

# iWay

iWay Application Adapter  
for Siebel User's Guide  
Version 7.0.x and Higher

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# Preface

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This document is written for system integrators who develop client interfaces between Siebel and other applications.

**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](mailto:Customer_Success@ibi.com).

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## How This Manual Is Organized

This manual includes the following chapters:

	<b>Chapter/Appendix</b>	<b>Contents</b>
1	Introducing the iWay Application Adapter for Siebel	Introduces the adapter and describes its functions and features.
2	Siebel Supported Platforms Matrix	Specifies version, platform, and database support information for iWay Application Adapter for Siebel.
3	Creating XML Schemas and iWay Business Services	Describes how to create schemas for Siebel Business Components, Business Services, and Integration Objects as well as how to create iWay Business Services.
4	Listening for Siebel Events	Describes how to use the adapter, deployed in the iWay run-time environment or to an application server, to listen for events in a Siebel system.
5	Troubleshooting and Error Messages	Explains the limitations and workarounds when connecting to Siebel.
A	Siebel Adapter Configuration in an iWay Environment	Describes how to configure the adapter in the Service Manager console.
B	Siebel Workflows	Describes Siebel Workflows relating to the processing of Siebel Integration Objects using Siebel XML.

## Documentation Conventions

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

<b>Convention</b>	<b>Description</b>
THIS TYPEFACE or this typeface	Denotes syntax that you must enter exactly as shown.
<i>this typeface</i>	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.
<u>underscore</u>	Indicates a default setting.
Key + Key	Indicates keys that you must press simultaneously.
{ }	Indicates two or three choices. Type one of them, not the braces.
	Separates mutually exclusive choices in syntax. Type one of them, not the symbol.
...	Indicates that you can enter a parameter multiple times. Type only the parameter, not the ellipsis (...).
. . . . . .	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.

<b>Platform</b>	
<b>Operating System</b>	
<b>OS Version</b>	
<b>JVM Vendor</b>	
<b>JVM Version</b>	

The following table lists the deployment information our consultants require.

<b>Adapter Deployment</b>	For example, JCA, Business Services Provider, iWay Service Manager
<b>Container</b>	For example, WebSphere

<b>Version</b>	
<b>Enterprise Information System (EIS) - if any</b>	
<b>EIS Release Level</b>	
<b>EIS Service Pack</b>	
<b>EIS Platform</b>	

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

<b>iWay Adapter</b>	
<b>iWay Release Level</b>	
<b>iWay Patch</b>	

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

<b>Request/Question</b>	<b>Error/Problem Details or Information</b>
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?	
Describe the problem.	
Describe the steps to reproduce the problem.	
Specify the error message(s).	

Request/Question	Error/Problem Details or Information
Any change in the application environment: software configuration, EIS/database configuration, application, and so forth?	
Under what circumstance does the problem <i>not</i> occur?	

The 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*.

## User Feedback

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 Application Adapter for Siebel

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This section explains how the iWay Application Adapter for Siebel facilitates the exchange real-time business data between other applications and Siebel systems. It describes the key features of the adapter as well as the Siebel architecture.

**In this chapter:**

- [Features of the iWay Application Adapter for Siebel](#)
  - [Typical Siebel Server Deployment](#)
  - [The Siebel Application Model](#)
  - [Integrating With Siebel](#)
  - [Siebel EAI Architecture](#)
  - [Using iWay Explorer With the iWay Application Adapter for Siebel](#)
  - [Encoding Support on UNIX Platforms](#)
  - [Configuring Connection Pooling for Siebel](#)
  - [Siebel Version 6.2 and Lower Connectivity Prerequisites](#)
  - [Deployment Information for Your iWay Adapter](#)
  - [Siebel Information Roadmap](#)
- 

## Features of the iWay Application Adapter for Siebel

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

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

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

The iWay Application Adapter for Siebel:

- ❑ Supports synchronous and asynchronous, bidirectional message interactions for Siebel Business Services, Business Components, and Integration Objects.
- ❑ Includes the iWay Explorer, a GUI tool that uses the Siebel Object Manager to explore Siebel metadata and build XML schemas or web services.
- ❑ Supports Siebel transports (MQSeries, File, and HTTP).

The iWay Application Adapter for Siebel supports all 23 Siebel Industry Applications (SIA) through business objects, business components, business services, and integration objects. Siebel Industry Applications include industry verticals such as insurance, high technology, automotive, communications, media, financial services, life sciences, manufacturing, and consumer goods.

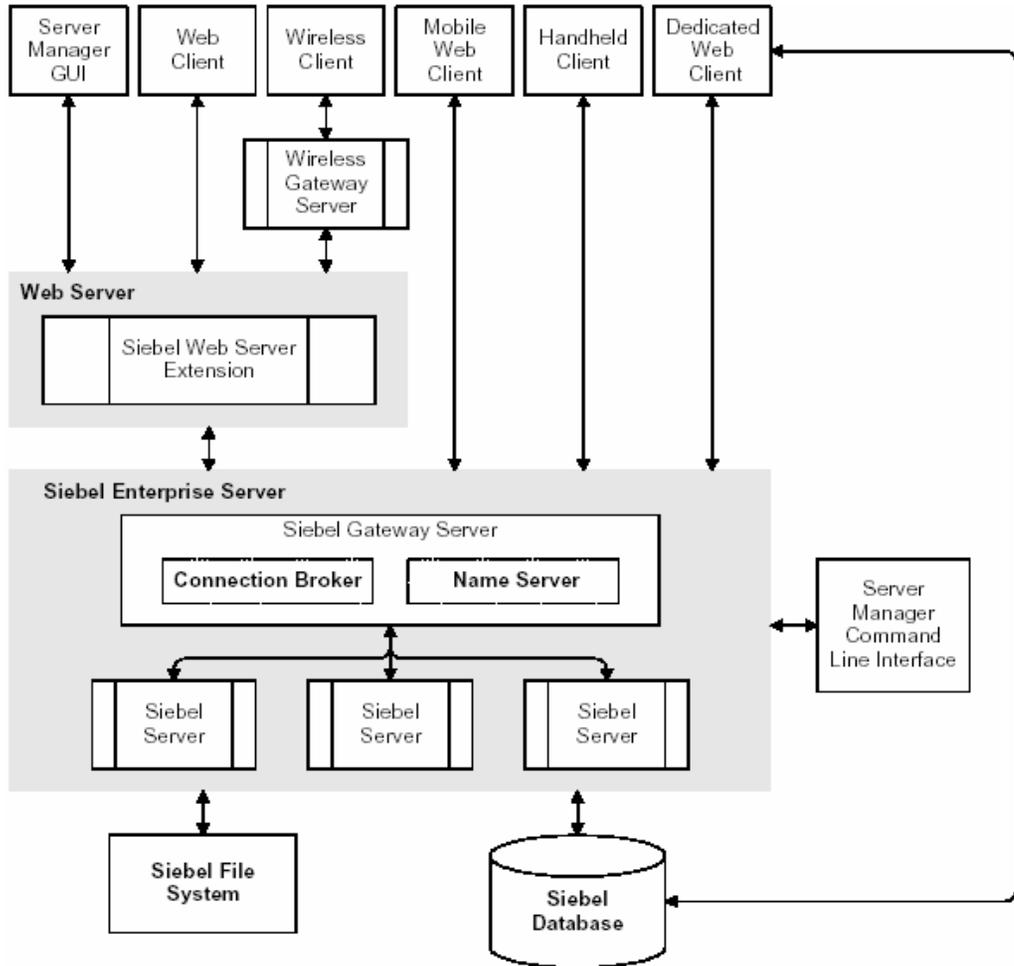
Siebel Industry Applications is tailored to the specific business requirements and processes of a particular industry with additional business logic in the form of business objects, business components, business services, and integration objects. The iWay Application Adapter for Siebel exposes and generates metadata and interacts with these industry-specific objects.

## Typical Siebel Server Deployment

A typical Siebel server deployment consists of Siebel clients (web, mobile, wireless, handheld), a Siebel web server, an Enterprise server (Enterprise server, Siebel servers and gateway servers), and Siebel database and file systems.

The Siebel web server processes web client requests. The Siebel Gateway server performs authentication and acts as the single entry point to access Siebel servers. The Siebel servers are the middle tier comprising several object manager components used to perform operations such as integration, workflow management, connectivity to Siebel databases, and account assignment. These Siebel servers support both multi-process and multi-threaded components.

The following image shows a typical Siebel Server deployment.



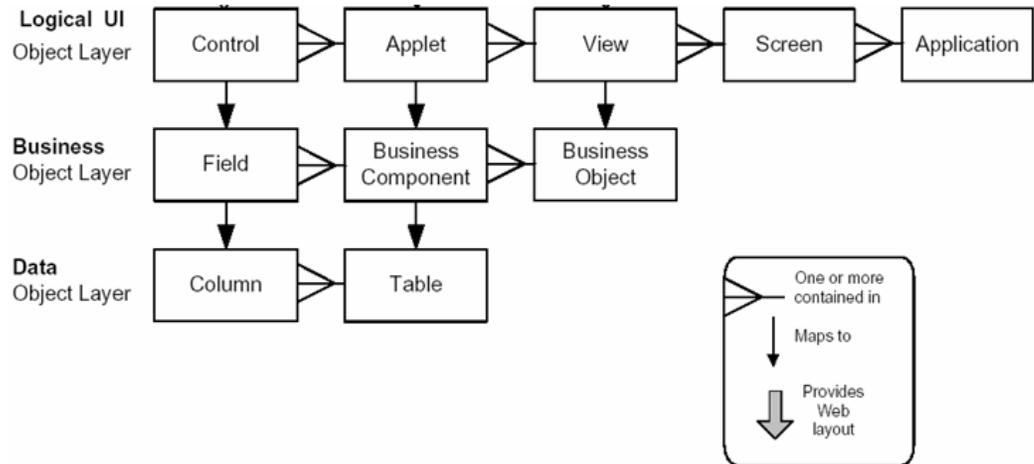
## The Siebel Application Model

The Siebel Enterprise application defines a data abstraction layer that removes dependencies on the underlying database. After defining and connecting to a Siebel target within iWay Explorer, three primary kinds of Siebel object types are visible:

- Business Objects
- Business Services
- Integration Objects.

These object types represent the Siebel data structure in the Siebel business logic layer and can be configured using Siebel Tools.

The following image depicts the Siebel abstraction layers.



**Business Objects.** A business object implements a business model (logical database diagram), tying together a set of interrelated business components using links. The links provide the one-to-many relationships that govern how the business components interrelate in the context of this business object. Expanding a Business Object in iWay Explorer reveals all the business components related to that particular business object. A Business Component is a logical entity that associates columns from one or more tables into a single structure. When instantiated in a Siebel application, a Business Component is comparable to a record set. Its definition in Siebel Tools provides the foundation for controlling how data is inserted, deleted, queried, and updated within the tables it references. You can view these methods when you expand any of the Business Components. When you click on any of these methods you will see the request and response schemas.

**Business Services.** A Business Service is a reusable module containing a set of methods. It is an object that encapsulates and simplifies the use of some set of functionality. It provides the ability to call its C++ or script methods from customer-defined scripts and object interface logic, through the invoke-method mechanism. A service has properties and methods that can be viewed by expanding a Business Service node in iWay Explorer.

**Integration Objects.** Siebel Integration Objects represent integration metadata for Siebel Business objects, XML, SAP IDOCs, and SAP BAPIs as common structures that the EAI infrastructure can understand. You can use Siebel tools to create the XSD or XDR schemas to be used as IO nodes. (An XDR created in Siebel Tools must be converted to an XML schema in iWay Explorer.) In this case, the XML is hierarchical and represents a complex data type.

## Integrating With Siebel

You can use the iWay Application Adapter for Siebel to invoke a Siebel business process, such as add or update account, or you can use the adapter as part of an integration effort to connect Siebel and non-Siebel systems. The iWay Application Adapter for Siebel is bidirectional and can detect an event from Siebel by receiving a Siebel XML document emitted by Siebel.

When integrating with Siebel using Siebel XML documents, the adapter application developer can use existing Siebel Integration Objects or create new Siebel Integration Objects to use within a Siebel Workflow. The Workflow processes inbound or outbound Siebel XML and uses various transports such as MQSeries, File, and HTTP to exchange transactions with external systems. The Siebel Workflow is usually created by the Siebel administrator or developer using Siebel Workflow Administration screens.

When integrating with Siebel directly using the Java™ Data Bean or COM Data Interface, the iWay Application Adapter for Siebel does not require a Siebel Integration Object or Siebel Workflow. Instead, it executes Siebel Business Services and Siebel Business Components directly.

The following table lists Siebel objects and describes the transport methods and processes for each object.

<b>Siebel Objects</b>	<b>API or Transport</b>	<b>Process</b>
<b>Business Services</b>	Java Data Bean (Siebel Version 6.3.x - 8.0) COM Data Interface (Siebel Version 6.0.1 - 6.2.x)	Service
<b>Business Components</b>	Java Data Bean (Siebel Version 6.3.x - 8.0) COM Data Interface (Siebel Version 6.0.1 - 6.2.x)	Service
<b>Integration Objects</b>	File	Event, Service
	HTTP	Event, Service

	MQSeries	Event, Service
	MQ Read	Service

The iWay Application Adapter for Siebel supports all 23 Siebel Industry Applications. Siebel Industry applications include industry verticals such as insurance, high technology, automotive, communications, media, financial services, life sciences, manufacturing, and consumer-goods. A Siebel Industry Application is tailored to the specific business requirements and processes of a particular industry, with additional business logic in the form of Business Objects, Business Components, Business Services, and Integration Objects. The iWay Application Adapter for Siebel is able to expose and generate metadata and interact with these industry-specific objects.

### Siebel Versions and APIs Supported

The iWay Application Adapter supports a variety of Siebel releases on multiple platforms. This section lists support information for Windows and UNIX environments.

The following table lists Siebel Versions and APIs supported when the adapter is running on a Windows platform.

<b>Adapter Platform</b>	<b>Siebel Platform</b>	<b>Siebel Release</b>	<b>API</b>
Windows	Windows	6.0.1 - 6.2	COM
Windows	Windows	6.3.x - 8.0	Java Data Bean
Windows	Solaris	6.3.x - 8.0	Java Data Bean
Windows	AIX	6.3.x - 8.0	Java Data Bean

The following table lists Siebel versions and APIs supported when the adapter is running on a UNIX platform.

<b>Adapter Platform</b>	<b>Siebel Platform</b>	<b>Siebel Release</b>	<b>API</b>
UNIX (HP-UX, Solaris)	Windows, AIX, HP-UX, Linux	6.3.x - 8.0	Java Data Bean

<b>Adapter Platform</b>	<b>Siebel Platform</b>	<b>Siebel Release</b>	<b>API</b>
UNIX (HP-UX, Solaris)	Solaris	6.3.x - 8.0	Java Data Bean

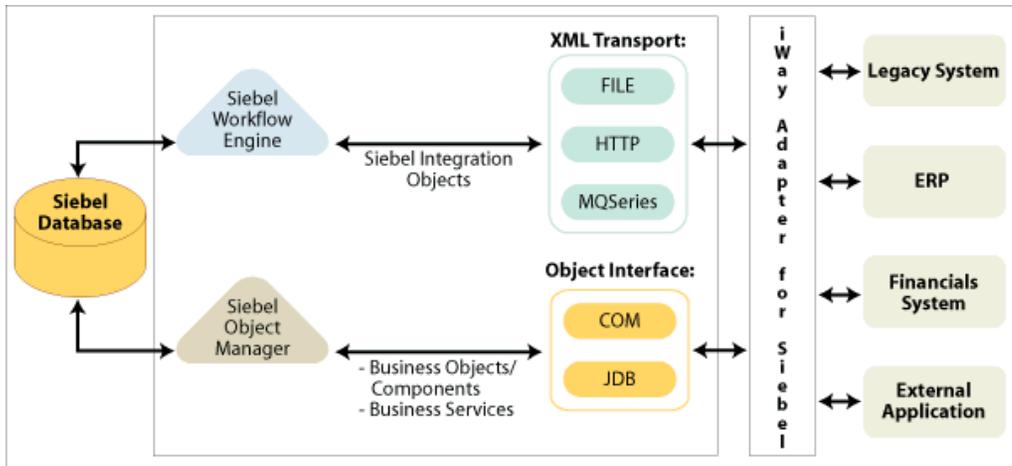
## Siebel EAI Architecture

Siebel provides for integration with other applications and systems using its Siebel EAI framework and its Business Integration Manager facility. The iWay Application Adapter for Siebel uses the Siebel EAI framework and leverages various integration access methods to provide the greatest amount of flexibility and functionality while working within the Siebel framework.

The iWay Application Adapter for Siebel supports the following integration access methods:

- Siebel Java Data Bean for services involving Siebel Business Components or Siebel Business Services.
- Siebel COM Data Interface for services involving Siebel Business Components or Siebel Business Services.
- Siebel XML for events and services involving Siebel Integration Objects.

The following image shows how the iWay Application Adapter for Siebel helps integrate a Siebel database through either a transport protocol such as File, HTTP, or MQSeries and the Siebel Workflow Engine for Siebel Integration Objects with legacy systems, ERPs, financial systems, and external applications. It also shows how the adapter helps to integrate a Siebel database through an object interface such as COM or JDB and the Siebel Object Manager for Business Components and Business Services with legacy systems, ERPs, financial systems, and external applications.



## Using iWay Explorer With the iWay Application Adapter for Siebel

iWay Explorer uses an explorer metaphor for browsing the Siebel system for Business Services, Business Objects, Business Components, and Integration Objects. The explorer enables you to create XML schemas and web services for the associated object. External applications that access Siebel through the iWay Application Adapter for Siebel use either XML schemas or web services to pass data between the external application and the adapter.

The adapter works with all implementations of iWay Explorer. This documentation illustrates the explorer using Servlet iWay Explorer, a Java web application running within a servlet container that is accessible through a web browser.

iWay Explorer uses interfaces provided by Siebel and in-depth knowledge of the Siebel application systems to access and browse business object metadata. After an object is selected, iWay Explorer can generate an XML schema or web service to define the object for use in conjunction with the iWay Application Adapter for Siebel.

External applications accessing Siebel via the iWay Application Adapter for Siebel use either the XML document or web service to pass data between the external application and the adapter.

The steps required to create XML schemas for web services are illustrated in [Creating XML Schemas and iWay Business Services](#) on page 31. For more information on using iWay Explorer, see the *iWay Explorer User's Guide*.

## Key Features of iWay Explorer

Key features of iWay Explorer include:

- The ability to connect to and explore a variety of application systems.
- Access to application system object metadata.
- A point-and-click process for generating XML schemas and web services.

## Encoding Support on UNIX Platforms

When using the adapter on UNIX environments, you must edit the startup script for your server to add a JVM option specifying the file encoding.

When using the adapter in an **iWay environment**, you must do the following:

- If you run Service Manager as a **service** (daemon), edit the script you use to start the service (for example, `startservice.sh`) and add the JVM option to the last line, for example:

```
su $IWAYUSER -c "java $REMDBG -cp $CLASSPATH -DIWAY7=$IWAY7
-Dfile.encoding=ISO8859_1 com.ibi.service.edaqsilentService -config
$IWAYCONFIG >> $IWAY7/serviceOut.txt &"
```

- If you run Service Manager as a **non-service**, edit the script you use to start Service Manager (e.g., `way7.sh`) and add the JVM option to the line that calls the java command, for example

```
-Dfile.encoding=ISO8859_1: java $REMDBG -cp $CLASSPATH
-DIWAY7=$IWAY7 -Dfile.encoding=ISO8859_1 edaqsilentService -config $SCRIPT $2 $3
$4 $5 $6
```

When using the adapter in a **third-party application server environment**, you must manually edit the start script for that platform to add a JVM option specifying the file encoding:

```
java $REMDBG -cp $CLASSPATH -DIWAY7=$IWAY7 -Dfile.encoding=ISO8859_1
edaqsilentService -config $SCRIPT $2 $3 $4 $5 $6
```

## Configuring Connection Pooling for Siebel

To configure connection pooling for Siebel, you must create a `siebel.properties` file for use with the iWay Application Adapter for Siebel. This file can be used to provide default parameters for applications connecting to Siebel using the Java Data Bean API. The `siebel.properties` file must be added to your system classpath.

The following table lists and describes the property values that can be added in the siebel.properties file.

Property Type	Property	Description
Request Timeout	siebel.conmgr.txtimeout	Indicates the transaction timeout in seconds on the server side.  The default is 2700 seconds.
Poolsize	siebel.conmgr.poolsize	Indicates the connection pool size. Connection pool maintains a set of connections to a specific server process.  The default is 2 with a maximum of 500.
Session Timeout	siebel.conmgr.sesstimeout	Indicates the transaction timeout in seconds on the client side.  The default is 600 seconds.
Encryption	siebel.conmgr.jce	Indicates the usage of Java Cryptography Extension (JCE).  Setting a value of 1 enables JCE and setting a value of 0 disables JCE.
Boolean	siebel.user.encrypted	Specifies whether the user name and the password is encrypted with com.siebel.extra.MangleString.

## Siebel Version 6.2 and Lower Connectivity Prerequisites

You must perform the following steps to connect to your Siebel system (version 6.2 and lower) using COM connectivity for an iBSP configuration.

1. Install the Siebel thick client on the same machine where the adapters are installed.
2. Install the database client (Microsoft SQL Server or Oracle) on the same machine.
3. The Siebel .DLL files (iwsiebel.local.dll and iwsiebel.core.dll) must be added to the classpath. These files are located in the following directory:

`<iway_home>\lib`

4. Locate the uagent.cfg file in the following Siebel thick client directory:

```
drive:\sea\client\bin
```

5. Edit the uagent.cfg file and change the data source parameter value from "local" to "server".

In addition, ensure that the following parameters are configured as shown:

```
EnableOLEAutomation = TRUE
```

```
OLEAutomationDLL = sscfole.dll
```

6. Edit the data source for SEA MSQI with appropriate parameters.

You can edit a data source in Windows by accessing the Control Panel, Administrative Tools, and Data Sources (ODBC).

7. Use the following target type when creating the adapter target connection:

```
Siebel 6.2 - (Local COM Access Implementation)
```

8. Provide the full path to the uagent.cfg file when creating an adapter target connection, for example:

```
drive:\sea\client\bin\uagent.cfg
```

## Deployment Information for Your iWay Adapter

Your iWay adapter 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 system connections, create web services, and configure event capabilities. Service Manager can access this configuration information through the iWay7 repository to create a robust integration solution.

### 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 a system for metadata. The explorer enables you to create XML schemas and web services for the associated object. In addition, you can create ports and channels to listen for events in a system. External applications that access a system through the adapter use either XML schemas or web services to pass data between the external application and the adapter.

## iWay Business Services Provider (iBSP)

The 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.

## Siebel Information Roadmap

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

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

<b>Deployed Component</b>	<b>For more information, see</b>
iWay Explorer	Chapters 2 and 3 of this guide <i>iWay Installation and Configuration</i> <i>iWay Explorer User's Guide</i>
iWay Business Services Provider (iBSP)	<i>iWay Installation and Configuration</i>



## Siebel 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 Application Adapter for Siebel. It is designed to provide a consolidated view of Siebel releases and the various operating systems and databases, on which they are supported.

### **In this chapter:**

- [Siebel Supported Platforms Matrix Overview](#)
  - [Siebel Versions](#)
  - [Siebel Supported Operating Systems](#)
  - [Databases](#)
  - [Java Development Kit \(JDK\)](#)
  - [Communication Modes](#)
  - [Object Types and Interfaces](#)
  - [Communication Types](#)
  - [Siebel Operations](#)
  - [Other Functions for Siebel](#)
  - [Known Limitations for Siebel](#)
  - [Related Information for Siebel in Specific iWay Releases](#)
-

## Siebel Supported Platforms Matrix Overview

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

iWay Application Adapter for Siebel uses XML messages to enable non-Siebel applications to communicate and exchange transactions with Siebel using services and events.

### Siebel Versions

iWay Application Adapter for Siebel supports the following versions of Siebel CRM systems:

- Siebel Version 6.8
- Siebel Version 7.0 and 7.6
- Siebel Version 8.0 and 8.1

### Siebel Supported Operating Systems

iWay Application Adapter for Siebel supports all of the operating systems that are listed in the *iWay Installation and Configuration Guide* under *Operating System Requirements*.

The only exceptions to the list are z/OS and OS/400, which are not supported by iWay Application Adapter for Siebel.

### Databases

iWay Application Adapter for Siebel does not function directly with databases and only operates at the API level. The APIs work directly with the databases.

### Java Development Kit (JDK)

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

### Communication Modes

iWay Application Adapter for Siebel supports the following communication modes:

- Services (Outbound).** Applications use this capability to initiate a Siebel business event. The application does this by sending a message to Siebel.

- Events (Inbound).** Applications use this capability to access Siebel data when a Siebel business event occurs. The application receives a message from Siebel.

## Object Types and Interfaces

The following table lists supported Siebel objects and describes the transport methods and processes for each object.

Siebel Objects	API or Transport	Process	Synchronization Type
Business Services	Java Data Bean (Siebel Version 6.3.x - 8.0)	Service	<input type="checkbox"/> Synchronous <input type="checkbox"/> Asynchronous
Business Components	Java Data Bean (Siebel Version 6.3.x - 8.0)	Service	<input type="checkbox"/> Synchronous <input type="checkbox"/> Asynchronous
Integration Objects	File	Service	Asynchronous
		Event	Asynchronous
	HTTP	Service	Synchronous
		Event	Asynchronous
	MQSeries	Service	Synchronous
		Event	Asynchronous
MQ Read	Service	Synchronous	

## Communication Types

iWay Application Adapter for Siebel supports:

- Synchronous and asynchronous, bidirectional message interactions for Siebel Business Services, Business Components, and Integration Objects.
- Siebel transports (MQSeries, File, and HTTP).

## Siebel Operations

iWay Application Adapter for Siebel exposes several different Siebel methods (such as Query, Insert, Update, Delete, and so on) for each of the objects and services in each of the interfaces (Business Services, Business Components, and Integration Objects). This numerous list of object methods is exposed using iWay Explorer as described in the *iWay Application Adapter for Siebel User's Guide*.

