Oracle®

Application Adapter for Siebel User's Guide

WebLogic Server 10*g* Release 3 (10.3.1.0)

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Oracle Application Adapter for Siebel User’s Guide, WebLogic Server 10*g* Release 3 (10.3.1.0)

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Preface

This Preface contains these topics:

- Audience
- Documentation Accessibility
- Related Documents
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- Help Us to Serve You Better

Audience

Oracle Application Adapter for Siebel (WebLogic Server 10gr3) User's Guide is intended for those who perform the following tasks:

- Install applications
- Maintain applications

To use this document, you need to know how to install and configure Oracle Service Bus (Business Service and Proxy Service).

Documentation Accessibility

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Accessibility of Code Examples in Documentation

Screen readers may not always correctly read the code examples in this document. The conventions for writing code require that closing braces should appear on an otherwise empty line; however, some screen readers may not always read a line of text that consists solely of a bracket or brace.

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Related Documents

For more information, refer to these Oracle resources:

- *Oracle Application Adapter Concepts*
- *Oracle Application Adapter (WebLogic Server 10gr3) Installation Guide*

Printed documentation is available for sale in the Oracle Store at

`http://oraclestore.oracle.com/`

To download free release notes, installation documentation, white papers, or other collateral, please visit the Oracle Technology Network (OTN). You must register online before using OTN; registration is free and can be done at

`http://www.oracle.com/technology/membership/`

If you already have a user name and password for OTN, then you can go directly to the documentation section of the OTN Web site at

`http://www.oracle.com/technology/documentation/`

Conventions

This section describes the conventions used in the text and code examples of this documentation set. It describes:

- Conventions in Text
- Conventions in Code Examples
- Conventions for Windows Operating Systems

Conventions in Text

We use the following conventions in text to help you more quickly identify special terms. The table also provides examples of their use.

Convention	Meaning	Example
Bold	Bold typeface indicates terms that are defined in the text or terms that appear in a glossary, or both.	When you specify this clause, you create an **index-organized table**.

Convention	Meaning	Example
Italics	Italic typeface indicates book titles or emphasis.	*Oracle Database Concepts* Ensure that the recovery catalog and target database do *not* reside on the same disk.
`UPPERCASE monospace (fixed-width) font`	Uppercase monospace typeface indicates elements supplied by the system. Such elements include parameters, privileges, datatypes, Recovery Manager keywords, SQL keywords, SQL*Plus or utility commands, packages and methods, and system-supplied column names, database objects and structures, user names, and roles.	You can specify this clause only for a `NUMBER` column. You can back up the database by using the `BACKUP` command. Query the `TABLE_NAME` column in the `USER_TABLES` data dictionary view. Use the `DBMS_STATS.GENERATE_STATS` procedure.
`lowercase monospace (fixed-width) font`	Lowercase monospace typeface indicates executable programs, filenames, directory names, and sample user-supplied elements. *Note:* Some programmatic elements use a mixture of UPPERCASE and lowercase. Enter these elements as shown.	Enter `sqlplus` to start SQL*Plus. The password is specified in the `orapwd` file. Back up the datafiles and control files in the `/disk1/oracle/dbs` directory. The `department_id`, `department_name`, and `location_id` columns are in the `hr.departments` table. Connect as `oe` user. The `JRepUtil` class implements these methods.
`lowercase italic monospace (fixed-width) font`	Lowercase italic monospace font represents placeholders or variables.	You can specify the *`parallel_clause`*. Run *`old_release`*`.SQL` where *`old_release`* refers to the release you installed before upgrading.

Conventions in Code Examples

Code examples illustrate SQL, PL/SQL, SQL*Plus, or other command-line statements. They are displayed in a monospace (fixed-width) font and separated from normal text as shown in this example:

```
SELECT username FROM dba_users WHERE username = 'MIGRATE';
```

The following table describes typographic conventions used in code examples and provides examples of their use.

<table>
<tr><th>Convention</th><th>Meaning</th><th>Example</th></tr>
<tr><td>[ ]</td><td>Anything enclosed in brackets is optional.</td><td>DECIMAL (<i>digits</i> [, <i>precision</i>])</td></tr>
<tr><td>{ }</td><td>Braces are used for grouping items.</td><td>{ENABLE | DISABLE}</td></tr>
<tr><td>|</td><td>A vertical bar represents a choice of two options.</td><td>{ENABLE | DISABLE}
[COMPRESS | NOCOMPRESS]</td></tr>
<tr><td>. . .</td><td>Ellipsis points mean repetition in syntax descriptions.
In addition, ellipsis points can mean an omission in code examples or text.</td><td>CREATE TABLE ... AS <i>subquery</i>;
SELECT <i>col1</i>, <i>col2</i>, ... , <i>coln</i> FROM employees;</td></tr>
<tr><td>Other symbols</td><td>You must use symbols other than brackets ([ ]), braces ({ }), vertical bars (|), and ellipsis points (...) exactly as shown.</td><td>acctbal NUMBER(11,2);
acct   CONSTANT NUMBER(4) := 3;</td></tr>
</table>

Convention	Meaning	Example
Italics	Italicized text indicates placeholders or variables for which you must provide particular values.	CONNECT SYSTEM/*system_password* DB_NAME = *database_name*

UPPERCASE	Uppercase typeface indicates elements supplied by the system. We show these terms in uppercase to distinguish them from terms you define. Unless terms appear in brackets, enter them in the order and with the spelling shown. Because these terms are not case sensitive, you can use them in either UPPERCASE or lowercase.	SELECT last_name, employee_id FROM employees;
		SELECT * FROM USER_TABLES;
		DROP TABLE hr.employees;

lowercase	Lowercase typeface indicates user-defined programmatic elements, such as names of tables, columns, or files.
	Note: Some programmatic elements use a mixture of UPPERCASE and lowercase. Enter these elements as shown.
		SELECT last_name, employee_id FROM employees;
		sqlplus hr
		CREATE USER mjones IDENTIFIED BY ty3MU9;

Conventions for Windows Operating Systems

The following table describes conventions for Windows operating systems and provides examples of their use.

Convention	Meaning	Example
Click **Start**, and then choose the ***menu item***	How to start a program.	To start the Database Configuration Assistant, click **Start**, and choose **Programs**. In the Programs menu, choose **Oracle** - ***HOME_NAME*** and then click **Configuration and Migration Tools**. Choose **Database Configuration Assistant**.
File and directory names	File and directory names are not case sensitive. The following special characters are not allowed: left angle bracket (<), right angle bracket (>), colon (:), double quotation marks ("), slash (/), pipe (|), and dash (-). The special character backslash (\) is treated as an element separator, even when it appears in quotes. If the filename begins with \\, then Windows assumes it uses the Universal Naming Convention.	c:\winnt"\"system32 is the same as C:\WINNT\SYSTEM32
C:\>	Represents the Windows command prompt of the current hard disk drive. The escape character in a command prompt is the caret (^). Your prompt reflects the subdirectory in which you are working. Referred to as the *command prompt* in this manual.	C:\oracle\oradata>
Special characters	The backslash (\) special character is sometimes required as an escape character for the double quotation mark (") special character at the Windows command prompt. Parentheses and the single quotation mark (') do not require an escape character. Refer to your Windows operating system documentation for more information on escape and special characters.	C:\>exp HR/HR TABLES=employees QUERY=\"WHERE job_id='SA_REP' and salary<8000\"

Convention	Meaning	Example
HOME_NAME	Represents the Oracle home name. The home name can be up to 16 alphanumeric characters. The only special character allowed in the home name is the underscore.	`C:\> net start Oracle`*HOME_NAME*`TNSListener`
ORACLE_HOME and *ORACLE_BASE*	In Oracle8i release 8.1.3 and lower, when you installed Oracle components, all subdirectories were located under a top level *ORACLE_HOME* directory. This release complies with Optimal Flexible Architecture (OFA) guidelines. All subdirectories are not under a top level *ORACLE_HOME* directory. There is a top level directory called *ORACLE_BASE* that by default is `C:\oracle\product\10.1.0`. If you install the latest Oracle release on a computer with no other Oracle software installed, then the default setting for the first Oracle home directory is `C:\oracle\product\10.1.0\db_`*n*, where *n* is the latest Oracle home number. The Oracle home directory is located directly under *ORACLE_BASE*. All directory path examples in this guide follow OFA conventions. Refer to *Oracle Database Installation Guide for Windows* for additional information about OFA compliances and for information about installing Oracle products in non-OFA compliant directories.	Change to the *ORACLE_BASE*`\`*ORACLE_HOME*`\rdbms\admin` directory.

Help Us to Serve You Better

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

The following list includes the specifications our consultants require.

- **Platform**:
- **Operating System**:
- **Operating System Version**:
- **Product List**:
- **Adapters**:
- **Adapter Deployment**:

  For example, *J2CA* or *Business Services Engine (BSE)*
- **Container Version**:

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

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

In the following table, specify the JVM version and vendor.

JVM Version	Vendor

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

Request/Question	Error/Problem Details or Information
Provide usage scenarios or summarize the application that produces the problem.	
Has this happened previously?	
Can you reproduce this problem consistently?	
Any **change in the application environment**: software configuration, EIS/database configuration, application, and so on?	
Under what circumstance does the problem *not* occur?	
Describe the **steps** to reproduce the problem.	
Describe the **problem**.	
Specify the **error** message(s).	

The following is a list of error or problem files that might be applicable.

- XML schema
- XML instances
- WSDL files
- Other input documents (transformation)
- Error screen shots
- Error output files
- Trace and log files
- Log transaction

1 Introduction

Oracle WebLogic Server connects to a Siebel system through Oracle Application Adapter for Siebel (WebLogic 10gr3). Oracle Application Adapter for Siebel provides connectivity and enables interactions on a Siebel system.

This chapter discusses the following topics:

Adapter Features

Oracle Application Adapter for Siebel (WebLogic 10gr3) provides a means to exchange real-time business data between Siebel systems and other applications, databases, or external business partner systems. The **adapter** enables external applications for inbound and outbound processing with Siebel.

Oracle Application Adapter for Siebel can be deployed as a J2EE Connector Architecture (J2CA) version 1.0 resource adapter. This deployment is referred to as Oracle Adapter J2CA. It can also be deployed as a Web services servlet and as such is referred to as Oracle Adapter Business Services Engine (BSE).

Oracle Application Adapter for Siebel uses XML messages to enable non-Siebel applications to communicate and exchange transactions with Siebel using services and events. Services and events are defined as follows:

- Services (also known as outbound processing): Enables applications to initiate a Siebel business event.
- Events (also known as inbound processing): Enables applications to access Siebel data only when a Siebel business event occurs.

To support event functionality, channels are supported. A **channel** represents configured connections to particular instances of back-end or other types of systems.

The channel is the adapter component that receives events in real time from the EIS application. The channel component can be a File reader, an HTTP listener, or an MQ listener. A channel is always EIS specific. The adapter supports multiple channels for a particular EIS, which enables the user to choose the optimal channel component based on deployment requirements

Oracle Application Adapter for Siebel:

- Supports synchronous and asynchronous, bidirectional message interactions for Siebel Business Services, Business Components, and Integration Objects.
- Includes Oracle WebLogic Server Adapter Application Explorer (Application 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. It also supports MSMQ messaging.
- XML schemas for Oracle Adapter J2CA.
- Web services for BSE.

Oracle 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. Oracle Application Adapter for Siebel exposes and generates metadata and interacts with these industry-specific objects.

See Also: *Oracle Application Server Adapter Concepts*

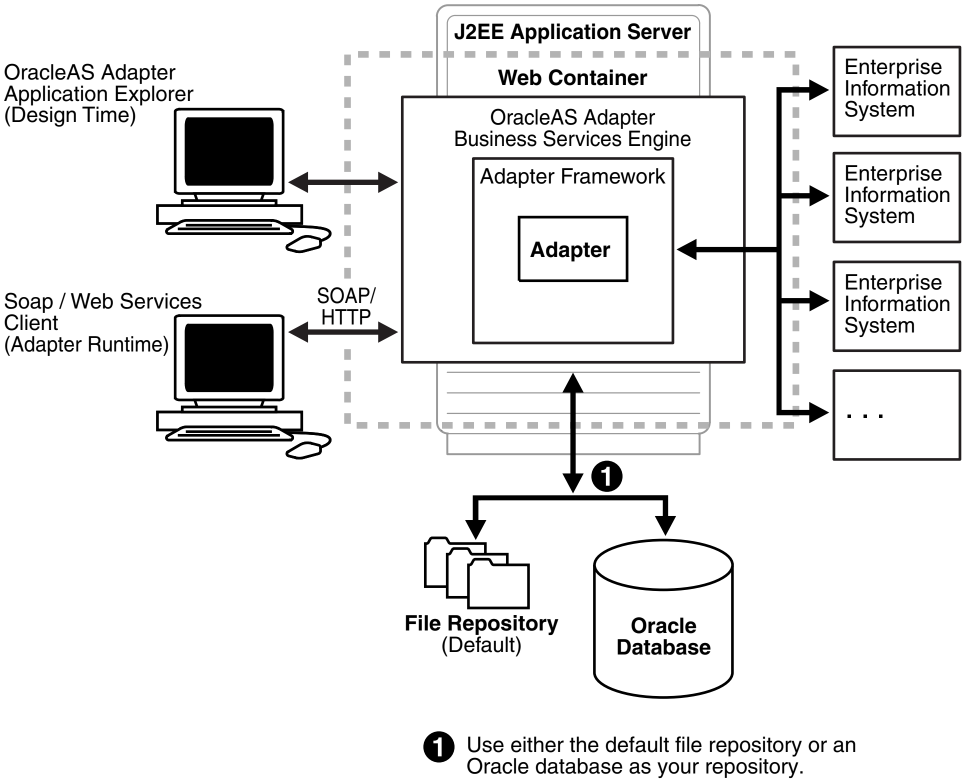
Oracle Adapter Business Services Engine (BSE) Architecture

Figure 1–1 shows the generic architecture for the Oracle Web service adapter for packaged applications. The adapter works with BSE, as deployed to a Web container in a J2EE application server. BSE serves as host to the adapters, enabling Web service requests to the adapters.

Application Explorer, a design-time tool deployed along with BSE, is used to configure adapter connections, browse EIS objects, configure services, and configure listeners to listen for EIS events. Metadata created while you perform these operations are stored in the repository by BSE.

BSE uses SOAP as a protocol for receiving requests from clients, interacting with the EIS, and sending responses from the EIS back to clients.

Figure 1–1 Oracle Adapter Business Services Engine (BSE) Generic Architecture



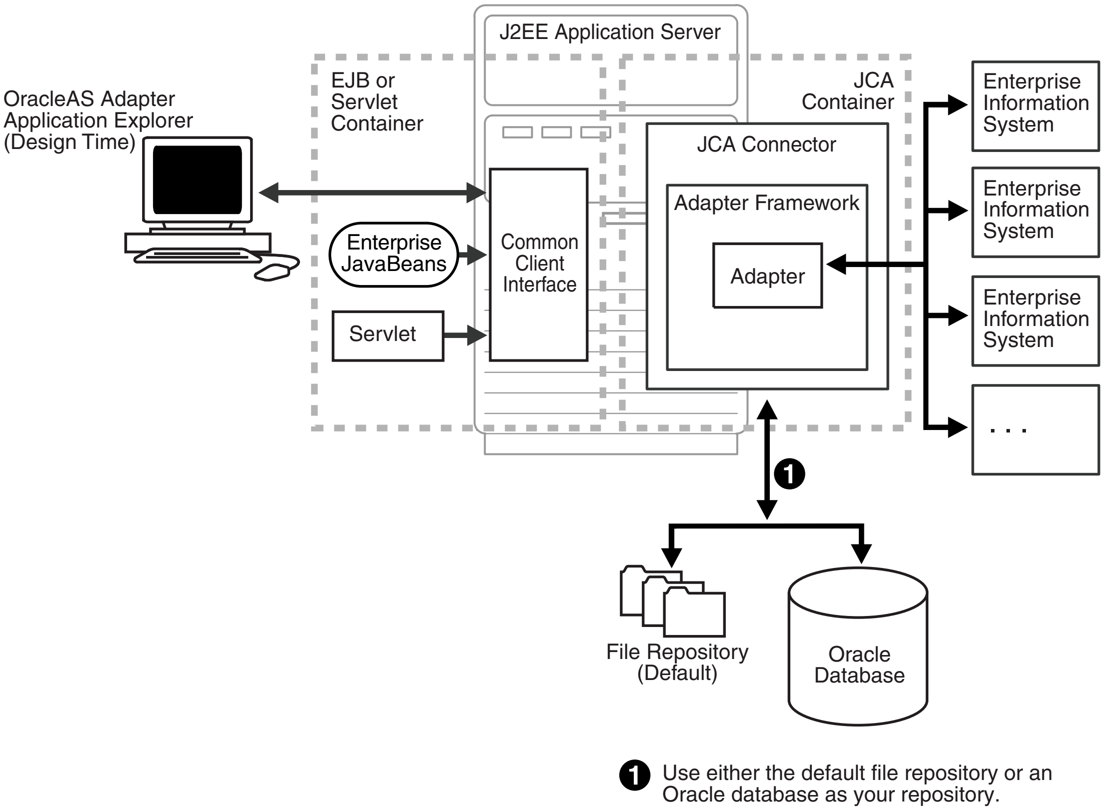
Note: Do not use a file repository for BSE in production environments.

Oracle Adapter J2CA Generic Architecture

Figure 1–2 shows the generic architecture for the Oracle Adapter J2CA for packaged applications. The Oracle Adapter J2CA is deployed to a standard J2CA container and serves as host container to the adapters. The connector is configured with a repository.

Application Explorer, a design tool that works with the connector, is used to configure adapter connections, browse EIS objects, configure services, and configure listeners to listen for EIS events. Metadata created while you perform these operations are stored in the repository by the connector. The repository can be a file system or an Oracle database. It is deployed as a RAR file and has an associated deployment descriptor called `ra.xml`. You can create multiple connector factories by editing the Oracle WebLogic Server deployment descriptor `ra.xml`. See Chapter 3, "Oracle WebLogic Server Deployment and Integration" for more information.

