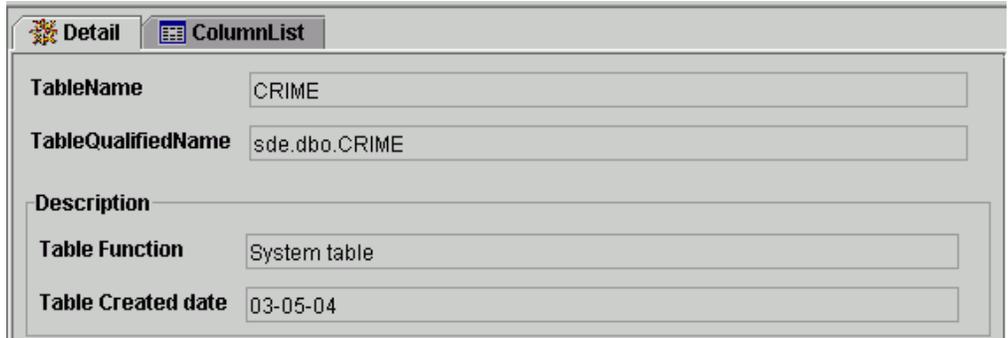
On the left, the table node expands to display four table functions; insert, delete, update, and query. The following image shows an example of an expanded database table named CRIME.



The table functions are:

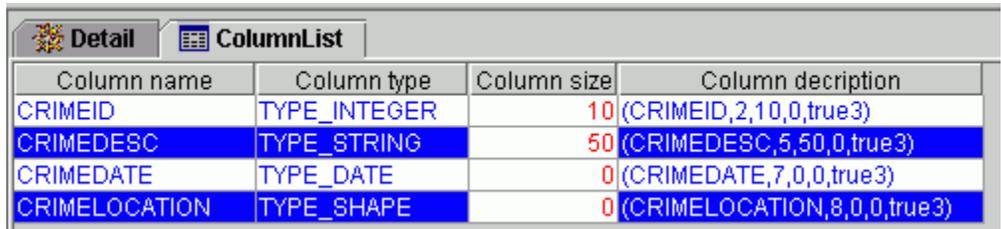
- Insert** - inserts a row into the selected table.
- Delete** - deletes a row from the selected table.
- Update** - updates one or more rows in the selected table.
- Query** - queries a row in the selected table.

Descriptive information about the table appears on the right under the *Detail* tab. A second tab, *ColumnList*, also appears. The *Detail* display provides the table name and qualified name, as well as a description of its function and the date it was created. An example of a detail display for a table named *CRIME* is shown in the following image.



TableName	CRIME
TableQualifiedName	sde.dbo.CRIME
Description	
Table Function	System table
Table Created date	03-05-04

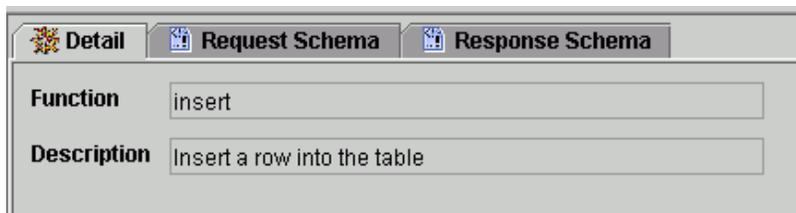
- To see the fields in the table (that is, the metadata), click the *ColumnList* tab. An example of *ColumnList* information appears in the following image. This image shows the name, type, size and description of each column in the example table.



Column name	Column type	Column size	Column description
CRIMEID	TYPE_INTEGER	10	(CRIMEID,2,10,0,true3)
CRIMEDESC	TYPE_STRING	50	(CRIMEDESC,5,50,0,true3)
CRIME DATE	TYPE_DATE	0	(CRIME DATE,7,0,0,true3)
CRIMELOCATION	TYPE_SHAPE	0	(CRIMELOCATION,8,0,0,true3)

- Select the table function (insert, delete, update, or query) for which you want to generate schema.

The *Request Schema* and *Response Schema* tabs appear next to the *Detail* tab, as shown in the following image.



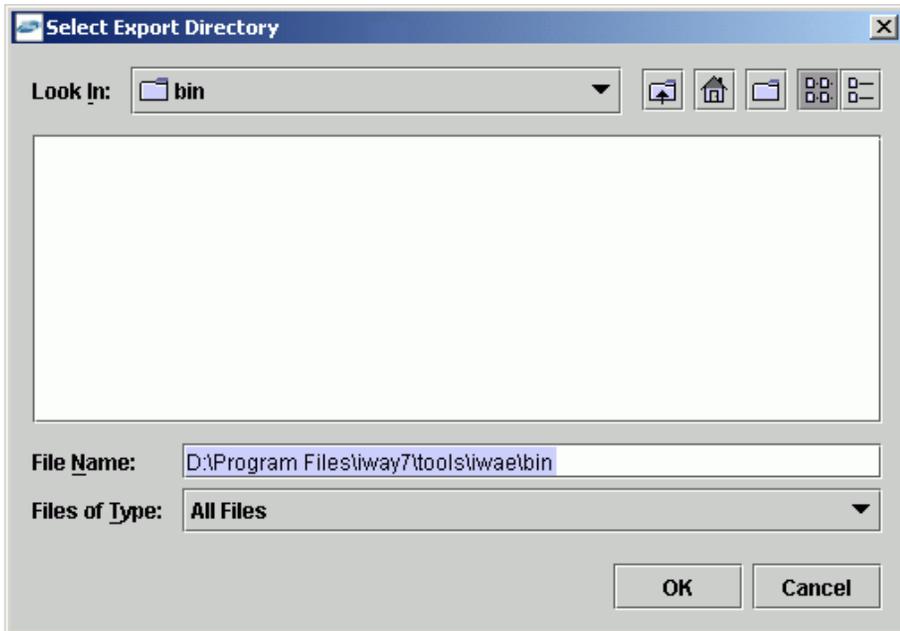
Function	insert
Description	Insert a row into the table

- Select either the *Request Schema* tab or the *Response Schema* tab to view a schema. The schema appears on the right under the selected tab.

7. To save the schema to a file, right-click the table function on the left and select *Export Schema(s)*, as shown in the following image.



The Select Export Directory window opens, as shown in the following image. This window allows you to navigate to a directory, name the file, and select the file type to save.



- a. Select the directory in which you want the schema files to reside, type a name for the file (if you want a name other than the default), and select the file type.
 - b. Click OK.
- Both the request and response schemas are saved to the named directory as text files.
8. Import the schema files into an XML editor, such as XML Spy.
 9. In the XML editor, create the request and response documents for the specific geocoding task.

The following reference items show the request and response document schema generated by the iWay Technology Adapter for ESRI for insert and delete. Use the procedure to generate schema to view the schema for the update and query functions.