- ❑ When integrating with Siebel using Siebel XML documents, the adapter application developer can use existing Siebel Integration Objects or create new Siebel Integration Objects to use within a Siebel Workflow. The Workflow processes inbound or outbound Siebel XML and uses various transports such as MQSeries, File, and HTTP to exchange transactions with external systems. The Siebel Workflow is usually created by the Siebel administrator or developer using Siebel Workflow Administration screens.
- ❑ When integrating with Siebel directly using the Java™ Data Bean Interface, iWay Application Adapter for Siebel does not require a Siebel Integration Object or Siebel Workflow. Instead, it executes Siebel Business Services and Siebel Business Components directly.

## Other Functions for Siebel

There is no known list related to other functions for iWay Application Adapter for Siebel.

## Known Limitations for Siebel

This section lists known issues for iWay Application Adapter for Siebel.

- ❑ When using the adapter on UNIX environments, you must edit the startup script for your server to add a JVM option that specifies the file encoding.
- ❑ To enable connection pooling for Siebel, you must configure a *siebel.properties* file. For more information, see the *iWay Application Adapter for Siebel User's Guide*.

## Related Information for Siebel in Specific iWay Releases

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

This section provides the information you require to create schemas for Siebel Business Components, Business Services, and Integration Objects. It describes how to use Servlet iWay Explorer.

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

**In this chapter:**

- [Processing Overview](#)
  - [Starting Servlet iWay Explorer](#)
  - [Managing a Siebel Connection](#)
  - [Viewing Metadata](#)
  - [Creating a Schema for a Siebel Business Component or Siebel Business Service](#)
  - [Creating an XML Schema for a Siebel Integration Object](#)
  - [Locating Schemas](#)
  - [Returning Fields in a Specified Order](#)
  - [Using the QueryWithView and QueryEx Methods](#)
  - [Understanding the ROW\\_ID and REASON Attributes](#)
  - [Creating iWay Business Services](#)
- 

### Processing Overview

The iWay Application Adapter for Siebel enables interaction with Siebel Business Services, Business Components, and Integration Objects.

When using the adapter to integrate with Siebel Business Services and Business Components, the adapter uses the Siebel-supplied Java Data Bean or COM EAI interface. You are not required to create Siebel workflows. Also, because the service is accomplished through a TCP connection, you do not require a transport layer such as MQSeries, File, or HTTP.

A request begins with the sending of an XML request document. In most cases, the response is an XML response document that indicates the execution of the Business Service or Business Component.

When using the adapter to integrate with Siebel Integration Objects, the adapter uses Siebel XML, HTTP, File, WebSphere MQ, and MSMQ transports and Siebel workflows. The workflow is defined within Siebel to either emit or receive Siebel XML through one of the supported Siebel transport services for MQSeries, File, or HTTP.

### Encoding Support on UNIX Platforms

When using the adapter in a **third-party application server environment** on UNIX environments, you must edit the startup script for your server to add a JVM option specifying the file encoding:

```
java $REMDBG -cp $CLASSPATH -DIWAY7=$IWAY7  
-Dfile.encoding=ISO8859_1 edaqm -config $SCRIPT $2 $3 $4 $5 $6
```

## Starting Servlet iWay Explorer

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

### **Procedure:** How to Open Servlet iWay Explorer

To open iWay Explorer:

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

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

where:

*hostname*

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

*port*

Is the port for the domain you are using for iWay.

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

You are ready to create new targets to the Siebel enterprise information system.

## Managing a Siebel Connection

To browse the Siebel Business Services, Business Components, and Integration Objects, you must define a target to Siebel. After you define the target, the parameters are automatically saved. However, you must supply the password to Siebel every time you connect to the target. For more information on connecting to a target, see [How to Connect to a Defined Target](#) on page 37.

**Note:** The connection parameters can be obtained from the eapps.cfg file, which is located in the following directory:

```
drive:\SiebelRoot\SWEApp\BIN
```

where:

```
SiebelRoot
```

Is the Siebel installation directory.

You create a new target from the Service Adapters tab of iWay Explorer. For information on creating a target, see [How to Define a Target to Siebel](#) on page 33.

Although you can maintain multiple open connections to different application systems, it is good practice to close connections when not in use. For information on disconnecting from a target, see [How to Disconnect From Siebel](#) on page 37.

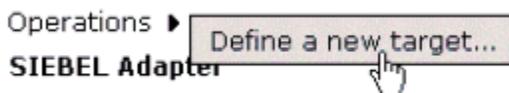
After you create a target for Siebel using iWay Explorer, you can edit any information that you provided during the creation process. For information on editing a target, see [How to Edit a Target](#) on page 37.

You can delete a target, rather than just disconnecting from a target and closing it. When you delete the target, the node disappears from the list of Siebel targets in the left pane of the explorer. For information on deleting a target, see [How to Delete a Target to Siebel](#) on page 38.

### **Procedure:** How to Define a Target to Siebel

To define a target to Siebel:

1. In the left pane of iWay Explorer, select the *Siebel* node.



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

The following image shows the pane that appears on the right where you can define a new target.

### Add a new SIEBEL target

---

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

Target Name:

Description:

Target Type:  ▼

Perform the following steps:

- a. In the Target Name field, type a name for the new target, for example, SiebelConnection.
  - b. In the Description field, type a brief description (optional).
  - c. From the Target Type drop-down list, select the type of target to connect to.  
The default value is Java Data Bean Connection.
3. Click *Next*.

The Set connection info pane opens on the right. The following tabs are available: Logon and Advanced. The Logon tab is active as shown in the following image.

**Set connection info**

---

Logon      Advanced

Gateway Server:

Enterprise Name:

Siebel Server:

User:

Password:

Siebel Version :  ▼

Perform the following steps:

- a. In the Gateway Server field, type the name of the server. To specify a Gateway Server that uses a port other than the default (usually, 2320), add a colon and the port number, for example, gateway\_name: port\_number.
  - b. In the Enterprise Name field, type the appropriate name.
  - c. In the Siebel Server field, type the name of your Siebel server.
 

**Note:** You do not have to supply a value in this field when connecting to a Siebel 7.7 system and higher.
  - d. In the User field, type the user name.
  - e. In the Password field, type the password associated with the user name.
  - f. In the Siebel Version field, select one of the following Siebel system versions you are connecting to from the drop-down list:
    - Siebel 7.5 or below (default).
    - Siebel 7.7 and above.
4. Click the *Advanced* tab.

The Advanced tab becomes available as shown in the following image.

**Set connection info**

---

Logon      Advanced

Language:

Object Manager:

Repository Name:

5. Verify the following: Language, Object Manager, and Repository Name.

Object Manager is the name of an active Siebel Object Manager. The following table shows examples of various Object Managers.

Siebel Object Manager	Associated Application
EAIObjMgr	Siebel 7.0.3
EAIObjMgr_enu	Siebel 7.5, 7.7, 7.8, and 8.0

**Note:** Siebel 7.5, 7.7, 7.8, and 8.0 requires that you add the language extension (for example, \_enu) to the end of the Object Manager name. Check with your Siebel Administrator for the specific names that apply to your system.

If no repository is specified, a full list of objects from all available repositories is returned. If a specified repository is not found, an empty list of objects is returned.

The configuration parameters supplied are used by Siebel client applications to connect to the Siebel system. For more information about these parameters, see your Siebel documentation or ask your Siebel system administrator.

6. After you provide all the required information for your target, click *Finish*.

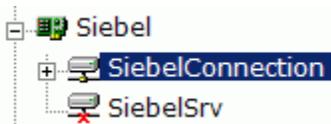
The Siebel target appears below the Siebel node in the left pane. You are now ready to connect to your Siebel target.

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

To connect to a previously defined Siebel target:

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

The following image shows the Siebel node with the SiebelConnection target icon selected beneath it. The SiebelSrv target is disconnected from the Siebel system.



You can browse available Business Objects, Business Services, and Integration Objects in the Siebel system.

**Procedure: How to Disconnect From Siebel**

To disconnect from Siebel:

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

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

**Procedure: How to Edit a Target**

To edit a target:

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

The following image shows the Edit pane that opens on the right. There are three fields where you can edit information: Target Name, Description, and Target Type. You can click a button to continue, go back, cancel out of the Edit pane, or view help.

### Edit SIEBEL target SiebelConnection

---

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

Target Name:

Description:

Target Type:  ▼

3. Modify the target information.
4. To continue modifying additional information, click *Next*.
5. When you are finished making all of your edits, click *Finish*.

### **Procedure:** How to Delete a Target to Siebel

To delete a target to Siebel:

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

A confirmation dialog box opens.

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

The SiebelConnection node disappears from the left pane.

## Viewing Metadata

Viewing metadata is useful for understanding the structure of Siebel data. You can review the parameters, data types, and other attributes in the right pane.

**Procedure: How to View Metadata**

To view metadata:

1. If you have not started the explorer, start iWay Explorer and connect to your Siebel system.
2. In the left pane, expand the Business Object or Business Service containing the component for which you want to generate schema.
3. Expand the Business Object or Business Service node.

A Business Object contains Business Components. For each Business Component, there are insert, update, delete, and query capabilities. iWay Business Services can be created against these functions.

4. Expand the Business Object or the Business Service node in which you are interested to view the components under it.

**For a Business Object**, select the node in which you are interested.

The following image shows the *Account* Business Object expanded with the *Account* component selected.



**Note:** Each Siebel Business Component contains two types of methods that can be used to create an XML schema or publish a WSDL: RPC and non-RPC methods. For example, if you expand the Account Business Component you will find the insert and insertRPC methods.

The non-RPC method, for example, insert, can be considered as a complex method type that is designed in a document-literal style to construct more complex requests in an integration scenario.

The RPC method, for example, insertRPC, can be considered as a simplified method type that is loosely typed. RPC methods are recommended for more simple integration scenarios.

**For a Siebel Business Service**, select the object in which you are interested.

The following image shows the *Simple Add Account* Business Service expanded with the *addAccount* component selected.



**Note:** You must add a Service Node using iWay Explorer if the Business Service method has a method argument of type hierarchy before viewing metadata, creating an XML schema, or publishing a WSDL file. For more information, see [How to Create a Service Node](#) on page 49.

**For an Integration Object,** select the Integration Object in which you are interested.

The following image shows the *Sample Account* Integration Object selected.



**Note:** You must add an IO Node using iWay Explorer before viewing metadata. For more information, see [Creating an XML Schema for a Siebel Integration Object](#) on page 52.

- In the right pane, click the ellipsis (...) in the Table row of the properties table.

A metadata table appears in the right pane and displays the details of the table you selected. The following image is a sample Details for collection property Table. The table consists of a heading row with column labels that identify each of the seven columns: Name, Type, Required, MultiValued, ReadOnly, Active, and Hidden. Each row represents a different property.

Name	Type	Required	MultiValued	ReadOnly	Active	Hidden
Account_spcCompetitors	string	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Account_spcCondition	string	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Account_spcMarkets	string	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Account_spcOrganization_s...	string	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Account_spcProducts	string	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Account_spcRole	string	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Account_spcStatus	string	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Account_spcTrend	string	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Address_spcActive_spcStatus	string	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Address_spclId	string	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Address_spclIntegration_spclId	string	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Agreement_spcEnd_spcDate	string	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Agreement_spcName	string	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Agreement_spcStart_spcDate	string	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Agreement_spcStatus	string	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Algorithm_spcType	string	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Alias	string	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Annual_spcRevenue	string	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Assignment_spcArea_spcC...	string	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Assignment_spcCountry_sp...	string	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Assignment_spcDenorm_sp...	string	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Assignment_spcExcluded	boolean	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Assignment_spcManual_sp...	string	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Assignment_spcSystem_sp...	string	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## Creating a Schema for a Siebel Business Component or Siebel Business Service

You can create service schemas for Business Services, Business Components, and Integration Objects using iWay Explorer. For information on creating schemas for Integration Objects, see [Creating an XML Schema for a Siebel Integration Object](#) on page 52.

The following topic describes how to create schemas for the adapter when you deploy the iWay Application Adapter for Siebel for use in a Service Manager environment or an iWay Business Services environment.

If you plan to deploy the iWay Application Adapter for Siebel in a web services environment, see also [Creating iWay Business Services](#) on page 70.

## Creating an XML Schema for a Siebel Business Component or Siebel Business Service

Once you have connected to your Siebel target, you can browse the available Siebel Business Components using iWay Explorer and create an XML schema directly.

However, if you want to browse metadata for Siebel Business Services, create an XML schema or publish a WSDL file for a specific Siebel Business Service method, you must consider the following:

1. If the Business Service method you want to use has a method argument of type hierarchy, you must add a Service Node using iWay Explorer.

For more information on adding a Service Node, see [How to Create a Service Node](#) on page 49.

Once a Service Node is added, you can continue to browse metadata, create an XML schema, or publish a WSDL file for the Siebel Business Service.

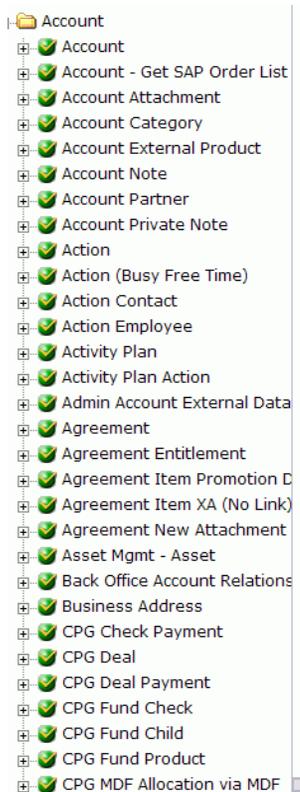
2. If the Business Service method you want to use does not have a method argument of type hierarchy, you can proceed directly with browsing metadata, creating an XML schema, or publishing a WSDL file.

For more information, see [Creating an XML Schema for a Siebel Business Component or Siebel Business Service](#) on page 41.

After you create a schema, you can use it to generate service request and response schemas for the Business Service or Business Component.

Siebel Business Objects contain one or more Siebel Business Components. You can view Business Components by clicking the associated Business Object.

The following image shows the Account Business Object node expanded to display all Business Components beneath it.



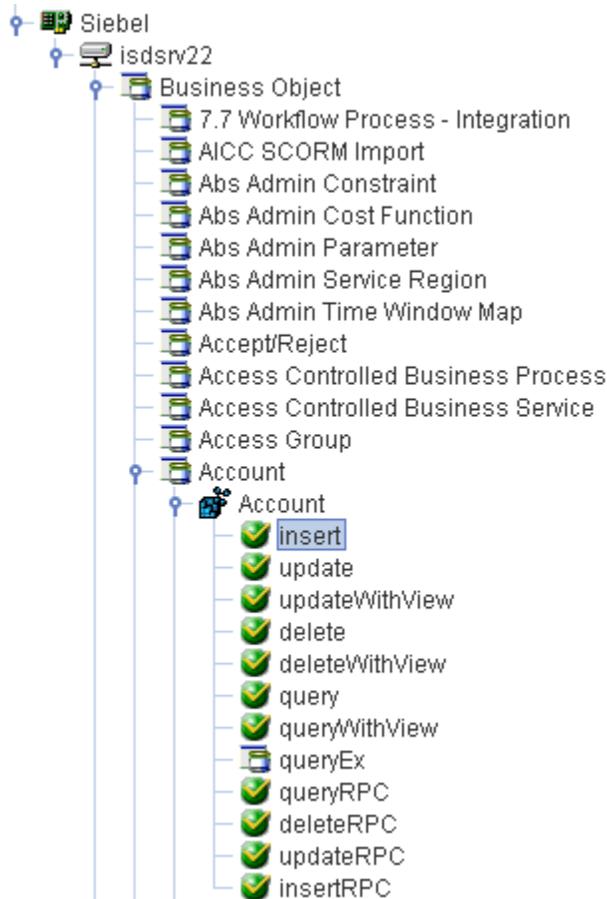
### **Procedure:** How to Create an XML Schema for a Siebel Business Component or Siebel Business Service

To generate service request and response schemas for a Business Component:

1. If you have not started the explorer, start iWay Explorer and connect to your Siebel system through a target.
2. In the left pane, expand the Business Object or the Business Service node.  
  
You can also use the Search feature to find a particular Business Component or Business Service. For more information, see [How to Search for a Specific Siebel Object](#) on page 47.
3. Expand the Business Component or Business Service to view the objects under it.

**For a Business Component**, expand the Business Object node, then expand the Business Component you want, then expand the node you want, and select the method for which you want to create a schema.

The following image shows the Account Business Component expanded to reveal the Account node and all the available methods. This node is expanded with the Insert method selected.



The following groups of methods are available for each Business Component:

**Standard Methods** - Provide basic functionality to integrate with Siebel.

- Insert
- Update

Delete

Query

QueryEx

For more information about the QueryEx method, see [Using the QueryWithView and QueryEx Methods](#) on page 62.

**RPC Methods** - Issue a simple Remote Procedure Call (RPC) to integrate with Siebel.

InsertRPC

UpdateRPC

DeleteRPC

QueryRPC

**View Mode Methods** - Specify a specific Siebel view level to use during integration with Siebel. Views in Siebel are used for data access control.

UpdateWithView

DeleteWithView

QueryWithView

In Siebel systems, each record is assigned to a team of members. Your user role must be defined as a team member of a record. If you want to access a record, but you are not a team member of that record, you must use a view mode method and specify a specific Siebel view level (for example, Sales Rep View, Manager View, Personal View, etc.).

For a list of available Siebel view levels and more information about the QueryWithView method, see [Using the QueryWithView and QueryEx Methods](#) on page 62.

### **Business Component System Attributes**

When an XML schema is generated for a Business Component, the iWay Application Adapter for Siebel automatically adds the following system attributes to each schema:

Id

Created

Created\_By

Updated

#### ❑ Updated\_By

The type of method that is used to generate the XML schema determines whether the system attributes are added to the request or response schema and also their specific location within the schema.

##### *Insert and InsertRPC Methods*

No systems attributes are added for the request schema. However, the response schema includes a ROW\_ID attribute and the ID is returned during run time.

##### *Update and UpdateRPC Methods*

The system attributes are added to the *select* section of the request schema. For example:

```
<xsd:element name="Id" type="xsd:string" minOccurs="0"/>
<xsd:element name="Created" type="xsd:string" minOccurs="0"/>
<xsd:element name="Created_By" type="xsd:string" minOccurs="0"/>
<xsd:element name="Updated" type="xsd:string" minOccurs="0"/>
<xsd:element name="Updated_By" type="xsd:string" minOccurs="0"/>
```

##### *UpdateWithView Method*

The response schema includes the ROW\_ID, Updated, and Updated\_By attributes. These values are returned during run time.

##### *Delete and DeleteRPC Methods*

The system attributes are added to the *select* section of the request schema. For example:

```
<xsd:element name="Id" type="xsd:string" minOccurs="0"/>
<xsd:element name="Created" type="xsd:string" minOccurs="0"/>
<xsd:element name="Created_By" type="xsd:string" minOccurs="0"/>
<xsd:element name="Updated" type="xsd:string" minOccurs="0"/>
<xsd:element name="Updated_By" type="xsd:string" minOccurs="0"/>
```

##### *DeleteWithView Method*

The system attributes are added to the *select* section of the request schema. For example:

```
<xsd:element name="Id" type="xsd:string" minOccurs="0"/>
<xsd:element name="Created" type="xsd:string" minOccurs="0"/>
<xsd:element name="Created_By" type="xsd:string" minOccurs="0"/>
<xsd:element name="Updated" type="xsd:string" minOccurs="0"/>
<xsd:element name="Updated_By" type="xsd:string" minOccurs="0"/>
```

In addition, the response schema includes a ROW\_ID attribute and the ID is returned during run time.

*Query, QueryWithView, and QueryRPC Methods*

The system attributes are added to the request and response schema.

**For a Siebel Business Service**, expand the Business Service node containing the object for which you want to create schema.

The following image shows the Simple Add Account Business Service expanded with the addAccount object selected.



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

iWay Explorer accesses the Siebel repository and builds schemas.

The following image shows the Schemas table that appears on the right and has three columns, labeled Part, Root Tag, and Schema. The Schema column provides the locations of the schemas. There are three rows: Request, Response, and Event.

**Schemas**

Part	Root Tag	Schema
Request	Siebel	...
Response	SiebelResponse	...
Event	N/A	N/A

Help      OK      Cancel

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

The following image shows the XML schema that appears in the right pane.

```
<?xml version="1.0" encoding="UTF-8" ?>
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:sbl="urn:iwaysoftware.adapter.siebel.request/SBO/"
  <xsd:element name="Siebel">
    <xsd:complexType>
      <xsd:sequence>
        <xsd:element name="insert" type="sbl:record"/>
      </xsd:sequence>
      <xsd:attribute name="location" type="xsd:string" use="optional" default="SBO/Account/Account/insert"/>
    </xsd:complexType>
  </xsd:element>
  <xsd:complexType name="record">
    <xsd:sequence>
      <xsd:sequence>
    </xsd:complexType>
  </xsd:schema>
```

For more information on where the schemas are stored, see [Locating Schemas](#) on page 61.

### **Procedure:** How to Search for a Specific Siebel Object

You can use the search function in iWay Explorer to locate a Siebel object or node quickly.

1. If you have not started the explorer, start iWay Explorer and connect to your Siebel system through a target.
2. Expand the target and select *Business Object*, *Business Service*, or *Integration Object*.

The following image shows Business Object selected in the left pane.



3. In the right pane, move the cursor over *Operations* and select *Search*.

The following image shows the Search feature that appears in the right pane. It has a search path input area.

**Search**

The Application Explorer can search metadata exposed by an adapter to locate specific functionality.

Search path :

4. Enter the name of the node or object on which you want to search in the Search path text entry box, for example, Account.
5. Click OK.

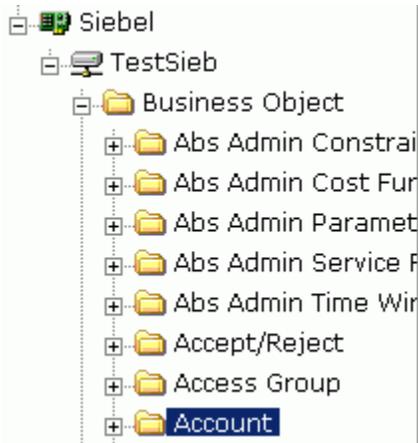
The following image shows the search results that appear when a search for Account is conducted against the Siebel Business Objects.

**Search Result(s)**

Select	Item
<input checked="" type="radio"/>	S/BO/Account
<input type="radio"/>	S/BO/Account - ESP
<input type="radio"/>	S/BO/Account - Get SAP Order List
<input type="radio"/>	S/BO/Account - Import SAP Order (Get SAP Order List)
<input type="radio"/>	S/BO/Account - Import SAP Order (Siebel Order)
<input type="radio"/>	S/BO/Account Category
<input type="radio"/>	S/BO/Account Person Admin

6. Select the radio button next to the item in which you are interested, for example, S/BO/Account.
7. Click OK.

iWay Explorer locates the node you select, for example, Account.

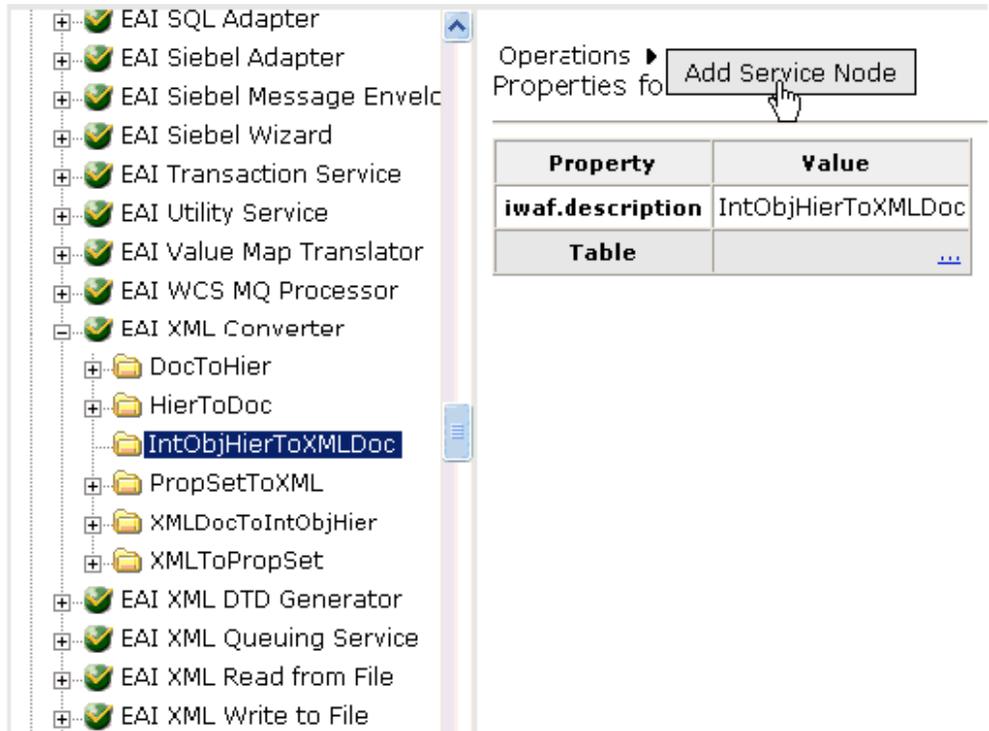


**Procedure: How to Create a Service Node**

Before viewing Business Service metadata, you must add a Service Node if the Business Service method has a method argument of type *hierarchy*.

To create a Service Node:

1. Connect to a Siebel target and expand the *Business Service* group.



2. Browse through the available Business Services and select a specific Business Service category, for example EAI XML Converter.
3. Expand the object and select a function of that object you want to publish, for example, IntObjHierToXMLDoc.
4. In the right pane, move the pointer over *Operations* and select *Add Service Node*.

The Add Service Node pane opens on the right, as shown in the following image.