Figure 1–2 Oracle WebLogic Server Adapter J2CA Generic Architecture


J2EE Application Server
OracleAS Adapter Application Explorer (Design Time)
EJB or Servlet Container
JCA Container
Enterprise JavaBeans
Servlet
Common Client Interface
JCA Connector
Adapter Framework
Adapter
Enterprise Information System
Enterprise Information System
Enterprise Information System
. . .
1
File Repository (Default)
Oracle Database
1 Use either the default file repository or an Oracle database as your repository.

The Siebel Application Model

The Siebel Enterprise application defines a data abstraction layer that removes dependencies on the underlying database. It accomplishes this by using intermediate Business Components and Business Objects that represent database structures. A Business Component usually represents a table in a database. A Business Object is a group of related business components.

From a given business component, you can navigate the relationships defined for that component to another component. The path you use to traverse component relationships is called the navigation path. For example, if you want to obtain all addresses for a particular account, you can traverse the parent/child relationship between Account and Address to obtain those addresses. By using navigation paths, you can traverse nearly all of the business component relationships defined in the Siebel system.

In Siebel, Integration Objects are similar to Siebel Business Components but describe more complex hierarchal data relationships.

Integration with Siebel

You can use Oracle Application Adapter for Siebel to initiate a Siebel business process, such as add/update account, or you can use the adapter as part of an integration effort to connect Siebel and non-Siebel systems. Oracle 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 must 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, Oracle 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 processes.

Table 1–1 Siebel Objects and Processes

Siebel Objects	API or Transport	Process
Business Services	Java Data Bean (Siebel Version 6.3-8.0) Com Data Interface (Siebel Version 6.01-6.2)	Service
Business Components	Java Data Bean (Siebel Version 6.3-8.0) Com Data Interface (Siebel Version 6.01-6.2)	Service
Integration Objects	File	Event, Service
	HTTP	Event, Service
	MQSeries	Event, Service
	MQ Read	Service

Integrating with Siebel EAI Architecture

Siebel enables integration with other applications and systems using its Siebel EAI (Enterprise Application Integration) framework and its Business Integration Manager facility. Oracle 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.

Oracle 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.

Using Application Explorer with Oracle Application Adapter for Siebel

Application 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 Oracle Application Adapter for Siebel use either XML schemas or Web services to pass data between the external application and the adapter.

Application 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, Application Explorer can generate an XML schema or Web service to define the object for use with Oracle Application Adapter for Siebel.

Key features of Application 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.

> **See Also:**
>
> - *Oracle Application Server Adapter Concepts*
> - *Oracle Application Server Adapter (WebLogic Server 10gr3) Installation Guide*

BSE Versus Oracle Adapter J2CA Deployment

If you are using Oracle Application Adapter for Siebel with Oracle Service Bus (OSB), please note that:

- Only Oracle Adapter J2CA deployment supports inbound integration (event notification) with OSB.
- Both Oracle Adapter J2CA and BSE deployments support outbound integration (request-response service) with OSB.

The following three factors explain the differences between deploying BSE and the Oracle Adapter J2CA. Understanding the factors can help in selecting a deployment option.

1. BSE is the preferred deployment option because it:
   - Can be deployed in a separate instance of the Oracle WebLogic Server.
   - Provides better distribution of load.
   - Provides better isolation from any errors from third party libraries.
   - Provides better capability to isolate issues for debugging purposes.
   - Conforms more closely to the Service Oriented Architecture (SOA) model for building applications.
2. Oracle Adapter J2CA provides slightly better performance.

   Oracle Adapter J2CA does provide slightly better performance than BSE. However, the difference decreases as the transaction rate increases.
3. Oracle Adapter J2CA and the BSE option both provide identity propagation at run-time.

   The BSE option provides the capability to pass identity using the SOAP header. For the Oracle Adapter J2CA, user name and password can be passed using the connection specification of the CCI.

2

Configuring Oracle Application Adapter for Siebel

This chapter describes how to configure Oracle Application Adapter for Siebel and create schemas for Siebel Business Objects.

This chapter discusses the following topics:

Encoding Support on UNIX Platforms

Important (All UNIX Platforms): Before you attempt to connect to a Siebel target using a BSE or J2CA configuration in a UNIX environment, you must perform the additional steps described in "Adding Required Encoding Option (All UNIX Platforms)" on page 2-1. Failure to add the encoding option as described in this section will result in an error and you will not be able to connect to the Siebel target. The error message may indicate that the encoding is not supported, for example:

```
Error: Problem activating adapter -- UTF-8 is not supported. Check logs for more
information.

Error: Error getting target [Siebel] -- UTF-8 is not supported.
```

Adding Required Encoding Option (All UNIX Platforms)

Before attempting to connect to a Siebel target, do the following:

1. Add the following Java file encoding option to `iwae.sh`:

   ```
   -Dfile.encoding="ISO8859_1"
   ```

   The `iwae.sh` file is located in the following directory:

   ```
   wls_home/erp-adapters/tools/iwae/bin
   ```

2. Log in to the **Oracle WebLogic Server** console, click **Administration**, then **Server Properties**, and under **Command Line Options**, edit the **Java Options** field to include the following:

   ```
   -Dfile.encoding="ISO8859_1"
   ```

Siebel Connectivity Prerequisites

You must perform the following steps to connect to your Siebel system (version 6.2 and lower) using COM connectivity for a J2CA configuration.

1. Install Siebel thick client on the same system where the adapters are installed.
2. Install the database client (Microsoft SQL Server or Oracle) on the same system.
3. The Siebel .DLL files (iwsiebel.local.dll and iwsiebel.core.dll) in the adapter lib folder must be added to the Application server path.
4. Edit the uagent.cfg file and change the data source parameter value from "local" to "server".

   The uagent.cfg file can be found in the following Siebel thick client folder:

   ```
   c:\sea\client\bin
   ```

5. Edit the data source for SEA MSQl with appropriate parameters.

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

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

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

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

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

Configuring Settings for BSE or J2CA

Before a configuration can be created, you must configure Oracle Adapter Business Services Engine (BSE).

Configuring BSE

After BSE is deployed to Oracle WebLogic Server, you can configure it through the BSE configuration page.

To configure BSE:

1. Display the following page in your browser:

   ```
   http://host name:port/ibse
   ```

   Where `host name` is the host name of Oracle WebLogic Server and `port` is the HTTP port for Oracle WebLogic Server.

For example,

```
http://localhost:7777/ibse
```

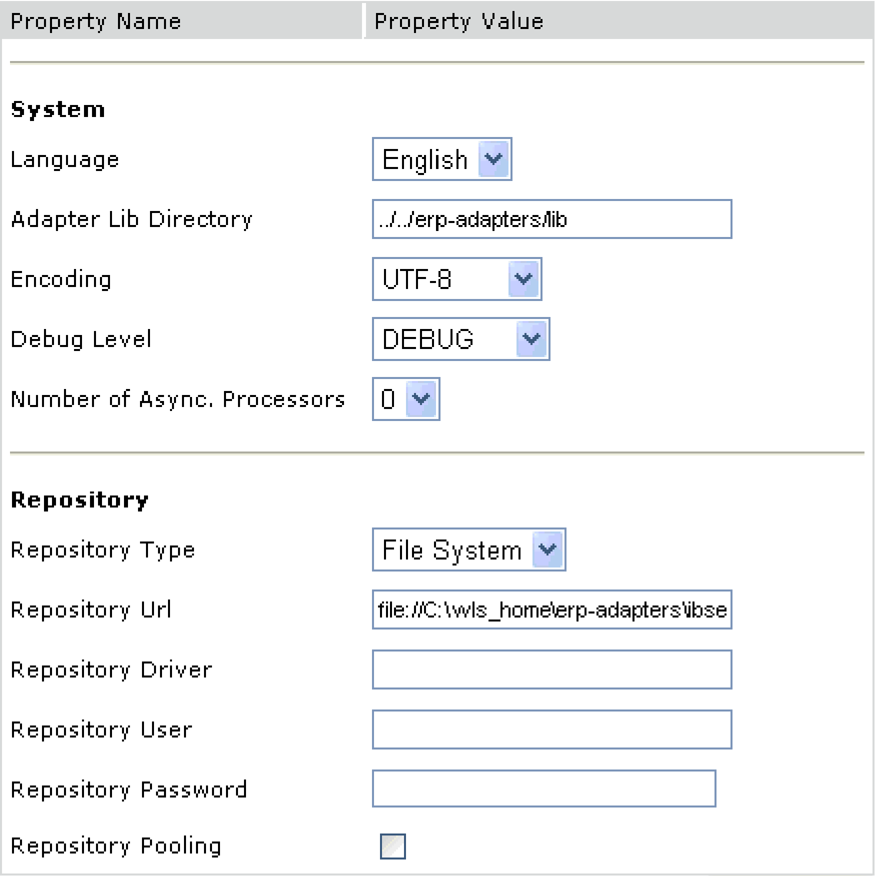
> **Note:** This page might load slowly when accessed for the first time.

2. Log on when prompted.

   Enter the user ID and password, for example:

   - User name: weblogic
   - Password: weblogic

The BSE configuration page is displayed.



Property Name	Property Value
System	
Language	English
Adapter Lib Directory	../../erp-adapters/lib
Encoding	UTF-8
Debug Level	DEBUG
Number of Async. Processors	0
Repository	
Repository Type	File System
Repository Url	file://C:\wls_home\erp-adapters\ibse
Repository Driver	
Repository User	
Repository Password	
Repository Pooling	□

3. Ensure that the Adapter Lib Directory parameter specifies the path to the lib directory, for example:

   ```
   wls_home\erp-adapters\lib
   ```

   After you specify the path, adapters in the lib directory are available to BSE.

> **Note:** The Repository URL field specifies where the file system repository is located. To use a database repository, you must enter the repository connection information. For the initial verification, use a file system repository.

4. Click **Save**.

Configuring BSE System Settings

To configure BSE system settings:

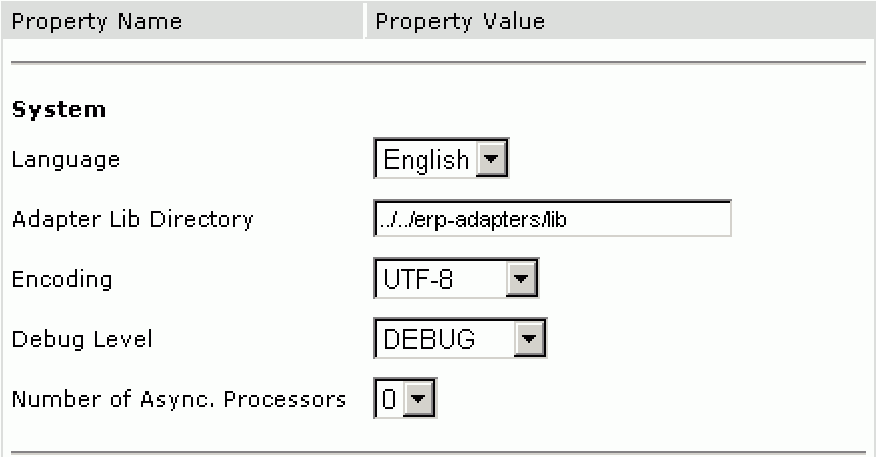
1. Display the BSE configuration page by using the following URL:

   ```
   http://host name:port/ibse/IBSEConfig
   ```

   Where `host name` is the system where BSE is installed and `port` is the port number on which BSE is listening.

   Important: The server to which BSE is deployed must be running.

   The BSE settings window is displayed.

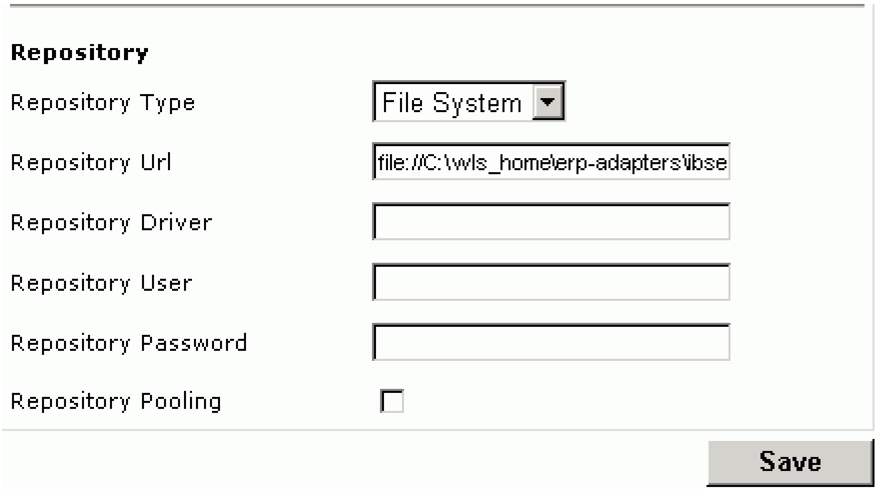


Property Name	Property Value
System	
Language	English
Adapter Lib Directory	../../erp-adapters/lib
Encoding	UTF-8
Debug Level	DEBUG
Number of Async. Processors	0

2. Configure the system settings by providing information for the parameters according to the following table.

Parameter	Description
Language	Specify the required language.
Adapter Lib Directory	Enter the full path to the directory where the adapter jar files reside
Encoding	Only UTF-8 is supported.
Debug Level	Specify the debug level from one of the following options: ■ None ■ Fatal ■ Error ■ Warning ■ Info ■ Debug
Number of Async. Processors	Select the number of asynchronous processors.

The following image shows all of the fields and the check boxes for the Repository pane.



Repository

Repository Type	File System
Repository Url	file://C:\wls_home\erp-adapters\ibse
Repository Driver	
Repository User	
Repository Password	
Repository Pooling	□

3. Configure the repository settings by providing information for the parameters according to the following table.

   BSE requires a repository to store transactions and metadata required for the delivery of Web services.

   For more information, see "Configuring a File System Repository" on page 2-6.

Parameter	Description
Repository Type	Select one of the following repositories from the list: ■ Oracle ■ File (Do not use a file repository for BSE in production environments.)
Repository URL	Enter the JDBC URL to use when opening a connection to the database.

Parameter	Description
Repository Driver	Provide the JDBC driver class to use when opening a connection to the database (optional).
Repository User	Enter the user ID to use when opening a connection to the database.
Repository Password	Enter the password associated with the user ID.
Repository Pooling	Select the check box to enable pooling.

4. Click **Save**.

Configuring a File System Repository

If you do not have access to a database for the repository, you can store repository information in an XML file on your local system. However, a file system repository is less secure and efficient than a database repository. When BSE is first installed, it is automatically configured to use a file system repository.

> **Note:** Do not use a file repository for BSE in production environments.

The default location for the repository on Windows is:

wls_home\erp-adapters\ibse.war\ibserepo.xml

On other platforms, use the corresponding location.

If you are using a file system repository, you are not required to configure any additional BSE components.

Configuring the Database Repository for J2CA

This section describes how to configure the database repository for J2CA.

1. Execute the `iwse.ora` SQL script on the machine where the database is installed.

   The `iwse.ora` SQL script is located in the following directory:

   wls_home\erp-adapters\etc

   This script creates the required tables that are used to store the adapter configuration information in the database. These tables are used by Application Explorer and by adapters during design time and runtime. It is recommended that you use the same credentials to create the database repository and also in the `ra.xml` file for database user credentials.

```
C:\wls_home\erp-adapters\etc>sqlplus

SQL*Plus: Release 10.1.0.2.0 - Production on Tue Dec 27 18:10:44 2005
Copyright (c) 1982, 2004, Oracle.  All rights reserved.

Enter user-name: scott
Enter password: scott1

Connected to:
Oracle Database 10g Enterprise Edition Release 10.1.0.2.0 - Production
With the Partitioning, OLAP and Data Mining options

SQL>@ iwse.ora
```

2. Create the `jcatransport.properties` file and save it in the following directory:

   wls_home\erp-adapters\config\J2CA_SampleConfig

   > **Note:** The `jcatransport.properties` file is required for each J2CA configuration that is created using Application Explorer. The J2CA configuration folder, for example, J2CA_SampleConfig, is named according to the configuration name that is specified in Application Explorer.

3. Enter values for `iwafjca.repo.url`, `iwafjca.repo.user` and `iwafjca.repo.password` fields in the newly created `jcatransport.properties` file, as shown in the following example:

   ```
   iwafjca.repo.url=jdbc:oracle:thin:@90.0.0.51:1521:orcl
   
   iwafjca.repo.user=scott
   
   iwafjca.repo.password=scott1
   ```

   The following table lists the parameters with descriptions of the information to provide.

Parameter	Description
iwafjca.repo.url	Specify the JDBC URL to use when opening a connection to the database. For example, the following repository URL format is used when connecting to Oracle: `jdbc:oracle:thin:@host name:port;SID`
iwafjca.repo.user	Specify a valid user ID to use when opening a connection to the database.
iwafjca.repo.password	Specify a valid password that is associated with the user ID.

4. Navigate to the following directory:

   ```
   WLS_HOME\erp-adapters\iwafjca.rar\META-INF
   ```
5. Open the `ra.xml` file in a text editor.
6. Provide the JDBC connection information as a value for the `IWAYRepo_URL` property.
7. Provide a valid user name for the `IWAYRepo_User` property.
8. Provide a valid password for the `IWAYRepo_Password` property.
9. Save your changes to the `ra.xml` file.

Password Encryption

When creating J2CA configurations, you can also encrypt a password using Application Explorer and use this value in the jcatransport.properties and ra.xml files for added security.

Configuring Password Encryption

To encrypt a password:

1. Open Application Explorer.
2. Click **Help** and select **Encryption**.

   The Encryption dialog box is displayed.
3. Type a password in the Password field and click OK.