Reference: Insert Request Schema

The following is the schema for ESRI loading insert request document.

```
<?xml version="1.0" encoding="UTF-8" ?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:element name="arcsde_CRIME_insert_request">
    <xs:complexType>
      <xs:sequence>
        <xs:element name="record" minOccurs="0" maxOccurs="unbounded">
          <xs:complexType>
            <xs:sequence>
              <xs:element name="CRIMEID" type="xs:integer" />
              <xs:element name="CRIMEDESC" type="xs:string" />
              <xs:element name="CRIMEDATE" type="xs:date" />
              <xs:element name="CRIMELOCATION">
                <xs:complexType>
                  <xs:sequence>
                    <xs:element name="lon" type="xs:double" />
                    <xs:element name="lat" type="xs:double" />
                  </xs:sequence>
                </xs:complexType>
              </xs:element>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
      </xs:sequence>
    </xs:complexType>
  </xs:element>
</xs:schema>
```

Reference: Insert Response Schema

The following is the schema for ESRI loading insert response document.

```
<?xml version="1.0" encoding="UTF-8" ?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:element name="arcsde_CRIME_insert_response">
    <xs:complexType>
      <xs:sequence>
        <xs:element name="Return_Code" type="xs:string" minOccurs="0"
          maxOccurs="unbounded" />
        <xs:element name="Return_Msg" type="xs:string" minOccurs="0"
          maxOccurs="unbounded" />
        <xs:element name="insertRecordNumber" minOccurs="0"
          maxOccurs="unbounded" />
      </xs:sequence>
    </xs:complexType>
  </xs:element>
</xs:schema>
```

Reference: Delete Request Schema

The following is the schema for ESRI loading delete request document.

```
<?xml version="1.0" encoding="UTF-8" ?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:element name="arcsde_CRIME_delete_request">
    <xs:complexType>
      <xs:sequence>
        <xs:element name="where" minOccurs="1" maxOccurs="1" />
      </xs:sequence>
    </xs:complexType>
  </xs:element>
</xs:schema>
```

Reference: Delete Response Schema

The following is the schema for ESRI loading delete response document.

```
<?xml version="1.0" encoding="UTF-8" ?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:element name="arcsde_CRIME_insert_response">
    <xs:complexType>
      <xs:sequence>
        <xs:element name="Return_Code" type="xs:string" minOccurs="0"
          maxOccurs="unbounded" />
        <xs:element name="Return_Msg" type="xs:string" minOccurs="0"
          maxOccurs="unbounded" />
      </xs:sequence>
    </xs:complexType>
  </xs:element>
</xs:schema>
```

Generating Schemas for Geocoding and ESRI Loading

The following procedure explain how to generate schemas for request and response documents for a Geocoding and ESRI Loading target.

Note: For the Geocoding and ESRI Loading function, schema is generated for the ESRI Loading function only. Geocoding is transparent and does not generate a response document. There is an option available when you create a Geocoding and ESRI Loading target that allows the adapter to produce a geocoding response document if needed.

Procedure: How to Generate Schemas for Geocoding and ESRI Loading

To generate schemas for Geocoding and ESRI Loading:

1. Connect to the Geocoding and ESRI Loading target for which you want to generate schema.
2. Expand the target and the *ESRI/Root* node.
3. Select the database table for which you want to generate schema.

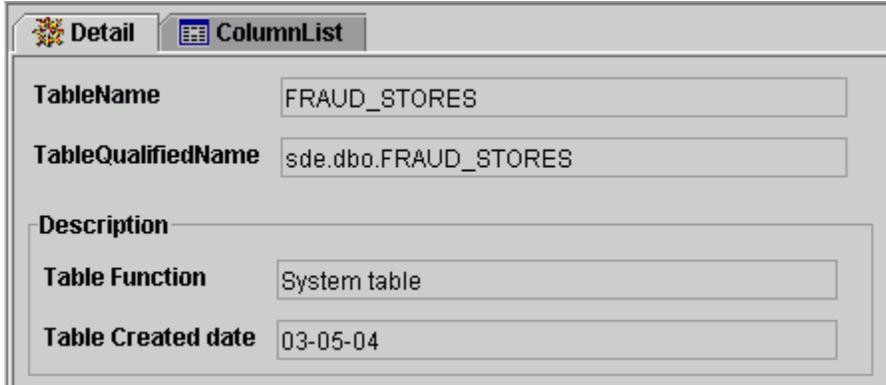
The table node expands to display four table functions, insert, delete, update, and query. The following image shows an example of an expanded table named FRAUD_STORES.



The table functions are:

- Insert** - inserts a row into the selected table.
- Delete** - deletes a row from the selected table.
- Update** - updates one or more rows in the selected table.
- Query** - queries a row in the selected table.

Descriptive information about the table appears on the right under the *Detail* tab. This display provides the table name and qualified name, as well as a description of its function and the date it was created. A second tab, *ColumnList*, also appears. An example of a detail display of a table named `FRAUD_STORES` is shown in the following image.



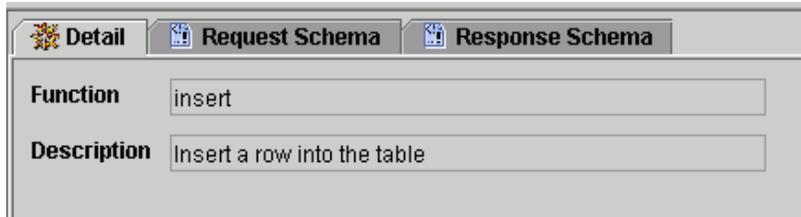
- To see the fields in the table (metadata), click the *ColumnList* tab. An example of *ColumnList* information appears in the following image. This image shows the name, type, size and description of each column in an example table.

The screenshot shows the 'ColumnList' tab selected. It displays a table with the following data:

Column name	Column type	Column size	Column description
ADDRESS	TYPE_STRING	254	(ADDRESS,5,254,0,false3)
ARC_STREET	TYPE_STRING	60	(ARC_STREET,5,60,0,false3)
ARC_ZONE	TYPE_STRING	20	(ARC_ZONE,5,20,0,false3)
ASTORE_NUM	TYPE_STRING	9	(ASTORE_NUM,5,9,0,false3)
AUTH_STATU	TYPE_STRING	254	(AUTH_STATU,5,254,0,false3)
AUTH_STA_1	TYPE_STRING	254	(AUTH_STA_1,5,254,0,false3)
AUTH_WITH_	TYPE_STRING	254	(AUTH_WITH_,5,254,0,false3)
BALT_NAME	TYPE_STRING	25	(BALT_NAME,5,25,0,false3)

- Select the table function (insert, delete, update, or query) for which you want to generate schema.

The Request Schema and Response Schema tabs appear next to the Detail tab, as shown in the following image.