### Add Service Node

---

<b>Name :</b>	<input type="text" value="EAI"/>
<b>Description :</b>	<input type="text" value="This is a sample EAI service node used for test purposes only."/>
<b>XSD File for SiebelMessage :</b>	<input type="text" value="Doc\XSD_File\sampleaccount.xsd"/>
<b>Root Element for SiebelMessage :</b>	<input type="text" value="SiebelMessage"/>
<b>Is SiebelMessage an Integration Object :</b>	<input checked="" type="checkbox"/>



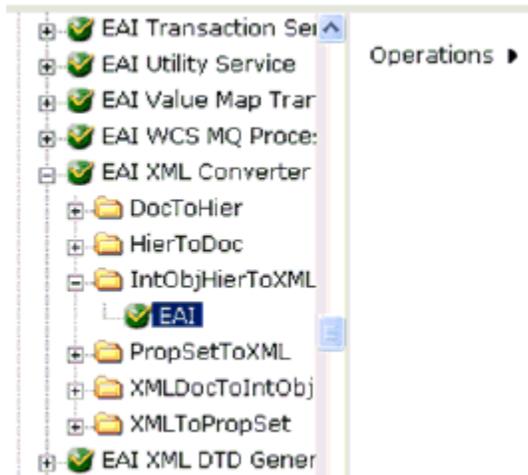
Perform the following steps:

- Type a name you want to use for the Service Node in the Name field.
- Type a brief description for the Service Node (optional).
- In the XSD File for SiebelMessage field, enter the location of XSD file that was created by Siebel Tools and include the name of the file in this location, for example, sampleaccount.xsd.

For more information on creating a Siebel XDR or XSD schema using Siebel Tools, see [Creating a Siebel XDR or XSD Schema](#) on page 52.

- d. In the Root Element for SiebelMessage field, type the name of the root element being used. The root element is usually *SiebelMessage* in most cases.
  - e. Select the *Is SiebelMessage an Integration Object* check box.
5. Click OK.

The Service Node is created and appears in the left pane within the folder you selected earlier, for example, IntObjHierToXMLDoc.



You will need to persist the Service Node you just created by refreshing your target to Siebel.

You can now generate an XML schema based on this Service Node.

For more information on how to generate an XML schema, see [Creating a Schema for a Siebel Business Component or Siebel Business Service](#) on page 41.

## Creating an XML Schema for a Siebel Integration Object

The iWay Application Adapter for Siebel supports access to Siebel Integration Objects by using Siebel XML. Using Siebel Integration Objects through supported transports requires Siebel workflows. For more information, see [Siebel Workflows](#) on page 117.

## Creating a Siebel XDR or XSD Schema

Starting with version 7.5, you can generate XSD schemas using Siebel Tools. You can use these XSD files in iWay Explorer.

**Note:** As a best practice, it is recommended to use XSD schemas instead of XDR schemas when possible.

**Procedure:** **How to Create a Siebel XDR or XSD Schema for a Siebel Integration Object**

The following image shows the Siebel Tools screen where you log on.

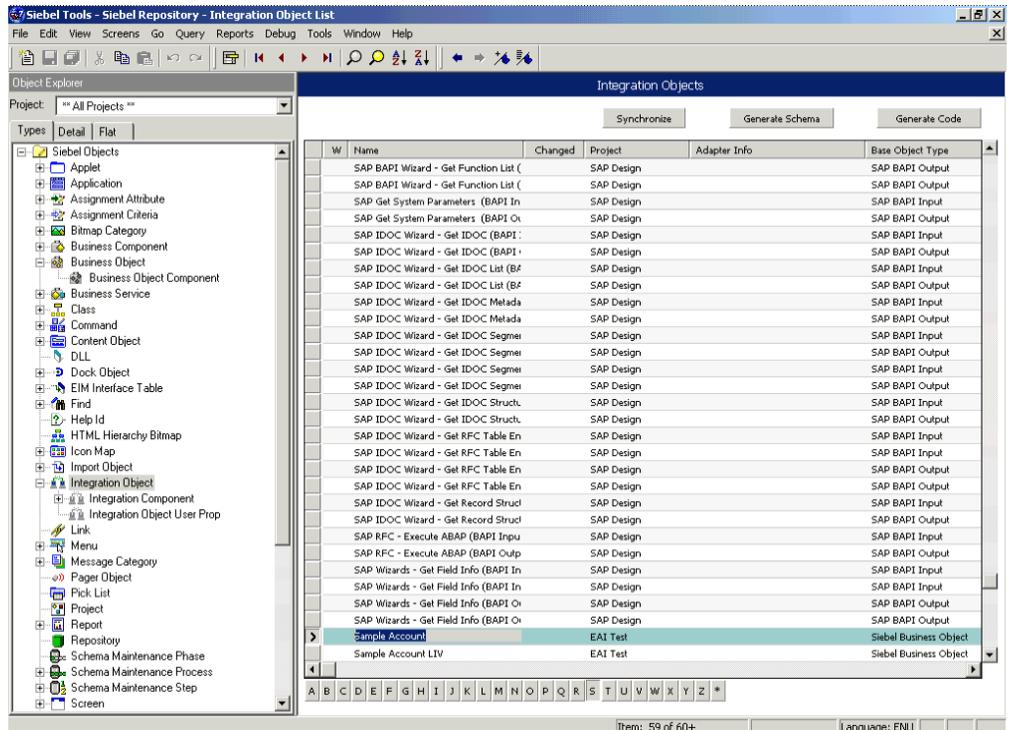


To generate a Siebel XDR or XSD schema:

1. Log on to Siebel Tools.
  - a. Type a user ID and password.
  - b. From the Connect to: drop-down list, select a database.
2. Click *OK*.

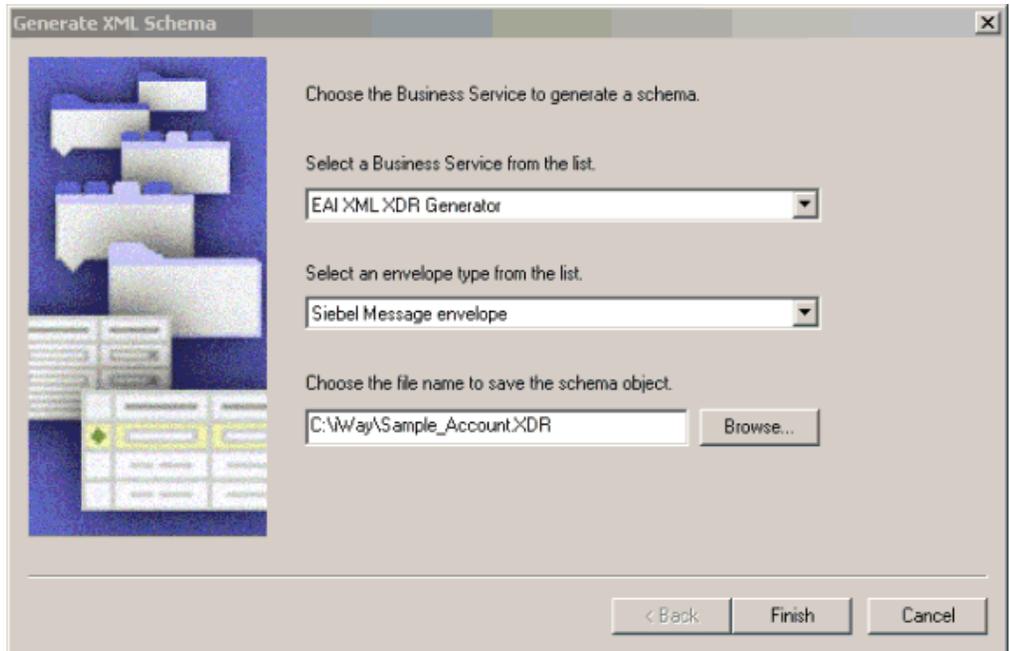
## Creating an XML Schema for a Siebel Integration Object

The following image shows the Siebel Tools window that opens. In the upper left is the Project drop-down list. In the lower left is the Object Explorer navigation pane with three tabs: Types, Detail, and Flat, with the Types tab selected to show a list of Siebel objects. The right pane has three buttons: Synchronize, Generate Schema, and Generate Code, followed by a table of Integration objects with their associated project and base object type. You can navigate by selecting a specific letter of the alphabet from a button beneath the table.



3. To create an XML schema, select an integration object, for example, Sample Account.
4. Click the *Generate Schema* button.

The following image shows the Generate XML Schema wizard window that opens where you select a Business Service to generate a schema.



- a. From the Business Service drop-down list, select *EAI XML XDR Generator* or *EAI XML XSD Generator*.
- b. From the envelope type drop-down list, select *Siebel Message envelope*.
- c. In the third field, click *Browse* or type to specify a file name for the XDR or XSD schema and a directory where it can be accessed by iWay Explorer, for example, C:\iWay\Sample\_Account.XDR.

**Note:** The XDR or XSD file must be on the same computer as iWay Explorer or be available through a mapped connection to another drive or machine.

5. Click *Finish*.

Now you can use iWay Explorer to generate XML schemas for the Siebel Integration Object.

For more information, see [How to Create a Schema For a Siebel Integration Object](#) on page 56.

## Creating a Schema for a Siebel Integration Object Using iWay Explorer

iWay Explorer can generate schemas for Integration Objects from Siebel XDR files or it can use Siebel-generated XSD files. In Siebel versions 7.5 and higher, you can create XSD schemas for Integration Objects using Siebel Tools.

If you created an XDR file using the Siebel Tools Schema Wizard, after you create the Siebel XDR schema for a selected Siebel Integration Object, you can create an XML schema using iWay Explorer.

You must supply iWay Explorer with the location of the previously created Siebel XDR schema for the particular integration object selected.

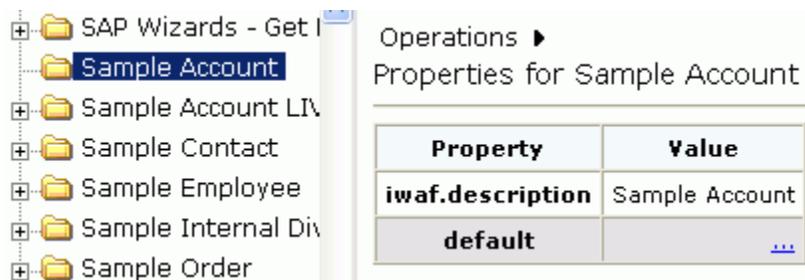
**Note:** The XDR or XSD file must be on the same computer as iWay Explorer or be available through a mapped connection to another drive or machine.

### **Procedure:** How to Create a Schema For a Siebel Integration Object

To create an XML schema from a Siebel XDR schema:

1. In iWay Explorer, expand the *Integration Objects* node to browse the Integration Objects in the Siebel system.

The following image shows the Integration Object nodes in the left navigation pane and a table of property details for a selected node in the right pane. Each row of the table lists a property of the object and its value.



2. Scroll down and select an integration object, for example, Sample Account.

You can also use the Search feature to find a particular Integration Object. For more information, see [How to Search for a Specific Siebel Object](#) on page 47.

3. To generate a schema, move the pointer over *Operations* and choose *Add IO Node*.

The following image shows the Add IO Node pane that appears on the right.

**Add IO Node**

---

**Node name :**

**Schema location :**

**XSD Schema :**

**Protocol :**  ▼

- a. In the Node name field, type a name for the node to create under Sample Account.
- b. In the Schema location field, type the location of the XDR or XML schema that was created by Siebel Tools. Include the name of the file in the location, for example:

```
C:\siebelrepo\SAMPLE_ACCOUNT.XDR
```

**Note:** For Siebel versions 7.5 and higher, you can generate XSD schemas using Siebel Tools.

- c. Select the *XSD Schema* check box only if you are uploading the XSD schema. iWay Explorer uses XDR schemas as input to generate XSD schemas.
  - d. From the drop-down list, choose a protocol used by the Siebel workflow for the Integration Object.
4. Click *Continue*.

For **FILE**, provide the location used by the Siebel workflow.

For **HTTP**, iWay Explorer builds the URL that is the key to activating the SWE. The protocol definition has multiple sections:

```
http://my_web_server/eai_enu/start.swe
?SWEExtSource=<SourceName>&SWEExtCmd=<Execute>
&UserName=<UserName>&Password=<Password>
```

The following table lists and defines the parameters you supply for **HTTP**.

Parameter	Definition
SWE URL	Base SWE URL. For example <code>http://web_server/eai_enu/start.swe</code> where: <code>web_server</code> Is the name of the web server hosting Siebel SWE.
SWE External Source	Section within the eai.cfg file to execute, which is the [HTTP Services] section.
SWE External Command	Use Execute.
User Name	User ID logon to execute.
Password	Logon password to execute.

The following table lists and defines the parameters you supply for **MQSeries**.

Parameter	Definition
Queue Manager Name	Name of the queue manager to which the server must connect.
MQ server host for MQClient operation	Host on which the MQ Server resides (MQ Client only).
MQ server port for MQClient operation	The number to connect to an MQ Server queue manager (MQ client only).
MQ server channel for MQClient operation	Case-sensitive name of the channel that connects with the remote MQ Server queue manager (MQ client only). The default channel name for MQSeries is <code>SYSTEM.DEF.SVRCONN</code>
Document type XML	Keep the default selection.

Parameter	Definition
respqueue	Name of the queue where messages are placed.

- Select the node just created and then select *Generate Schema* from the Operations menu in the right pane.

The following image shows the Schemas table that appears on the right and has three columns labeled Part, Root Tag, and Schema. The Schema column provides the locations of the schemas. There are four rows: Request, Response, Event, and EventReply.

#### Schemas

Part	Root Tag	Schema
Request	SiebelMessage	...
Response	SiebelResponse	...
Event	SiebelMessage	...
EventReply	N/A	N/A

Help

OK

Cancel

- To view the XML for a schema, click the ellipsis (...) in the event row.

The following image shows the XML schema that appears in the right pane.

```

<?xml version="1.0" encoding="UTF-8" ?>
<!-- Generated by the iBSE 2004-11-15T21:30:31Z
-->
- <Schema xmlns:d="urn:schemas-microsoft-
  com:datatypes" xmlns="urn:schemas-microsoft-
  com:xml-data" name="SiebelMessage">
- <ElementType content="eltOnly" model="closed"
  name="SiebelMessage">
  <AttributeType name="MessageId" />
  <AttributeType default="Integration Object"
    name="MessageType" />
  <AttributeType default="Sample Account"
    name="IntObjectName" />
  <AttributeType name="IntObjectFormat" />
  <attribute type="MessageId" />
  <attribute required="yes"
    type="MessageType" />
  <attribute required="yes"
    type="IntObjectName" />
  <attribute type="IntObjectFormat" />
  <element type="ListOfSampleAccount"
    minOccurs="0" maxOccurs="1" />
</ElementType>
<ElementType d:type="string" d:maxLength="50"
  content="textOnly" model="closed"

```

7. Click the browser *Back* button to return to the Schemas table.

A directory structure is created to store the schemas. For more information on where the schemas are stored, see [Locating Schemas](#) on page 61.

You are now ready to configure ports and channels or create iWay Business Services for the Siebel Integration Object node you just created.

8. To create an event port, click the IO node name you just created and select *Create iWay Event Port* from the Operations menu in the right pane.

The following image shows the Create Event Port pane that opens on the right. This pane includes two fields you complete to define the port: Event Port Name and Event Port Description. It includes the Disposition Protocol drop-down list from which you select the protocol type, a Help button, and three action buttons.

The image shows a dialog box for creating an event port. It contains three text input fields: 'Event Port Name' (highlighted in yellow), 'Event Port Description', and 'Disposition Protocol' (which is a dropdown menu currently showing 'FILE'). Below these fields are four buttons: 'Help', '< Back', 'Next >', and 'Cancel'.

For more information on creating event ports, see [Listening for Siebel Events](#) on page 79.

## Locating Schemas

iWay Explorer stores the schemas it creates in subdirectories under the iWay home directory of the machine where it is installed. The exact location of the schemas differs depending on whether you deploy iWay Explorer with an iBSP configuration.

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

```
C:\Program Files\iWay7\config\base\wsdl\schemas\service\siebel\SiebSrv
```

where:

*SiebSrv*

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

## Returning Fields in a Specified Order

When you create a request document from an XML schema to query the Siebel system, you can limit the expected response to specific fields that are specified in the query.

The response will contain the fields in the order in which they were specified. If you do not specify a set of fields, the response document contains the entire set.

For example, the following query will return all fields:

```
<m:Siebel location="S/BO/Account/Account/queryWithView" view="AllView">
  <m:select>
    <m:Name>Yelena*</m:Name>
  </m:select>
</m:Siebel>
```

The following query will return a response that only contains the fields Name, Location and Account Status fields:

```
<m:Siebel location="S/BO/Account/Account/queryWithView" view="AllView">
  <m:select>
    <m:Name>Yelena*</m:Name>
  </m:select>
  <m:field>Name</m:field>
  <m:field>Location</m:field>
  <m:field>Account Status</m:field>
</m:Siebel>
```

## Using the QueryWithView and QueryEx Methods

For Business Components, the iWay Application Adapter for Siebel enables the following Query methods:

- Query
- QueryRPC
- QueryWithView
- QueryEx

The **Query** method performs a standard query function using the Document Object Model (DOM).

The **QueryRPC** method performs a standard query function using a simple Remote Procedure Call (RPC).

The **QueryWithView** method allows you to specify a Siebel view mode as a parameter. The API parameters allow different presentations of data depending on the Siebel environment that you configured. If you want to enable a user to retrieve records based on different view modes, using the QueryWithView method is recommended.

The following view levels are available:

- Sales Rep View
- Manager View
- Personal View

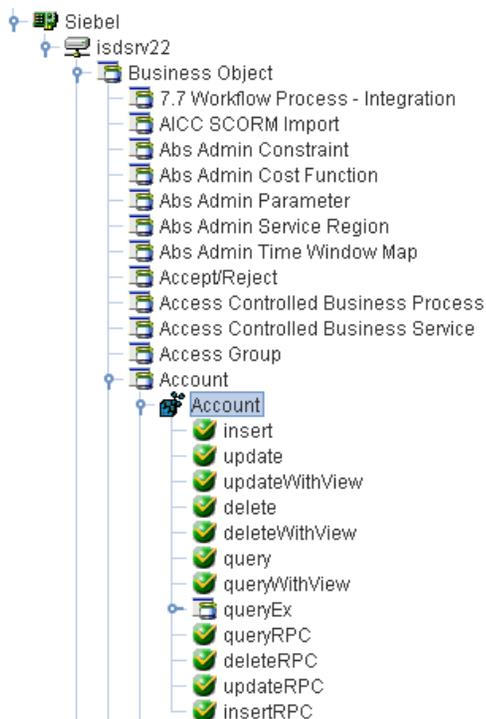
- All View
- None Set View
- Organization View
- Contact View
- Group View
- Catalog View
- SubOrganization View

The **QueryEx** method allows you to create the request schema and response schema, and choose specific input and output fields from the Siebel system.

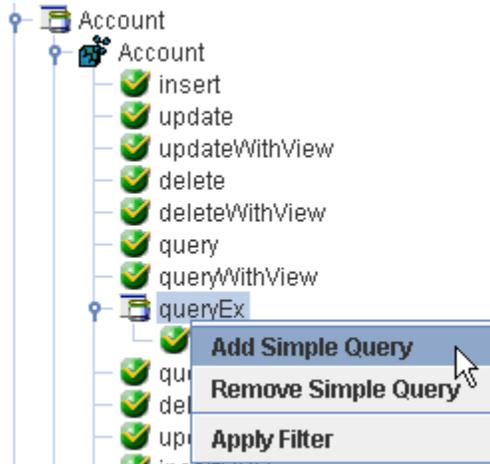
**Procedure: How to Create a Simple Query Using the QueryEx Method**

To create a simple query using the QueryEx method:

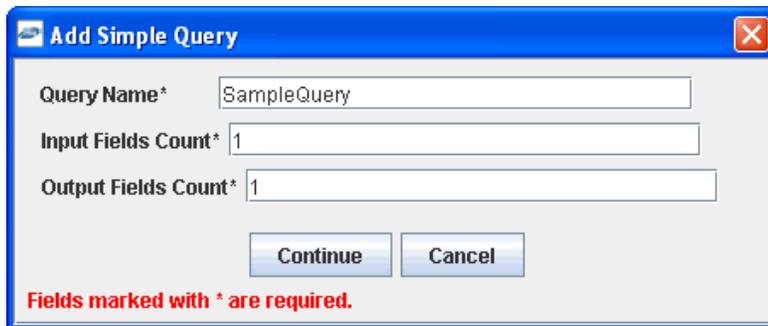
1. In the left pane, expand the Business Object or the Business Service node.



2. Expand a Business Component, for example *Account*.
3. Right-click *queryEx* and select *Add Simple Query* from the context menu, as shown in the following image.



The Add Simple Query dialog box opens, as shown in the following image.



4. Perform the following steps:
  - a. In the Query Name field, type a name for the query you want to create, for example, *SampleQuery*
  - b. In the Input Fields Count field, type the number of input fields you want in your query, for example, *1*.
  - c. In the Input Fields Count field, type the number of output fields you want in your query, for example, *1*.
5. Click *Continue*.

The following Add Simple Query dialog box opens, which prompts you for the input and output fields you want to query.

**Add Simple Query**

**Input Field Names\***

Field Name	Field Select
Input Field 1	

**Output Field Names\***

Field Name	Field Select
Output Field 1	

Create Cancel

Fields marked with \* are required.

**Note:** Since this example is using only 1 input field and 1 output field, the Add Simple Query dialog box is configured accordingly.

6. Perform the following steps:
  - a. In the Field Select column for the input field, select the input field you want to use from the drop-down list, for example, *Account\_spcMarkets*.

**Add Simple Query**

**Input Field Names\***

Field Name	Field Select
Input Field 1	Account_spcMarkets

**Output Field Names\***

Field Name	Field Select
Output Field 1	

Account\_spcMarkets  
Account\_spcCompetitors  
Account\_spcCondition  
Account\_spcMarkets  
Account\_spcOrganization\_spcIntegration\_spcId  
Account\_spcProducts  
Account\_spcRole  
Account\_spcStatus  
Account\_spcTrend

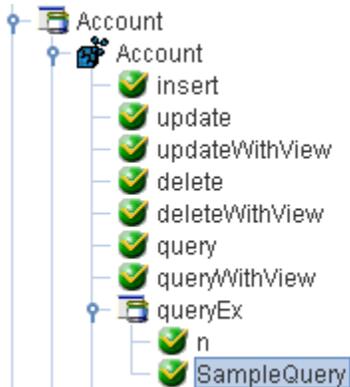
Create Cancel

Fields marked with \* are required.

- b. In the Field Select column for the output field, select the output field you want to use from the drop-down list, for example, *Account\_spcRole*.

7. Click *Create*.

The new simple query, for example, SampleQuery is added below the queryEx method node, as shown in the following image.



The request and response schemas for the new simple query (SampleQuery) are available in the right pane, as shown in the following image.



- Click the *Request Schema* tab to view the XML request schema.

```

<?xml version="1.0" encoding="UTF-8" ?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:m1="urn:iwaysoftware"
  <xs:element name="AdapterParams">
    <xs:complexType>
      <xs:sequence>
        <xs:element name="Account_spcMarkets" type="xs:string" minOccurs="0"/>
        </xs:sequence>
        <xs:attribute name="location" type="xs:string" use="optional" default="S/BO/Ac"/>
      </xs:complexType>
    </xs:element>
  </xs:schema>

```

- Click the *Response Schema* tab to view the XML response schema.

```

<?xml version="1.0" encoding="UTF-8" ?>
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:sbl="urn:iwaysoftware:adapter:siebel"
  <xsd:element name="SiebelResponse">
    <xsd:complexType>
      <xsd:sequence>
        <xsd:element name="record" minOccurs="0" maxOccurs="unbounded">
          <xsd:complexType>
            <xsd:sequence>
              <xsd:element name="Account_spcRole" type="xsd:string"/>
            </xsd:sequence>
          </xsd:complexType>
        </xsd:element>
      </xsd:sequence>
      <xsd:attribute name="status" use="required">
        <xsd:simpleType>
          <xsd:restriction base="xsd:string">
            <xsd:enumeration value="success"/>
            <xsd:enumeration value="failure"/>
          </xsd:restriction>
        </xsd:simpleType>
      </xsd:attribute>
      <xsd:attribute name="reason" type="xsd:string" use="optional"/>
    </xsd:complexType>
  </xsd:element>
</xsd:schema>

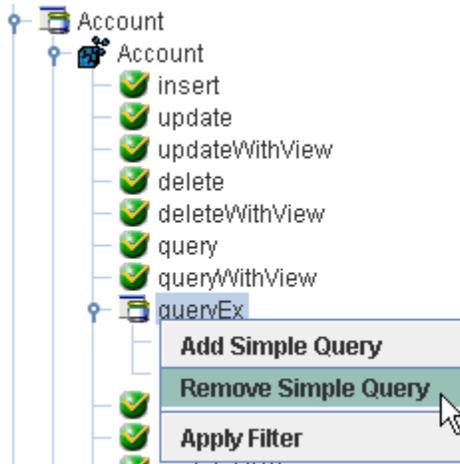
```

You can also create an iWay Business Service for the new simple query. For more information, see [Creating iWay Business Services](#) on page 70.

**Procedure: How to Delete a Simple Query Using the QueryEx Method**

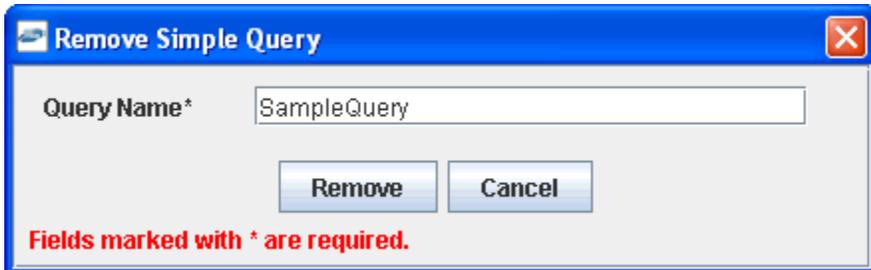
To delete a simple query using the QueryEx method:

1. Expand the queryEx node in the left pane.



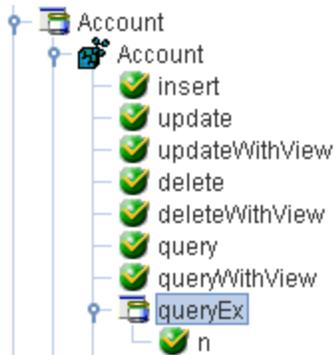
2. Right-click the query you want to delete, for example, SampleQuery, and select *Remove Simple Query* from the context menu.

The Remove Simple Query dialog box opens, as shown in the following image.