   An encrypted version of the password displays in the Encryption field.
4. Copy the password.
5. In the jcatransport.properties file, which is used during design time, replace the existing password with the encrypted value only if you are using a database repository.

   The following is a sample of the jcatransport.properties file where the password is replaced:

   ```
   iwafjca.log.level=DEBUG
   iwafjca.repo.url=jdbc:oracle:thin:@172.30.166.100:1521:orcl
   iwafjca.repo.user=scott
   iwafjca.repo.password=ENCR (3189319731832973218312931643233321232227)
   ```
6. In the ra.xml file, which is used during run time, replace the existing password with the encrypted value for the IWayRepoPassword element. This is applicable for file system and database repositories.
7. Restart the Oracle WebLogic Server.

Creating a Repository Configuration

Before you use Application Explorer with Oracle Application Adapter for Siebel, you must create a repository configuration. You can create two kinds of repository configurations, Web services and J2CA, depending on the container to which the adapter is deployed.

During design time, the repository is used to store metadata created when using Application Explorer to configure adapter connections, browse EIS objects, configure services, and configure listeners to listen for EIS events. The information in the repository is also referenced at run-time.

A default J2CA repository is created for the default ManagedConnectionFactory. The name of this configuration is `jca_sample`.

Web services and BSE refer to the same type of deployment. See "Adapter Features" on page 1-1 for more information.

Starting Application Explorer

To start Application Explorer:

1. Start the server where Application Explorer is deployed.
2. On Windows, execute the `ae.bat` file, which is found under *`wls_home`*`\erp-adapters\tools\iwae\bin`, where *`wls_home`* is the directory where Oracle WebLogic Server is installed.

   On UNIX, load the `iwae.sh` script file, which is found under *`wls_home`*`/erp-adapters/tools/iwae/bin`, where *`wls_home`* is the directory where Oracle WebLogic Server is installed.

Application Explorer starts. You are ready to define new targets to your Siebel system.

Creating a Configuration for BSE

To create a configuration for BSE using Application Explorer, you must first define a new configuration.

Defining a New Configuration for BSE

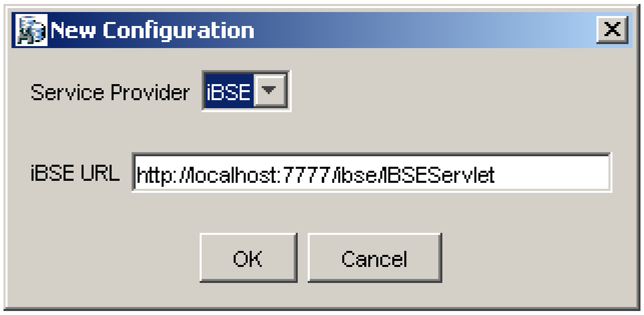
To create a new configuration for BSE:

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

   The New Configuration dialog box is displayed.

2. Enter a name for the new configuration (for example, SampleConfig) and click **OK**.

   The following dialog box is displayed.



Service Provider iBSE

iBSE URL http://localhost:7777/ibse/IBSEServlet

3. From the **Service Provider** list, select **iBSE**.

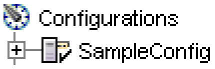
4. In the **iBSE URL** field, accept the default URL or replace it with a different URL using the following format:

   ```
   http://host name:port/ibse/IBSEServlet
   ```

   Where `host name` is the system where your Oracle WebLogic Server resides and `port` is the HTTP port number on which the Oracle WebLogic Server is listening.

5. Click **OK**.

   A node representing the new configuration appears beneath the root Configurations node.



Creating a Configuration for J2CA

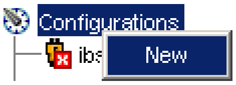
To create a configuration for Oracle Adapter J2CA using Application Explorer, you must first define a new configuration.

Defining a New Configuration for J2CA

To define a new configuration for J2CA:

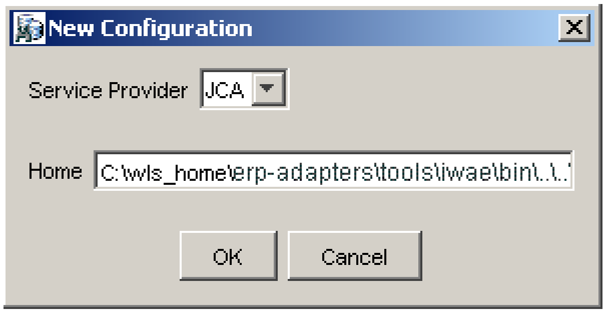
1. Right-click **Configurations** and select **New**.

   The New Configuration dialog box is displayed.



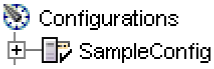
2. Enter a name for the new configuration (for example, SampleConfig) and click **OK**.

   The New Configuration dialog box is displayed.



3. From the **Service Provider** list, select **JCA**.
4. Click **OK**.

   A node representing the new configuration appears beneath the root Configurations node.



The Oracle Adapter J2CA configuration file is stored in *`wls_home`*`\erp-adapters\config\`*`configuration_name`*

Where *`configuration_name`* is the name of the configuration you created; for example, myConfig.

HTTP Repository Connection

J2CA users can create an HTTP repository connection, which enables them to generate and store WSDL documents remotely. Perform the following steps to create an HTTP repository connection in Application Explorer. To use the HTTP repository, make sure that the iwjcaivp test tool(jca-app-adapter-test) is successfully deployed and running.

1. Start the Application Explorer.
2. Right-click the **Configurations** node in the left pane and select **New**.

   The New Configuration dialog box opens.
3. Type a name for the configuration and click **OK**.
4. Select **JCA** from the Service Provider list box and enter an HTTP target value in the Home field.

   Use the following format for the HTTP target value:

   ```
   http://host name:port/iwafjca/JCAServlet
   ```

   For example:

   ```
   http://iwserv14:7777/iwafjca/JCAServlet
   ```
5. Click **OK**.

   The new HTTP repository connection is added to the Configurations node.

   Once you connect to the remote server, you can create new Adapter targets, generate WSDL documents, and store them in the remote server.

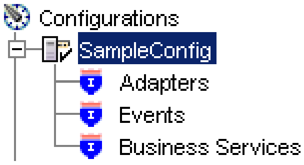
Note: When you configure an Adapter target with the J2CA HTTP repository, you are not required to restart the Oracle WebLogic Server for run time purposes.

Connecting to a BSE or J2CA Configuration

To connect to a new configuration:

1. Right-click the configuration to which you want to connect, for example, SampleConfig.
2. Select **Connect**.

   Nodes appear for Adapters, Events, and Business Services (also known as Web services). The Business Services node is only available for BSE configurations. If you are connected to a J2CA configuration, you will not see the Business Services node. The following is an example of a BSE configuration named SampleConfig:



Configurations
SampleConfig
Adapters
Events
Business Services

- Use the **Adapters** folder to create inbound interaction with Siebel. For example, you use the Siebel node in the Adapters folder to configure a service that updates Siebel.
- Use the **Events** folder to configure listeners that listen for events in Siebel.
- Use the **Business Services** folder (available for BSE configurations only) to test Web services created in the Adapters folder. You can also control security settings for the Web services by using the security features of the Business Services folder.

You can now define new targets to Siebel.

Establishing a Connection (Target) for Siebel

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 provide the password to Siebel every time you connect to the target.

Important (All UNIX Platforms): Before you attempt to connect to a Siebel target using a BSE or J2CA configuration in a UNIX environment, you must perform the additional steps described in "Adding Required Encoding Option (All UNIX Platforms)" on page 2-11. Failure to add the encoding option as described in this section will result in an error and you will not be able to connect to the Siebel target. The error message may indicate that the encoding is not supported, for example:

```
Error: Problem activating adapter -- UTF-8 is not supported. Check logs for more
information.

Error: Error getting target [Siebel] -- UTF-8 is not supported.
```

Adding Required Encoding Option (All UNIX Platforms)

Before attempting to connect to a Siebel target, do the following:

1. Add the following Java file encoding option to `iwae.sh`:

   ```
   -Dfile.encoding="ISO8859_1"
   ```

The `iwae.sh` file is located in the following directory:

```
$oracle_home/adapters/application/tools
```

2. Log in to the **Oracle WebLogic Server** console, click **Administration**, then **Server Properties**, and under **Command Line Options**, edit the **Java Options** field to include the following:

   ```
   -Dfile.encoding="ISO8859_1"
   ```

Defining a Target to Siebel

The connection parameters required for defining a Siebel target can be obtained from the `eapps.cfg` file, which is located in the following directory:

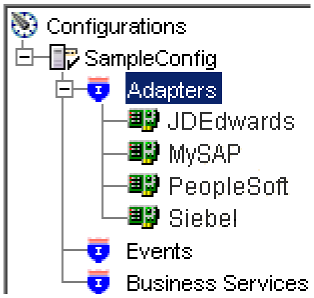
drive:\SiebelRoot\SWEApp\BIN

Where `Siebelroot` is the Siebel installation directory.

When you are working with a J2CA configuration, creating, updating, and deleting a target requires you to restart the application server. The application server must also be restarted after you create a target, connect to a target, and generate a WSDL for a Siebel object. In addition, make sure to close Application Explorer before you restart the application server.

To define a target to Siebel:

1. In the left pane, expand the **Adapters** node.



2. Right-click the **Siebel** node and select **Add Target**.

   The Add Target dialog box is displayed. Provide the following information:

   a. In the **Name** field, enter a name for the new target.

   b. In the **Description** field, enter a description (optional).

   c. From the **Target Type** list, select the type of target. For Siebel 6.0, choose **Siebel 6.2 or lower (COM)**. For Siebel 6.3 or higher, choose **Java Bean Data Connection**.

3. Click **OK**.

   When you select **Siebel 6.2 or lower** (COM):

   a. In the **User Agent File** field, enter the name of the configuration file.

   b. In the **Username** field, enter the user name.

   c. In the **Password** field, enter the password associated with the user name.

d. In the **Repository** field, enter the Siebel Repository where Application Explorer looks for metadata describing Business Services, Business Objects, and Integration Objects.

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

When you select **6.3 or higher** (JDB):

a. In the **Gateway Server** field, enter 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, enter the appropriate name.

c. In the **Siebel Server** field, enter the name of your Siebel server. Do not supply a value in this field when connecting to a Siebel 7.7, 7.8, or 8 system.

d. In the **User** field, enter the user name.

e. In the **Password** field, enter the password associated with the user name.

f. Click the **Advanced** tab and verify the following:

   Language

   Object Manager

   For Siebel 7.0.3, the default Object Manager is EAIObjMgr. For Siebel 7.7, the default is EAIObjMgr_enu. Siebel 7.7 requires that you add a 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.

   Repository Manager

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

   The configuration parameters supplied are those 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.

   Note: These parameters are typically found in Siebel configuration files stored under the Siebel server `root/bin/<language>` directory, where `language` is the Siebel code for the language you installed (`enu` for U.S English). For example, for Siebel versions 7 and higher on a Windows platform, for the Siebel Call Center module, these values can be found in the `uagent.cfg` file. Consult your Siebel administrator and your Siebel bookshelf documentation for more information.

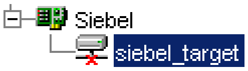
4. Click **OK**.

   In the left pane, the target you create appears under the Siebel node.

Connecting to a Defined Target

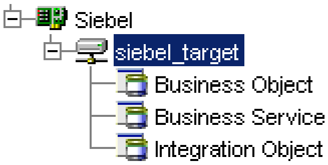
To connect to a defined target:

1. Expand the **Siebel** node and click the target name to which you want to connect.



2. In the right pane, enter the password for that target.
3. In the left pane, right-click the target name and select **Connect**.

   The target icon changes, indicating that you are connected to the Siebel system.



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

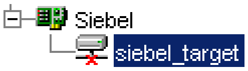
Disconnecting From Siebel

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

To disconnect from Siebel:

1. In the left pane, select the target to which you are connected.
2. Right-click the target and select **Disconnect**.

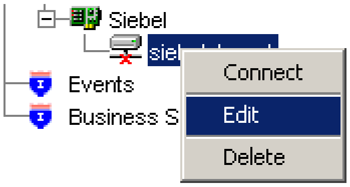
   Disconnecting from the application system drops the target, but the node remains. The SiebelConnection node in the left pane changes to reflect that the target is disconnected.



Editing a Target

To edit a target:

1. In the left pane, ensure the target you want to edit is disconnected.
2. Right-click the disconnected target and select **Edit**.



The **Edit** pane is displayed on the right.

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

Deleting a Target to Siebel

You can delete a target, rather than just disconnecting and closing it. When you delete the target, the node disappears from the list of Siebel targets in the left pane of Application Explorer.

When you delete a target, you must restart the Oracle WebLogic Server to update the repository for run time purposes.

To delete a target:

1. In the left pane, select the target.
2. Right-click the target and select **Delete**.

   A confirmation dialog box is displayed.
3. Click **OK** to delete the target you selected.

   The Siebel connection node disappears from the left pane.

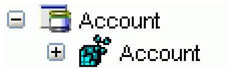
Viewing Application System Objects

Application Explorer gives you the flexibility to view all Siebel application system objects. One benefit of this flexibility is that you can gain an understanding of the Siebel data structure. You can review parameters, data types, and other attributes of the Siebel data in the right pane.

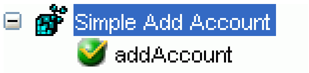
Viewing Metadata

To view metadata:

1. If you have not started Application Explorer, start Application 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.
4. Expand the **Business Component** or the **Business Service** node to view the objects under it.
   - For a **Business Component**, select the node in which you are interested, for example, **Account**.

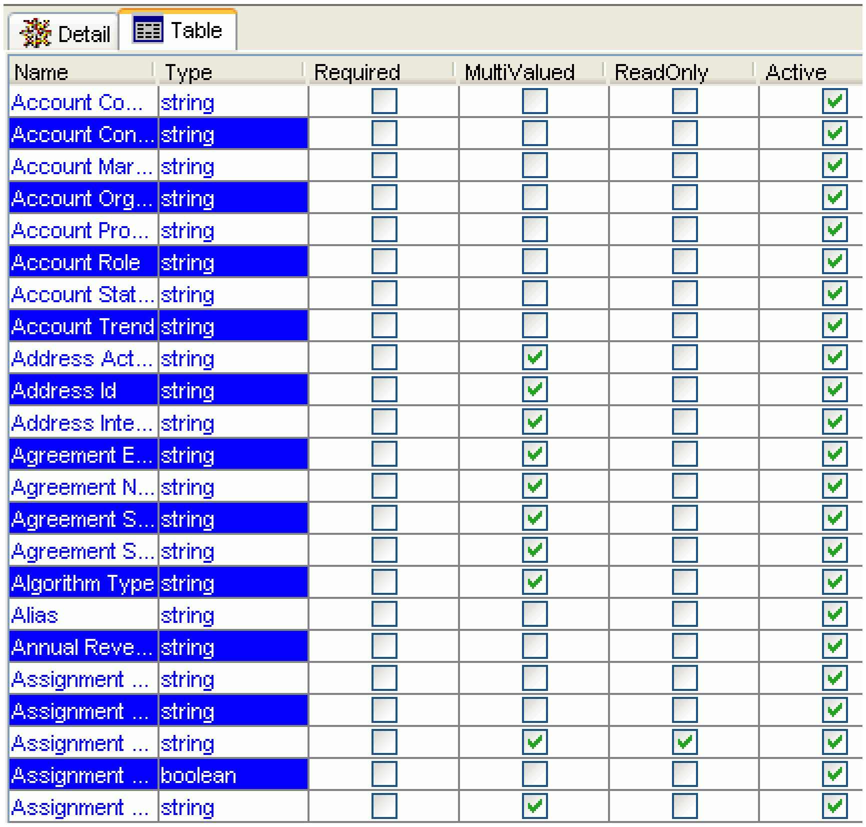


   - For a **Siebel Business Service** ,select the object in which you are interested, for example, **addAccount**.



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

The metadata table appears in the right pane.



Name	Type	Required	MultiValued	ReadOnly	Active
Account Co...	string	□	□	□	☑
Account Con...	string	□	□	□	☑
Account Mar...	string	□	□	□	☑
Account Org...	string	□	□	□	☑
Account Pro...	string	□	□	□	☑
Account Role	string	□	□	□	☑
Account Stat...	string	□	□	□	☑
Account Trend	string	□	□	□	☑
Address Act...	string	□	☑	□	☑
Address Id	string	□	☑	□	☑
Address Inte...	string	□	☑	□	☑
Agreement E...	string	□	☑	□	☑
Agreement N...	string	□	☑	□	☑
Agreement S...	string	□	☑	□	☑
Agreement S...	string	□	☑	□	☑
Algorithm Type	string	□	☑	□	☑
Alias	string	□	□	□	☑
Annual Reve...	string	□	□	□	☑
Assignment ...	string	□	□	□	☑
Assignment ...	string	□	□	□	☑
Assignment ...	string	□	☑	☑	☑
Assignment ...	boolean	□	□	□	☑
Assignment ...	string	□	☑	□	☑

Creating XML Schemas

You can create service schemas for Business Services and Business Components using Application Explorer.

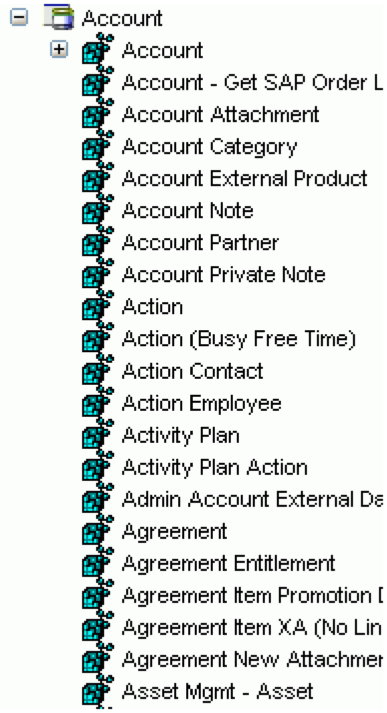
The following topic describes how to create schemas for the adapter when you deploy Oracle Application Adapter for Siebel for use either in a J2CA environment or a Web services environment. See "Creating and Testing a Web Service (BSE Configurations Only)" on page 2-26 if you plan to deploy Oracle Application Adapter for Siebel in a Web services environment.