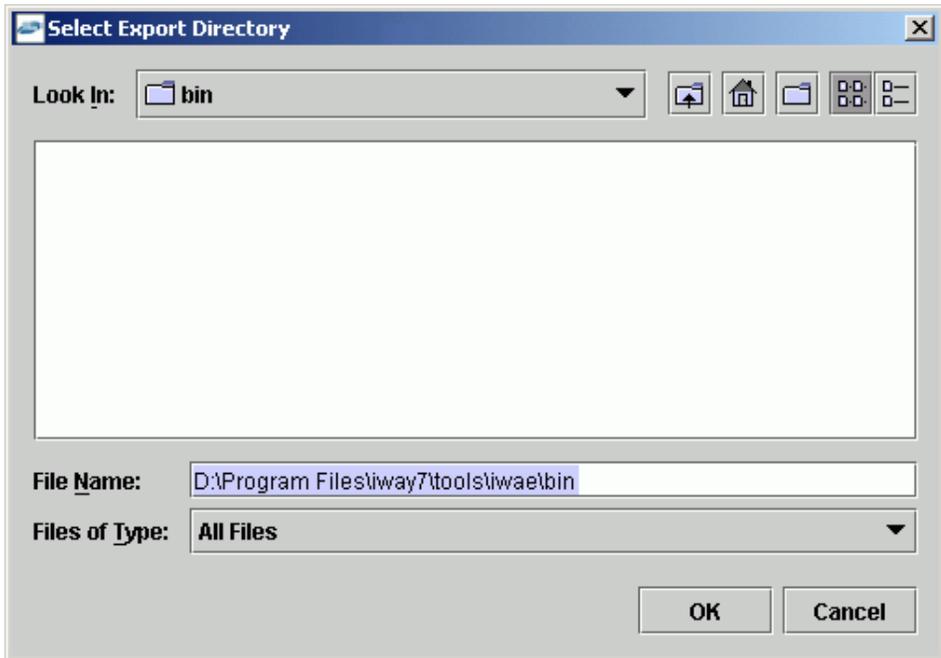
6. Select either the *Request Schema* tab or the *Response Schema* tab, as required.

The schema appears on the right under the selected tab.

7. To save the schema to a file, right-click the table function on the left and select *Export Schema(s)*, as shown in the following image.



The Select Export Directory window opens, as shown in the following image. This window allows you to navigate to a directory, name the file, and select the file type to save.



- a. Select the directory in which you want the schema files to reside, type a name for the file (if you want a name other than the default), and select the file type.
- b. Click *OK*.

Both the request and response schemas are saved to the named directory as text files.

8. Import the schema files into an XML editor, such as XML Spy.
9. In the XML editor, create the request and response documents for the specific geocoding task.

The XML request and response documents are similar to those for ESRI loading.

Creating an iWay Business Service

iWay Explorer provides web developers with a simple, consistent mechanism for extending the capabilities of the adapter. The iWay Business Services Provider exposes functionality as Business services (also known as web services). It serves as a gateway to heterogeneous back-end applications and databases.

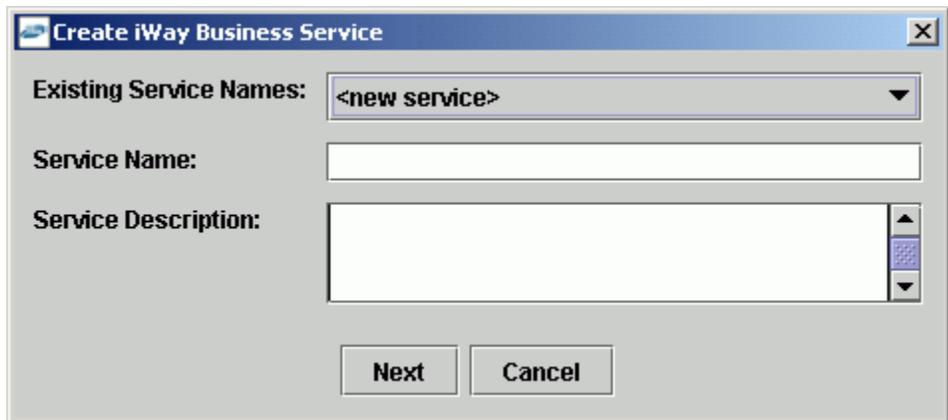
A web service is a self-contained, modularized function that can be published and accessed across a network using open standards. It is the implementation of an interface by a component and is an executable entity. For the caller or sender, a web service can be considered as a "black box" that may require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

Procedure: How to Create an iWay Business Service for Geocoding

To create an iWay Business Service for Geocoding:

1. Connect to the GeoLoad target.
2. In the left pane, expand the `geocoding` target and its `AddressRoot` node.
3. Right-click the `GeoCoding` node and select *Create iWay Business Service*.

The Create iWay Business Service dialog box opens, as shown in the following image. This dialog box provides fields in which to define the service.



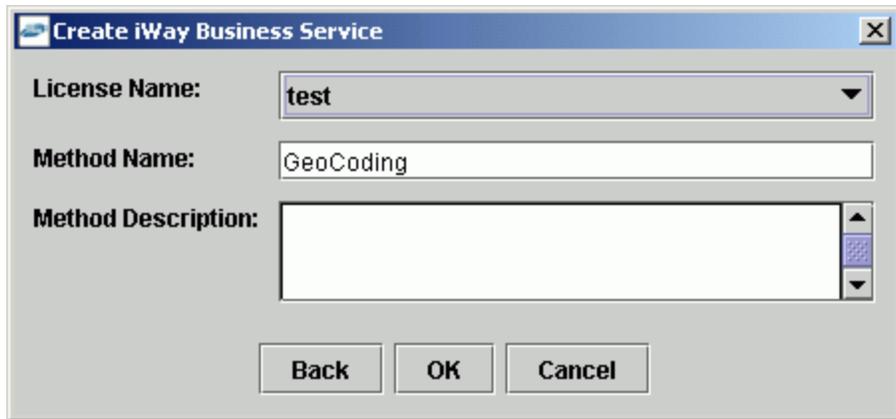
4. From the Existing Service Names pull-down menu, select to create a new service or choose an existing service.

If you select an existing service, the Service Name and Service Description fields in the dialog box are populated with the existing service information.

If you select <new service>, type a name and description for the service in the Service Name and Service Description fields.

5. Click *Next*.

The next Create iWay Business Service dialog box opens, as shown in the following image. This dialog box provides fields in which to define the method for the service.

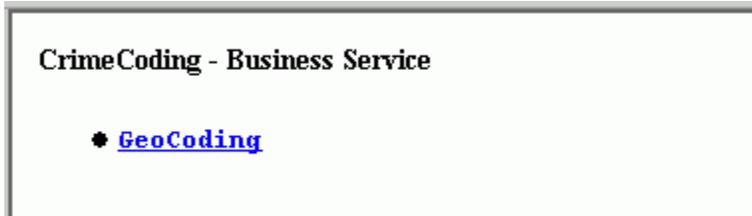


- a. In the License Name field, select the license(s) with which you want to associate this business service. To select more than one, hold down the *Ctrl* key and click the licenses.
 - b. The Method Name field appears as GeoCoding. You can change the name as needed.
 - c. In the Method Description field, type a brief description of the method for the Business Service.
6. Click *OK*.

In the left pane, the new Business Service appears under the *iWay Business Service, Services* node, and the GeoCoding method appears under the new Business Service *Methods* node. The following image shows an example of a Business Service named CrimeCoding displayed under the iWay Business Services node.