3. In the Query Name field, type the name of the query you want to delete, for example, SampleQuery.
4. Click *Remove*.

The simple query node, for example, SampleQuery, is removed from the left pane, as shown in the following image.



## Understanding the ROW\_ID and REASON Attributes

When a record is updated in the Siebel system (for example, using the Insert or Update method), the XML response document that is generated by the iWay Application Adapter for Siebel now contains two additional attributes:

ROW\_ID

REASON

The ROW\_ID attribute contains a value (for example, 1-APW7H) from the Siebel system that identifies the updated record. It has the following format:

```
<xsd:attribute name="ROW_ID" type="xsd:string" use="required"/>
```

The REASON attribute is only returned if you are using the updateWithView, deleteWithView, or queryWithView method and a record is not found in the Siebel system. The REASON attribute is added to the response schema and displays the following message:

```
Could not find record in current view.
```

The REASON attribute has the following format:

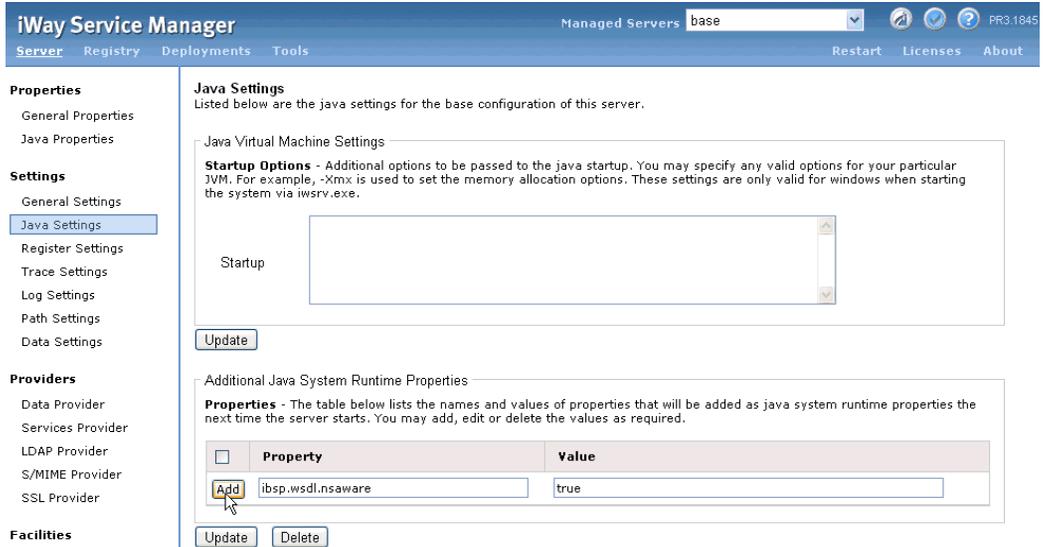
```
<xsd:attribute name="reason" type="xsd:string" use="optional"/>
```

**Note:** The status field will indicate `success` to show that the adapter transaction was completed successfully.

## Creating iWay Business Services

You can generate iWay Business Services (also known as web services) for Siebel objects you wish to use with your adapter.

If you are planning to use WSDL files in your environment, you must logon to the iWay Service Manager Administration Console and add the [ibsp.wsd1.naware](#) Java system property, as shown in the following image.



Ensure that the value for this property is set to *true*.

Click *Add* and then *Update* when you are finished.

For more information on how to modify Java settings using the iWay Service Manager Administration Console, see the *iWay Service Manager User's Guide*.

You must also ensure that you properly configure the servlet iBSP. For more information on installing and deploying iWay components, see the *iWay Installation and Configuration* manual.

Before you create a web service for an Integration Object, you must first create a Siebel XDR schema that iWay Explorer can use to create an XSD schema, unless you are able to generate an XSD schema using Siebel Tools, which you can do with later versions of Siebel. For more information on creating schemas for Integration Objects, see [Creating an XML Schema for a Siebel Integration Object](#) on page 52.

**Procedure: How to Generate a Web Service**

To generate a web service:

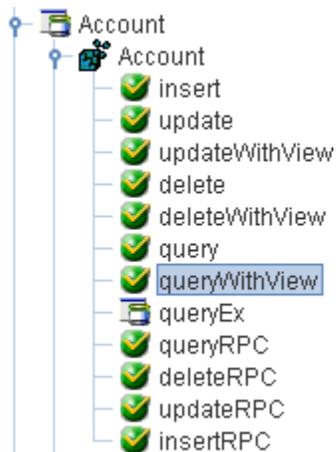
1. If you have not already connected, connect to your Siebel system.
2. Expand the Siebel node.

For a **Siebel Business Service** or **Integration Object**, expand the node you are interested in and select the node for which you want to create a web service.

**Note:** For an Integration Object, you must first create an IO node before you create a web service. For more information, see [Creating an XML Schema for a Siebel Integration Object](#) on page 52.

For a **Business Component**, expand the Business Component for which you want to create a web service and select a node.

The following image shows the Account Business Component expanded with the queryWithView method selected.



Expand the object and select a method for creating the web service, for example, QueryWithView under Account.

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

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

To use a **previously created service**, select the option to use an existing service and when a drop-down list appears, select the web service to which you want to add the new service.

If this is the first web service you are creating or if you select to **create a new service**, the Create Web Service pane appears as shown in the following image.

**Create Web Service for queryWithView**

Service Name:

Description:

License: 

- production
- test

- a. In the Service Name field, type a name to identify the web service (under the Service node in the left pane of the iWay Business Services tab).
  - b. In the Description field, type a brief description of the web service.
  - c. In the License field, select the license(s) with which you want to associate this business service. To select more than one, hold down the *Ctrl* key and click the licenses.
4. Click *Next*.

The following image shows the Create Web Service pane that reappears and prompts you for information about the method of the service.

**Create Web Service for queryWithView**

Method Name:

Description:

Help   < Back   Finish   Cancel

- a. In the Method Name field, type a name to specify the name of the SQL statement or stored procedure to add to the business service.
  - b. In the Description field, type a brief description of the method.
5. Click *Finish*.

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

## Testing a Web Service for a Business Component or an Integration Object

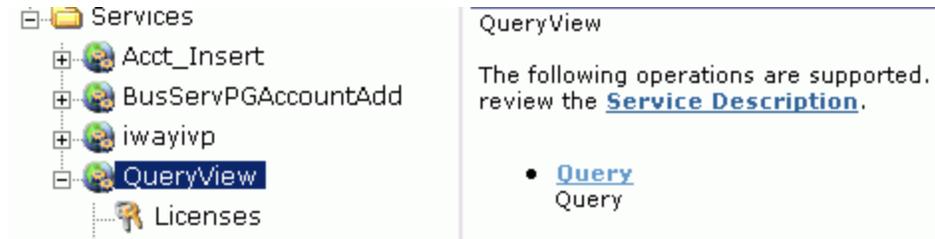
After you create a web service for the Siebel Business Component or an Integration Object, test it to ensure it functions properly. iWay Explorer includes a test tool for testing a web service.

### **Procedure:** How to Test a Web Service for a Business Component or an Integration Object

To test a web service for a Business Component or an Integration Object:

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

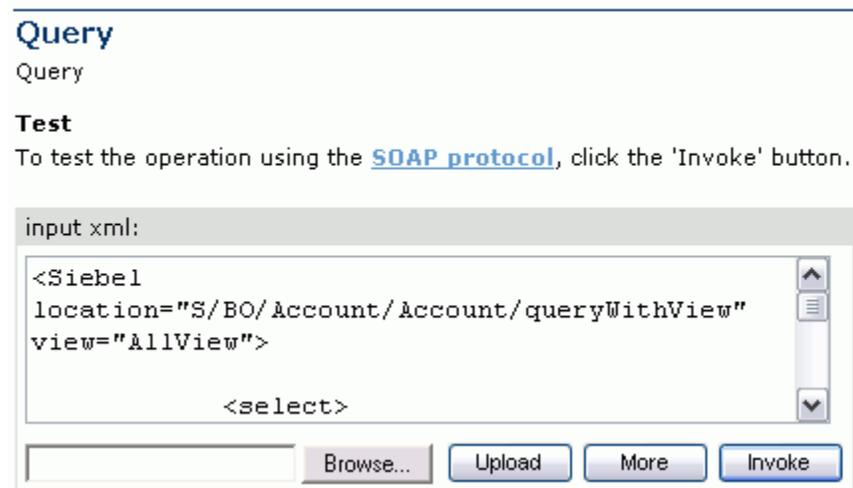
The following image shows a window with a list of services in the left pane and information about the selected service in the right pane.



5. In the right pane, click the named business service hyperlink, for example, Query.

The following image shows the test option that appears in the right pane. This pane provides a text field in which to paste the XML input. Beneath it is a Browse field where you can upload a file and three action buttons.

Click [here](#) for a complete list of operations.



6. Provide the appropriate XML input.

**Note:** Avoid using the following special characters in your XML input: ~ ^ ( ) < > [ ]

These special characters are not supported.

7. Click *Invoke*.

The following image shows the XML test results that appear in the right pane.

```

<?xml version="1.0" encoding="UTF-8" ?>
- <SOAP-ENV:Envelope
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:SOAP-
  ENV="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-
  instance">
- <SOAP-ENV:Body>
  - <QueryWithViewResponse
    xmlns="urn:iwaysoftware:ibse:jul2003:QueryWithView"
    cid="638ED68A7082CDA3B0492896446C44D8">
  - <SiebelResponse status="success">
    - <record>
      <Name>SIEBEL1 ACCOUNT</Name>
      <Location>ONE</Location>
    </record>
    - <record>
      <Name>SIEBEL2 ACCOUNT</Name>
      <Location>TWO</Location>
    </record>
    - <record>
      <Name>SIEBEL3</Name>
      <Location>RR</Location>
    </record>
    - <record>

```

## Testing a Web Service for a Business Service

After you create a web service for the Siebel Business Service, test it to ensure it functions properly. iWay Explorer includes a test tool for testing a web service.

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

To test a web service for a Business Service:

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

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

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

The following image shows the test option that appears in the right pane. The name of the business service appears in the upper pane. The pane has two fields for adding values for parameters.

### AddAccount

add account bus

#### Test

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

Parameter	Value
Account:	<input type="text"/>
Site:	<input type="text"/>

6. Provide the appropriate input.

**Note:** Avoid using the following special characters in your XML input: ~ ^ ( ) < > [ ]

These special characters are not supported.

7. Click *Invoke*.

iWay Explorer displays the results in the right pane.

## Specifying Date Range Values in the XML Input

If you are planning to specify a date range value in the XML input for an iWay Business Service, you must add an expression using the following format:

```
<Agreement_spcStart_spcDate>  
  expr(& gt; 11/01/2008 AND & lt; 12/12/2008)  
</Agreement_spcStart_spcDate>
```

## Identity Propagation

If you test or execute a web service using a third party XML editor, for example XMLSPY, the Username and Password values that you specify in the SOAP header must be valid and are used to connect to Siebel. The user name and password values that you provided for Siebel during target creation using iWay Explorer are overwritten for this web service request. The following is a sample SOAP header that is included in the WSDL file for a web service:

```
<SOAP-ENV:Header>
  <m:ibsinfo xmlns:m="urn:schemas-iwaysoftware-com:iwse">
    <m:service>String</m:service>
    <m:method>String</m:method>
    <m:license>String</m:license>
    <m:disposition>String</m:disposition>
    <m:Username>String</m:Username>
    <m>Password>String</m>Password>
    <m:language>String</m:language>
  </m:ibsinfo>
</SOAP-ENV:Header>
```

**Note:** You can remove the following tags from the SOAP header, because they are not required:

```
<m:disposition>String</m:disposition>
```

```
<m:language>String</m:language>
```



## Listening for Siebel Events

---

This section describes how to use the iWay Application Adapter for Siebel, deployed in the iWay run-time environment or to an application server to listen for events in a Siebel system.

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

### In this chapter:

- [Understanding iWay Event Functionality](#)
  - [Creating an Event Port](#)
  - [Creating a Channel](#)
- 

### Understanding iWay Event Functionality

Events are generated as a result of a specific business condition being satisfied or triggered in the Siebel system. You can use events to trigger an action in your application. For example, an update to a database can reflect an update to customer information. If your application must perform an action when this happens, your application is a consumer of this event.

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

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

#### Port

A port associates a particular business object exposed by an adapter with a particular disposition. A disposition defines the protocol and location of the event data. The port defines the end point of the event consumption. For more information, see [Creating an Event Port](#) on page 80.

#### Channel

A channel represents configured connections to particular instances of back-end or other types of systems. A channel binds one or more event ports to a particular listener managed by an adapter. For more information, see [Creating a Channel](#) on page 93.

### Creating an Event Port

You can listen for Siebel Integration Object events by configuring ports and channels. There are two methods to create an event in iWay Explorer, through the iWay Adapters tab or the iWay Events tab. This section describes both methods.

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

For Siebel Integration Objects, you can bypass the iWay Events tab and create an event port directly from the iWay Adapters tab.

#### **Procedure:** How to Create an Event Port From the iWay Adapters Tab

To create an event port from the iWay Adapters tab:

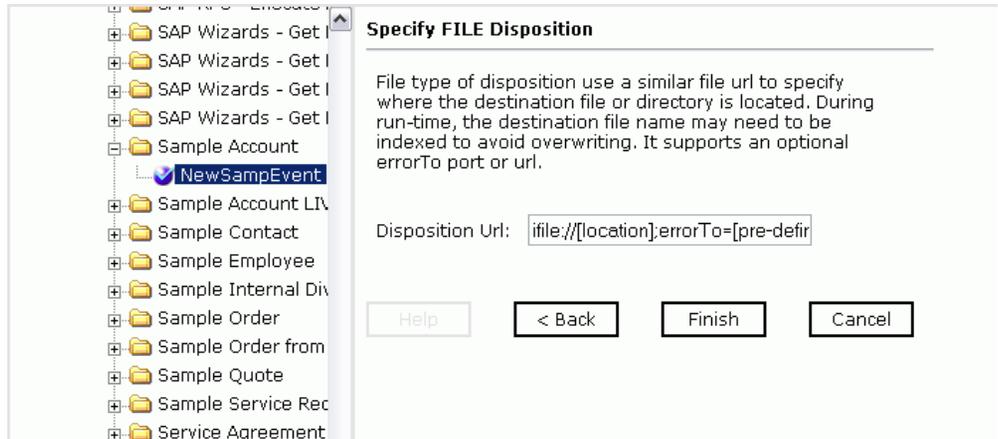
1. Select the Integration Object node you created.
2. Move the pointer over *Operations* and select *Create iWay Event Port*.

The following image shows the Create iWay Event Port pane that opens on the right where you can create a port.

The image shows a dialog box for creating an event port. It has three input fields: 'Event Port Name' (highlighted in yellow), 'Event Port Description', and 'Disposition Protocol' (set to 'FILE'). Below the fields are four buttons: 'Help', '< Back', 'Next >', and 'Cancel'.

- a. In the Event Port Name field, type a name for the port.
  - b. In the Event Port Description field, provide a brief description of the port.
  - c. From the Disposition Protocol drop-down list, select the required disposition, for example, FILE.
3. Click *Next*.

The following image shows the navigation pane on the left and the Specify Disposition pane that opens on the right and has information about the disposition type, a field for the disposition URL, a Help button, and three action buttons.



4. Type the disposition URL and click *Finish*.

## Creating an Event Port From the iWay Events Tab

The following procedures describe how to create an event port from the iWay Events window for various dispositions using iWay Explorer.

The following dispositions are available when using the servlet iWay Explorer in conjunction with an iBSP implementation.

- File. See [How to Create an Event Port for the File Disposition](#) on page 82.
- iBSP. See [How to Create an Event Port for iBSP](#) on page 83.
- MSMQ. See [How to Create an Event Port for MSMQ](#) on page 85.
- JMS queue. See [How to Create an Event Port for a JMS Queue](#) on page 84.
- SOAP. See [How to Create a Port for a SOAP Disposition](#) on page 87.
- HTTP. See [How to Create an Event Port for an HTTP Disposition](#) on page 90.
- MQSeries. See [How to Create an Event Port for an MQSeries Disposition](#) on page 91.

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

To create an event port for Siebel Integration Objects, you must first indicate the location of the XDR schema for that object. For more information, see [Creating an Event Port](#) on page 80.

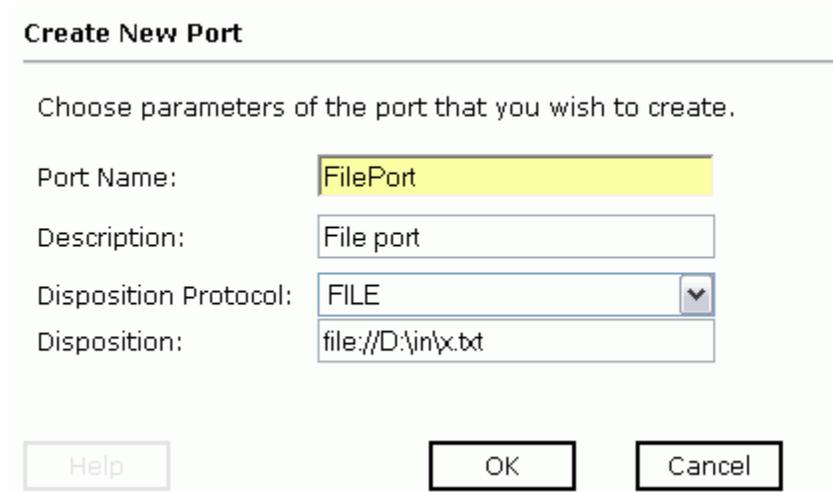
You also can create an event port directly from the iWay Adapters tab. For more information, see [Creating an Event Port From the iWay Adapters Tab](#) on page 80.

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

To create a specific event port for the File disposition:

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

The following image shows the Create New Port pane that opens on the right.



- a. In the Port Name field, type a name for the event port.
- b. In the Description field, provide a brief description of the port.
- c. From the Disposition Protocol drop-down list, select *FILE*.
- d. In the Disposition field, provide a destination where the event data is written.

When pointing iWay Explorer to an iBSP deployment, use the following format:

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

For example:

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

- e. Provide values for the parameters from the following table.

The following table includes the name and description of each parameter.

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

5. Click *OK*.

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

You are ready to associate the event port with a channel. For more information, see [Creating a Channel](#) on page 93.

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

You can call iWay Business Services created through the iWay Business Services Provider (iBSP).

To create an event port for iBSP:

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

The Create Event Port pane opens on the right.

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

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

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

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

- e. Provide values for the parameters from the following table.

The following table includes the name and description of each parameter.

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

- 5. Click *OK*.

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

You are ready to associate the event port with a channel. For more information, see [Creating a Channel](#) on page 93.

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

To create an event port for a JMS queue:

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

The Create Event Port pane opens on the right.

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

When pointing iWay Explorer to an iBSP deployment, use the following format:

```

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

- d. Provide values for the parameters from the following table.

The following table includes the name and description of each parameter.

Parameter	Description
queue	JNDI name of a queue to which events are emitted.
Connection Factory	A resource that contains information about the JMS Server.
jndiurl	The URL to use to contact the JNDI provider. The syntax of this URL depends on which JNDI provider is being used. This value corresponds to the standard JNDI property, <code>java.naming.provider.url</code>
jndifactory	Is JNDI context. INITIAL_CONTEXT_FACTORY and is provided by the JNDI service provider.
user	A valid user name required to access a JMS server.
password	A valid password required to access a JMS server.
errorTo	Location where error documents are sent. A predefined port name or another full URL. Optional.

5. Click *OK*.

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

You are now ready to associate the event port with a channel. For more information, see [Creating a Channel](#) on page 93.

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

To create an event port for MSMQ:

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

The Create Event Port pane opens on the right.

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

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

- e. Provide values for the parameters from the following table.

The following table includes the name and description of each parameter.

Parameter	Description
host	Machine name where the Microsoft Queuing system is running.
Queue Type	Private queues are queues that are not published in Active Directory. They appear only on the local computer that contains them. Private queues are accessible only by Message Queuing applications that recognize the full path name or format name of the queue.  For private queues, enter <i>Private\$</i> .
qName	Name of the private queue where messages are placed.
errorTo	Location where error documents are sent. A predefined port name or another full URL. Optional.

5. Click *OK*.

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

You are ready to associate the event port with a channel. For more information, see [Creating a Channel](#) on page 93.

**Procedure: How to Create a Port for a SOAP Disposition**

To create a port for a SOAP disposition:

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

The Create New Port pane opens on the right.

- a. In the Port Name field, type a name for the event.
- b. In the Description field, type a brief description.
- c. From the Disposition Protocol drop-down list, select *SOAP*.
- d. In the Disposition field, enter a SOAP destination, using the following format:

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

- e. Provide values for the parameters from the following table.

The following table includes the name and description of each parameter.

Parameter	Description
wsdl-url	<p>The URL to the WSDL file that is required to create the SOAP message. For example:</p> <pre data-bbox="596 426 1125 476">http://localhost:7001/ibse/IBSEServlet/test/webservice.ibs?wsdl</pre> <p>where:</p> <pre data-bbox="596 562 743 584"><i>webservice</i></pre> <p>Is the name of the web service you created using iWay Explorer.</p> <p>This value can be found by navigating to the iWay Business Services tab and opening the Service Description link in a new window. The WSDL URL appears in the Address field.</p> <p>You also can open the WSDL file in a third party XML editor (for example, XMLSPY) and view the SOAP request settings to find this value.</p>

Parameter	Description
soapaction	<p>The method that will be called by the SOAP disposition. For example:</p> <p><i>webservice.method@test@</i></p> <p>where:</p> <p><i>webservice</i></p> <p>Is the name of the web service you created using iWay Explorer.</p> <p><i>method</i></p> <p>Is the method being used.</p> <p><i>test</i></p> <p>Is the license that is being used by the web service.</p> <p>This value can be found by navigating to the iWay Business Services tab, opening the Service Description link in a new window, and performing a search for soapAction.</p> <p>You can also open the WSDL file in a third party XML editor (for example, XMLSPY) and view the SOAP request settings to find this value.</p>
method	The web service method you are using. This value can be found in the WSDL file.
namespace	The XML namespace you are using. This value can be found in the WSDL file.
responseTo	<p>The location to which responses are posted, which can be a predefined port name or another URL. Optional.</p> <p>A predefined port name or another disposition URL. The URL must be complete, including the protocol.</p>
errorTo	<p>The location to which error logs are sent. Optional.</p> <p>A predefined port name or another disposition URL. The URL must be complete, including the protocol.</p>

5. Click *OK*.

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

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

To create an event port for an HTTP disposition:

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

The Create Event Port pane opens on the right.

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

When pointing iWay Explorer to an iBSP deployment, use the following format:

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

The following table includes the name and description of each parameter.

Parameter	Description
url	Is the URL target for the post operation, for example <a href="http://myhost:1234/docroot">http://myhost:1234/docroot</a>
responseTo	Is the location where responses are posted (optional).

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

5. Click *OK*.

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

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

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

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

The Create Event Port pane opens on the right.

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

When pointing iWay Explorer to an iBSP deployment, use the following format:

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

- d. Provide values for the parameters from the following table.

The following table includes the name and description of each parameter.

Parameter	Description
qManager	Is the name of the queue manager to which the server must connect.
qName or respqueue	Name of the queue where messages are placed.
host	The host on which the MQ Server is located (MQ Client only).
port	The number to connect to an MQ Server queue manager (MQ client only).
channel	The case-sensitive name of the channel that connects with the remote MQ Server queue manager (MQ client only). The default channel name for MQSeries is SYSTEM.DEF.SVRCONN.

Parameter	Description
errorTo	Location where error documents are sent. This can be a predefined port name or another full URL. Optional.

5. Click *OK*.

The newly created event port appears under the port section of the event adapter in the left pane.

## Editing or Deleting an Event Port

The following procedures provide information on how to modify or delete an event port.

### **Procedure:** How to Edit an Event Port

To edit an existing event port:

1. In the left pane, select the event port you want to edit.
2. In the right pane, move the pointer over *Operations* and select *Edit*.

The following image shows the Edit Port pane that opens on the right. It includes a field for typing the port name, a field for typing a description, a drop-down list for selecting the disposition protocol, and a field for specifying the disposition. It also includes a Help button and two action buttons.

**Edit Port**

---

Choose parameters of the port that you wish to edit.

Port Name:

Description:

Disposition Protocol:  ▼

Disposition:

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

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

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

To delete an existing event port:

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

A confirmation dialog box opens.

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

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

### Using the Default Event Port

When using iWay Explorer to connect to Siebel and listen for events, a default event port is available at all times as shown in the following image.



The default event port can be used for testing purposes or when you do not want to route event data to a specific port you configured. The default port is enabled when you start a channel that does not have a specific event port assigned.

The default event data is actually a file disposition that writes to an out.xml file in the following output directory:

```
ifile://./eventOut/out.xml
```

### Creating a Channel

The following procedures describe how to create a channel for your event. All defined event ports must be associated with a channel. You can create three types of channels:

- HTTP. See [How to Create an HTTP Channel](#) on page 94.
- File. See [How to Create a File Channel](#) on page 96.
- MQSeries. See [How to Create an MQSeries Channel](#) on page 99.

**Procedure: How to Create an HTTP Channel**

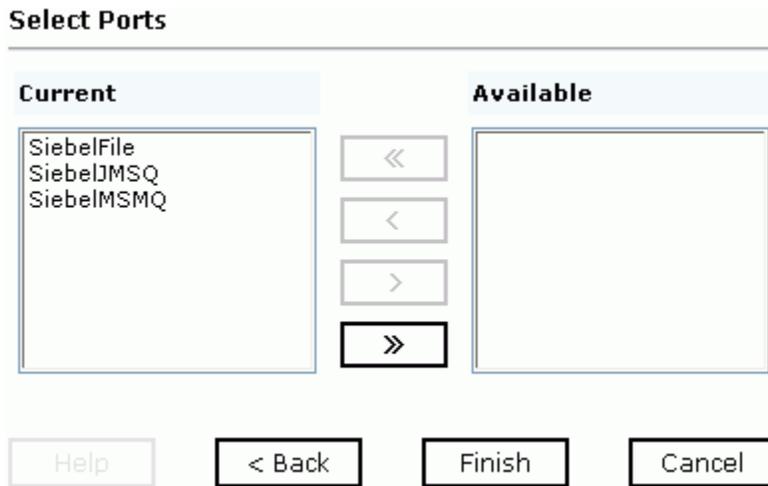
To create an HTTP channel using iWay Explorer:

1. Click the *iWay Events* tab.  
The adapters in the left pane support events.
2. Expand the *Siebel* node.  
The ports and channels nodes appear in the left pane.
3. Click the *channels* node.
4. In the right pane, move the pointer over *Operations* and select *Add a new channel*.
  - a. When the Add a new channel window opens, type a name for the channel, for example, *NewChannel*.
  - b. Type a brief description.
  - c. From the drop-down list, select *HTTP Listener*.
5. Click *Next*.  
The Edit Channels window opens in the right pane.
6. Provide values for the parameters from the following table.  
The following table includes the name and description of each parameter.

Parameter	Description
Listener port	Port on which to listen for Siebel event data.
Synchronization Type	Synchronization types are not applicable to Siebel events.

7. Click *Next*.

The following image shows the Select Ports pane that opens with a list of the ports that are currently associated in the Current field on the left. On the right is a list of available ports in the Available field. The pane also includes arrow buttons, a Help button, and three action buttons.



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

The following image is an example of the summary window that opens, showing a description of the channel, its status, and available ports.



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

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



9. In the right pane, move the pointer over *Operations* and select *Start the channel*.  
The channel you created becomes active.  
The X that was over the icon disappears.
10. To stop the channel, move the pointer over *Operations* and select *Stop the channel*.

### **Procedure: How to Create a File Channel**

To create a channel using iWay Explorer:

1. Click the *iWay Events* tab.  
The adapters in the left pane support events.
2. Expand the *Siebel* node.  
The ports and channels nodes appear in the left pane.
3. Click the *channels* node.
4. In the right pane, move the pointer over *Operations* and select *Add a new channel*.  
The Add a new channel window opens.
  - a. Type a name for the channel, for example, *NewChannel*.
  - b. Type a brief description.
  - c. From the drop-down list, select *File Listener*.
5. Click *Next*.

The Edit Channels window opens with three tabs in the right pane.

- a. In the Request tab, provide values for the parameters from the following table.

The following table includes the name and description of each parameter.

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

- b. In the Response tab, provide values for the parameters from the following table.

The following table includes the name and description of each parameter.

Parameter	Description
Synchronization Type	Synchronization types are not applicable to Siebel events.
Response/Ack Directory	Choose from three options: <input type="checkbox"/> REQUEST <input type="checkbox"/> REQUEST_RESPONSE <input type="checkbox"/> REQUEST_ACK

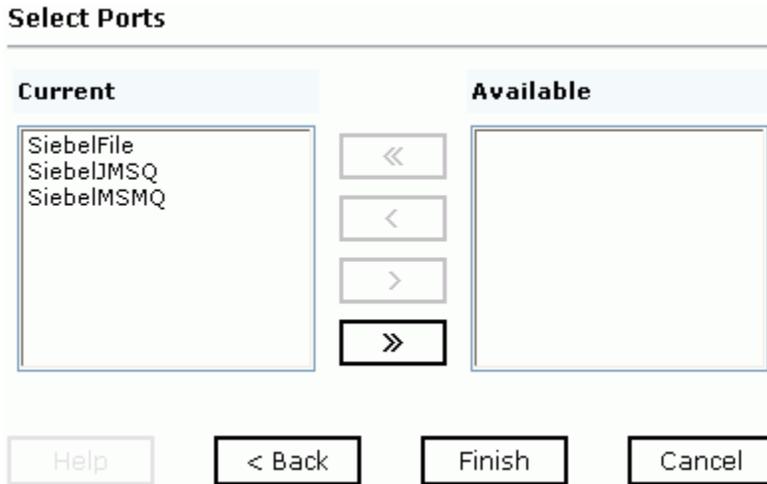
- c. In the Advanced tab, provide values for the parameters from the following table.

The following table includes the name and description of each parameter.

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

6. Click *Next*.

The following image shows the Select Ports pane that opens with a list of the ports that are currently associated in the Current field on the left. On the right is a list of available ports in the Available field. The pane also includes arrow buttons, a Help button, and three action buttons.



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

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

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

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

The channel you created becomes active.

The X that was over the icon disappears.

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

**Procedure: How to Create an MQSeries Channel**

To create an MQSeries channel using iWay Explorer:

1. Click the *iWay Events* tab.  
The adapters in the left pane support events.
2. Expand the *Siebel* node.  
The ports and channels nodes appear in the left pane.
3. Click the *channels* node.
4. In the right pane, move the pointer over *Operations* and select *Add a new channel*.  
The Add a new channel window opens.
  - a. Type a name for the channel, for example, *NewChannel*.
  - b. Type a brief description.
  - c. From the drop-down list, select *MQSeries Listener*.
5. Click *Next*.

The Edit Channels panes opens on the right and has three tabs.

- a. In the Request tab, provide values for the parameters from the following table.

The following table includes the name and description of each parameter.

Parameter	Description
Queue manager name	Name of the queue manager to which the server must connect.
MQ server host for MQClient operation	Host on which the MQ Server is located (MQ Client only).
MQ server port for MQClient operation	The number to connect to an MQ Server queue manager (MQ client only).
MQ server channel for MQClient operation	The case-sensitive name of the channel that connects with the remote MQ Server queue manager (MQ client only). The default channel name for MQSeries is SYSTEM.DEF.SVRCONN.
Document type XML	Keep the default selection.

Parameter	Description
Request queue name	Queue where the message is routed and where request documents are received. The name of the queue is case-sensitive.

- b. In the Response tab, provide values for the parameters from the following table. The following table includes the name and description of each parameter.

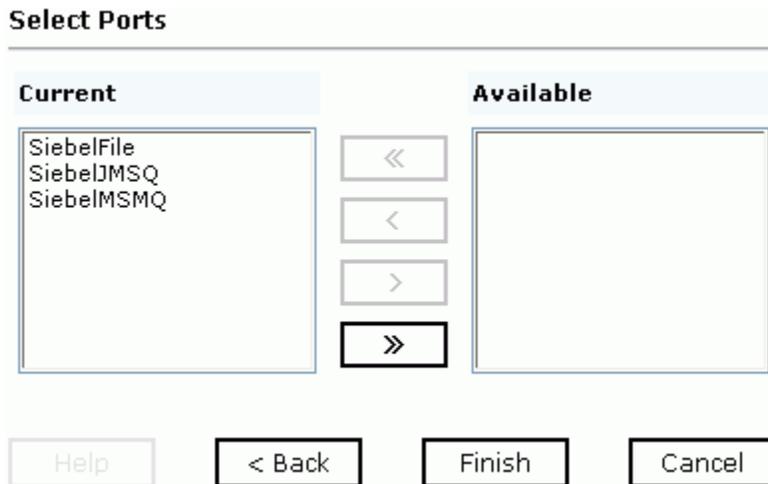
Parameter	Description
Synchronization Type	Synchronization types are not applicable to Siebel events.

- c. In the Advanced tab, provide values for the parameters from the following table. The following table includes the name and description of each parameter.

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

6. Click Next.

The following image shows the Select Ports pane that opens with a list of the ports that are currently associated in the Current field on the left. On the right is a list of available ports in the Available field. The pane also includes arrow buttons, a Help button, and three action buttons.



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

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

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

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

The channel you created becomes active.

The X that was over the icon disappears.

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

**Procedure: How to Edit a Channel**

To edit an existing channel:

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

The Edit channels window opens.

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

**Procedure: How to Delete a Channel**

To delete an existing channel:

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

A confirmation dialog box opens.

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

The channel disappears from the list in the left pane.

# Chapter 5

## Troubleshooting and Error Messages

---

The following topics explain the limitations and workarounds when connecting to Siebel.

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

### In this chapter:

- [Siebel Troubleshooting](#)
  - [Error Messages in iWay Explorer](#)
  - [Error Messages in Siebel](#)
  - [Error Messages in iBSP](#)
  - [Updating a Siebel Field](#)
- 

### Siebel Troubleshooting

This topic provides troubleshooting information, separated into the following categories:

- iWay Explorer
- Siebel
- iBSP

**Note:** Log file information that can be relevant in troubleshooting can be found in the following locations:

- iBSP trace information can be found under the  
C:\Program Files\iWay7\ibsp\ibsplogs directory.
- The log file for iWay Explorer can be found under the  
C:\Program File\iWay7\tools\iwae\bin directory.

### Usage Notes:

- When a connection is lost, the adapter does not automatically reconnect to Siebel.

- ❑ HTTPS is not supported for services and events.

## Error Messages in iWay Explorer

The following table lists errors and solutions when using iWay Explorer with the adapter.

Error	Solution
<p>Siebel does not appear in the iWay Explorer Adapter node list.</p>	<p>Ensure that the Siebel JAR files supplied with your Siebel distribution media were placed in the <code>iway_home/lib</code> directory. For example, for Siebel 7.03 environments, the <code>SiebelJI_Common.jar</code> and <code>SiebelJI_enu.jar</code> files should be placed in the <code>iway_home/lib</code> directory.</p>
<p>Target Type drop-down list contains only Java Data Bean Connection, and COM connection type is required.</p>	<p>Ensure that the Siebel thin client is installed correctly on the machine hosting iWay Explorer so that the appropriate COM environment is available.</p>
<p>An error message that includes the name of the Siebel Gateway server appears when you try to connect to a Siebel target, for example,</p> <p><code>Problem activating adapter (ariba0x). Check logs for more information.</code></p>	<p>Ensure that the name of the Siebel Gateway server is correctly defined for the target to which you want to connect.</p>
<p>When trying to connect to a Siebel target, you receive the following error:</p> <p><code>Problem activating adapter. (You have entered an invalid set of logon parameters. Please type in your logon parameters again.). Check logs for more information.</code></p>	<p>Ensure that the User ID and password parameter values to connect to your Siebel system are correct.</p>

Error	Solution
<p>When trying to connect to a Siebel target, you receive the following error:</p> <pre>Problem activating adapter. (Couldn't get nameserver connection). Check logs for more information.</pre>	<p>Check the network connectivity to the Siebel environment. Correct the networking problem and retry the connection.</p> <p>Also, if Siebel was started recently, it might not be fully functional yet. If so, wait until Siebel starts completely.</p> <p><b>Note:</b> If Siebel Server was restarted after servlet iBSP connected, then servlet iBSP also must be recycled. This is due to a known Siebel issue. For more information, see Siebel Alert 984.</p>
<p>When trying to connect to a Siebel target, you receive the following error:</p> <pre>Problem activating adapter. (NSReadKey request failed (no error information)...). Check logs for more information.</pre>	<p>Ensure that the values defined for Siebel Server, Enterprise Name, and Object Manager for the target to which you want to connect are correct and retry the connection.</p>
<p>When trying to connect to a Siebel target, you receive the following error:</p> <pre>Problem activating adapter. (Error loading translatable messages: com.siebel.locale.enux.messages .SSAMessages_enux). Check logs for more information</pre>	<p>Ensure that the value of the Language parameter on the Advanced tab is defined correctly for the target you are using to connect to your Siebel system (for example, enu for English).</p>
<p>A successful connection is made to the Siebel environment, but no values are available in Business Object, Business Service, and Integration Object nodes in the iWay Explorer tree.</p>	<p>The Repository Name specified on the Advanced tab in the Siebel target configuration is either void or empty of any components in the targeted Siebel environment, or the Repository Name is not valid for the targeted Siebel environment. Verify that the Repository Name is valid and contains components for interrogation and then, reconnect.</p>

## Error Messages in Siebel

The following table lists errors that occur when using the adapter with an iBSP repository project and provides a solution to each error.

Error	Solution
<p>A successful connection is made to Siebel environment, but no values are available in the Business Object, Business Service, and Integration Object nodes in the iWay Explorer tree.</p>	<p>The Repository Name specified on the Advanced tab in the Siebel Target configuration is either void or empty of any components in the targeted Siebel environment, or the Repository Name is not valid for the targeted Siebel environment. Verify that the Repository Name is valid and contains components for interrogation and then, reconnect.</p>
<p>When executing a request, the following error message appears:</p> <pre data-bbox="267 784 663 835">AdapterException: Unsupported Action: {0} Tquery</pre>	<p>Verify that the method is available for the specific request by verifying schema.</p>
<p>When executing a request, the following error message appears:</p> <pre data-bbox="267 964 635 1136">AdapterException: Field 'NFame' does not exist in definition for business component 'Account'. Please ask your systems administrator to check your application configuration.</pre>	<p>Ensure that the field names are valid within the request document by referring to the schema for that specific object and then, resubmit the request.</p>
<p>When connecting to releases prior to Siebel 7.8 using the Java Data Bean Interface, you cannot reconnect after initial connection loss. This might occur when iWay Explorer experiences a brief loss of network connection or if the Siebel Server or Gateway Service is restarted while iWay Explorer is logged into the Siebel application.</p>	<p>Restart your application server and iWay Explorer in order to log in successfully to the Siebel application. This is a known Siebel API issue. For more information, see Siebel Alert 984.</p>

Error	Solution
<p>The iWay Application System Adapter for Siebel does not interact with Integration Objects in a Siebel workflow using web services or JCA in iWay Explorer. This is a result of a limitation in Siebel software that does not handle the namespaces in the incoming XML document for the Integration Object.</p> <p>An error similar to the following might appear:</p> <pre data-bbox="267 695 651 990">Cannot convert XML Hierarchy to Integration Object Hierarchy.--Field with XML tag 'xmlns:ns' and XML Style of 'Attribute' is not found in the definition of EAI Integration Component 'Account'--Error invoking service 'EAI XML Converter', method 'XMLDocToIntObjHier' at step 'XML to Property Set'.</pre>	<p>The preferred work around is to add to the Integration Object an Integration Object User Property with the name <i>Ignore Undefined XML Tags</i> and a value of Y.</p> <p>Alternatively, a less preferred work around is to invoke a Siebel workflow that will run the web service. Pass the XML document that represents the input via a protocol, for example, HTTP or MQ, that the workflow is listening on. You can build the emission of the XML document using that protocol as a web service in iWay Explorer.</p>

## Error Messages in iBSP

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

### General Error Handling

The iWay Business Services Provider (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, the way 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, when 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 the previous 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. Because adapters use the target system interfaces and APIs, whether 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.

Although it is almost impossible to anticipate every error condition that an adapter may encounter, the following describes how adapters handle common error conditions and how they are then exposed to the web service consumer application.

#### ***Example:*** iWay Adapter for Siebel Invalid SOAP Request

When the adapter receives a SOAP request message that does not conform to the WSDL for the web service 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>XD[FAIL] Parse failure (IS) 3:
        org.xml.sax.SAXParseException: Premature end of
        file.
      </faultstring>
    </SOAP-ENV:Fault>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

**Example: Failure to Connect to Siebel**

When the adapter cannot connect to Siebel when executing a web service, 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>
        <Exception> - major:4096 minor: -1 message:NSReadKey
          request 11 was abandoned after 37846ms connection:12a due to
          Connection shutdown request Connection reset by peer:
          JVM_recv in socket input stream stream read
        DetailedMessage:Unknown
        </Exception>
      </faultstring>
    </SOAP-ENV:Fault>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

**Invalid SOAP Request**

When the adapter receives a SOAP request message that does not conform to the WSDL for the web service 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 a Request

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

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.

```
<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>
```

## Updating a Siebel Field

If you cannot update a Siebel field, you might be required to perform configuration changes on the Siebel system. The following procedure describes how to verify whether a Siebel field is activated for updates.

### **Procedure:** How to Verify a Siebel Field is Activated for Updates

To verify whether a Siebel field is activated for updates:

1. Obtain the *siebel.srf* file from the Siebel server where you cannot update a field.

The SRF file is usually located in the \tools\OBJECTS\ENU folder of the Siebel server install, for example:

```
D:\sea752\siebsrvr\OBJECTS\ENU
```

2. Under the Siebel\tools directory, locate the *siebel.srf* file.

The file is usually located under a similar folder, for example:

D:\sea752\tools\OBJECTS\ENU

- a. Rename the siebel.srf file in the Siebel\tools directory, for example, to siebel.srf.original.
- b. Place a copy of the siebel.srf file from the Siebel server into the Siebel\tools directory and then, make a copy of it in the same directory and call it *siebeltest.srf*.
3. Start Siebel Tools and connect to the Siebel server.
4. Identify the Business Component for the Siebel field that is not being updated, for example, the Business Component Account for the Home Page field.
5. With the Account Business Component highlighted, click *Field* in the Object Explorer.
6. Identify the field which is not activated for updates or not subject to adapter update request, for example, Home Page or Email Address.
7. Check the properties for the Siebel field, specifically for the Force Active property.

If the property is false, that is, it has no check box selected or it has the value FALSE (this depends on the Siebel Tools GUI configuration that you are using), then you must change it to true, as explained in the following steps.

**Note:** This procedure refers to the check box as the method for making the property TRUE.

- a. If the Force Active property is false, select *Lock Project* from the Tools menu.  
Note the name of the project being locked. It will be specified in the Project property of the Business Component for the field being made Force Active.
- b. Click *Force Active* to set it to True.  
This places a check mark in the property field.
- c. After setting the Force Active property to True for the Account Business Component, select *Unlock Project* from the Tools menu.
8. Check the Multivalue Link property of the field.

**If there is no value in the Multivalue Link property**, then proceed to the next numbered step.

**If there is a value in this property**, it is a reference to another Business Component. This indicates that the field in question is linked to a field in the Business Component identified by this property.

- a. Ensure that the linked field in the Business Component specified by the Multivalue Link property of the first field has a Force Active property of True.

- b. For example, if the Email Address field has a Multivalue link property with a value of Business Address, you must go to the Business Address Business Component and ensure that the linked field in the Business Address Business Component also has a value of True in the Force Active field.
- c. Repeat Step 4 through Step 7, including substeps, for the field in the Business Component specified in the Multivalue link property.

You must compile the project so that the changes take effect.

9. Select *Compile Projects* from the Tools menu.

The Object Compiler appears.

- a. Select the *Selected projects* option button.
- b. Select the project(s) to compile. To select multiple projects, hold down the *Ctrl* key as you select each project.

If the field had a Business Component defined in the Multivalue Link property, you also must select the project(s) for the additional Business Component(s) you updated.

- c. Click *Browse* and navigate to the location of the copied siebel.srf file in the Siebel \tools directory.

In this procedure, siebeltest.srf is the copied file.

10. Click *Compile*.

Compiling could take several minutes.

11. Transfer the newly compiled siebeltest.srf file to the Siebel Server system and replace the siebel.srf file located under \siebsrvr\OBJECTS\ENU with this new one. You must:
  - a. First stop the Siebel Server.
  - b. Make a backup copy of the current SRF file.
  - c. Replace the SRF file with siebeltest.srf by placing the SRF file in the \siebsrvr\OBJECTS\ENU directory and renaming it to siebel.srf (the original file name).

12. Restart the Siebel server and wait until it starts up completely.

This could take 5-10 minutes.

- a. Open Task Manager and wait to see that CPU usage stops hovering at 100% and returns to a more normal range for activity on your machine.
- b. Retest.

You can now update the fields through the adapter or Siebel application.

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 Siebel Adapter in iWay Service Manager](#)

## Configuring the Siebel 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 backend system, using iWay Explorer. For more information on configuring targets and connections using iWay Explorer, see [Creating XML Schemas and iWay Business Services](#) on page 31 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 define adapter process creates the run-time repository based on the design-time repository.

### **Procedure:** How to Define an Adapter

To define an adapter:

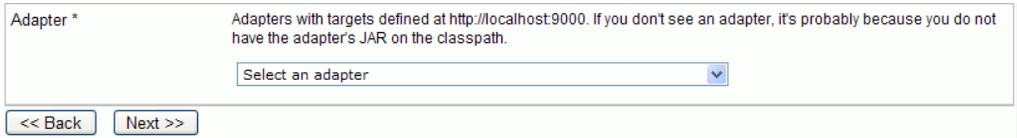
1. In the Service Manager console, select *Registry*, then *Adapters*.
2. Click *Add*.

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.



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.

**Adapters**

iWay Service Manager implements an adapter container to configure/invoke iWay Adapters. The adapter container uses the iWay Business Services Provider to access configurational metadata on behalf of its adapters. Listed below are references to adapters defined in the registry.

Set properties of the new Adapter	
Adapter	Siebel
Target	Siebel71
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
Logon	
Gateway Server *	Gateway Server <input type="text" value="ARIBA01"/>
Enterprise Name *	Enterprise Name <input type="text" value="ARIBA01"/>
Siebel Server	Siebel Server <input type="text" value="SiebelSrv"/>
User *	User <input type="text" value="SADMIN"/>
Password *	Password <input type="password" value="••••"/>

- 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, [SiebelConnection](#).

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*.



## Siebel Workflows

---

This section describes Siebel Workflows relating to the processing of Siebel Integration Objects using Siebel XML.

**In this appendix:**

- [Siebel Workflow Overview](#)
  - [Creating a Siebel Workflow](#)
- 

### Siebel Workflow Overview

When using Siebel XML to integrate with Siebel Integration Objects, the interface uses a Siebel Workflow. A Siebel Workflow is defined within Siebel to emit or to receive Siebel XML. In either case, emitting or receiving is handled by Siebel transport services for MQSeries, File, or HTTP. The following topics discuss the use and creation of workflows for Siebel version 7.0 that employ the supported transport services.

**Note:** This section is intended as a supplement to the documentation designed for the iWay Application Adapter for Siebel user and is not intended as a substitute for Siebel documentation. For complete and up-to-date information on Siebel Workflow and policy topics, see the *Siebel Bookshelf* for your Siebel system.

### Siebel Workflows

A Siebel Workflow is a series of Siebel Business Services linked together to accomplish a business task. You create workflows using the Siebel Client Workflow Administration screens. Workflows are invoked through one of the following methods:

- Using a workflow policy
- Using a run-time event (Siebel Event)
- Using a script (eScript or Siebel VB)

The following topic briefly describes how to invoke the workflow through a policy condition. For more information on policy and other methods, see the documentation on the *Siebel Bookshelf*.

## Using a Policy to Invoke a Siebel EAI Workflow

A workflow policy is defined by a set of conditions that executes a set of defined actions. A Siebel workflow policy consists of:

- Conditions that define circumstances, based on changes in the state of a Siebel database.
- Actions that define steps taken when conditions are fulfilled.

Creating a policy to invoke a workflow as an action involves the following steps:

1. Define an action to be executed after a policy is triggered. Use the Run Integration Process program.
2. Create a policy by setting conditions and selecting appropriate policy groups and actions.
3. Activate the policy by choosing an activation date.
4. Run the Generate Triggers server task from Server Administration windows to set the conditions to be monitored.
5. Start the Workflow Monitor agent after editing with the appropriate policy group (to which your policy belongs) to evaluate whether to perform an action.
6. Start the Workflow Action Agent server task from Server Administration windows to perform the action.

For more information on the previous steps, see the documentation on the *Siebel Bookshelf*.

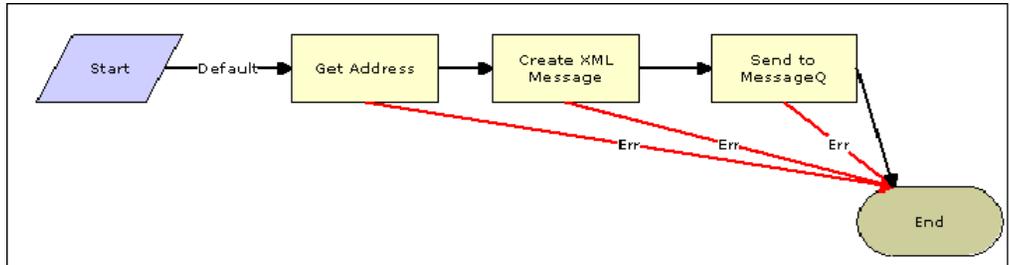
## Siebel Workflow - Outbound

When a Siebel Workflow is triggered based on a Siebel policy, run-time, or script (eScript or Siebel VB) event, the result is the generation of a Siebel XML document that is placed on one of the Siebel transports. For example, when you add a new account in the Siebel Call Center application, you can design and configure a workflow to be triggered on the account transaction. You can design the workflow to extract the data for the new record, convert it to Siebel XML, and then, place it on an MQSeries message queue.

In this example, the Siebel Workflow process executes the following series of Siebel Business Services:

1. Calls the Siebel EAI Siebel Adapter, which queries for the newly updated account record, and places the data in its original internal structure into memory.
2. Calls the Siebel EAI XML Converter, which converts the data into an XML message.
3. Calls the Siebel EAI MQSeries Transport, which places the newly created XML message into the appropriate MQSeries message queue.

After the message is placed in the message queue, it is retrieved by the iWay Application Adapter for Siebel. The following illustration shows the Workflow sequence described in the previous steps. The flow boxes are from left to right: Start, Get Address, Create XML Message, Send to MessageQ, and End.



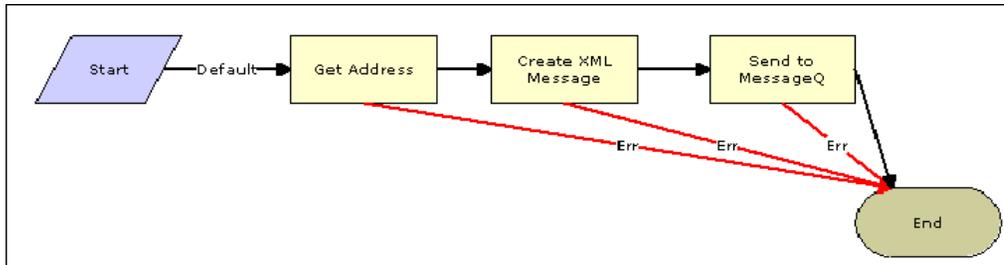
## Siebel Workflow - Inbound

A Siebel Workflow that is triggered by an external event begins by receiving a Siebel XML document placed on one of its transports. The result might be the update of a Siebel record using the XML as input, for example, when a new account is added in another CRM system but also must be updated in the Siebel Call Center application. You can design and configure a Workflow to receive or listen on an MQSeries message queue. Upon receipt of the XML message, the Workflow processes the transaction into the Siebel system to update the record.

In this example, upon receipt of the Siebel XML message in the message queue, the Siebel MQSeries Receiver server task initiates a Siebel Workflow process, which in turn executes a series of Siebel Business Services as follows:

1. Calls the Siebel EAI XML Converter, which converts the XML message into Siebel internal format.
2. Calls the Siebel EAI Siebel Adapter, which applies the newly updated account record based on the methods defined in its service.

The following illustration shows the inbound Workflow process based on the previous description. The flow boxes are from left to right: Start, Get Address, Create XML Message, Send to MessageQ, and End.



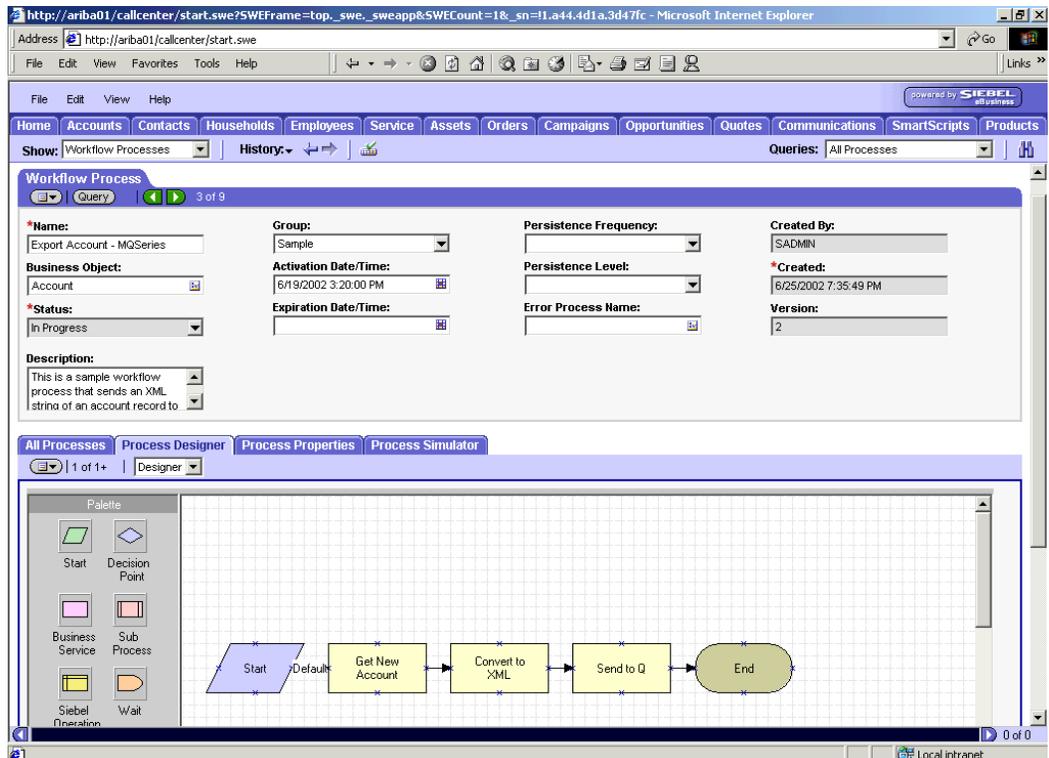
## Creating a Siebel Workflow

The following topics include procedures for creating Siebel Workflows in the Siebel Workflow Administration window.

### Creating a Siebel Workflow for an Event Using MQSeries Transport

The following procedure is an example of a Siebel Workflow illustrated in the Siebel Workflow Administration window. The Workflow was designed for exporting Siebel Account record information using the MQSeries transport.