Creating an XML Schema for a Siebel Business Object or Business Service

You create schemas for Siebel Business Service methods (for example, the Add method) and Business Components using Application Explorer. 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.

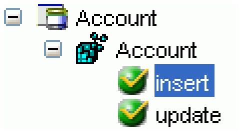
The following image shows the Account Business Object expanded to display all Business Components.



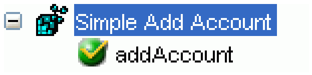
Creating an XML Schema for a Siebel Business Component or Business Service

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

1. If you have not started the Application, start Application Explorer and connect to your Siebel system.
2. In the left pane, expand the **Business Object** or the **Business Service** node.
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.



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



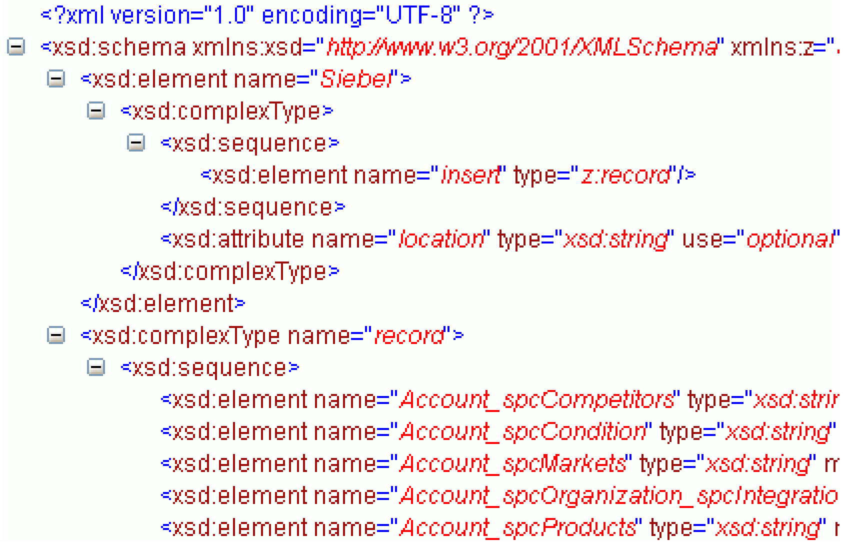
4. Right-click the node and select **Generate Schema.**

   Application Explorer accesses the Siebel repository and builds schemas.

Schema tabs similar to the following appear in the right pane.

5. To view a schema, click the ellipsis tab corresponding to the schema you want to view.

   The schema appears on the right.



```
  <?xml version="1.0" encoding="UTF-8" ?>
- <xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:z=".
  - <xsd:element name="Siebel">
    - <xsd:complexType>
      - <xsd:sequence>
          <xsd:element name="insert" type="z:record"/>
        </xsd:sequence>
        <xsd:attribute name="location" type="xsd:string" use="optional"
      </xsd:complexType>
    </xsd:element>
  - <xsd:complexType name="record">
    - <xsd:sequence>
        <xsd:element name="Account_spcCompetitors" type="xsd:strir
        <xsd:element name="Account_spcCondition" type="xsd:string"
        <xsd:element name="Account_spcMarkets" type="xsd:string" m
        <xsd:element name="Account_spcOrganization_spcIntegratio
        <xsd:element name="Account_spcProducts" type="xsd:string" r
```

Searching for a Specific Siebel Object

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

1. If you have not started the explorer, start Application Explorer and connect to your Siebel system through a target.
2. Expand the target and select **Business Object**, **Business Service**, or **Integtration Object**.
3. In the right pane, move the cursor over Operations and select **Search**.
4. Enter the name of the node or object on which you want to search in the text entry box, for example, **Account**.
5. Click **OK**.

   A list containing the Siebel items that match your search appears.
6. Select the item in which you are interested.

   Application Explorer locates the item in which you are interested.

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 QueryWithView

For Business Components, the iWay Application Adapter for Siebel enables Insert, Update, Delete, and Query. It also enables a method called QueryWithView. The View modes are a visibility feature provided by Siebel.

By using QueryWithView, you can specify a Siebel View mode as a parameter. The API parameters allow different presentations of data depending on the Siebel environment that you configured.

You can use Query except when you want to enable a user to retrieve records based on different view modes. In this case, use QueryWithView. For more information on QueryWithView mode or Siebel "Visibility" concepts, see your Siebel Administrator.

The following levels are available:

- Sales Rep View
- Manager View
- Personal View
- All View
- Organization View
- Group View
- Catalog View
- SubOrganization View

Siebel Prerequisites for Working With Integration Objects

To create XML schemas for Siebel Integration Objects, you may have to generate XDR schemas first, using the Siebel Tools Schema Wizard.

The XDR schema is used as input to Application Explorer when generating schemas for integration objects. After you generate the XDR schema, Application Explorer uses the XDR file to generate the XML schema.

Please note:

- For **Siebel 7.5 and later**: Generate XSD schemas directly from Siebel tools. These XSD schemas are used to create Web services directly using Application Explorer. After you generate an XSD schema through Siebel tools, use it to create an IO node and Web service.

- For **Siebel 7.0**: You cannot generate XSD schemas directly from Siebel tools; only XDR schemas can be created. Therefore, to create a Web service, Application Explorer must first generate an XSD schema from the XDR schema.
- For releases **before Siebel 6.3**: The Siebel Tools Schema Wizard creates only DTD schemas. You must transform these schemas manually, or by using other tools, into XDR files before Application Explorer can use them as input to create XML schemas. In addition, you must include the SiebelMessage tag reference in your XDR file.

Oracle Application Adapter for Siebel supports access to Siebel Integration Objects by using Siebel XML to handle events. Using Siebel Integration Objects through supported transports requires Siebel workflows.

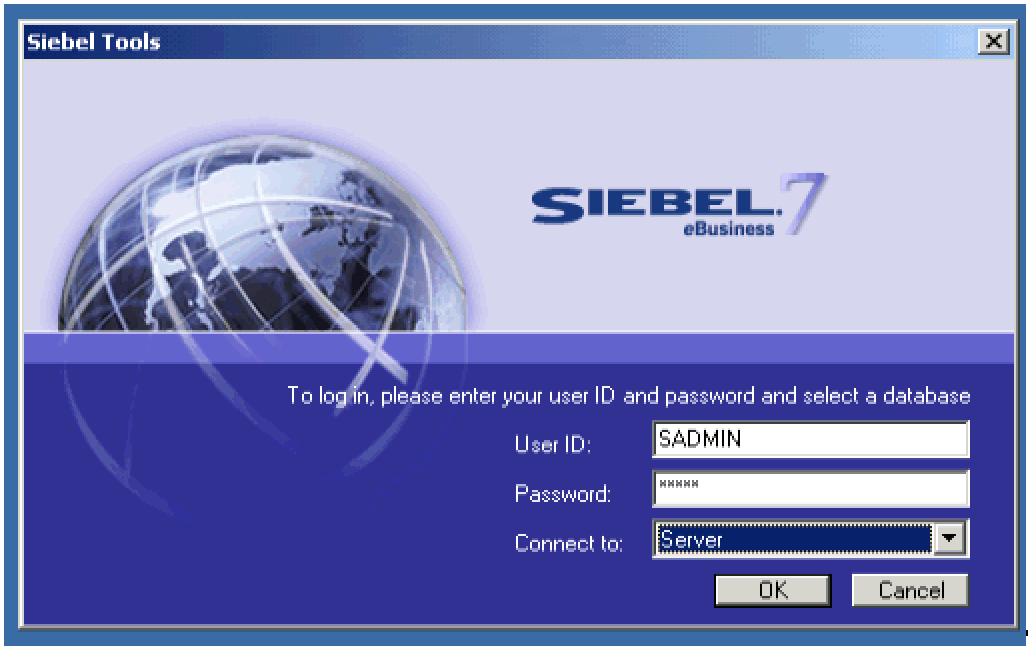
Creating Schemas for Siebel Integration Objects

This section describes how to create schemas for Siebel Integration Objects.

Creating a Siebel XDR or XSD Schema for a Siebel Integration Object

To generate a Siebel XDR or XSD schema:

1. Log on to Siebel Tools.



To log in, please enter your user ID and password and select a database

User ID: SADMIN

Password: *****

Connect to: Server

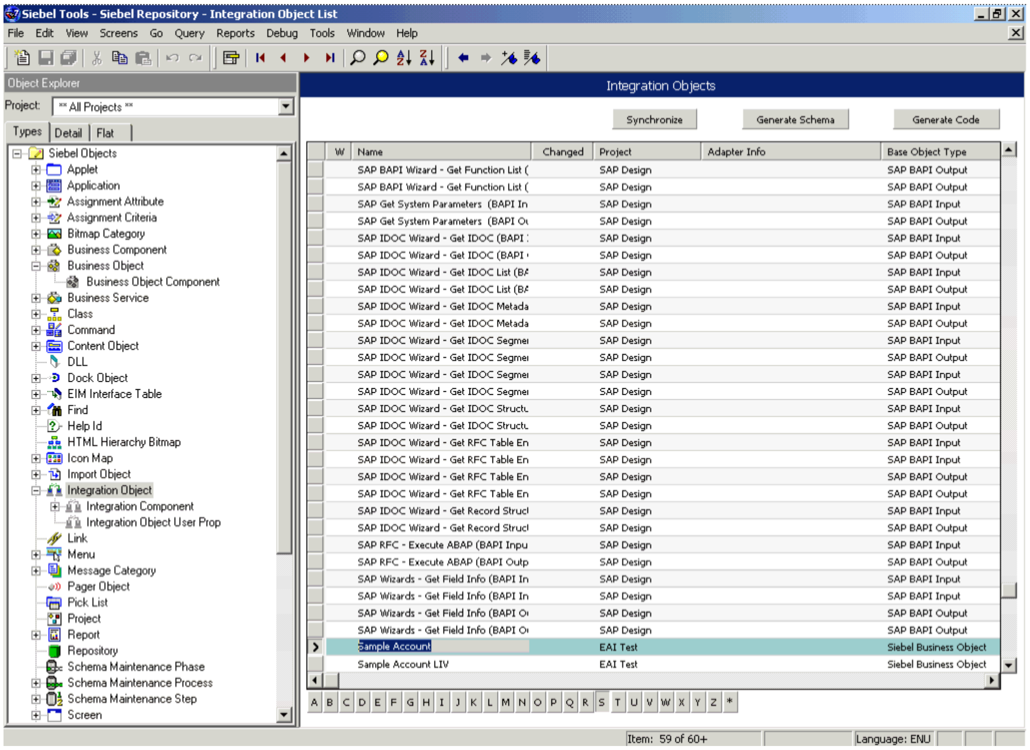
Perform the following steps:

   a. Enter your user ID and password.

   b. Select a database from the list.

2. Click **OK**.

The Siebel Tools window is displayed. Integration Objects appear in the right pane.



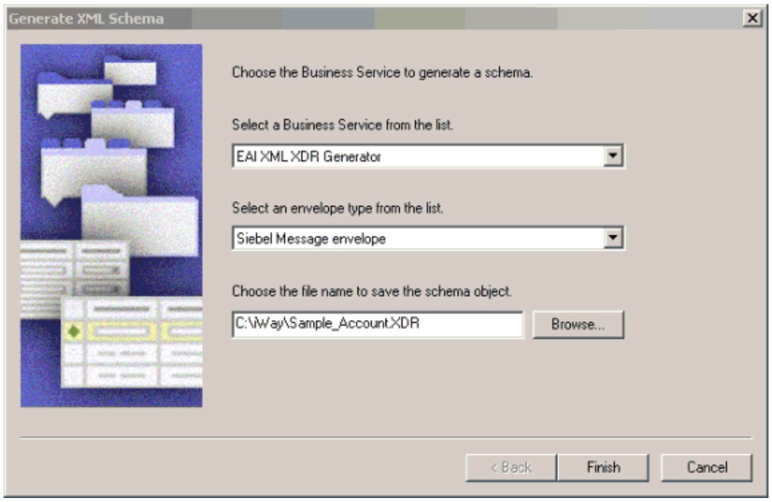
W	Name	Changed	Project	Adapter Info	Base Object Type
	SAP BAPI Wizard - Get Function List (		SAP Design		SAP BAPI Output
	SAP BAPI Wizard - Get Function List (		SAP Design		SAP BAPI Output
	SAP Get System Parameters (BAPI In		SAP Design		SAP BAPI Input
	SAP Get System Parameters (BAPI Ou		SAP Design		SAP BAPI Output
	SAP IDOC Wizard - Get IDOC (BAPI		SAP Design		SAP BAPI Input
	SAP IDOC Wizard - Get IDOC (BAPI		SAP Design		SAP BAPI Output
	SAP IDOC Wizard - Get IDOC List (BA		SAP Design		SAP BAPI Input
	SAP IDOC Wizard - Get IDOC List (BA		SAP Design		SAP BAPI Output
	SAP IDOC Wizard - Get IDOC Metada		SAP Design		SAP BAPI Input
	SAP IDOC Wizard - Get IDOC Metada		SAP Design		SAP BAPI Output
	SAP IDOC Wizard - Get IDOC Segmei		SAP Design		SAP BAPI Input
	SAP IDOC Wizard - Get IDOC Segmei		SAP Design		SAP BAPI Output
	SAP IDOC Wizard - Get IDOC Segmei		SAP Design		SAP BAPI Input
	SAP IDOC Wizard - Get IDOC Segmei		SAP Design		SAP BAPI Output
	SAP IDOC Wizard - Get IDOC Structu		SAP Design		SAP BAPI Input
	SAP IDOC Wizard - Get IDOC Structu		SAP Design		SAP BAPI Output
	SAP IDOC Wizard - Get RFC Table En		SAP Design		SAP BAPI Input
	SAP IDOC Wizard - Get RFC Table En		SAP Design		SAP BAPI Input
	SAP IDOC Wizard - Get RFC Table En		SAP Design		SAP BAPI Output
	SAP IDOC Wizard - Get RFC Table En		SAP Design		SAP BAPI Output
	SAP IDOC Wizard - Get Record Struc		SAP Design		SAP BAPI Input
	SAP IDOC Wizard - Get Record Struc		SAP Design		SAP BAPI Output
	SAP RFC - Execute ABAP (BAPI Inpu		SAP Design		SAP BAPI Input
	SAP RFC - Execute ABAP (BAPI Outp		SAP Design		SAP BAPI Output
	SAP Wizards - Get Field Info (BAPI In		SAP Design		SAP BAPI Input
	SAP Wizards - Get Field Info (BAPI In		SAP Design		SAP BAPI Input
	SAP Wizards - Get Field Info (BAPI O		SAP Design		SAP BAPI Output
	SAP Wizards - Get Field Info (BAPI O		SAP Design		SAP BAPI Output
	Sample Account		EAI Test		Siebel Business Object
	Sample Account LIV		EAI Test		Siebel Business Object

Item: 59 of 60+ | Language: ENU

3. To create a schema, select an Integration Object, for example, Sample Account.

4. Click **Generate Schema**.

   The Generate XML Schema wizard is displayed.



Choose the Business Service to generate a schema.

Select a Business Service from the list.

EAI XML XDR Generator

Select an envelope type from the list.

Siebel Message envelope

Choose the file name to save the schema object.

C:\iWay\Sample_Account.XDR

Perform the following steps:

a. From the **Select a Business Service** list, select **EAI XML XDR Generator** for XDR schemas or **EAI XML XSD Generator** for XSD schemas (for Siebel 7.5 and later).

b. From the **Select an envelope type** list, select **Siebel Message envelope**.

c. In the **Choose the file name** field, specify a file name for the XDR schema and a directory where it can be accessed by Application Explorer.

> **Note:** The XDR or XSD schema file must be saved to a directory on the same computer as Application Explorer.

5. Click **Finish**.
6. Create a workflow to accept incoming XML documents through HTTP and to insert/update Siebel data by using the EAI XML Converter and EAI Siebel Adapter Business Services.

   For more information, see Appendix A, "Using Siebel Workflows".
7. Edit the `eai.cfg` file, which is located in the following directory:

   ```
   <siebel_server>/bin/enu
   ```
8. Add the following line to the `[HTTP Services]` section:

   ```
   [HTTP Services]
   wf = iWayWorkflow
   ```
9. Confirm that the following line is set in the `[EAI_ENU]` section of the `Eapps.cfg` file:

   ```
   [EAI_ENU]
   EnableExtServiceOnly = True
   ```

   The `Eapps.cfg` file is located in the following directory:

   ```
   <siebel_server>/bin
   ```
10. Create a named subsystem using Siebel Server Manager by running the following command, where EAITEST is the name of the workflow that was created in step 6:

    ```
    create named subsystem iWAyWorkflow for subsystem
    EAITransportDataHandlingSubsys with DispatchWorkflowProcess="EAITEST"
    ```

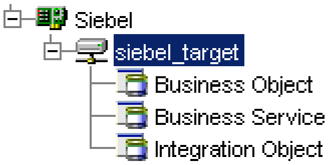
    Now you can use Application Explorer to create Integration Object (IO) nodes for Siebel.