The Business Service name and the method name, which is a hyperlink, appears on the right. An example of the display of a Business Service name and a hyperlink method name are shown in the following image.



Continue to [Testing an iWay Business Service](#) on page 57 for instructions to test your new business service.

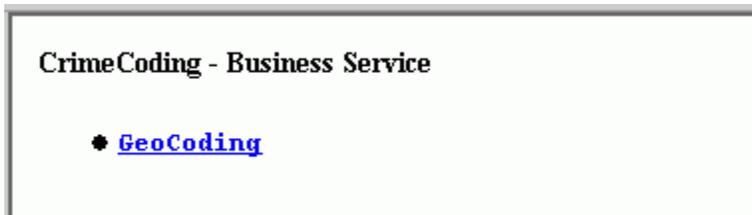
Testing an iWay Business Service

iWay provides a test tool to verify that a business service functions properly. When a new business service is created, a test pane automatically appears on the right. It is a good practice to test the business service at this point, but testing can be done at anytime.

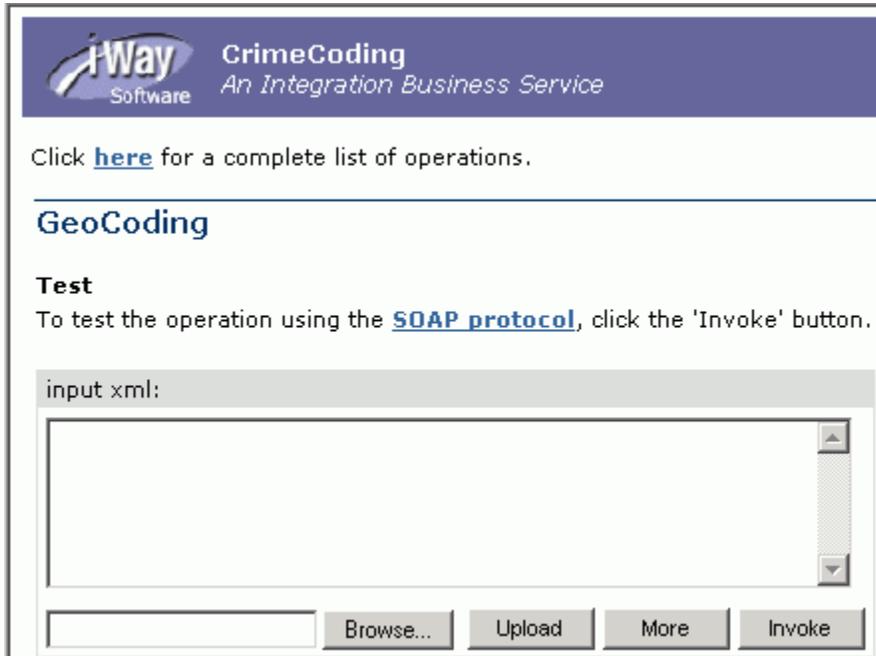
Procedure: How to Test a New iWay Business Service

When you create a new iWay Business Service, the service method appears as a link on the right.

1. Click the method link that appears on the right. The following image shows an example of a method hyperlink named GeoCoding for a business service named CrimeCoding.



The test dialog box opens in a web browser window, as shown in the following image. This test window displays the name of the Business Service and provides an input xml field and four action buttons. The following image is an example of a test dialog box for a Business Service named CrimeCoding and a method named Geocoding.



2. Enter the appropriate XML input in the *input xml* field using paste or upload.
3. Click *Invoke*.

The results are displayed in the browser window.

Example: XML Input Document for Testing

The following is an example of XML input for testing. This is a geocoding request document.

```
<!--Sample XML file generated by XMLSPY v5 rel. 4 U
(http://www.xmlspy.com)-->
<address_geocoding_request
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:noNamespaceSchemaLocation=
    "http://siva.ibi.com:9000/schemas/service/
  GeoLoad/Geocode/S9892524/GeoCoding_request.xsd">
  <record>
    <street>1306 forest view drive</street>
    <city>avenel</city>
    <state>new jersey</state>
    <country>USA</country>
    <zipcode>07001</zipcode>
  </record>
</address_geocoding_request>
```