The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Workflow Process tab, which includes several fields and drop-down lists for defining Account record information for each Workflow. The lower pane includes four tabs. The Process Designer tab is active and displays an illustration of a Workflow process. The Workflow process can be modified using the palette to the left of the diagram.



### **Procedure:** How to Create a Siebel Workflow for an Event Using MQSeries Transport

The following procedure describes how to create a Siebel Workflow that generates Siebel XML when an Account record is updated in the Siebel Call Center application. The Workflow is then placed on an MQSeries message queue.

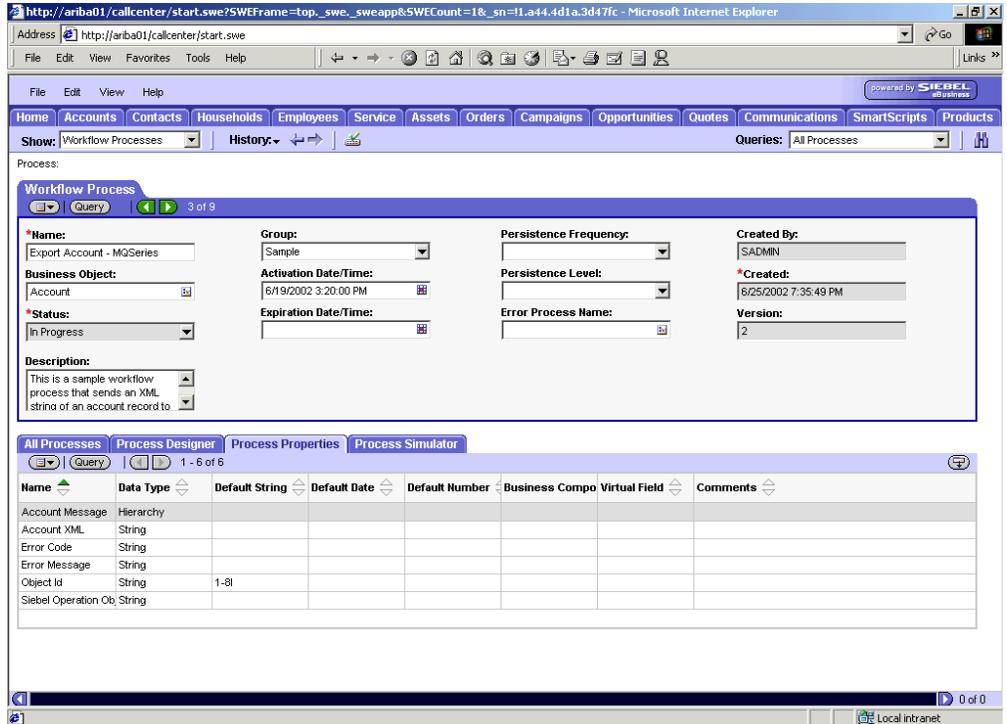
To create a Siebel Workflow:

1. In the Process Properties tab of the Workflow Process window, define the Account message and Account XML process properties.

The Account message contains Siebel Account data in hierarchical format.

Account XML specifies the Siebel Account data that the workflow has converted to XML.

The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Workflow Process tab, which includes several fields and drop-down lists for defining Account information for a new Workflow. The lower pane includes four tabs. The Process Properties tab is active and includes a chart of Siebel Account data properties.

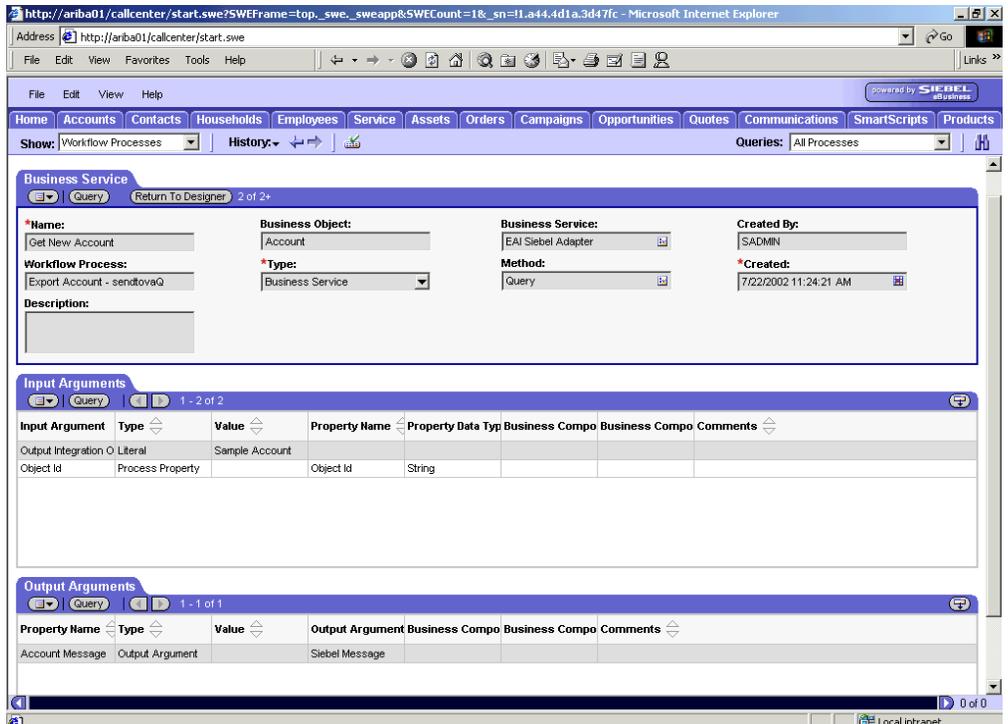


2. Use the Siebel Workflow Administration windows to create a Workflow.
3. Define an EAI Siebel Adapter Business Service step to receive an instance of Account data and call it *Get New Account*.

Using the Query method, the Business Service obtains the Account information from Siebel.

Output from this Business Service is generated in hierarchical format.

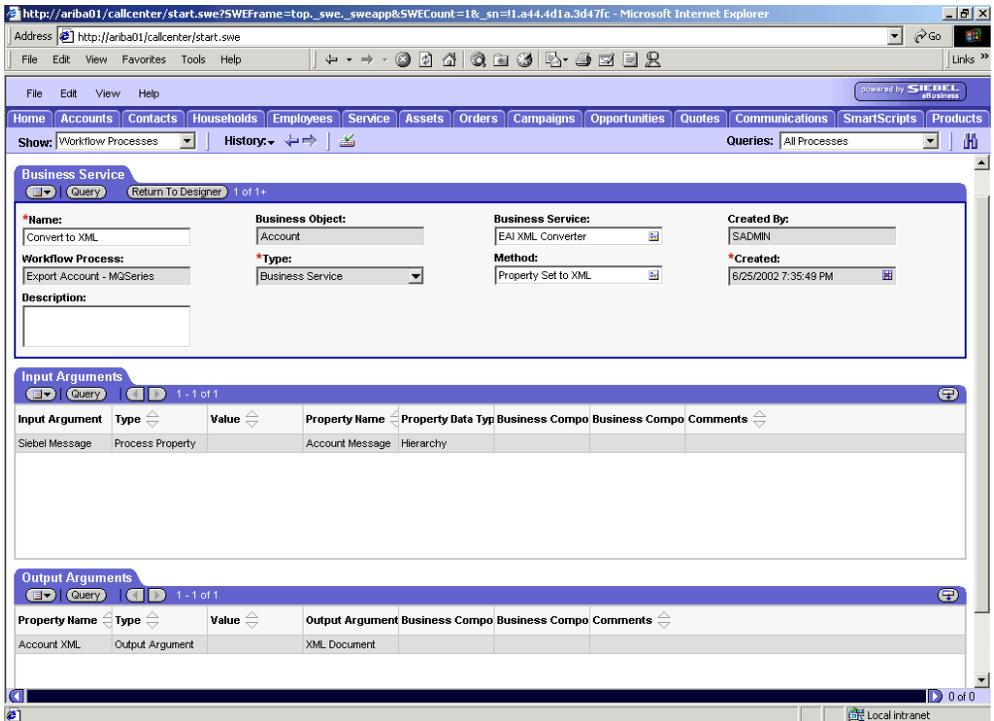
The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Business Service tab, which includes several fields and drop-down lists for defining a new Business Service step. The middle pane shows the Input Arguments tab, which includes a chart of Input Arguments. The lower pane shows the Output Arguments tab, which includes a chart of Output Argument properties.



4. Define an EAI XML Converter Business Service step and call it *Convert to XML*.

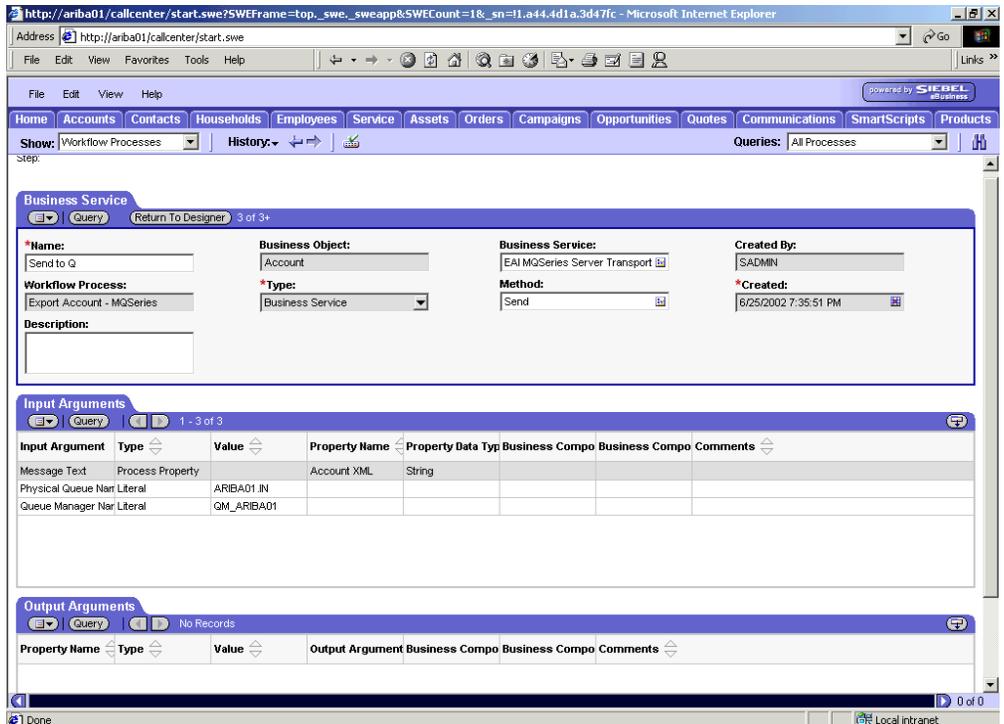
It is defined to receive the Account data from the EAI Siebel Adapter Business Service in hierarchical format and convert it to XML format.

The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Business Service tab, which includes several fields and drop-down lists for defining the Convert to XML Business Service step. The middle pane shows the Input Arguments tab, which includes a chart of Input Arguments. The lower pane shows the Output Arguments tab, which includes a chart of Output Argument properties.



- Define an EAI MQSeries server transport Business Service step and call it *Send to Q*. It is defined to receive the Account data from the EAI XML Converter Business Service in Siebel XML format and send the Account XML to MQSeries using the Send method.

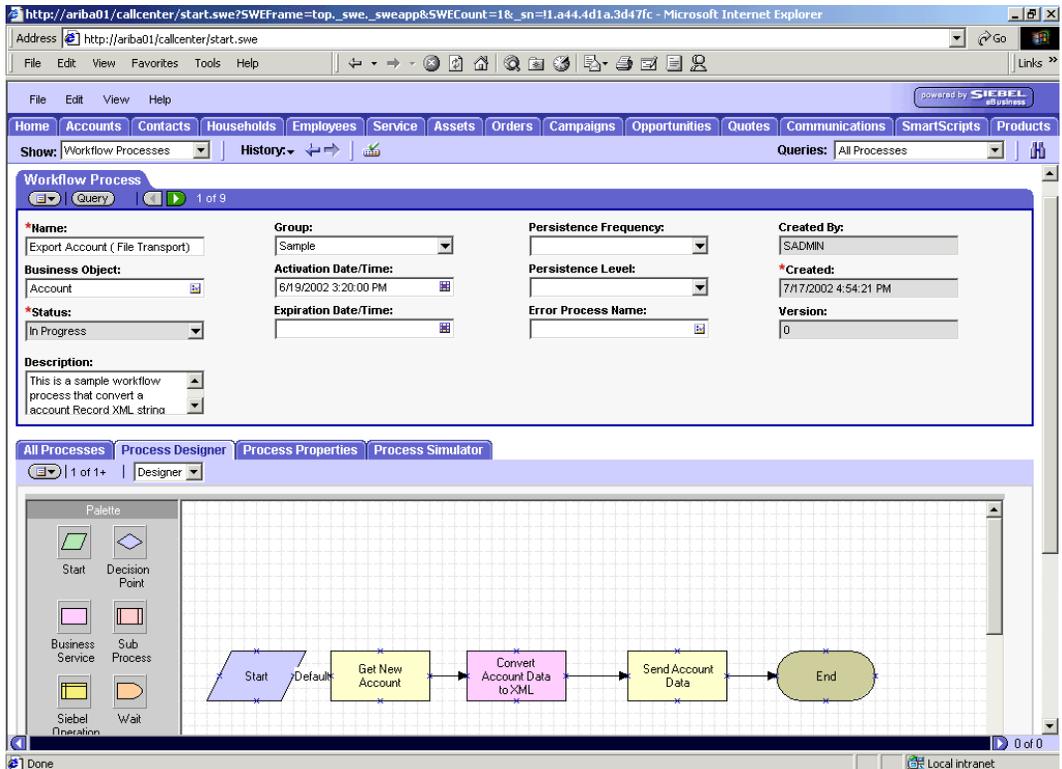
The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Business Service tab, which includes several fields and drop-down lists for defining the Send to Q Business Service step. The middle pane shows the Input Arguments tab, which includes a chart of Input Arguments. The lower pane shows the Output Arguments tab, which includes a chart of Output Argument properties.



## Creating a Siebel Workflow for an Event Using File Transport

The following procedure is an example of a Siebel Workflow illustrated in the Siebel Workflow Administration window. The Workflow is designed for exporting Siebel Account record information using the File transport.

The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Workflow Process tab, which includes several fields and drop-down lists for defining Account record information for each Workflow. The lower pane includes four tabs. The Process Designer tab is active and shows an illustration of a Workflow process. The Workflow process can be modified using the palette to the left of the diagram.



**Procedure: How to Create a Siebel Workflow for an Event Using File Transport**

The following procedure describes how to create a Siebel Workflow that generates Siebel XML when an Account record is updated in the Siebel Call Center application and then places Siebel XML on the file system.

The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Workflow Process tab, which includes several fields and drop-down lists for defining Account record information for each Workflow. The lower pane includes four tabs. The Process Properties tab is active and includes a chart of Siebel Account data properties.

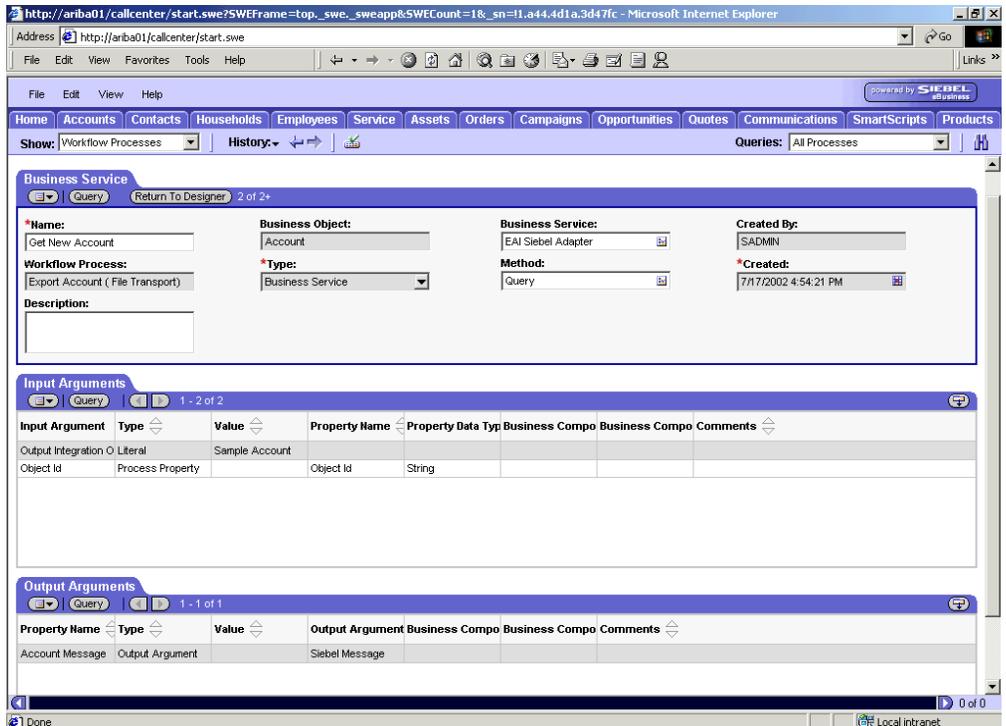
The screenshot shows the Siebel Workflow Administration interface. The top navigation bar includes tabs for Home, Accounts, Contacts, Households, Employees, Service, Assets, Orders, Campaigns, Opportunities, Quotes, Communications, SmartScripts, and Products. The 'Show' dropdown is set to 'Workflow Processes' and the 'Queries' dropdown is set to 'All Processes'. The main window displays the 'Workflow Process' details for 'Export Account (File Transport)'. The 'Process Properties' tab is active, showing a table of data types and their properties.

Name	Data Type	Default String	Default Date	Default Number	Business Compo	Virtual Field	Comments
Account Message	Hierarchy						
Account XML	String						
Error Code	String						
Error Message	String						
EscapeNames	String	true					
Object Id	String	1-9l					
Siebel Operation Obj	String						

To create a Siebel Workflow:

- On the Process Properties tab of the Workflow Process window, define the Account message and Account XML process properties.
  - Account message contains the Siebel Account data in hierarchical format.
  - Account XML specifies which Siebel Account data the Workflow converted to XML.
- Use the Siebel Workflow Administration windows to create a Workflow.

The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Business Service tab, which includes several fields and drop-down lists for defining the Get New Account Business Service step. The middle pane shows the Input Arguments tab, which includes a chart of Input Arguments. The lower pane shows the Output Arguments tab, which includes a chart of Output Argument properties.

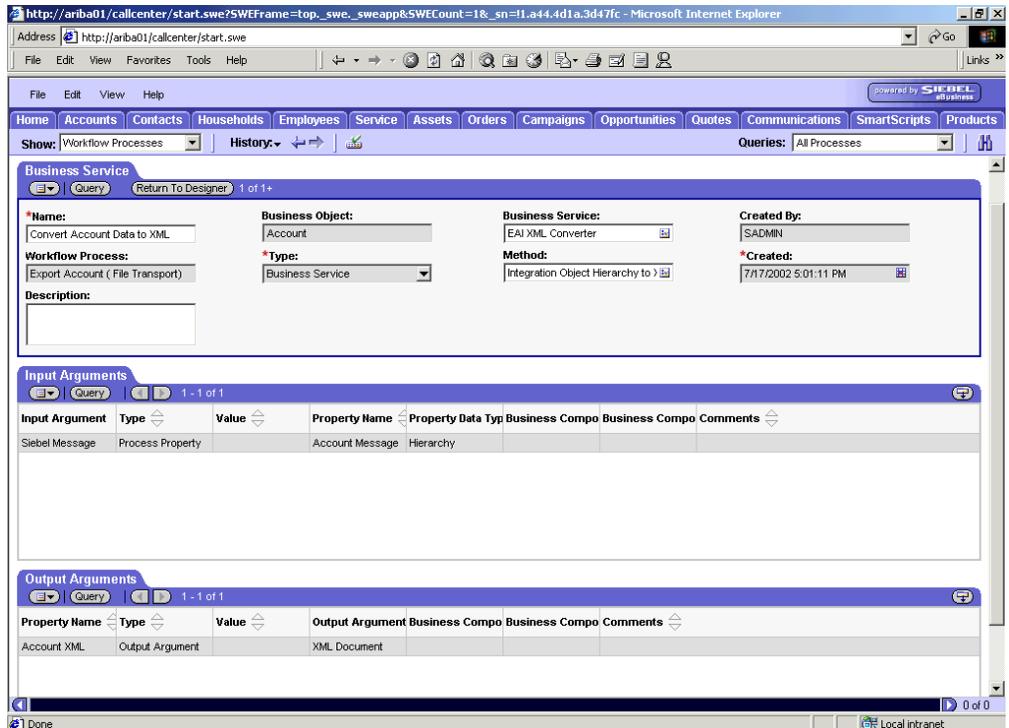


3. Define an EAI Siebel Adapter Business Service step to receive an instance of Account data and call it *Get New Account*.

Using the Query method, the Business Service obtains the Account information from Siebel.

Output from this Business Service is generated in hierarchical format.

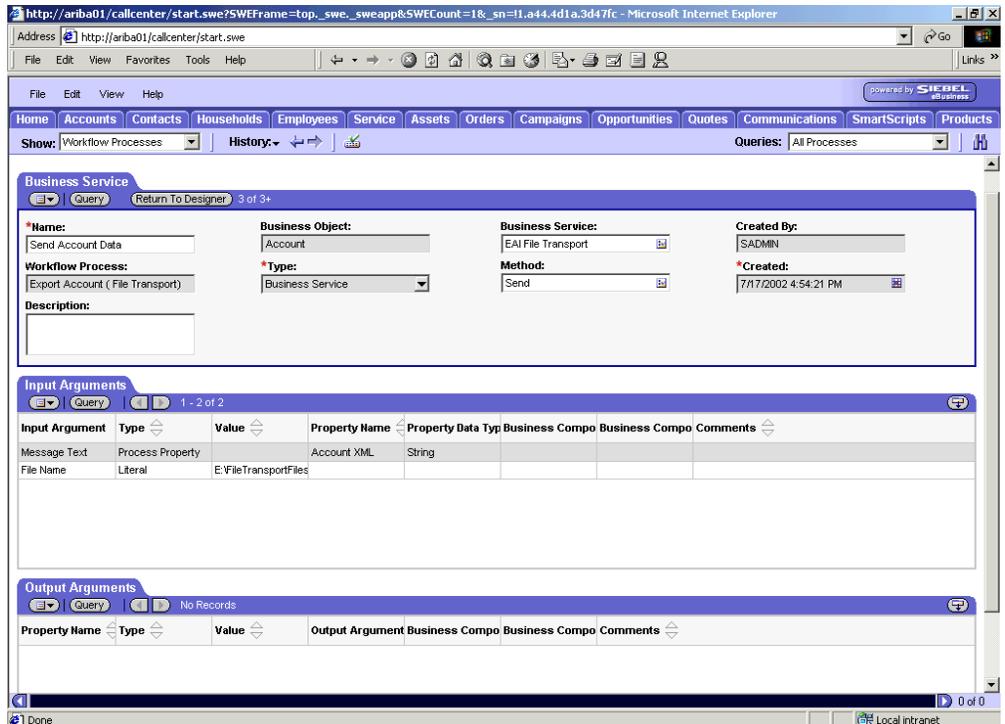
The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Business Service tab, which includes several fields and drop-down lists for defining the Convert Account Data to XML Business Service step. The middle pane shows the Input Arguments tab, which includes a chart of Input Arguments. The lower pane shows the Output Arguments tab, which includes a chart of Output Argument properties.



4. Define an EAI XML Converter Business Service step and call it *Convert Account Data to XML*.

This Business Service is defined to receive the Account data from the EAI Siebel Adapter Business Service in hierarchical format and convert it to XML format.

The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Business Service tab, which includes several fields and drop-down lists for defining the Send Account Data Business Service step. The middle pane shows the Input Arguments tab, which includes a chart of Input Arguments. The lower pane shows the Output Arguments tab, which includes a chart of Output Argument properties.



5. Define an EAI File transport Business Service step and call it *Send Account Data*.

This Business Service is defined to receive the Account data from the EAI XML Converter Business Service in Siebel XML format and send the Account XML to the file system in a specified directory using the Send method.

## Creating a Siebel Workflow for an Event Using HTTP Transport

The following procedure is an example of a Siebel Workflow illustrated in the Siebel Workflow Administration window. The Workflow was designed for exporting Siebel Account record information using the HTTP transport.

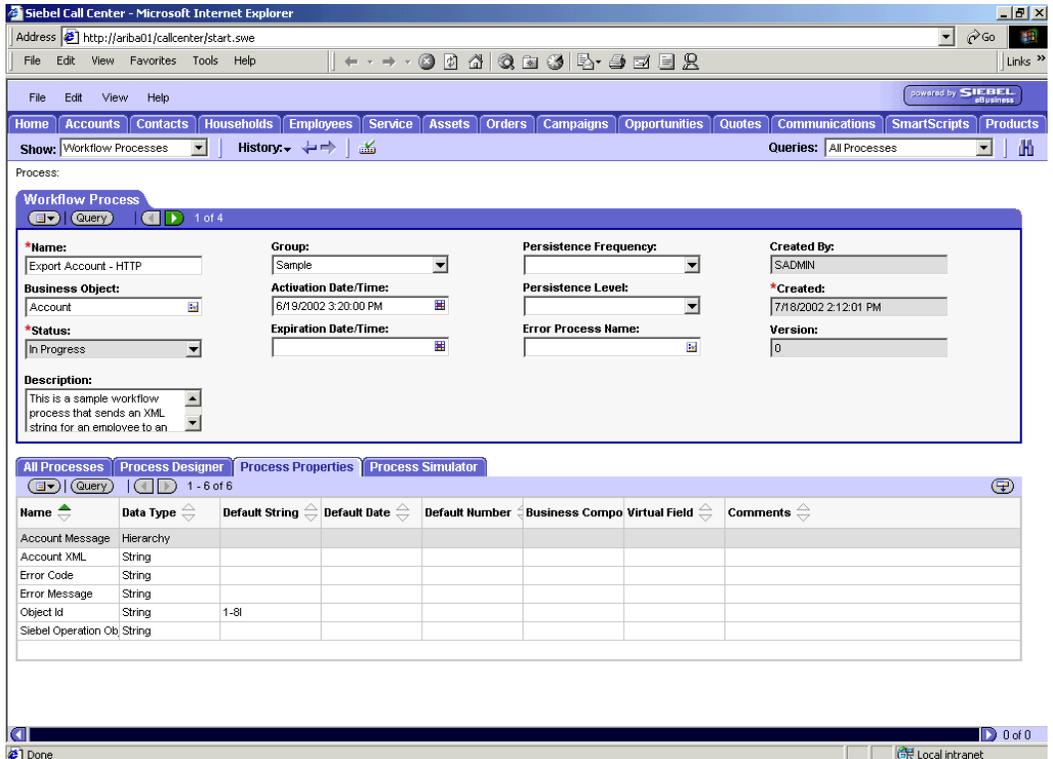
The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Workflow Process tab, which includes several fields and drop-down lists for defining Account record information for each Workflow. The lower pane includes four tabs. The Process Designer tab is active and displays an illustration of a Workflow process. The Workflow process can be modified using the palette to the left of the diagram.

The screenshot shows the Siebel Workflow Administration interface. The top navigation bar includes tabs for Home, Accounts, Contacts, Households, Employees, Service, Assets, Orders, Campaigns, Opportunities, Quotes, Communications, SmartScripts, and Products. The 'Workflow Processes' tab is active, displaying a list of processes. The 'Process Designer' tab is selected, showing a workflow diagram. The diagram consists of a Start node (blue parallelogram), a 'Get New Account' activity (yellow rectangle), a 'Convert to XML' activity (yellow rectangle), a 'Send - HTTP' activity (yellow rectangle), and an End node (green oval). A palette on the left contains various workflow elements: Start, Decision Point, Business Service, Sub Process, Siebel Operation, and Wait.

### **Procedure:** How to Create a Siebel Workflow for an Event Using HTTP Transport

The following procedure describes how to create a Siebel Workflow that generates Siebel XML when an Account record is updated in the Siebel Call Center application.

The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Workflow Process tab, which includes several fields and drop-down lists for defining Account record information for each Workflow. The lower pane includes four tabs. The Process Properties tab is active and includes a chart of Siebel Account data properties.



To create a Siebel Workflow:

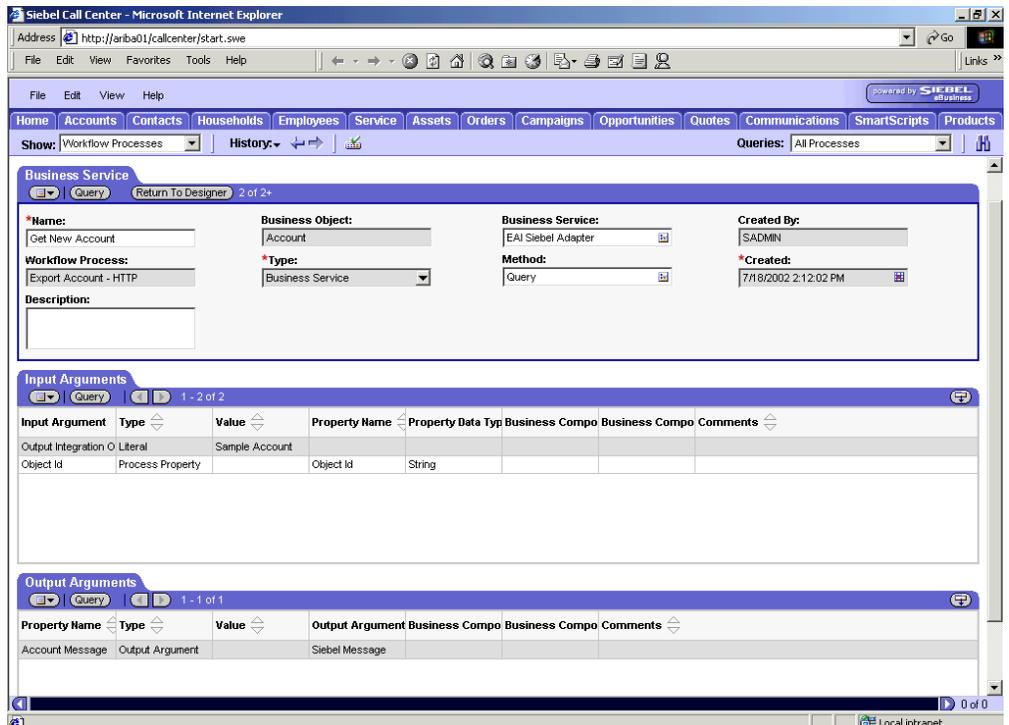
1. In the Process Properties tab of the Workflow Process window, define the Account message and Account XML process properties.

Account message contains the Siebel Account data in hierarchical format.

Account XML specifies the Siebel Account data that the Workflow has converted to XML.

2. Use the Siebel Workflow Administration windows to create a Workflow.

The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Business Service tab, which includes several fields and drop-down lists for defining the Get New Account Business Service step. The middle pane shows the Input Arguments tab, which includes a chart of Input Arguments. The lower pane shows the Output Arguments tab, which includes a chart of Output Argument properties.

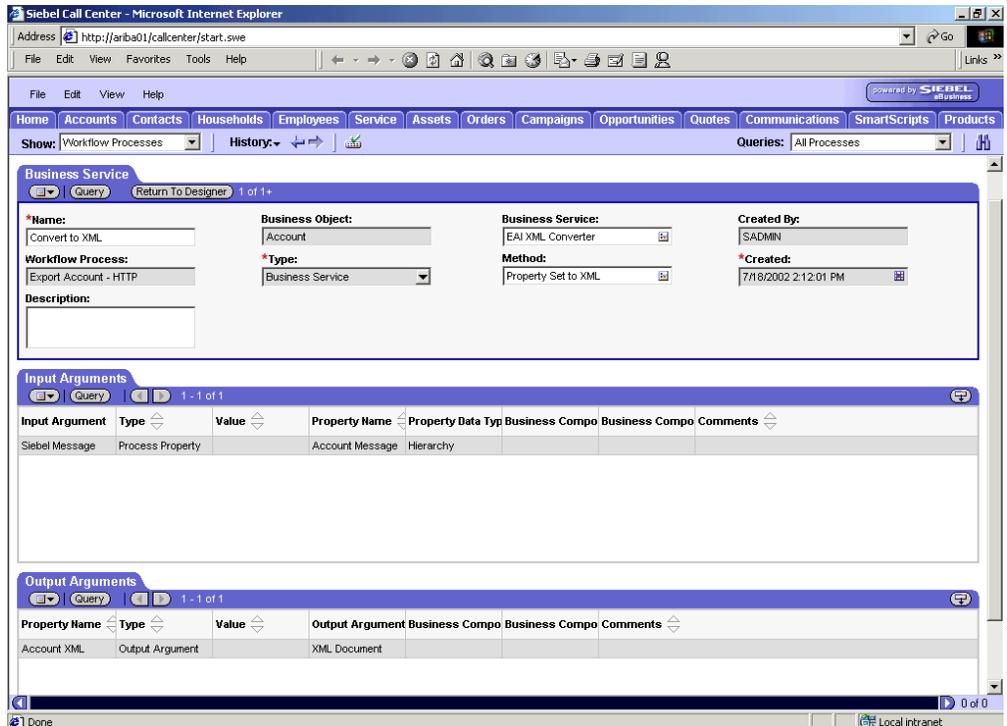


3. Define an EAI Siebel Adapter Business Service step to receive an instance of Account data and call it *Get New Account*.

Using the Query method, the Business Service obtains the Account information from Siebel.

Output from this Business Service is generated in hierarchical format.

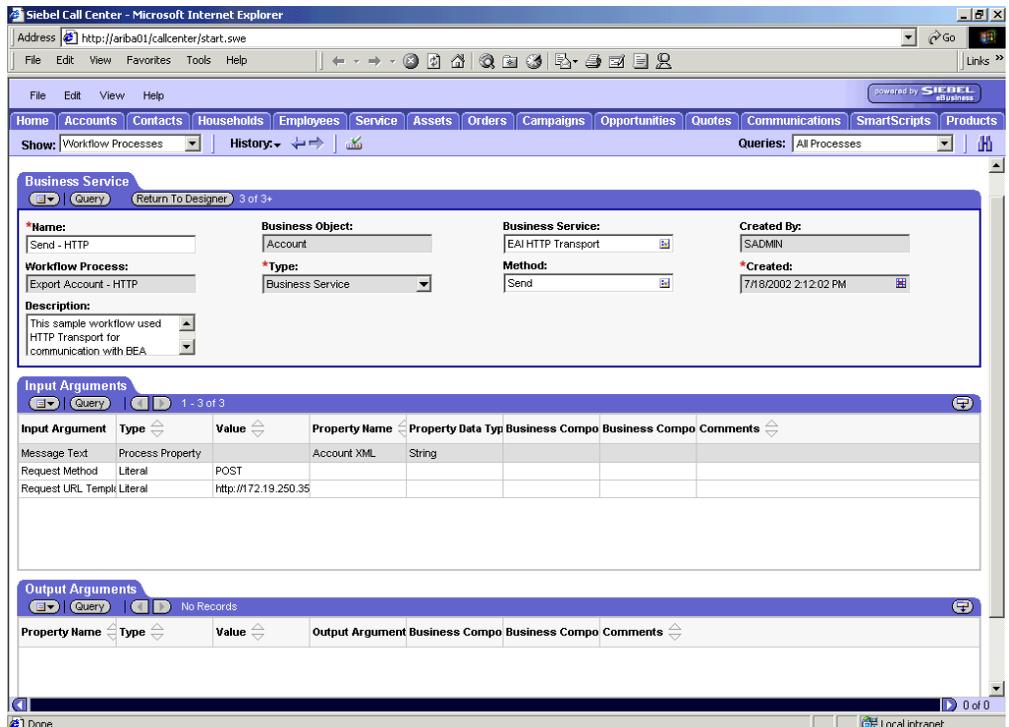
The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Business Service tab, which includes several fields and drop-down lists for defining the Convert to XML Business Service step. The middle pane shows the Input Arguments tab, which includes a chart of Input Arguments. The lower pane shows the Output Arguments tab, which includes a chart of Output Argument properties.



4. Define an EAI XML Converter Business Service step and call it *Convert to XML*.