Creating Integration Object (IO) Nodes for Siebel

To create an Integration Object node for Siebel, perform the following steps:

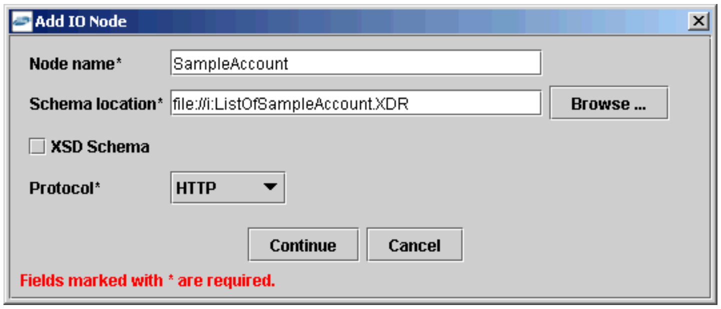
1. In Application Explorer, connect to a defined target. See "Connecting to a Defined Target" on page 2-14 for information on how to connect to a target.

   The X over the icon disappears, indicating that the target is connected.



2. Expand the **Integration Object** node and select **Sample Account**.
3. Right-click the **Sample Account** node and select **Add IO Node**.

The Add IO Node dialog box is displayed.



Node name* SampleAccount

Schema location* file://i:ListOfSampleAccount.XDR

□ XSD Schema

Protocol* HTTP

Fields marked with * are required.

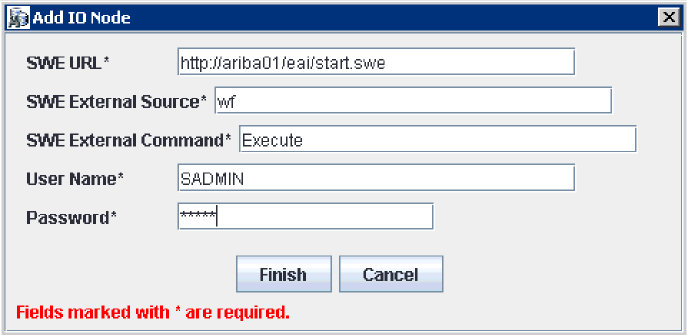
Please note:

- **For Siebel 7.5 or later:** Generate XSD schemas directly from Siebel tools. You use the XSD schemas when you create Web services in Application Explorer. After you generate an XSD schema through Siebel tools, use it to create an IO node and a Web service.
- **For Siebel 7.0:** You cannot generate XSD schemas directly from Siebel tools; only XDR schemas can be created. Before you create a Web service, you must first generate an XSD schema from the XDR schema using Application Explorer.

> **Note:** This is the schema file that you generated in Creating Schemas for Siebel Integration Objects on page 2-20.

4. Enter a node name, for example SampleAccount in the **Node name** field and a path to the Sample Account XDR or XSD file in the **Schema location** field.
5. If the XSD schema has already been generated, select XSD Schema. If you are using Siebel-generated XDR schemas, **do not** select the XSD schema option.
6. Select a protocol from the **Protocol** list.
7. Click **Continue**.

   The following dialog box is displayed.



SWE URL* http://ariba01/eai/start.swe

SWE External Source* wf

SWE External Command* Execute

User Name* SADMIN

Password* *****

Fields marked with * are required.

8. Perform the following steps:

   a. In the SWE URL field, type the Base SWE URL. For example:

   `http://`**`web_server`**`/eai/start.swe`

   Where **web_server** is the name of the Web server that is hosting Siebel SWE.

b. In the SWE External Source field, type the section within the eai.cfg file to execute, which is the [HTTP Services] section.

   For more information, see step 8 in Creating Schemas for Siebel Integration Objects on page 2-20.

c. In the SWE External Command field, type the following command exactly as shown:

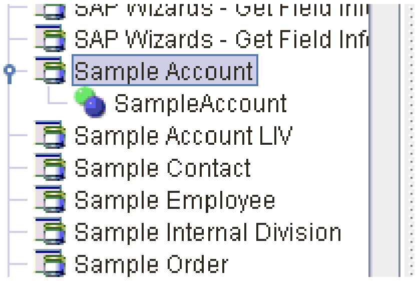
```
Execute
```

d. In the User Name and Password fields, type a valid user name and password used to connect to the Siebel SWE.

   The user name and password must have privileges to execute the given workflow.

9. Click **Finish**.

   The new IO node is listed under the Integration Object's Sample Account node.



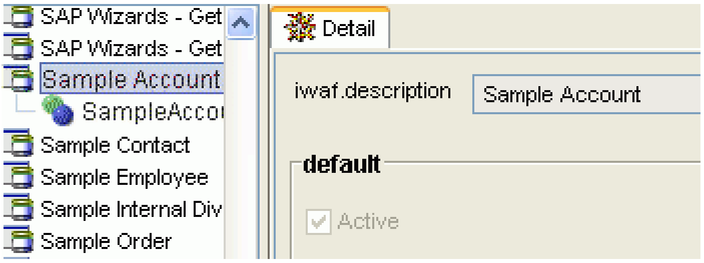
You can now create an XML schema.

Creating an XML Schema for a Siebel Integration Object

After you create an Integration Object node for Siebel, you can create an XML schema using Application Explorer.

To create an XML schema:

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



iwaf.description Sample Account

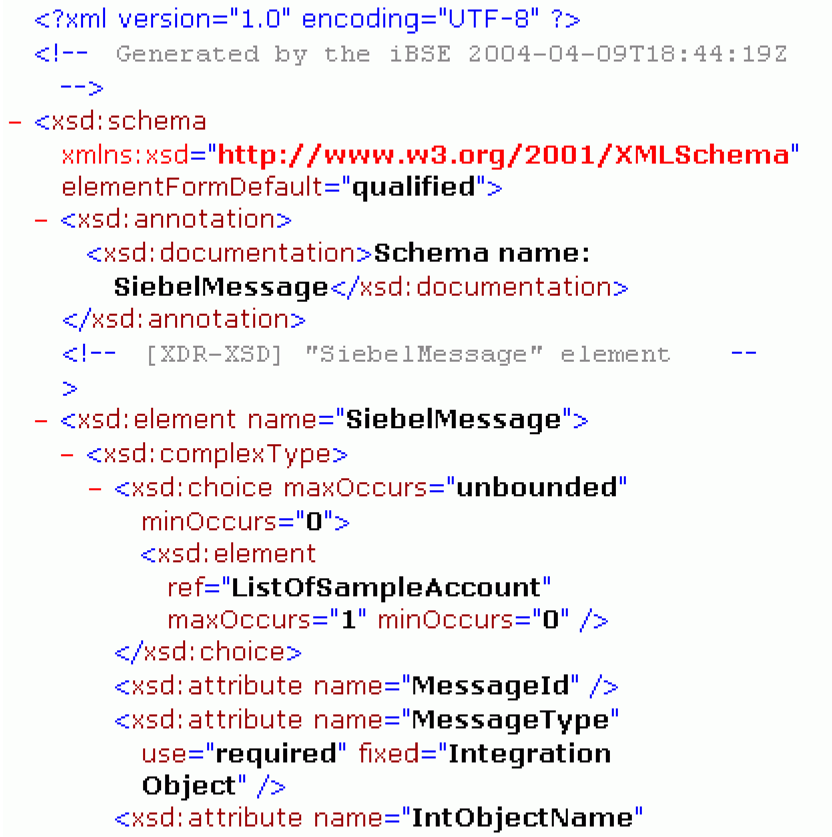
☑ Active

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

   An XML event schema for the integration object is automatically created.

3. Click the **Event Schema** tab in the right pane.

The XML event schema appears in the right pane, as shown in the following image:



```
 <?xml version="1.0" encoding="UTF-8" ?>
 <!--  Generated by the iBSE 2004-04-09T18:44:19Z
   -->
- <xsd:schema
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   elementFormDefault="qualified">
 - <xsd:annotation>
     <xsd:documentation>Schema name:
       SiebelMessage</xsd:documentation>
   </xsd:annotation>
   <!--  [XDR-XSD] "SiebelMessage" element    --
   >
 - <xsd:element name="SiebelMessage">
   - <xsd:complexType>
     - <xsd:choice maxOccurs="unbounded"
         minOccurs="0">
         <xsd:element
           ref="ListOfSampleAccount"
           maxOccurs="1" minOccurs="0" />
       </xsd:choice>
       <xsd:attribute name="MessageId" />
       <xsd:attribute name="MessageType"
         use="required" fixed="Integration
         Object" />
       <xsd:attribute name="IntObjectName"
```

Creating a Service Node for a Siebel Business Service

Oracle Application Adapter for Siebel enables the addition of a service node for a Business Service that includes methods containing method arguments having hierarchy data types.

Important limitations:

- The adapter supports only Integration Object hierarchy data types.
- Adding a Service node requires that you have previously generated an XSD schema for the Integration Object. For more information on generating XSD schemas for Siebel Integration Objects, see "Creating Schemas for Siebel Integration Objects" on page 2-20.
- Only one of the method arguments for the Business Service method for which you want to add a service node can be a hierarchical data type.
- The method argument `XMLCharEncoding` is not supported. Leave this element blank in the XML payload. If you enter a valid `XMLCharEncoding` value such as UTF-8 or UTF-16, you will get the following error:

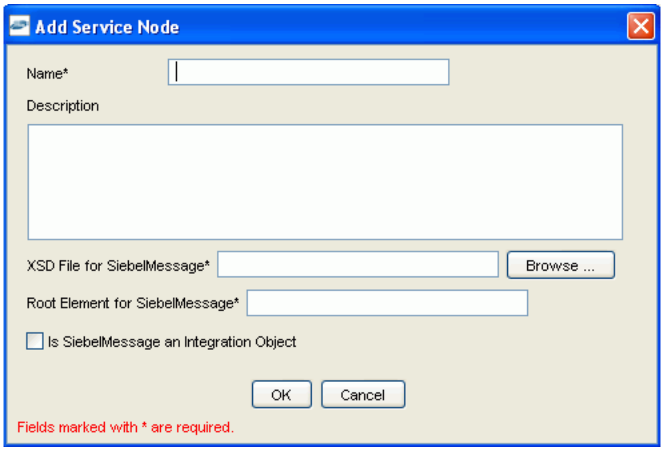
  ```
  Invocation of Service failed.
  ```

To create the service:

1. Select the Business Service node in which you are interested.

2. Right-click the Business Service method argument for which you want to create a service and select **Add Service Node**.

   The Add Service Node dialog box is displayed.


Add Service Node
Name*
Description
XSD File for SiebelMessage*
Browse ...
Root Element for SiebelMessage*
□ Is SiebelMessage an Integration Object
OK
Cancel
Fields marked with * are required.

3. Perform the following steps:

   a. Provide a service node name.

   b. Enter a description (optional).

   c. Provide the full path (including the file name) to the XSD schema file.

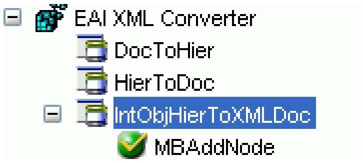
   d. Specify the root element for the XSD schema file. For many XSD schemas for Integration Objects, the root element is SiebelMessage.

   e. Specify whether the XSD schema is for an Integration Object.

      Important: You must verify that this check box is selected.

4. Click OK.

   The Service node is listed under the Business Service object.



   You can right-click this node to create a Web service. The request and response schemas are displayed in the right pane.

The following procedure describes how to create a Web service for a Business Object.

Creating and Testing a Web Service (BSE Configurations Only)

You can generate a **business service** (also known as a Web service) for Siebel objects you want to use with your adapter after you have properly configured the servlet BSE.

> **Note:** In a J2EE Connector Architecture (J2CA) implementation of adapters, Web services are not available. When the adapters are deployed to use Oracle Adapter J2CA, the Common Client Interface provides integration services using the adapters.

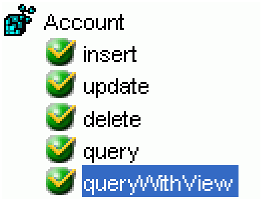
This section contains the following topics:

- "Creating a Web Service" on page 2-27
- "Testing a Web Service" on page 2-27

Creating a Web Service

To generate a Web service for a Siebel Business Object:

1. Connect to your Siebel system.
2. Expand a **Business Object** node.
3. Expand the **Business Component** for which you want to create a Web service.



4. Expand the object and select a method for creating the Web service, for example, QueryWithView under Account.
5. Right-click the node from which you want to create a business service and select **Create Business Service**.

   The Create Web Service dialog box is displayed.

   You can add the business object as a method for a new Web service or as a method for an existing one. Perform the following steps:

   a. From the **Existing Service Names** list, select either **<new service>** or an existing service.

   b. Specify a service name if you are creating a new service. This name identifies the Web service in the list of services under the **Business Services** node.

   c. Enter a description for the service (optional).

   d. Select one of the available licenses.
6. Click **Next**.

   The License and Method dialog box is displayed. Perform the following steps:

   a. In the **License** field, select one or more license codes to assign to the Web service. To select more than one, hold down the **Ctrl** key and click the licenses.

   b. In the **Method Name** field, enter a descriptive name for the method.

   c. In the **Description** field, enter a brief description of the method.
7. Click **OK**.

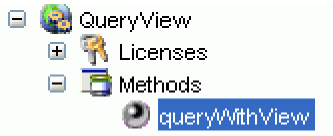
   Application Explorer switches the view to the **Business Services** node, and the new Web service appears in the left pane.

Testing a Web Service

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

Testing a Web Service for a Business Object

1. In the left pane of Application Explorer, expand the **Business Services** node.
2. Expand the **Services** node.
3. Select the name of the business service you want to test.



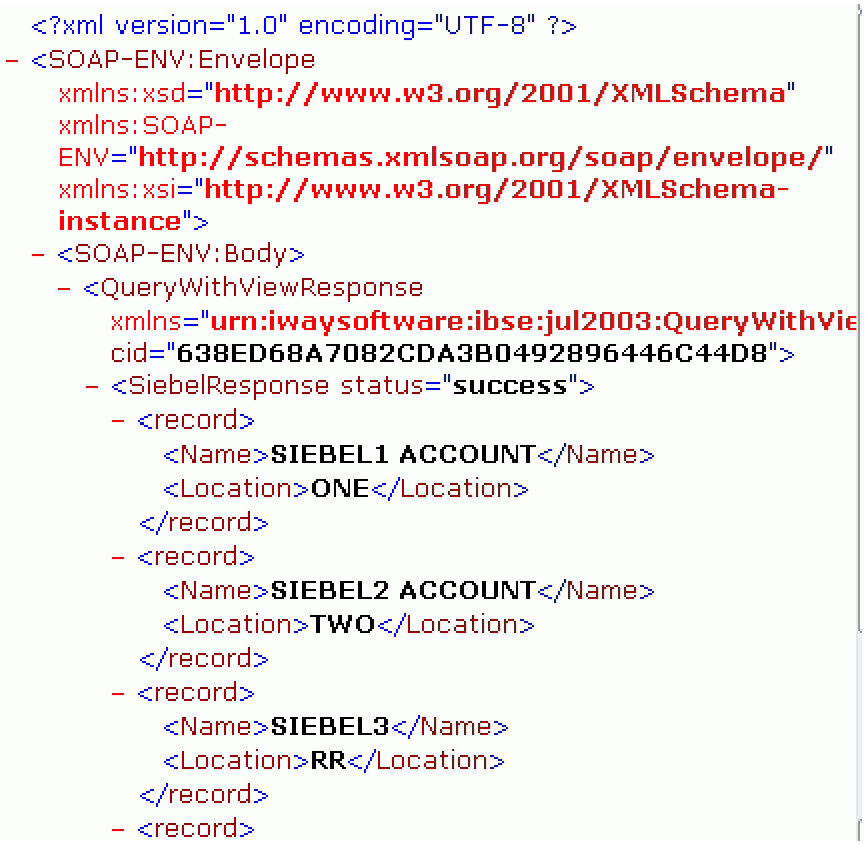
4. Expand the **Methods** node under the service and select the method you want to test.

   The test option appears in the right pane.

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

5. Click **Invoke**.

   Application Explorer displays the results in the results 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:QueryWithVie
        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. Application Explorer includes a test tool for testing a Web service.

1. If it is not expanded, expand the **Business Services** node.
2. Expand the **Services** node.
3. Select the name of the business service you want to test.

4. Expand the **Methods** node and select the name of the method you want to test.

   The test option appears in the right pane.

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

5. Provide the appropriate input.

6. Click **Invoke**.

   Application Explorer displays the results in the results pane.