XML Input Test Results

The following is an example of the test results for the example XML input document. This is a geocoding response document.

```
<?xml version="1.0" encoding="UTF-8" ?>
<SOAP-ENV:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <SOAP-ENV:Body>
    <SelectResponse xmlns="urn:iwaysoftware:ibse:jul2003:Select:response"
      cid="1CA0EF7E48A66E61BBE191517CE619C9">
      <address_geocoding_response>
        <record>
          <street>1306 forest view drive</street>
          <city>avenel</city>
          <state>new jersey</state>
          <country>USA</country>
          <zipcode>07001</zipcode>
          <Locator>
            <locationX>-74.263965</locationX>
            <locationY>40.580023</locationY>
            <XYScale>1</XYScale>
            <Standard_Street_Name>FOREST VIEW DR</Standard_Street_Name>
            <Standard_City_Name>AVENEL</Standard_City_Name>
            <Standard_State_Name>NJ</Standard_State_Name>
            <Standard_Country_Name>US</Standard_Country_Name>
            <Standard_Zipcode>07001</Standard_Zipcode>
            <Rationale />
            <Block>6002</Block>
            <Block_Group>6</Block_Group>
            <Cbsa>14220</Cbsa>
            <County>117</County>
            <Matched_Side>L</Matched_Side>
            <Matched_Status>OK</Matched_Status>
            <Mcd>95695</Mcd>
            <Msa>0</Msa>
            <Place>0</Place>
            <Previous_Msa>0</Previous_Msa>
            <State_Fips />
            <Tract>950300</Tract>
          </Locator>
        </record>
      </address_geocoding_response>
    </SelectResponse>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

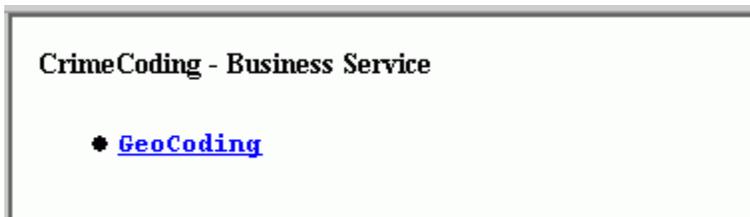
Procedure: How to Test an Existing iWay Business Service

1. Expand the *iWay Business Service* node and *Services* node.
2. Select either the Business Service or the Business Service method (under the *Methods* node). Each provides a hyperlink to the service method from a different display.

If you select the **Business Service** under the iWay Business Services node, a more formal display appears on the right with hyperlinks to the service description and the service method. The following image is an example of this display. For information on the Service Description, see [Generating a WSDL File for an iWay Business Service](#) on page 62.

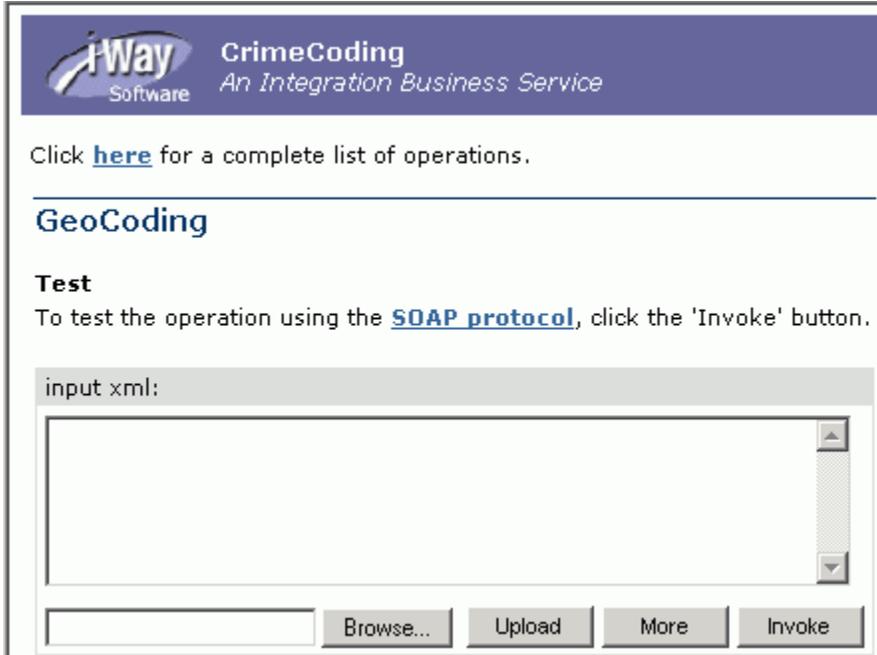


If you select the **Business Service method** (located under the *Methods* node), the a hyperlink to the service method(s) appears on the right. The following image is an example of this display with GeoCoding as the method name.



3. Click the method name you want to test.

The test dialog box opens in a web browser window, as shown in the following image. This test window displays the Business Service name and provides an input xml field and four action buttons. The following image is an example of a test dialog box for a Business Service named CrimeCoding and the Geocoding method.



4. Enter the appropriate XML input in the *input xml* field using paste or upload.
5. Click *Invoke*.

The results are displayed in the browser window. See [How to Test a New iWay Business Service](#) on page 57 for an example of test results.

Generating a WSDL File for an iWay Business Service

The Web Service Description Language (WSDL) file is an XML file that describes the web service documents and provides access to the service.

Procedure: How to Generate a WSDL file for an iWay Business Service

To generate a WSDL file for an iWay Business Service:

1. On the left, expand the *iWay Business Service* node and the *Services* node.
2. Select the business service for which you want to generate the WSDL file.

Note: To view the WSDL data, click the Service Description link that appears on the right. A browser window opens with a display of the WSDL data.

3. To save the WSDL data as a file, right-click the service and select *Export WSDL*.
The Save window opens.
4. Select the directory where the file will reside, and type a file name.
5. Click Save.

Deleting an iWay Business Service

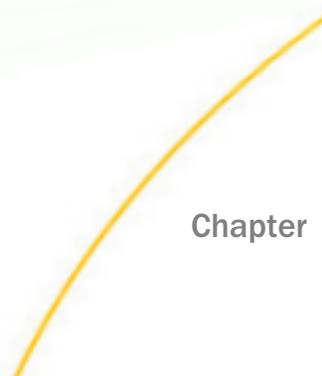
This procedure explains how to remove an iWay Business Service from the adapter.

***Procedure:* How to Delete an iWay Business Service**

To delete an iWay Business Service:

1. Expand the *iWay Business Service* node and then the *Services* node.
2. Right-click the Business service you want to delete.
3. Select *Delete*.

The Business Service is removed and no longer appears in the Services list under the iWay Business Service node on the left.



Chapter 5

Using the Adapter - A Scenario

This section uses a real-world scenario to illustrate how the iWay Technology Adapter for ESRI works with a geographic information system (GIS) to provide an enhanced problem-solving tool to a city police department. The role of the adapter is shown through examples of the request and response documents used to perform the adapter tasks.

In this chapter:

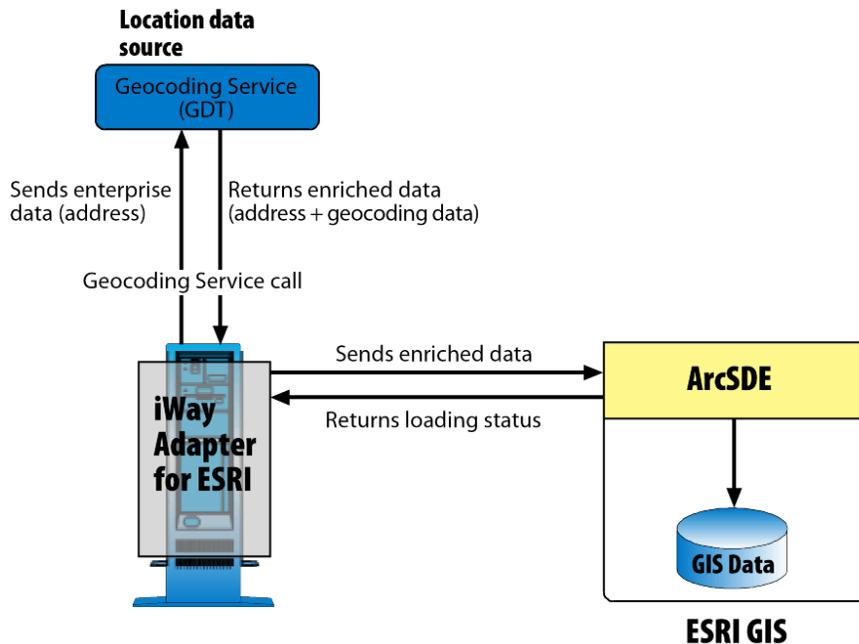
- [The Scenario Overview](#)
 - [Obtaining Geocoding Address Data](#)
 - [Delivering Geocoding Data to the ESRI Database](#)
 - [Manipulating Data in the ESRI Database](#)
-

The Scenario Overview

Observing a major increase in thefts throughout their city, a police department decides to purchase an ESRI geographic information system (GIS), and the iWay Technology Adapter for ESRI, so that they can efficiently evaluate resources and develop crime prevention strategies. The role of the iWay Technology Adapter for ESRI is to obtain latitude and longitude coordinates of the theft locations and deliver that information to the ESRI GIS database. Once in the database, the GIS links the spatial and descriptive information to perform a relational analysis of the theft data. The adapter also allows them to delete, update, and query crime records already in the ESRI database.

Through the adapter, they will create targets that connect to the geospatial data directory for geocoding information (a geocoding target) and to the ESRI database for delivering the geocoding data to the GIS (an ESRI Loading target). Once connected to a target, they can generate XML schemas for the request and response documents and business services that will contain the geocoding data and action instructions.

The following images shows an overview of the interaction between the adapter and the geocoding service, and the adapter and the ESRI database. As shown, the adapter sends enterprise data, in our example it is the address of the theft, to the geocoding service. The geocoding service returns the address and the geocoding data (latitude and longitude of the address) to the adapter. The adapter then sends this information to the ArcSDE server, which is the gateway to the ESRI database.



The following sections provide the XML request and response documents used to obtain the latitude and longitude of a theft location, and to deliver that information to the ESRI database.

Obtaining Geocoding Address Data

The police department has an address of a theft that they want to include in the crime pattern analysis that the GIS will perform. The first step is to obtain the data required by the GIS, the latitude and longitude of the theft address. To do this, they must:

1. Create a geocoding target that defines the path to the location data source (latitude and longitude data).
2. Connect to the target, which is the location data directory.
3. Generate and save schemas for the geocoding XML request and response documents.
4. Use an XML editor to create the request and response documents based on these schemas.

5. Create a geocoding service and a method for the service. In this case, it is the geocoding method.

Geocoding Request Document

The address from the police database to be geocoded is 1306 Forest View Drive, Avenel, NJ 07001. The following is the geocoding XML request document that contains this address within the <record> tags.