This Business Service is defined to receive the Account data from the EAI Siebel Adapter Business Service in hierarchical format and convert it to XML format.

The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Business Service tab, which includes several fields and drop-down lists for defining the Send - HTTP Business Service step. The middle pane shows the Input Arguments tab, which includes a chart of Input Arguments. The lower pane shows the Output Arguments tab, which includes a chart of Output Argument properties.



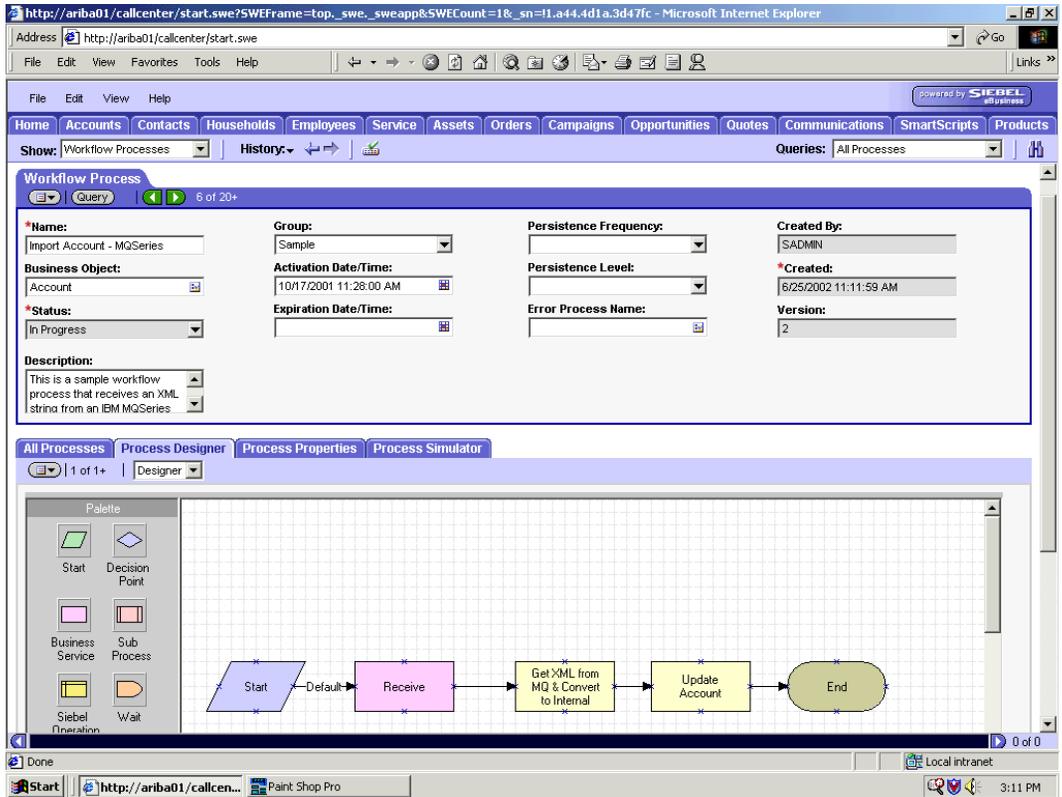
5. Define an EAI HTTP Transport Business Service step and call it *Send - HTTP*.

This Business Service is defined to receive the Account data from the EAI XML Converter Business Service in Siebel XML format and send the Account XML to HTTP using the Send method.

## Creating a Siebel Workflow for a Service Using MQSeries Transport

The following procedure is an example of a Siebel Workflow illustrated in the Siebel Workflow Administration window. The Workflow was designed for importing Siebel Account record information through the MQSeries Transport.

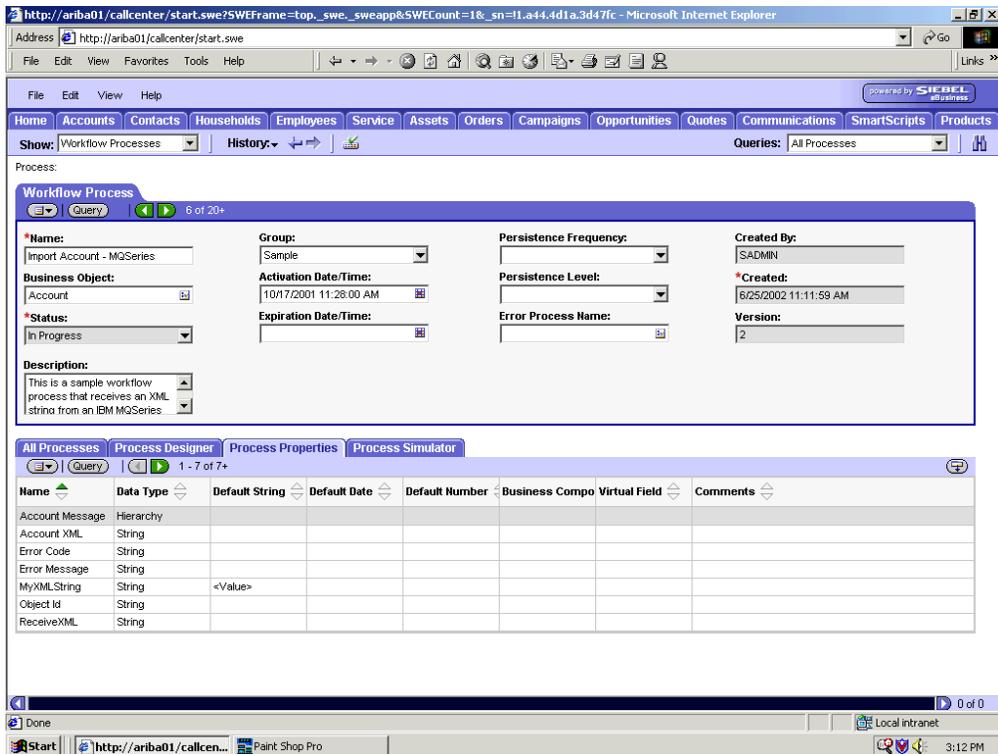
The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Workflow Process tab, which includes several fields and drop-down lists for defining Account record information for each Workflow. The Process Designer tab is active and shows an illustration of a Workflow process. The Workflow process can be modified using the palette to the left of the diagram.



**Procedure: How to Create a Siebel Workflow for a Service Using MQSeries Transport**

The following procedure describes how to create a Siebel Workflow that generates Siebel XML when an Account record is updated in the Siebel Call Center application.

The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Workflow Process tab, which includes several fields and drop-down lists for defining Account record information for each Workflow. The lower pane includes four tabs. The Process Properties tab is active and includes a chart of Siebel Account data properties.



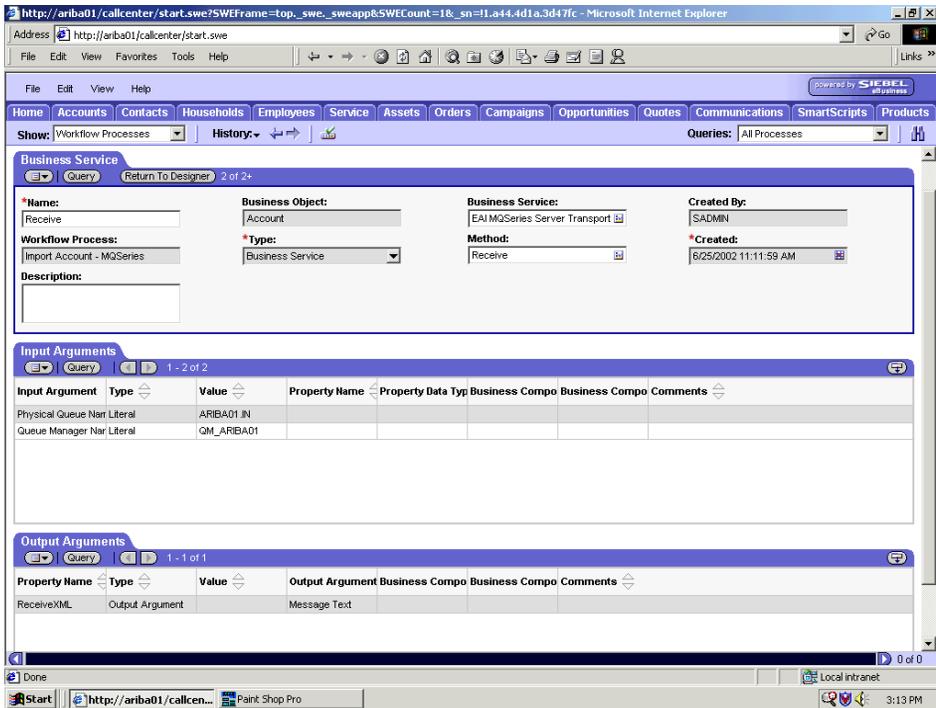
To create a Siebel Workflow:

1. In the Process Properties tab of the Workflow Process window, define the Account message and Account XML process properties.

Account message contains the Siebel Account data in hierarchical format.

Account XML specifies the Siebel Account data that the Workflow converted to XML.

The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Business Service tab, which includes several fields and drop-down lists for defining the Receive Business Service step. The middle pane shows the Input Arguments tab, which includes a chart of Input Arguments. The lower pane shows the Output Arguments tab, which includes a chart of Output Argument properties.

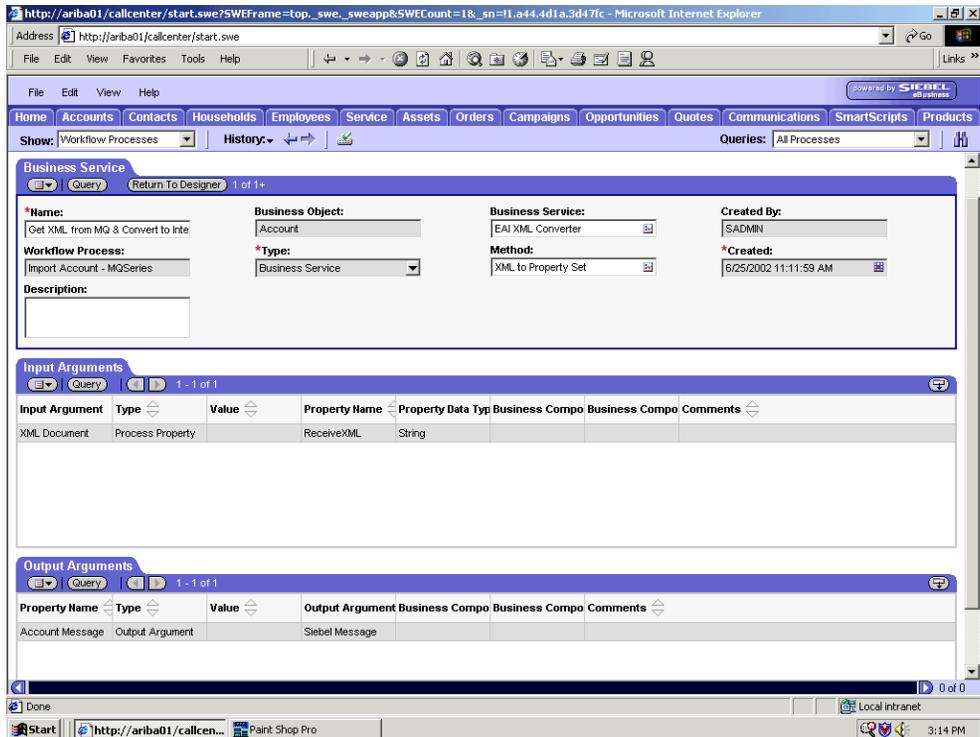


2. Define an EAI MQSeries Server Transport Business Service step and call it Receive.

The Business Service is defined to receive the Account data from the MQSeries message queue.

The EAI MQSeries Server Transport Business Service receives the Account data in Siebel XML format and sends it to the EAI XML Converter Business Service.

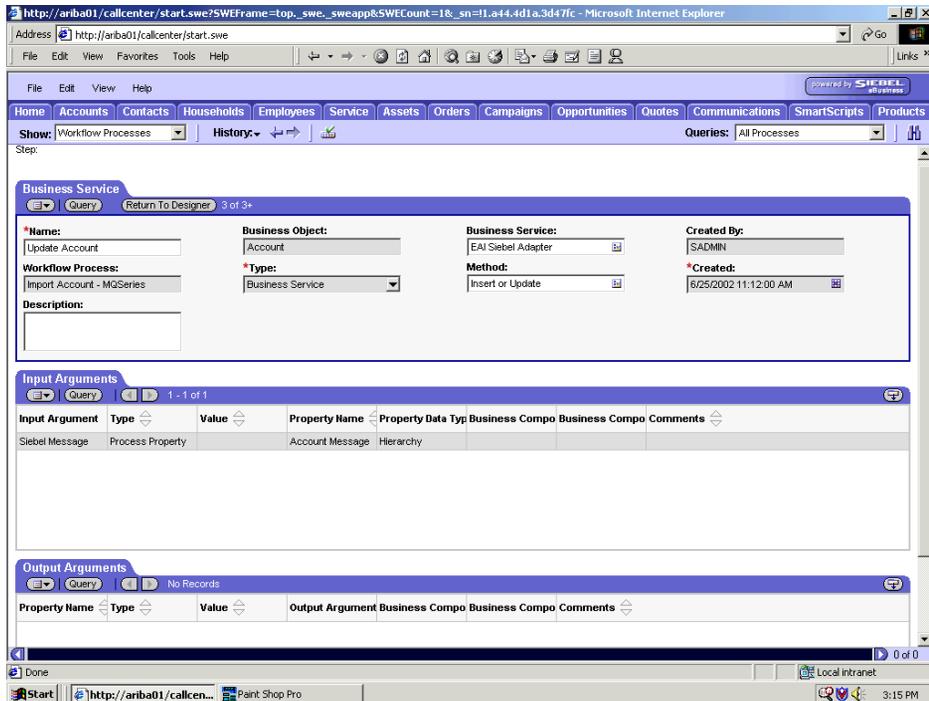
The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Business Service tab, which includes several fields and drop-down lists for defining the Get XML from MQ & Convert to XML Business Service step. The middle pane shows the Input Arguments tab, which includes a chart of Input Arguments. The lower pane shows the Output Arguments tab, which includes a chart of Output Argument properties.



3. Define an EAI XML Converter Business Service step and call it *Get XML from MQ & Convert to XML*.

This Business Service is defined to receive the Account data from the EAI MQSeries Server Transport Business Service in XML format and convert it to hierarchical format.

The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Business Service tab, which includes several fields and drop-down lists for defining the Update Account Business Service step. The middle pane shows the Input Arguments tab, which includes a chart of Input Arguments. The lower pane shows the Output Arguments tab, which includes a chart of Output Argument properties.



4. Define an EAI Siebel Adapter Business Service step and call it *Update Account*.

This Business Service is defined to receive from the EAI XML Converter Business Service the instance of Account data in hierarchical format.

The Business Service applies the Account information into Siebel, using the Insert or Update method.

## Creating a Siebel Workflow for a Service Using File Transport

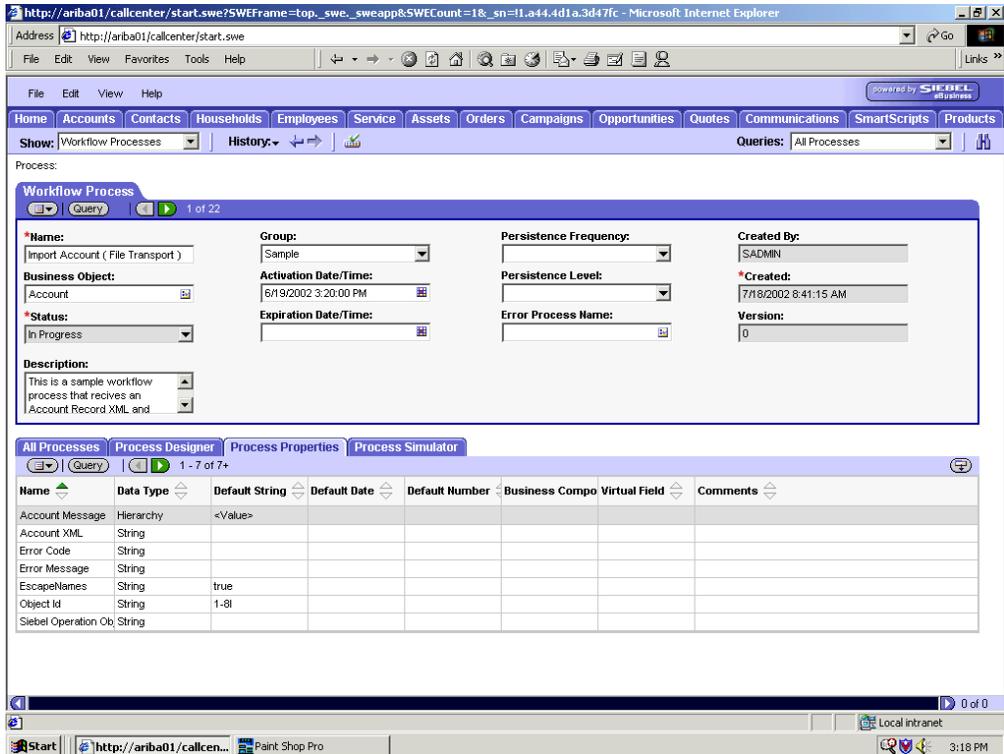
The following procedure is an example of a Siebel Workflow illustrated in the Siebel Workflow Administration window. The workflow was designed for importing Siebel Account record information through the File transport.

The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Workflow Process tab, which includes several fields and drop-down lists for defining Account record information for each Workflow. The lower pane includes four tabs. The Process Designer tab is active and displays an illustration of a Workflow process. The Workflow process can be modified using the palette to the left of the diagram.

### **Procedure:** How to Create a Siebel Workflow for a Service Using File Transport

The following procedure describes how to create a Siebel Workflow that generates Siebel XML when an Account record is updated in the Siebel Call Center application and then places Siebel XML on the file system.

The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Workflow Process tab, which includes several fields and drop-down lists for defining Account record information for each Workflow. The lower pane includes four tabs. The Process Properties tab is active and includes a chart of Siebel Account data properties.



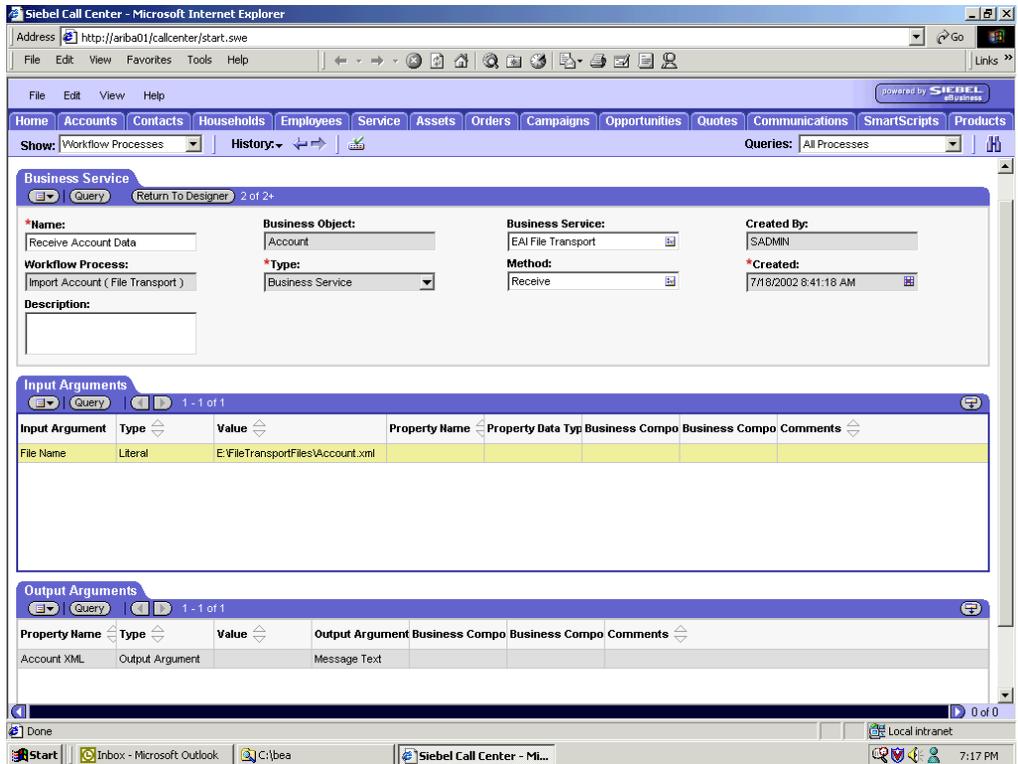
To create a Siebel Workflow:

1. In the Process Properties tab of the Workflow Process window, define the Account message and Account XML process properties.

Account message contains the Siebel Account data in hierarchical format.

Account XML specifies the Siebel Account data that the workflow converted to XML.

The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Business Service tab, which includes several fields and drop-down lists for defining the Receive Account Data Business Service step. The middle pane shows the Input Arguments tab, which includes a chart of Input Arguments. The lower pane shows the Output Arguments tab, which includes a chart of Output Argument properties.

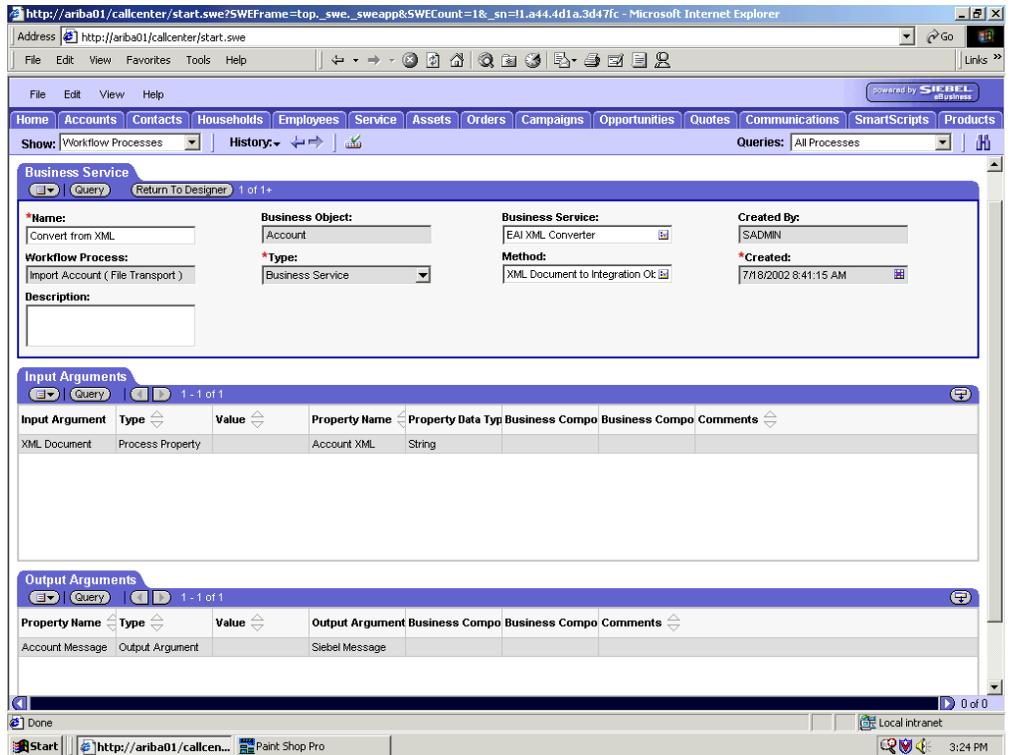


2. Define an EAI File Transport Business Service step and call it *Receive Account Data*.

The Business Service is defined to receive the Account data from the file system.

The EAI File Transport Business Service receives the Account data in Siebel XML format and sends it to the EAI XML Converter Business Service.

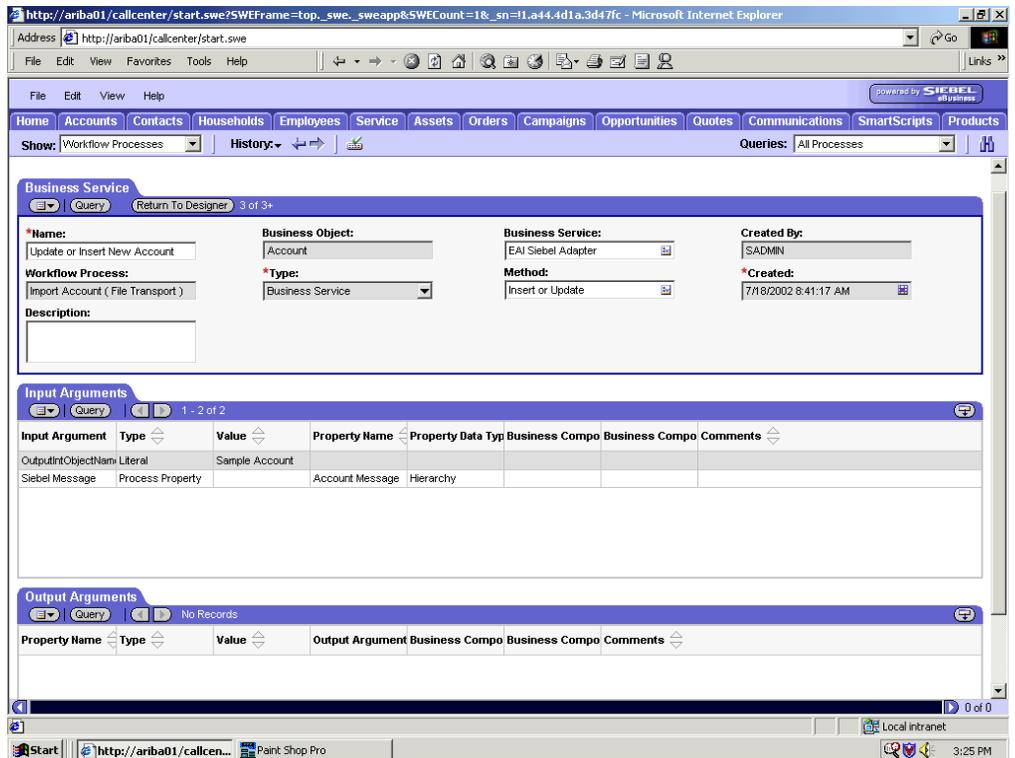
The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Business Service tab, which includes several fields and drop-down lists for defining the Convert from XML Business Service step. The middle pane shows the Input Arguments tab, which includes a chart of Input Arguments. The lower pane shows the Output Arguments tab, which includes a chart of Output Argument properties.



3. Define an EAI XML Converter Business Service step and call it *Convert from XML*.

This Business Service is defined to receive the Account data from the EAI File Transport Business Service in XML format and convert it to hierarchical format.

The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Business Service tab, which includes several fields and drop-down lists for defining the Update or Insert New Account Business Service step. The middle pane shows the Input Arguments tab, which includes a chart of Input Arguments. The lower pane shows the Output Arguments tab, which includes a chart of Output Argument properties.



- Define an EAI Siebel Adapter Business Service step and call it *Update or Insert New Account*.

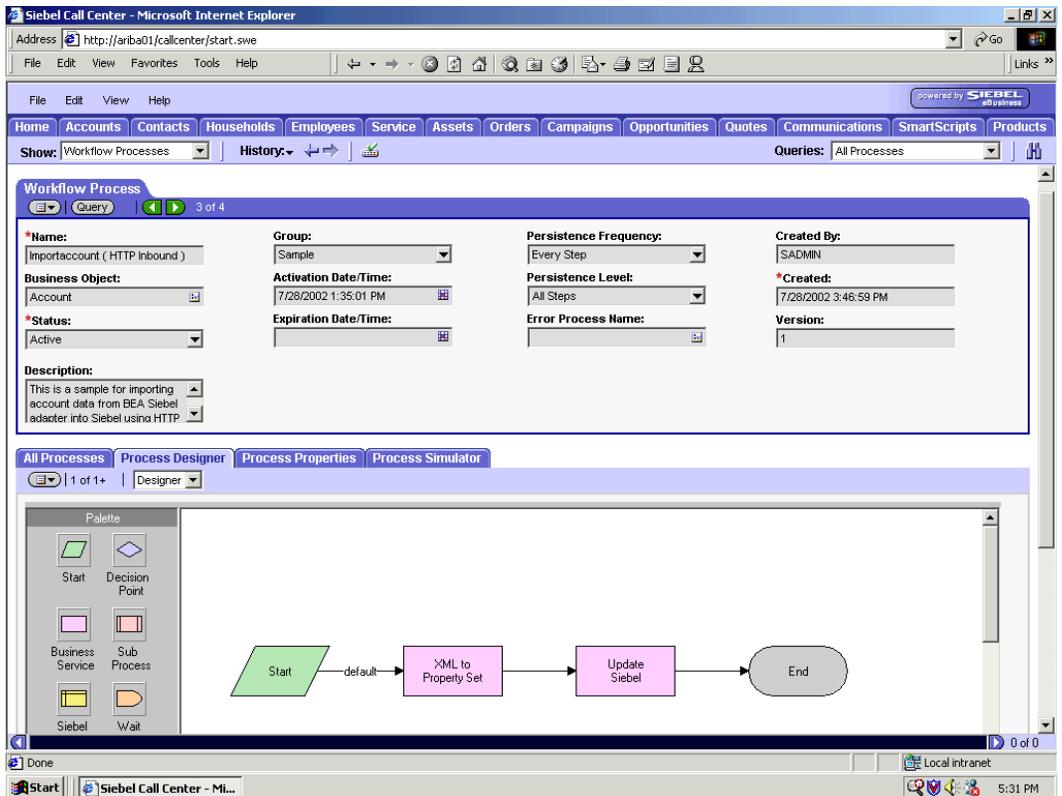
This Business Service is defined to receive from the EAI XML Converter Business Service the instance of Account data in hierarchical format.

The Business Service applies the Account information into Siebel using the Insert or Update method.

## Creating a Siebel Workflow for a Service Using HTTP Transport

The following procedure is an example of a Siebel workflow illustrated in the Siebel Workflow Administration window. The Workflow was designed for importing Siebel Account record information through the HTTP transport.

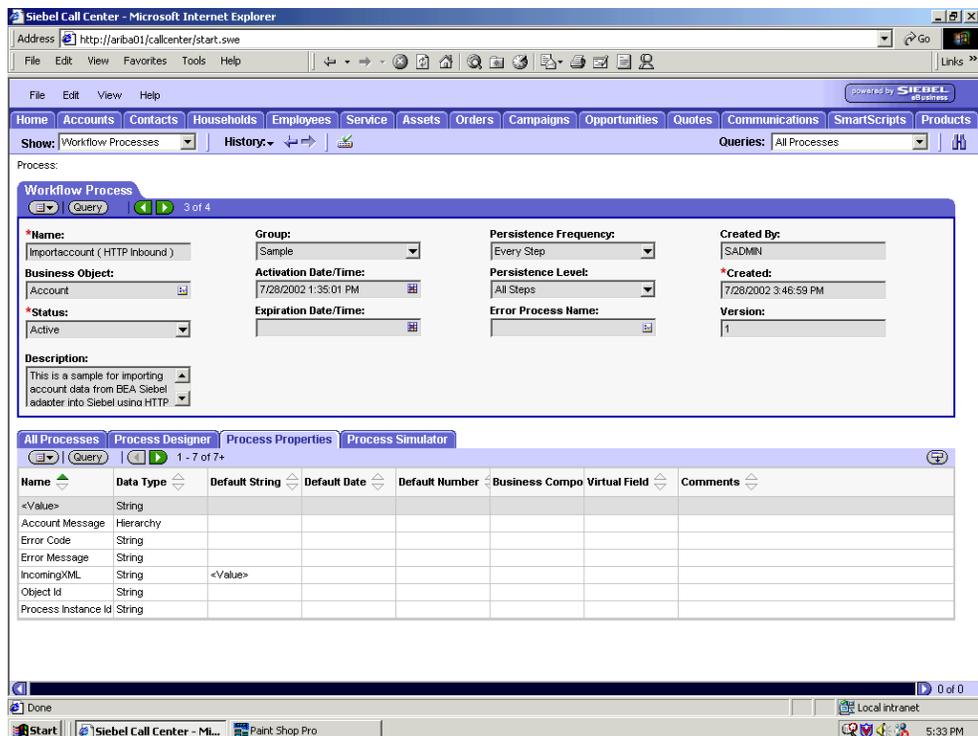
The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Workflow Process tab, which includes several fields and drop-down lists for defining Account record information for each Workflow. The lower pane includes four tabs. The Process Designer tab is active and displays an illustration of a Workflow process. The Workflow process can be modified using the palette to the left of the diagram.



## Procedure: How to Create a Siebel Workflow for a Service Using HTTP Transport

The following procedure describes how to create a Siebel Workflow that generates Siebel XML when an Account record is updated in the Siebel Call Center application and then places Siebel XML on the file system.

The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Workflow Process tab, which includes several fields and drop-down lists for defining Account record information for each Workflow. The lower pane includes four tabs. The Process Properties tab is active and includes a chart of Siebel Account data properties.



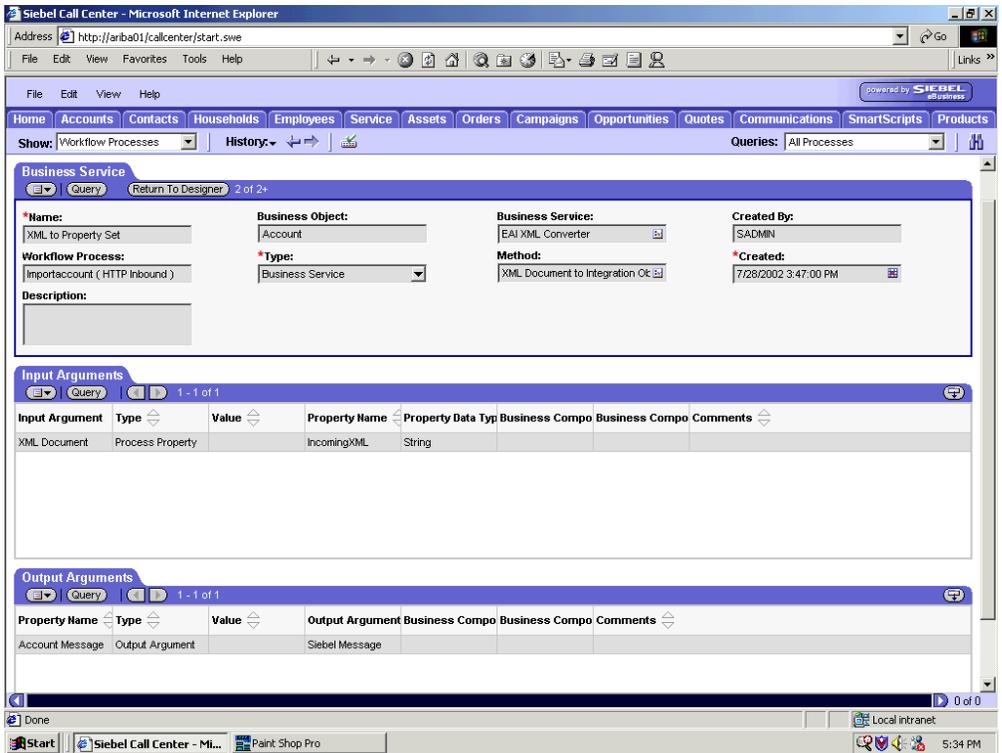
To create a Siebel Workflow:

1. In the Process Properties tab of the Workflow Process window, define the Account message and Account XML process properties.

Account message contains the Siebel Account data in hierarchical format.

Account XML specifies the Siebel Account data that the workflow converted to XML.

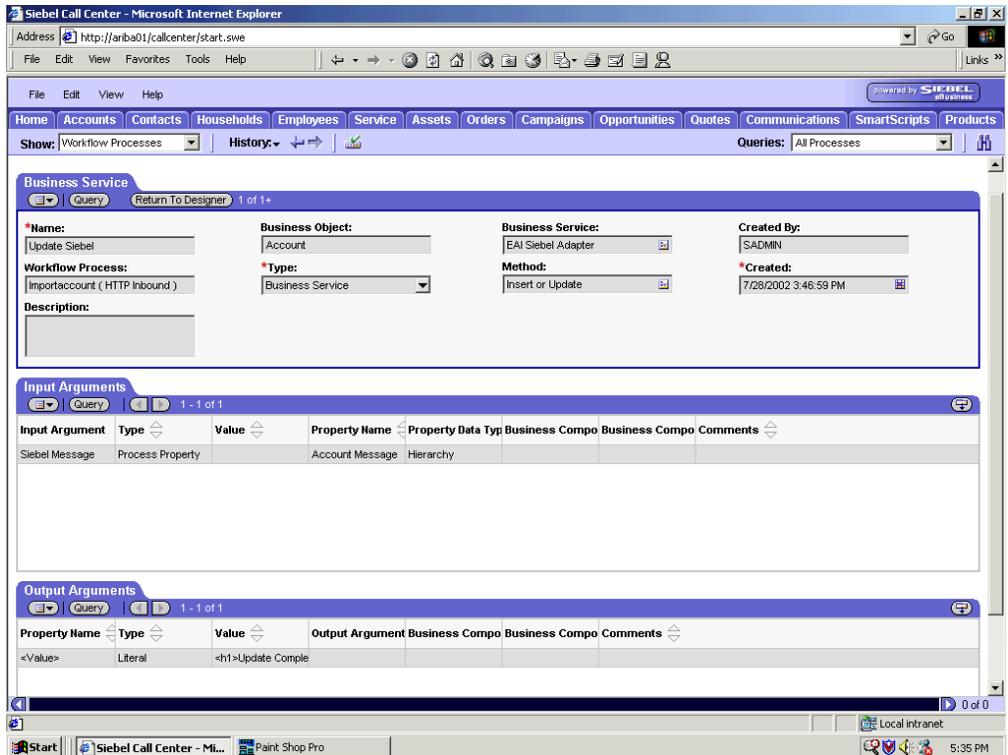
The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Business Service tab, which includes several fields and drop-down lists for defining the XML to Property Set Business Service step. The middle pane shows the Input Arguments tab, which includes a chart of Input Arguments. The lower pane shows the Output Arguments tab, which includes a chart of Output Argument properties.



2. Define an EAI XML Converter Business Service step and call it *XML to Property Set*.

The Business Service is defined to receive the Account data from the EAI HTTP Transport Business Service in XML format and convert it to hierarchical format.

The following image shows the Siebel Workflow Administration window. The window includes fourteen tabs across the top, a Show drop-down list in the upper left, and a Queries drop-down list in the upper right. The upper pane shows the Business Service tab, which includes several fields and drop-down lists for defining the Update Siebel Business Service step. The middle pane shows the Input Arguments tab, which includes a chart of Input Arguments. The lower pane shows the Output Arguments tab, which includes a chart of Output Argument properties.



3. Define an EAI Siebel Adapter Business Service step and call it *Update Siebel*.

The Business Service is defined to receive from the EAI XML Converter Business Service the instance of Account data in hierarchical format.

The Business Service applies the Account information into Siebel using the Insert or Update method.





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# iWay

## iWay Application Adapter for Siebel User's Guide

Version 7.0.x and Higher

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