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 Application 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>
```

You can remove the `<m:disposition>` and `<m:language>` tags from the SOAP header, since they are not required.

Generating WSDL (J2CA Configurations Only)

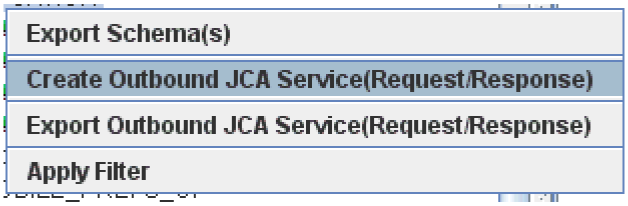
The Web Service Definition Language (WSDL) description of a Web service enables you to make the service available to other services within a host server. You use Application Explorer to create both request-response (outbound) and event notification (inbound) JCA services of the adapter.

> **Note:** The **Create Inbound JCA Service (Event)** option is only available when the selected node supports events.

To generate a WSDL file for request-response service:

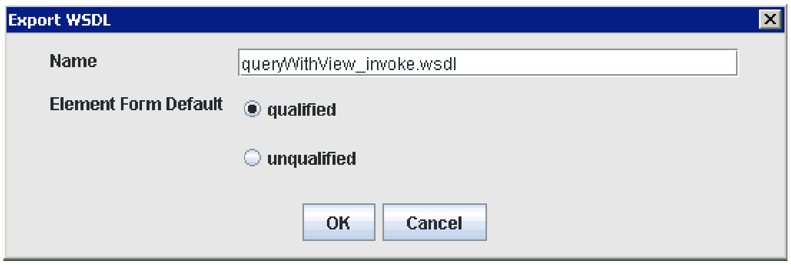
1. Under your connected Siebel target, expand **Business Object**, **Account**, **Account**. Navigate to an object and right-click the object.

   The following menu is displayed.


Export Schema(s)
Create Outbound JCA Service(Request/Response)
Export Outbound JCA Service(Request/Response)
Apply Filter

2. Select **Create Outbound JCA Service (Request/Response)**.

   The Export WSDL dialog box is displayed.



Export WSDL

Name: queryWithView_invoke.wsdl

Element Form Default: ● qualified ○ unqualified

3. Accept the default name for the file.

   The **.wsdl** file extension is added automatically. By default, the names of WSDL files generated for request-response services end with `_invoke`, while those generated for event notification end with `_receive`.

4. Ensure that **qualified** is selected as the element form, which is the default.

5. Click **OK**.

   The WSDL file is saved in the specified location.

   The procedure for generating WSDL for event notification is similar to request-response. To generate WSDL for event notification, you must first create a channel for every event.

Publishing a WSDL

After you browse the Siebel business object repository, you can publish the specific WSDL document for use with Oracle Service Bus. Make sure that the classpath has been configured with the required .jar files, as described in the *Oracle Application Server Adapters Installation Guide.* The following section describes how to publish a WSDL using Application Explorer.

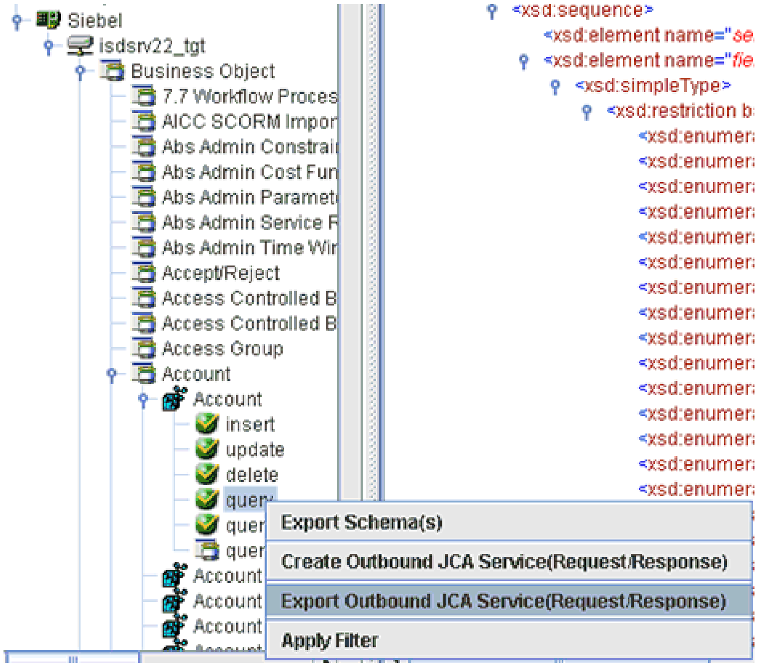
> **Note:** Only users with Group Membership types set to *Administrators* in Oracle Service Bus can publish WSDL files using Application Explorer. For example, a user with the Group Membership type set to *IntegrationDeployers* cannot publish a WSDL file.

Publishing a WSDL

To publish a WSDL:

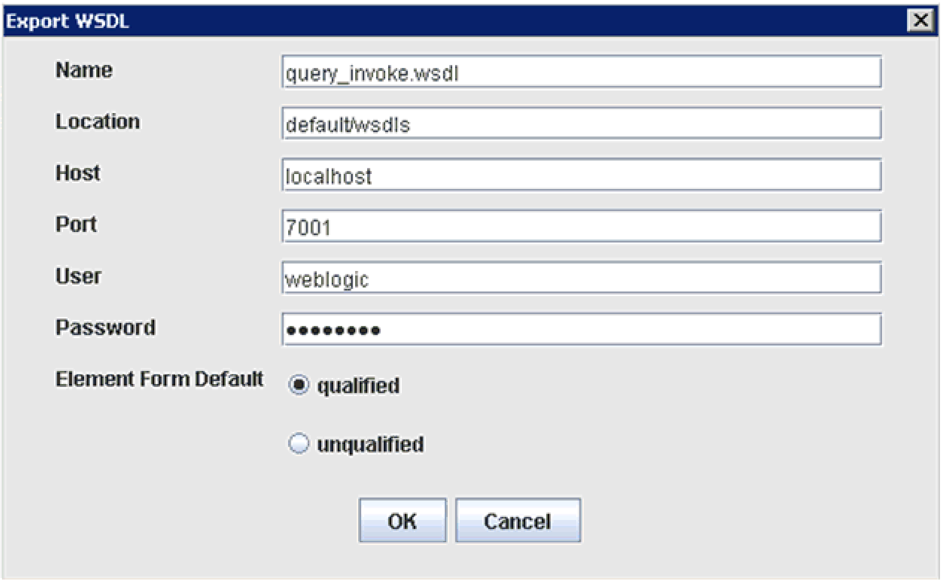
1. After you create a schema, right-click the respective object.

   The following menu is displayed.



2. Select **Export Outbound JCA Service (Request/Response)**.

   The Export WSDL dialog box is displayed.



Name	query_invoke.wsdl
Location	default/wsdls
Host	localhost
Port	7001
User	weblogic
Password	●●●●●●●●
Element Form Default	● qualified ○ unqualified

3. In the Name field, a default file name for the WSDL file is provided. You can accept the default or provide your own.

4. In the Location field, enter the location where you want to publish the WSDL document.

   The location is composed of an Oracle Service Bus project name and optionally, one or more folder names. The project name and any folder names must be separated by a forward slash character "/".

5. In the Host field, enter the name of the machine where Oracle WebLogic Server is running.

6. In the Port field, enter the port for the domain you are using. The port for the default domain is 7001.
7. In the User field, enter your username to access Oracle Service Bus.
8. In the Password field, enter your password to access Oracle Service Bus.
9. Ensure that **qualified** is selected as the element form, which is the default.
10. Click **OK**.

    The WSDL is published to the location specified in the Export WSDL dialog box and is now available for use with a Business Service or Proxy Service in Oracle Service Bus.

Configuring an Event Adapter

Events are generated by 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 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 Application Explorer. To configure an event, you must create a channel.

Note: If you are using a J2CA configuration, you must create a new channel for every different event object and select this channel when you generate WSDL. Creating a channel is required for J2CA configurations only. For example, if you are working with the Account and Contact Siebel objects, then two separate channels are required for this purpose.

A channel represents configured connections to particular instances of back-end systems. A channel binds one or more event ports to a particular listener managed by the adapter. See "Creating and Modifying a Channel" on page 2-32 for more information.

Please note that adding IO node functionality is not applicable in event configurations.

Creating and Modifying a Channel

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

When you create, modify, or delete a channel, you must restart the Oracle WebLogic Server to recognize the change and update the repository for run time purposes. After successfully creating the channel and inbound WSDL file, close Application Explorer before you restart the application server.

Note: If you are planning to integrate Oracle Application Adapter for Siebel with Oracle Service Bus (OSB) Proxy Services, do not start the channel as it is managed by OSB. If you start the channel from Application Explorer for testing and debugging purposes, stop it before run-time (when working with OSB components).

Three channel types are available:

- HTTP
- MQ Series
- File

Note: Channels can be configured only on the system where the Oracle Application Adapter for Siebel is installed.

Creating an HTTP Channel

To create a channel:

1. Click the **Events** node.

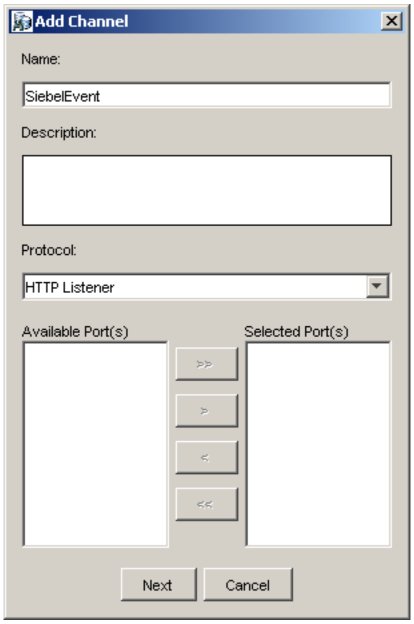
   The Events window is displayed. The adapters that appear in the left pane support events.

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

   The ports and channels nodes appear.

3. Right-click **channels** and select **Add channel**.

   The Add Channel dialog box is displayed.



Name: SiebelEvent

Description:

Protocol: HTTP Listener

   Perform the following steps:

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

   b. Enter a brief description.

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

4. Click **Next**.

5. When the dialog box is displayed, enter the system information as specified in the following table.

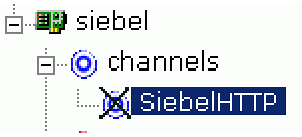
Parameter	Description
Port	Port on which to listen for Siebel event data.
Server port	Port on which the host database is listening.
Synchronization Type	Select **REQUEST_RESPONSE** from the drop-down list, which is the recommended option.

6. Click **OK**.

   The summary pane is displayed.

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

   The channel also appears under the channels node in the left pane



   An X over the icon indicates that the channel is currently disconnected. You must start the channel to activate your event configuration.

7. Right-click the channel and select **Start**.

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

8. To stop the channel, right-click the channel and select **Stop**.

Creating an MQ Series Listener

To create an MQ Series listener:

1. Click the **Events** node.

   The Events window is displayed. The adapters that appear in the left pane support events.

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

   The ports and channels nodes appear.

3. Right-click the **channels** node and select **Add channel**.

   The Add a new channel pane is displayed. Perform the following steps:

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

   b. Enter a brief description.

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

4. Click **Next**.

5. When the dialog box is displayed, enter the system information as follows.

a. In the **Request** tab, enter values for the following parameters:

Parameter	Description
Queue manager name	The host on which the MQ Server is located (MQ Client only).
MQ server host for MQClient operation	Port on which the host database is listening.

MQ server port for MQClient operation	The number to connect to an MQ Server queue manager (MQ client only).
	`REQUEST`
	`REQUEST_RESPONSE`
	`REQUEST_ACK`

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	Leave the default selection.

Request queue name	Queue where the message is routed and where request documents are received. The name of the queue is case-sensitive and conforms to the following format:
	`Host\queue type$\qName`
	Host
	Is the system name where the MQ Series queuing system is running.
	queue type
	Private queues are queues that are not published in Active Directory and appear only on the local computer where they reside. Private queues are accessible only by Message Queuing applications that recognize the full path name or format name of the queue.
	qName
	Is the name of the queue where messages are placed, for example,
	`iwaykxc1\Private$\siebel`

b. In the **Response** tab, enter values for the following parameters:

Parameter	Definition
Synchronization Type	Select **REQUEST_RESPONSE** from the drop-down list, which is the recommended option.

c. In the **Advanced** tab, enter values for the following parameters.

Parameter	Definition
Message wait interval (msec)	The interval (in milliseconds) when to check for new input. The default is 3 seconds. Optional.
Mode of operation	Choose Sequential or Threaded. ■ Sequential indicates single processing of requests. ■ Threaded indicates processing of multiple requests simultaneously.
Thread limit	If you selected threaded processing, indicate the maximum number of requests that can be processed simultaneously.

6. Click **OK**.

   The summary pane is displayed.

   A summary provides the channel description, channel status, and available ports. All the information is associated with the channel you created. The channel also appears under the channels node in the left pane

   An X over the icon indicates that the channel is currently disconnected. You must start the channel to activate your event configuration.

7. Right-click the channel and select **Start**.

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

8. To stop the channel, right-click the channel and select **Stop**.

Creating a File Listener

1. Click the **Events** node.

   The Events window is displayed. The adapters that appear in the left pane support events.

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

   The ports and channels nodes appear.

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

   The Add Channel dialog box is displayed. Perform the following steps:

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

   b. Enter a brief description.

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

4. Click **Next**.

5. When the dialog box is displayed, enter the system information as follows.

   a. In the **Request** tab, enter values for the following parameters:

Parameter	Description
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 by this operation.

   b. In the **Response** tab, enter values for the following parameters:

Parameter	Definition
Synchronization Type	Select **REQUEST_RESPONSE** from the drop-down list, which is the recommended option.
Response/Ack Directory	Directory where responses or acknowledgments are sent.

c. In the **Advanced** tab, enter values for the following parameters:

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

6. Click **OK**.

   The summary pane is displayed. A summary provides the channel description and channel status. All the information is associated with the channel you created. The channel also appears under the channels node in the left pane.

   An X over the icon indicates that the channel is currently disconnected. You must start the channel to activate your event configuration.

7. Right-click the channel and select **Start**.

   The channel you created becomes active.

   The X over the icon in the left pane disappears.

8. To stop the channel, right-click the channel and select **Stop**.

Editing a Channel

To edit a channel:

1. In the left pane, select the channel you want to edit.
2. Right-click the channel and select **Edit**.

   The Edit channels pane is displayed.

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

Deleting a Channel

To delete a channel:

1. In the left pane, select the channel you want to delete.
2. Right-click the channel and select **Delete**.

   The channel disappears from the list in the left pane.

3

Oracle WebLogic Server Deployment and Integration

This chapter describes Oracle WebLogic Server (OracleWLS) deployment and integration with Oracle Application Adapter for Siebel.

This chapter discusses the following topics:

- Adapter Integration with OracleWLS
- Deployment of Adapter
- Updating Adapter Configuration

See Also:

- *Oracle WebLogic Server Adapter Concepts*

Adapter Integration with OracleWLS

Oracle Application Adapter for Siebel is deployed within an OracleWLS container during installation. All client applications run within the OracleWLS environment. In a J2CA deployment, the Common Client Interface (CCI) integrates an OracleWLS client application with a resource adapter.

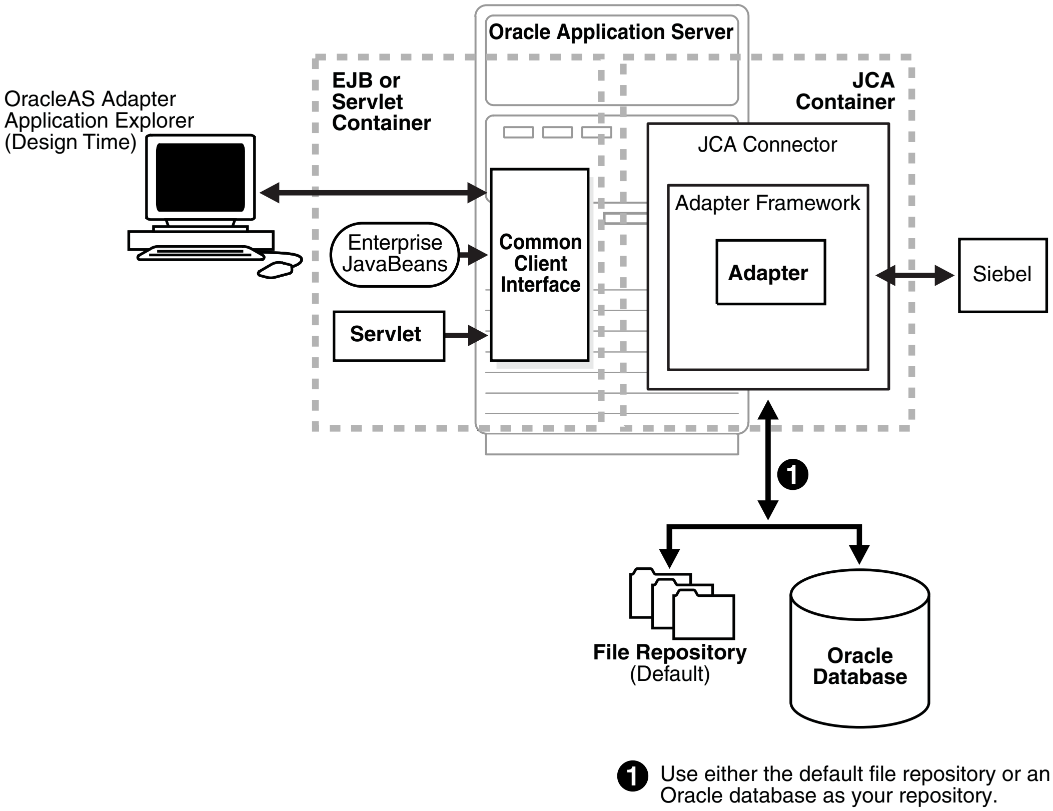
See Also:

- "Oracle WebLogic Server Adapters Integration with OracleWLS" in *Oracle WebLogic Server Adapter Concepts*

Deployment of Adapter

Figure 3–1 shows deployment of the Connector to the Oracle WebLogic Server. In a run-time service scenario, an Enterprise Java Bean, Servlet, or Java program client makes CCI calls to J2CA resource adapters. The adapters process the calls as requests and send them to the EIS. The EIS response is then sent back to the client.

Figure 3–1 Oracle Adapter J2CA Architecture



1 Use either the default file repository or an Oracle database as your repository.

See Also:

- *Oracle WebLogic Server Adapter Concepts*

Updating Adapter Configuration

During the J2CA deployment of Oracle Application Adapter for Siebel, OracleWLS generates a deployment descriptor called `ra.xml`, located in *`wls_home`*`\erp-adapters\iwafjca.rar\META-INF`.

Your installation contains more than one file named `ra.xml`. The OracleWLS deployment descriptor that is described in this section is located in the directory specified above.

> **Note:** Multiple managed connection factories are supported only for outbound processing (services).

Creating a Managed Connector Factory Object

The `ra.xml` descriptor provides OracleWLS-specific deployment information for resource adapters. For example, the default `jca_sample` configuration in Application Explorer is represented in the `ra.xml` file as follows:

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE connector PUBLIC '-//Sun Microsystems, Inc.//DTD Connector 1.0//EN'
'http://java.sun.com/dtd/connector_1_0.dtd'>
<connector>
```

```
  <display-name>IWAFJCA10</display-name>
  <vendor-name>IWAY Software</vendor-name>
  <spec-version>1.0</spec-version>
  <eis-type>IWAF</eis-type>
  <version>1.0</version>
  <license>
    <license-required>false</license-required>
  </license>
  <resourceadapter>

<managedconnectionfactory-class>com.ibi.afjca.spi.IWAFManagedConnectionFactory</ma
nagedconnectionfactory-class>

<connectionfactory-interface>javax.resource.cci.ConnectionFactory</connectionfacto
ry-interface>

<connectionfactory-impl-class>com.ibi.afjca.cci.IWAFConnectionFactory</connectionf
actory-impl-class>
    <connection-interface>javax.resource.cci.Connection</connection-interface>

<connection-impl-class>com.ibi.afjca.cci.IWAFConnection</connection-impl-class>
    <transaction-support>NoTransaction</transaction-support>
    <config-property>
      <config-property-name>AdapterName</config-property-name>
      <config-property-type>java.lang.String</config-property-type>
      <config-property-value></config-property-value>
    </config-property>
    <config-property>
      <config-property-name>Config</config-property-name>
      <config-property-type>java.lang.String</config-property-type>
      <config-property-value></config-property-value>
    </config-property>
    <config-property>
      <config-property-name>IWayHome</config-property-name>
      <config-property-type>java.lang.String</config-property-type>
      <config-property-value>C:\bea\erp-adapters\</config-property-value>
    </config-property>
    <config-property>
      <config-property-name>IWayConfig</config-property-name>
      <config-property-type>java.lang.String</config-property-type>
      <config-property-value>jca_sample</config-property-value>
    </config-property>
    <config-property>
      <config-property-name>IWayRepoDriver</config-property-name>
      <config-property-type>java.lang.String</config-property-type>
      <config-property-value></config-property-value>
    </config-property>
    <config-property>
      <config-property-name>IWayRepoURL</config-property-name>
      <config-property-type>java.lang.String</config-property-type>
      <config-property-value></config-property-value>
    </config-property>
    <config-property>
      <config-property-name>IWayRepoUser</config-property-name>
      <config-property-type>java.lang.String</config-property-type>
      <config-property-value></config-property-value>
    </config-property>
    <config-property>
      <config-property-name>IWayRepoPassword</config-property-name>
      <config-property-type>java.lang.String</config-property-type>
      <config-property-value></config-property-value>
    </config-property>
    <config-property>
      <config-property-name>LogLevel</config-property-name>
      <config-property-type>java.lang.String</config-property-type>
      <config-property-value>DEBUG</config-property-value>
    </config-property>
    <authentication-mechanism>
      <authentication-mechanism-type>BasicPassword</authentication-mechanism-type>

<credential-interface>javax.resource.spi.security.PasswordCredential</credential-i
nterface>
    </authentication-mechanism>
    <reauthentication-support>true</reauthentication-support>
  </resourceadapter>
</connector>
```