```
<?xml version="1.0" encoding="UTF-8"?>
<!--Sample XML file generated by XMLSPY v5 rel. 4 U
(http://www.xmlspy.com)-->
<address_geocoding_request
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:noNamespaceSchemaLocation=
    "http://siva.ibi.com:9000/schemas/service/
    GeoLoad/Geocode/S9892524/GeoCoding_request.xsd">
  <record>
    <street>1306 forest view drive</street>
    <city>avenel</city>
    <state>new jersey</state>
    <country>USA</country>
    <zipcode>07001</zipcode>
  </record>
</address_geocoding_request>
```

This XML request document is sent in a geocoding service call to retrieve the latitude and longitude of this address.

Geocoding Response Document

The geocoding service matches the address in the request document to the latitude and longitude in the location data source. The following geocoding XML response document is returned with the original address information and the latitude and longitude (and other geographic information, such as block number and group) for the address. Note that:

- ❑ the <Locator> tag begins the geographic information related to the address.
- ❑ the <Matched_Status>OK</Matched_Status> statement indicates that the address was found in the location data source.

```
<?xml version="1.0" encoding="UTF-8" ?>
<SOAP-ENV:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <SOAP-ENV:Body>
    <SelectResponse xmlns="urn:iwaysoftware:ibse:jul2003:Select:response"
      cid="1CA0EF7E48A66E61BBE191517CE619C9">
      <address_geocoding_response>
        <record>
          <street>1306 forest view drive</street>
          <city>avenel</city>
          <state>new jersey</state>
          <country>USA</country>
          <zipcode>07001</zipcode>
          <Locator>
            <locationX>-74.263965</locationX>
            <locationY>40.580023</locationY>
            <XYScale>1</XYScale>
            <Standard_Street_Name>FOREST VIEW DR</Standard_Street_Name>
            <Standard_City_Name>AVENEL</Standard_City_Name>
            <Standard_State_Name>NJ</Standard_State_Name>
            <Standard_Country_Name>US</Standard_Country_Name>
            <Standard_Zipcode>07001</Standard_Zipcode>
            <Rationale />
            <Block>6002</Block>
            <Block_Group>6</Block_Group>
            <Cbsa>14220</Cbsa>
            <County>117</County>
            <Matched_Side>L</Matched_Side>
            <Matched_Status>OK</Matched_Status>
            <Mcd>95695</Mcd>
            <Msa>0</Msa>
            <Place>0</Place>
            <Previous_Msa>0</Previous_Msa>
            <State_Fips />
            <Tract>950300</Tract>
          </Locator>
        </record>
      </address_geocoding_response>
    </SelectResponse>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

Delivering Geocoding Data to the ESRI Database

The adapter can now deliver the geocoding data for the crime address to the ESRI database through an ESRI loading target. The steps are:

1. Create an ESRI loading target that defines the path to the ESRI database.
2. Connect to the database through the target.
3. Select the database table where the geocoding data will reside. In this case, it is the table named CRIME.

4. If desired, view the metadata of the table by selecting the ColumnList tab.
5. Select the insert table service.
6. Generate and save schemas for the XML insert request and response documents.
7. Use an XML editor to create the insert request and response documents based on these schemas.
8. Create an ESRI loading service and a method for the service.

Insert Request Document

The geocoding information for the crime location is delivered to the ESRI database in an XML insert request document. This document provides all data for the new record being added to the CRIME table, which includes the crime identification (CRIMEID), the crime description (CRIMEDESC), the latitude and longitude of the crime location, and the date and time of the crime (CRIMEDATE).

The following insert request document is requesting to insert the record regarding a theft with crime ID 1111 that occurred on August 13, 1997. The latitude and longitude information in this document was obtained from the geocoding response document.

```
<?xml version="1.0" encoding="UTF-8"?>
<!--Sample XML file generated by XMLSPY v5 rel. 4 U
(http://www.xmlspy.com)-->
<arcsde_CRIME_insert_request
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:noNamespaceSchemaLocation="C:\Temp\insert_request.xsd">
  <record>
    <CRIMEID>1111</CRIMEID>
    <CRIMEDESC>Theft</CRIMEDESC>
    <TLOCATION>
      <lon>-74.263965</lon>
      <lat>40.580023</lat>
    </TLOCATION>
    <CRIMEDATE>08-13-1997 2:22:22</CRIMEDATE>
  </record>
</arcsde_CRIME_insert_request>
```

Insert Response Document

When the insert is successfully completed, the following response document is sent to the adapter. The <Return_Msg>OK</Return_Msg> statement indicates the insert was successful.

```
<?xml version="1.0" encoding="UTF-8" ?>
<SOAP-ENV:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <SOAP-ENV:Body>
    <insertResponse xmlns="urn:iwaysoftware:ibse:jul2003:insert:response"
      cid="98742723503648685E51710C4C01D4A9">
      <arcsde_insert_response>
        <Return_Code>0</Return_Code>
        <Return_Msg>OK</Return_Msg>
        <insert_recordsNumber>1</insert_recordsNumber>
      </arcsde_insert_response>
    </insertResponse>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

Manipulating Data in the ESRI Database

In addition to inserting geocoding data, the police department can also manipulate existing crime data in the ESRI database. Using the iWay Technology Adapter for ESRI, they can query, update, or delete information. The following section provides examples of XML request and response documents to perform an update, a query, and a delete to crime information.

Update Request Document

The police department has revised the names they use to identify crimes and must update the ESRI database to reflect this. They want to rename theft to robbery.

The following XML update request document is created to perform this task. The <where> condition identifies the record in the database to be updated, CRIMEID 1111. The data between the <record> tags contains the data about CRIMEID 1111, including the new description of 'Robbery', <CRIMEDESC>Robbery</CRIMEDESC>.

```
<arcsde_CRIME_update_request
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="C:\Temp\update_request.xsd">
  <record>
    <CRIMEID>1111</CRIMEID>
    <CRIMEDESC>Robbery</CRIMEDESC>
    <TLOCATION>
      <lon>3.1415926</lon>
      <lat>3.1415926</lat>
    </TLOCATION>
    <CRIMEDATE>08-13-1967 2:22:22</CRIMEDATE>
  </record>
  <where>CRIMEID=1111</where>
</arcsde_CRIME_update_request>
```

Update Response Document

When the update is complete, an update response document is returned to the adapter. As shown in the following response document, the `<Return_Msg>OK</Return_Msg>` statement verifies that the record was updated, and the `<update_recordsNumber>1</update_recordsNumber>` statement verifies that one record was update.

```
<?xml version="1.0" encoding="UTF-8" ?>
<SOAP-ENV:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <SOAP-ENV:Body>
    <updateResponse
      xmlns="urn:iwaysoftware:ibse:jul2003:update:response"
      cid="9E04550FC76A09F4CA8730D7B3353EDD">
      <arcsde_update_response>
        <Return_Code>0</Return_Code>
        <Return_Msg>OK</Return_Msg>
        <update_recordsNumber>1</update_recordsNumber>
      </arcsde_update_response>
    </updateResponse>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

Query Request Document

The query request document retrieves a piece of information from the ESRI database. For example, this query request document asks for the crime description of the crime with ID 1111 using the `<querycolumn>crimedesc</querycolumn>` and `<where>crimeid=1111</where>` statements.

```
<?xml version="1.0" encoding="UTF-8"?>
<!--Sample XML file generated by XMLSPY v5 rel. 4 U
(http://www.xmlspy.com)-->
<arcsde_CRIME_query_request
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:noNamespaceSchemaLocation="C:\Temp\query_request.xsd"
  <querycolumn>crimedesc</querycolumn>
  <where>crimeid=1111</where>
</arcsde_CRIME_query_request>
```

Query Response Document

The query response document includes the requested information. The following query response document shows that the description for crime ID 1111 is a robbery using the `<crimedesc>Robbery</crimedesc>` statement.

```
<?xml version="1.0" encoding="UTF-8" ?>
<SOAP-ENV:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <SOAP-ENV:Body>
    <QueryResponse xmlns="urn:iwaysoftware:ibse:jul2003:Query:response"
      cid="30ACF12D7DA3C1A8285A17D090DD15CD">
      <arcsde_query_response>
        <Return_Code>0</Return_Code>
        <Return_Msg>OK</Return_Msg>
        <insert_recordsNumber>1</insert_recordsNumber>
        <record>
          <crimedesc>Robbery</crimedesc>
        </record>
      </arcsde_query_response>
    </QueryResponse>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

Delete Request Document

If the police department wants to delete a record, they create an XML delete request document. In the following XML delete request document, they want to delete the record with CRIMEID 111, identified in the `<where>CRIMEID=1111</where>` statement.

```
<?xml version="1.0" encoding="UTF-8"?>
<!--Sample XML file generated by XMLSPY v5 rel. 4 U
  (http://www.xmlspy.com)-->
<arcsde_CRIME_delete_request
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:noNamespaceSchemaLocation="C:\Temp\delete_request.xsd">
  <where>CRIMEID=1111</where>
</arcsde_CRIME_delete_request>
```

Delete Response Document

When the delete is completed, the following response document is sent to the adapter. The `<Return_Msg>OK</Return_Msg>` statement indicates that the delete was successful.