The parameters defined in the ra.xml file are described in the following table:

Parameter Name	Description
IWayHome	The base installation directory for the OracleAS packaged application adapter.
IWayConfig	The adapter configuration name as defined in Application Explorer. For example, Oracle Application Adapter for Siebel has a preconfigured `jca_sample` configuration in Application Explorer.
IWayRepoURL	The URL to use when opening a connection to the database. This is necessary only when using an Oracle database as the repository.
IWayRepoUser	User name to use when connecting to the database. This is necessary only when using an Oracle database as the repository.
IWayRepoPassword	Password. If provided, it overwrites configuration. This is necessary only when using an Oracle database as the repository.
loglevel	It overwrites the level set by the ManagedConnectorFactory property.

Creating Multiple Managed Connector Factory Objects

To establish multiple managed connector factory objects, you must edit the `weblogic-ra.xml` file and add more `<connection-instance>` nodes. This file is located in *`wls_home`*`\erp-adapters\iwafjca.rar\META-INF`. For example, the first jca_configuration in Application Explorer is represented in the `weblogic-ra.xml` file as follows:

```
<?xml version="1.0"?>
<weblogic-connector xmlns="http://www.bea.com/ns/weblogic/90">
    <enable-access-outside-app>true</enable-access-outside-app>
    <enable-global-access-to-classes>true</enable-global-access-to-classes>
    <outbound-resource-adapter>
        <default-connection-properties>
        <pool-params>
        <initial-capacity>0</initial-capacity>
        </pool-params>
        <transaction-support>LocalTransaction</transaction-support>
        </default-connection-properties>
        <connection-definition-group>

<connection-factory-interface>javax.resource.cci.ConnectionFactory</connection-fac
tory-interface>
            <connection-instance>
                <jndi-name>eis/OracleJCAAdapter/DefaultConnection</jndi-name>
            </connection-instance>
        </connection-definition-group>
    </outbound-resource-adapter>
</weblogic-connector>
```

To create multiple managed connector factory objects, you must add new `<connection-instance>` nodes in the file. For example:

```
<?xml version="1.0"?>
<weblogic-connector xmlns="http://www.bea.com/ns/weblogic/90">

    <enable-access-outside-app>true</enable-access-outside-app>
    <enable-global-access-to-classes>true</enable-global-access-to-classes>

    <outbound-resource-adapter>
        <default-connection-properties>
        <pool-params>
        <initial-capacity>0</initial-capacity>
        </pool-params>
        <transaction-support>LocalTransaction</transaction-support>
        </default-connection-properties>
        <connection-definition-group>

<connection-factory-interface>javax.resource.cci.ConnectionFactory</connection-fac
tory-interface>
            <connection-instance>
                <jndi-name>eis/OracleJCAAdapter/DefaultConnection</jndi-name>
            </connection-instance>
            <connection-instance>
                <jndi-name>eis/OracleJCAAdapter/DefaultConnection1</jndi-name>
                <connection-properties>
                <properties>
                <property>
<name>IWayHome</name>
<value>C:\bea\erp-adapters\</value>
                </property>
                <property>
                <name>IWayConfig</name>
                <value>jca_sample2</value>
                </property>
                <property>
    <name>IWayRepoURL</name>
    <value></value>
                </property>
                <property>
      <name>IWayRepoUser</name>
      <value></value>
                </property>
                <property>
      <name>IWayRepoPassword</name>
      <value></value>
                </property>
                <property>
      <name>LogLevel</name>
      <value>Debug</value>
                </property>
                </properties>
                </connection-properties>
             </connection-instance>
          </connection-definition-group>
    </outbound-resource-adapter>
</weblogic-connector>
```

If you do not specify a `<property>` element in the `<connection-instance>` section, the value is taken from the `ra.xml` file. You can specify the default properties in the `ra.xml` file and then override them as required in the `weblogic-ra.xml` file. In addition, note that the J2CA configuration (for example, jca_sample2) must already be created in Application Explorer.

> **Note:** When you modify the `ra.xml` and `weblogic-ra.xml` files, the application server must be restarted. If the application server is already running, stop the application server and then restart it.

Modifying WSDL Files for Additional Connection Factory Values

Application Explorer generates outbound WSDL files using the default connection factory name `eis/OracleJCAAdapter/DefaultConnection`. If you created additional connection factories, the WSDLs generated for the additional configuration and connection factory should be changed to reflect the location field of the `jca:address` section in the outbound WSDLs. The default outbound WSDL for the Oracle Application Adapter for Siebel with a configuration of `isdsrv2_conn2` is shown in the following example.

Notice that the outbound WSDL has the following default connection factory: `eis/OracleJCAAdapter/DefaultConnection`

```
<jca:address location="eis/OracleJCAAdapter/DefaultConnection"
        ConnectionSpec="com.ibi.afjca.cci.IWAFConnectionSpec"
        cs.AdapterName="Siebel" cs.Config="isdsrv2_conn2"
UIConnectionName="Connection1"/>
```

The connection factory value must be changed to the following: `eis/OracleJCAAdapter/DefaultConnection1`

For example:

```
<jca:address location="eis/OracleJCAAdapter/DefaultConnection1"
                        ConnectionSpec="com.ibi.afjca.cci.IWAFConnectionSpec"
                        cs.AdapterName="Siebel" cs.Config="isdsrv2_conn2"
UIConnectionName="Connection1"/>
```

Note that only the value for the location field in the `jca:address` section should be modified. Do not modify any other field or section.

4

Configuring Outbound Processing Using Oracle Service Bus (BSE Configuration)

In this scenario, OSB sends an XML request document to Siebel using the adapter and receives an XML response document as a result. The Business Object *Account* and *Query* operation are used as an example.

This chapter includes the following topics:

Overview of Application Adapter Integration with Oracle Service Bus

Oracle Application Adapter for Siebel integrates seamlessly with Oracle Service Bus (OSB) to facilitate Web service integration. OSB is based on the Service-Oriented Architecture (SOA). It consumes adapter services exposed as Web Service Definition Language (WSDL) documents.

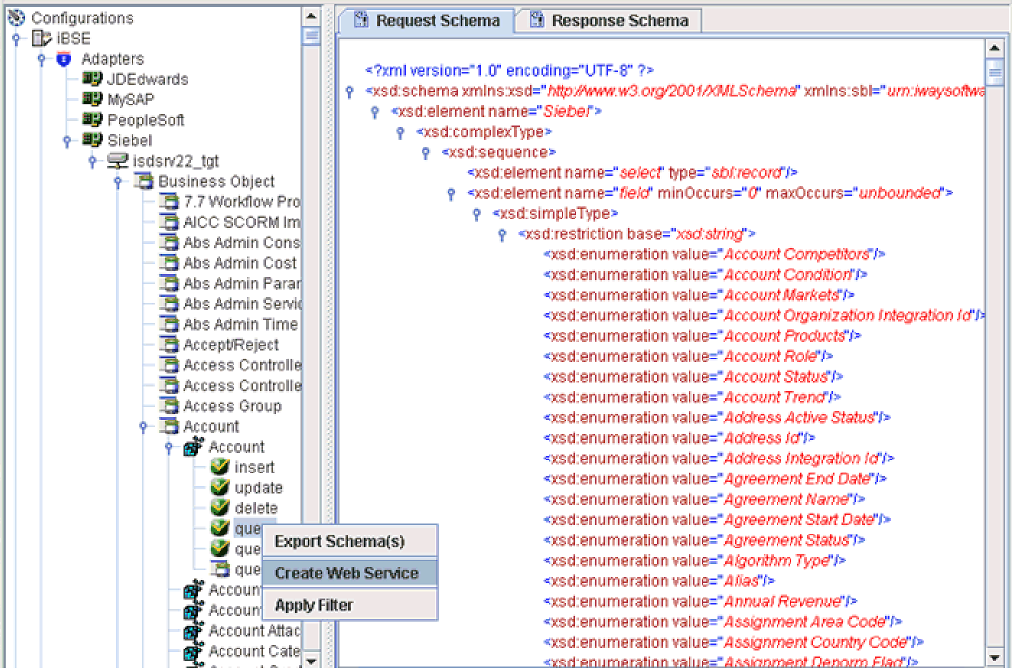
To integrate with Oracle Service Bus (OSB), Oracle Application Adapter for Siebel must be deployed on the same Oracle WebLogic Server as OSB. The underlying adapter services must be exposed as WSDL files, which are generated during design time in Oracle WebLogic Server Adapter Application Explorer (Application Explorer) for both request-response (outbound) and event notification (inbound) services of the adapter.

Publishing a WSDL From Application Explorer to Oracle Service Bus

This section describes how to publish a WSDL from Application Explorer (BSE configuration) to Oracle Service Bus.

1. Start Application Explorer, connect to a BSE configuration, and connect to a Siebel target.

   For more information, see Chapter 2, "Configuring Oracle Application Adapter for Siebel".

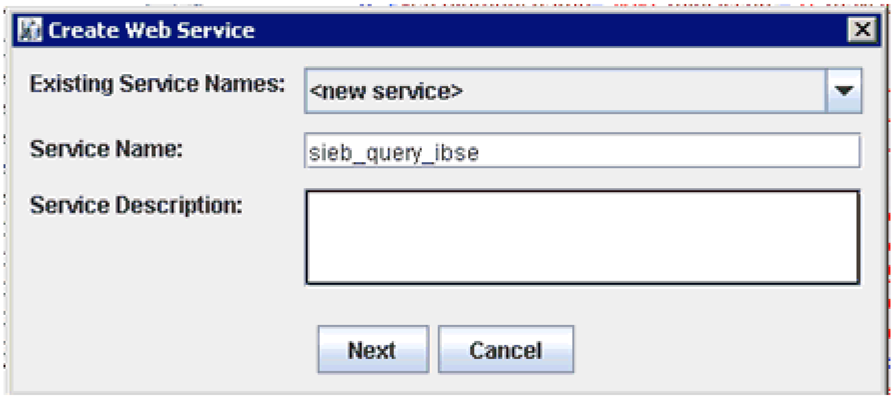


```
<?xml version="1.0" encoding="UTF-8" ?>
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:sbl="urn:iwaysoftwa
  <xsd:element name="Siebel">
    <xsd:complexType>
      <xsd:sequence>
        <xsd:element name="select" type="sbl:record"/>
        <xsd:element name="field" minOccurs="0" maxOccurs="unbounded">
          <xsd:simpleType>
            <xsd:restriction base="xsd:string">
              <xsd:enumeration value="Account Competitors"/>
              <xsd:enumeration value="Account Condition"/>
              <xsd:enumeration value="Account Markets"/>
              <xsd:enumeration value="Account Organization Integration Id"/>
              <xsd:enumeration value="Account Products"/>
              <xsd:enumeration value="Account Role"/>
              <xsd:enumeration value="Account Status"/>
              <xsd:enumeration value="Account Trend"/>
              <xsd:enumeration value="Address Active Status"/>
              <xsd:enumeration value="Address Id"/>
              <xsd:enumeration value="Address Integration Id"/>
              <xsd:enumeration value="Agreement End Date"/>
              <xsd:enumeration value="Agreement Name"/>
              <xsd:enumeration value="Agreement Start Date"/>
              <xsd:enumeration value="Agreement Status"/>
              <xsd:enumeration value="Algorithm Type"/>
              <xsd:enumeration value="Alias"/>
              <xsd:enumeration value="Annual Revenue"/>
              <xsd:enumeration value="Assignment Area Code"/>
              <xsd:enumeration value="Assignment Country Code"/>
              <xsd:enumeration value="Assignment Denorm Flag"/>
```

2. Expand the **Business Object** node and select the **Account** object.

3. Right-click the **query** method and select **Create Web Service** from the context menu.

   The Create Web Service dialog box is displayed.



Existing Service Names: <new service>

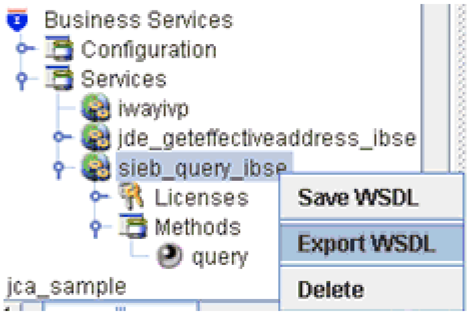
Service Name: sieb_query_ibse

Service Description:

4. Enter a service name and click **Next**.

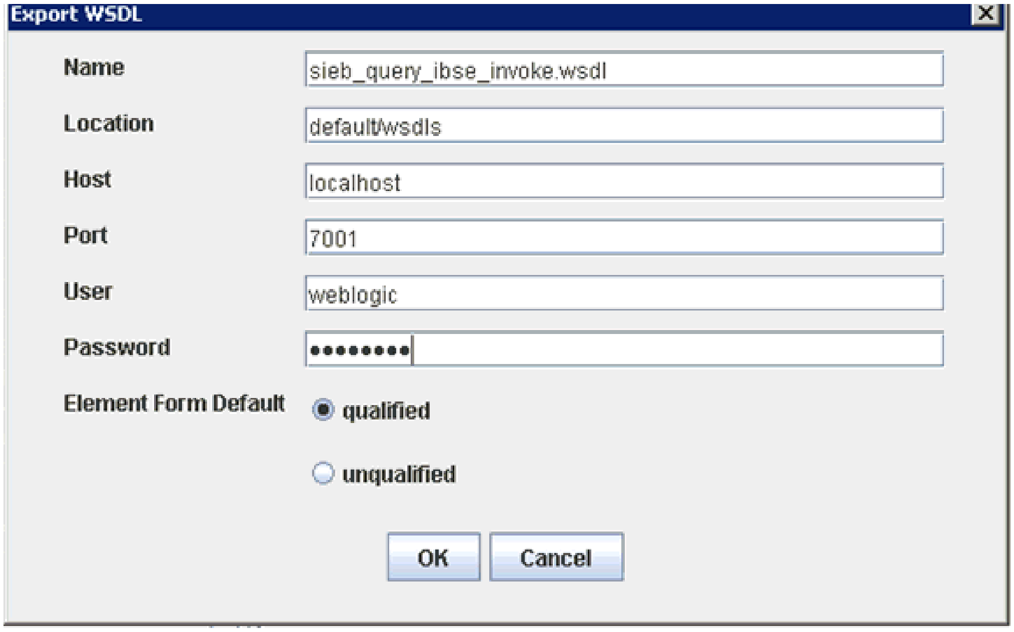
5. Click **OK** on the next dialog box that is displayed.

   Application Explorer switches the view to the Business Services node, and the new Web service appears in the left pane.



6. Right-click the new Web service and select **Export WSDL** from the context menu.

   The Export WSDL dialog box is displayed.



Name	sieb_query_ibse_invoke.wsdl
Location	default/wsdls
Host	localhost
Port	7001
User	weblogic
Password	••••••••
Element Form Default	● qualified ○ unqualified

7. In the Name field, a default file name for the WSDL file is provided. You can accept the default or provide your own.

8. In the Location field, enter the location where you want to publish the WSDL document.

   The location is composed of an Oracle Service Bus project name and optionally, one or more folder names. The project name and any folder names must be separated by a forward slash character "/".