```
<?xml version="1.0" encoding="UTF-8" ?>
  <SOAP-ENV:Envelope
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
    xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <SOAP-ENV:Body>
      <DeleteResponse
        xmlns="urn:iwayssoftware:ibse:jul2003:Delete:response"
        cid="7E32FFBC27F6C7C80973C016D197150C">
        <arcsde_delete_response>
          <Return_Code>0</Return_Code>
          <Return_Msg>OK</Return_Msg>
        </arcsde_delete_response>
      </DeleteResponse>
    </SOAP-ENV:Body>
  </SOAP-ENV:Envelope>
```


Configuring the Adapter in an iWay Environment

After you successfully configure the adapter to represent a particular adapter target, the adapter can be assigned to an iWay Service Manager channel.

In this appendix:

- ❑ [Configuring the Adapter in iWay Service Manager](#)

Configuring the Adapter in iWay Service Manager

Before configuring the adapter in iWay Service Manager, you must first create a target, which represents a connection to a back-end system, using iWay Explorer. For more information on configuring targets and connections using iWay Explorer, see [Creating Targets](#) on page 25 or the *iWay Explorer User's Guide*.

You configure the adapter in the iWay Service Manager console. The configuration process creates run-time connection and persistent data files within Service Manager. The configuration process interrogates the Service Manager repository entries that were built when the target and connection were created using iWay Explorer. The defined adapter process creates the run-time repository based on the design-time repository.

Procedure: How to Define an Adapter

To define an adapter:

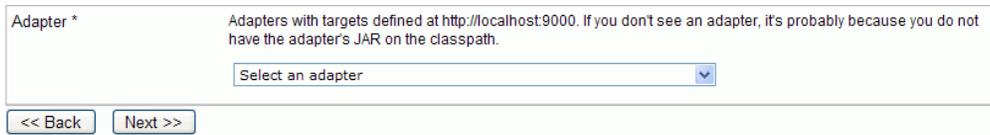
1. In the service Manager console, select *Registry*, then *Adapters*.
2. Click *Add*.

The iBSP URL pane opens, as shown in the following image.

Provide Repository Url for the new Adapter	
iBSP URL *	Repository of available adapters with user defined targets
	<input type="text" value="http://localhost:9000"/>
<< Back	Next >>

3. Enter your iBSP URL, which is the location of the Service Manager repository, for example, <http://localhost:9000>. This field is required.
4. Click *Next*.

An adapter selection pane opens, as shown in the following image.



The screenshot shows a dialog box titled "Adapter *". On the right side, there is a message: "Adapters with targets defined at http://localhost:9000. If you don't see an adapter, it's probably because you do not have the adapter's JAR on the classpath." Below this message is a drop-down menu with the text "Select an adapter" and a downward arrow. At the bottom of the dialog, there are two buttons: "<< Back" and "Next >>".

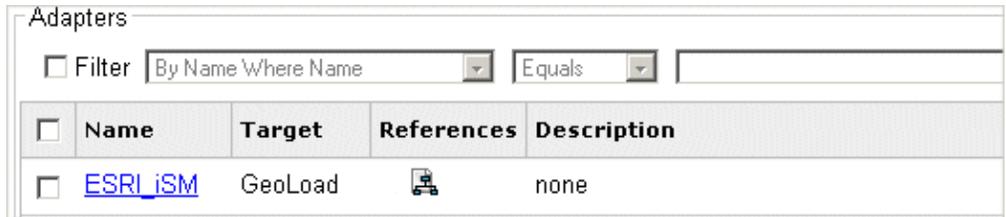
5. From the Adapter drop-down list, select the Adapter, then click *Next*.
6. From the Target drop-down list, select a target you configured for the adapter in iWay Explorer, then click *Next*.

The connection information associated with the target selected is displayed as shown in the following image.

Adapter ESRI_iSM	
Adapter	GeoLoad
Target	ESRI_iSM
Description	Edit description <input type="text"/>
Create Error Document	If on, an error document will be returned when an error occurs <input type="checkbox"/> On
Persist Connection	If on, adapter connection will be reused between executes <input type="checkbox"/> On
Adapter Connection Properties	
Host *	<input type="text" value="ixte"/>
Port *	<input type="text" value="5151"/>
Database *	<input type="text" value="sde"/>
User *	<input type="text" value="sa"/>
Password *	<input type="password"/>
Adapter Connection Properties	
Geodata path	<input type="text" value="V:\ACG"/>
Return Geocoding data or not *	<input checked="" type="checkbox"/> On

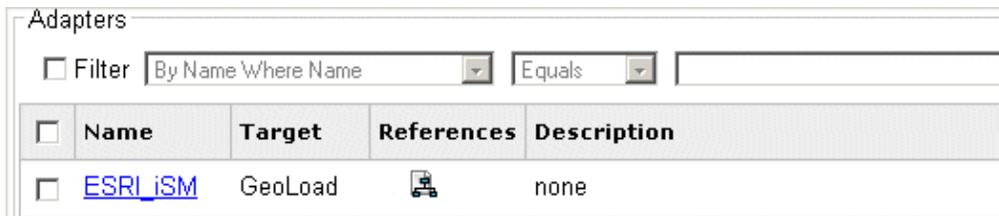
- a. Select whether to return an error document when an error occurs.
 - b. Select whether an adapter connection will be reused between executes.
 - c. Review the connection information you specified in iWay Explorer. You can change or update any information.
7. Click *Next*.
 8. Provide a name and, optionally, a description, for the adapter, and click *Finish*.

The adapter appears in the adapters list, as shown in the following image.



Procedure: How to Modify or Update an Adapter Connection

The following image shows the Adapter Defines pane which displays the name of the adapter and the description (optional).



To modify or update an adapter connection:

1. From the Adapters list, click the adapter reference you defined, in this example, [ESRI_iSM](#).

The pane that displays the target connection information opens. You cannot change the name of the adapter or the target, but you can edit the connection information.

2. After you modify the connection information, click *Update Connection Properties*.
3. After you make changes or additions to the adapter target in iWay Explorer, click *Update Adapter Data*.
4. Click *Finish*.

Troubleshooting

This section explains the limitations and workarounds when using the iWay Technology Adapter for ESRI.

The adapter-specific errors listed in this section can arise using the adapter with an iBSP configuration.

In this appendix:

- [Troubleshooting iWay Explorer](#)
- [iWay Business Services Provider Error Messages](#)

Troubleshooting iWay Explorer

This topic provides troubleshooting information for iWay Technology Adapter for ESRI.

Error	Solution
Cannot connect to the iWay Technology Adapter for ESRI from iWay Explorer.	Ensure that: <ul style="list-style-type: none"> <input type="checkbox"/> target database is running. <input type="checkbox"/> The ESRI database user ID and password are correct. <input type="checkbox"/> The port number is correct.
The following error message appears: (login error)	You have provided invalid connection information for ESRI or the wrong JAR file is in the lib directory. See the <i>iWay Installation and Configuration</i> manual for information on JAR files.
GeoLoad does not appear in the iWay Explorer Adapter node list.	Ensure that the GeoLoad JAR files are added to the lib directory. See the <i>iWay Installation and Configuration</i> manual for information on JAR files.

iWay Business Services Provider Error Messages

This topic discusses the different types of errors that can occur when processing iWay Business Services through iWay Business Services Provider (iBSP).

General Error Handling in iBSP

iBSP serves as both a SOAP gateway into the adapter framework and as the engine for some of the adapters. In both design time and execution time, various conditions can cause errors in iBSP when web services that use adapters are running. Some of these conditions and resulting errors are exposed the same way, regardless of the specific adapter; others are exposed differently, based on the adapter being used. This topic explains what you can expect when you encounter some of the more common error conditions on an adapter-specific basis.

Usually, the SOAP gateway (agent) inside iBSP passes a SOAP request message to the adapter required for the web service. If an error occurs, how it is exposed depends on the adapter and the API or interfaces that the adapter uses. A few scenarios cause the SOAP gateway to generate a SOAP fault. In general, anytime the SOAP agent inside iBSP receives an invalid SOAP request, a SOAP fault element is generated in the SOAP response. The SOAP fault element contains fault string and fault code elements. The fault code contains a description of the SOAP agent error.

The following SOAP response document results when iBSP receives an invalid SOAP request:

```
<SOAP-ENV:Envelope
xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">

  <SOAP-ENV:Body>
    <SOAP-ENV:Fault>
      <faultcode>SOAP-ENV:Client</faultcode>
      <faultstring>Parameter node is missing</faultstring>
    </SOAP-ENV:Fault>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

In this example, iBSP did not receive an element in the SOAP request message that is mandatory for the WSDL for this web service.

Adapter-Specific Error Handling

When an adapter raises an exception during execution, the SOAP agent in iBSP produces a SOAP fault element in the generated SOAP response. The SOAP fault element contains fault code and fault string elements. The fault string contains the native error description from the adapter target system. Since adapters use the target system interfaces and APIs, whether or not an exception is raised depends on how the target systems interface or API treats the error condition. If a SOAP request message is passed to an adapter by the SOAP agent in iBSP, and that request is invalid based on the WSDL for that service, the adapter may raise an exception yielding a SOAP fault.

While it is almost impossible to anticipate every error condition that an adapter may encounter, the following is a description of how adapters handle common error conditions and how they are then exposed to the web services consumer application.

Invalid SOAP Request

When the adapter receives a SOAP request message that does not conform to the WSDL for the iWay Business Services being executed, the following SOAP response is generated.

```
<?xml version="1.0" encoding="ISO-8859-1"
  ?>
<SOAP-ENV:Envelope
xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
<SOAP-ENV:Body>
  <SOAP-ENV:Fault>
    <faultcode>SOAP-ENV:Server</faultcode>
    <faultstring>RPC server connection failed: Connection refused:
connect</faultstring>
  </SOAP-ENV:Fault>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

Empty Result From an Adapter Request

When the adapter executes a SOAP Request using input parameters passed that do not match records in the target system, the following SOAP response is generated.

Note: The condition for this adapter does not yield a SOAP fault.

```
<SOAP-ENV:Envelope xmlns:xsi="http://www.w3.org/1999/XMLSchema-instance"
xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsd="http://www.w3.org/1999/XMLSchema">
  <SOAP-ENV:Body>
    <m:RunDBQueryResponse xmlns:m="urn:schemas-iwaysoftware-com:iwse"
xmlns="urn:schemas-iwaysoftware-com:iwse"
cid="2A3CB42703EB20203F91951B89F3C5AF">
      <RunDBQueryResult run="1" />
    </m:RunDBQueryResponse>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```



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