9. In the Host field, enter the name of the machine where Oracle WebLogic Server is running.

10. In the Port field, enter the port for the domain you are using.

11. In the User field, enter your username to access Oracle Service Bus.

12. In the Password field, enter your password to access Oracle Service Bus.

13. Ensure that **qualified** is selected as the element form, which is the default.

14. Click **OK**.

The WSDL is published to the location specified in the Export WSDL dialog box and is now available for use with a Business Service or Proxy Service in Oracle Service Bus.

Starting Oracle Service Bus and Creating Project Folders

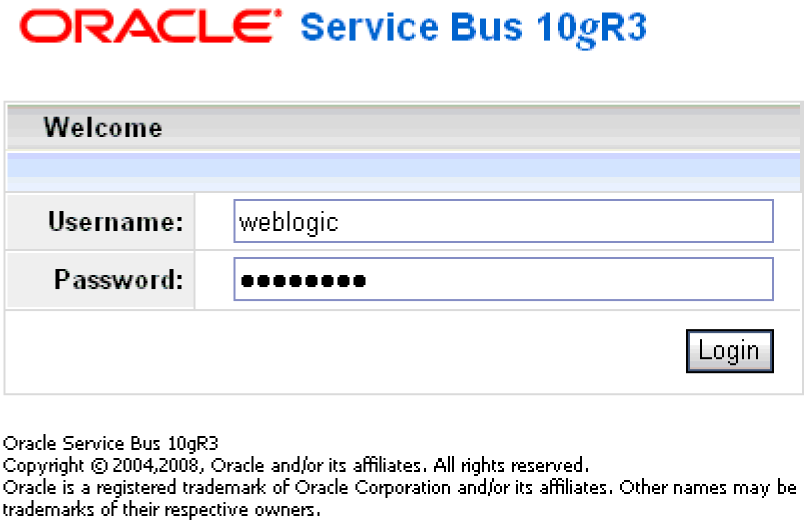
This section describes how to access the Oracle Service Bus Console and create project folders.

1. Start the Oracle WebLogic Server for the Oracle WebLogic Server domain that you have configured.
2. Open the Oracle Service Bus Console in a Web browser by entering the following URL:

   ```
   http://hostname:port/sbconsole
   ```

   Where *hostname* is the name of the machine where Oracle WebLogic Server is running and *port* is the port for the domain you are using. The port for the default domain is 7001.

   The Oracle Service Bus Console logon page is displayed.



Username: weblogic

Password: ●●●●●●●●●

Oracle Service Bus 10gR3
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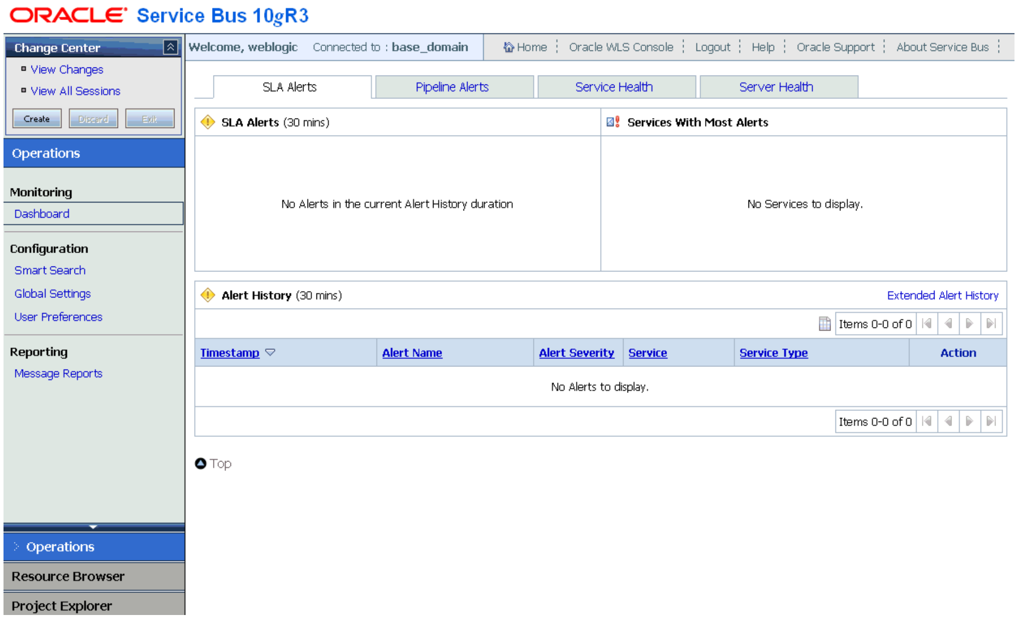
3. Log on to the Oracle Service Bus Console using a valid user name and password.

   The Oracle Service Bus Console home page is displayed.



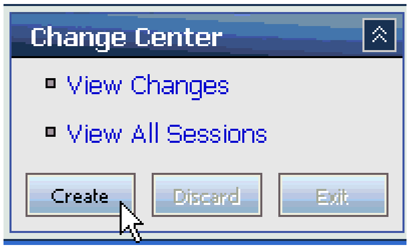
No Alerts in the current Alert History duration

No Services to display.

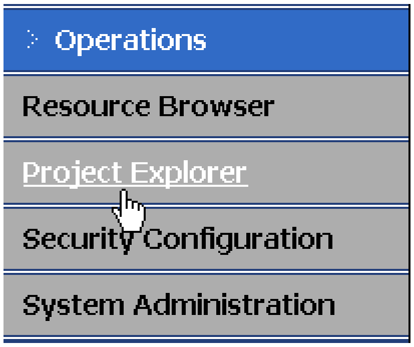
Timestamp	Alert Name	Alert Severity	Service	Service Type	Action

No Alerts to display.

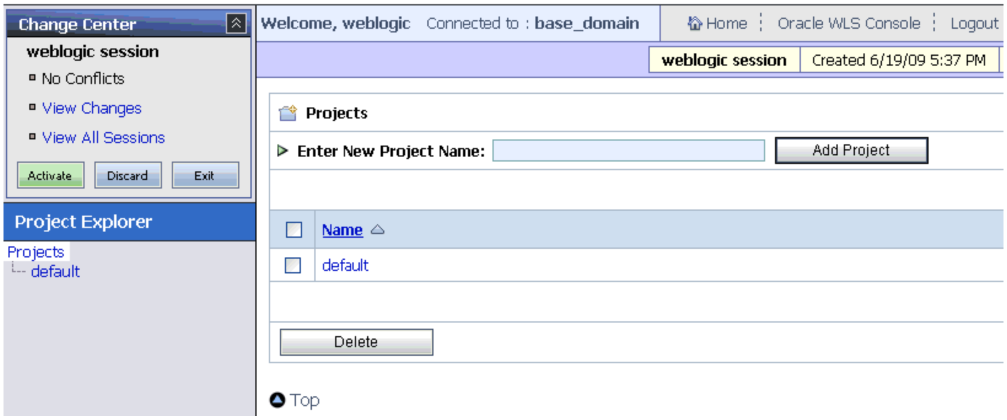
4. Click **Create** in the Change Center area to start a new Oracle Service Bus session.



5. Click **Project Explorer** in the left pane.

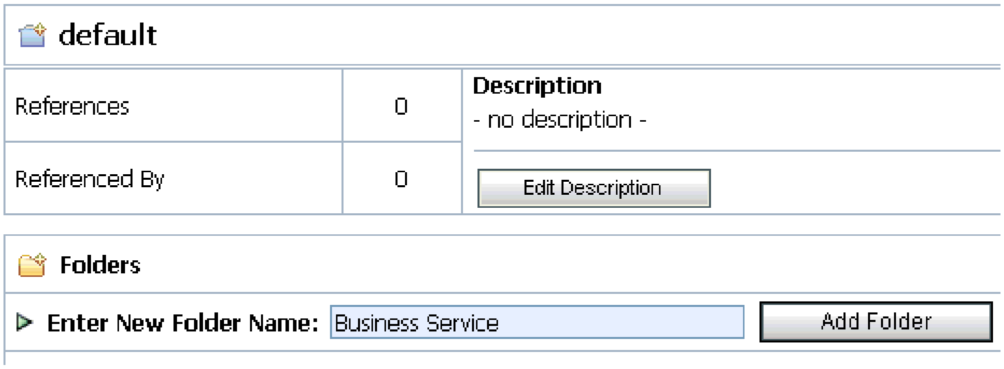


The Project Explorer page is displayed.



6. Click the **default** project node in the left pane.

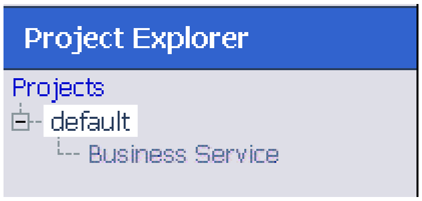
   The default project page is displayed.



Enter New Folder Name: Business Service

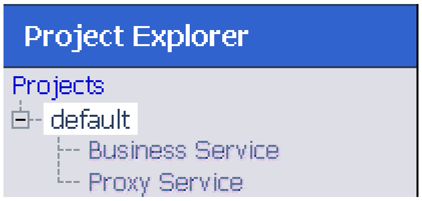
7. In the Enter New Folder Name field, type **Business Service** and click **Add Folder**.

   The Business Service folder is listed in the left pane below the default project node.



8. In the Enter New Folder Name field, type **Proxy Service** and click **Add Folder**.

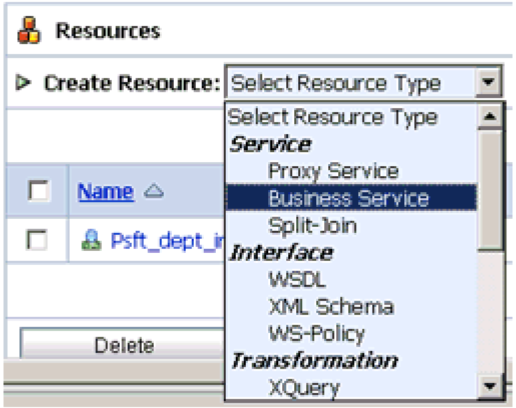
   The Business Service and Proxy Service folders are listed in the left pane below the default project node.



Configuring a File Type Business Service

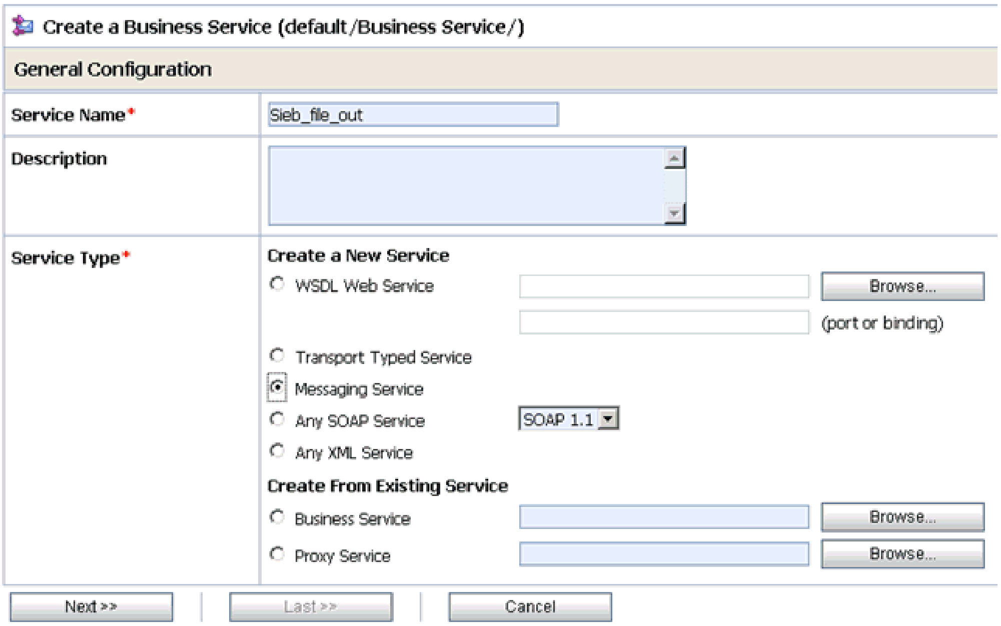
This section describes how to configure a File type Business Service using the Oracle Service Bus Console.

1. Select the **Business Service** folder you created in the left pane.



2. In the right pane, select **Business Service** from the Create Resource menu.

   The Create a Business Service - General Configuration page is displayed.

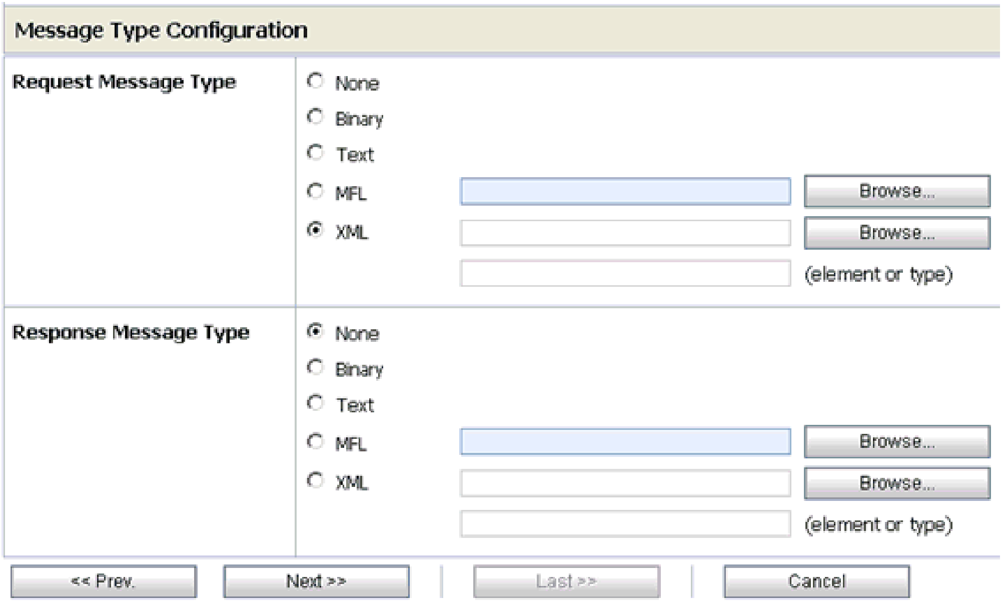

Create a Business Service (default/Business Service/)

General Configuration

Service Name*	Sieb_file_out
Description	
Service Type*	Create a New Service ○ WSDL Web Service (port or binding) ○ Transport Typed Service ● Messaging Service ○ Any SOAP Service SOAP 1.1 ○ Any XML Service Create From Existing Service ○ Business Service ○ Proxy Service

3. Provide a name for the Business Service and from the Service Type area select **Messaging Service**.

4. Click **Next**.



Message Type Configuration

Request Message Type

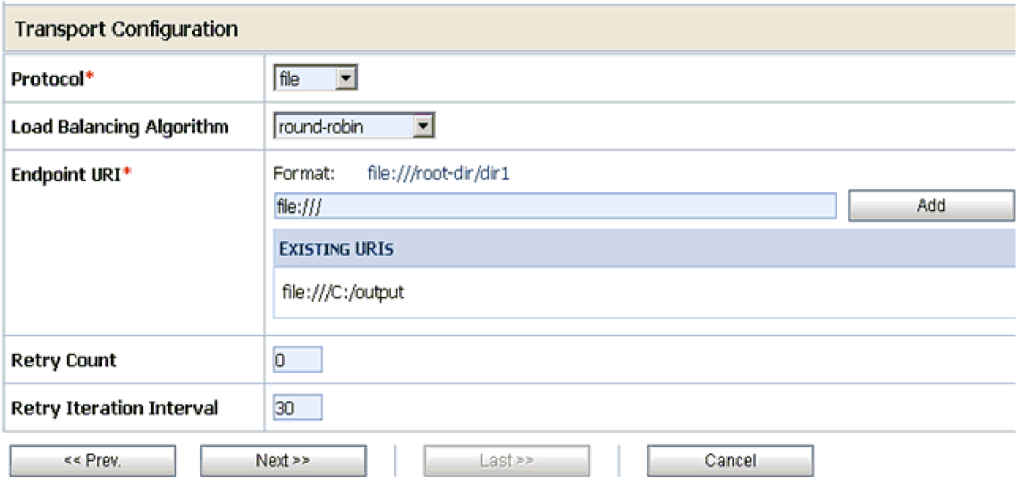
○ None
○ Binary
○ Text
○ MFL
● XML
(element or type)

Response Message Type

● None
○ Binary
○ Text
○ MFL
○ XML
(element or type)

5. Select **XML** as the Request Message Type and **None** as the Response Message Type.

6. Click **Next**.



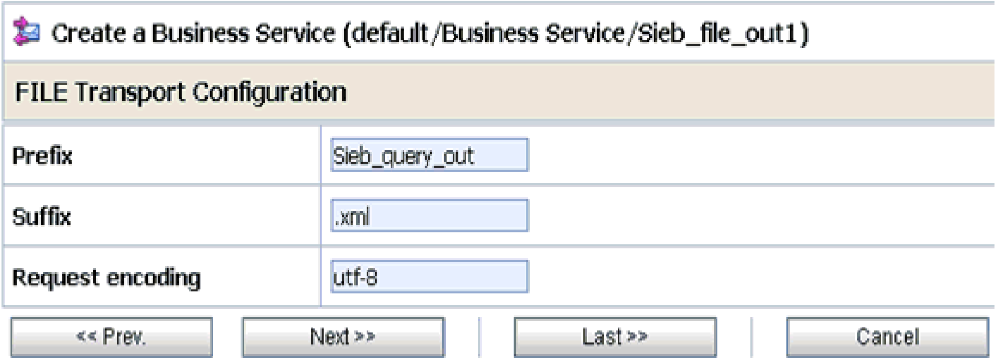
Transport Configuration

Protocol*	file
Load Balancing Algorithm	round-robin
Endpoint URI*	Format: file:///root-dir/dir1 file:/// EXISTING URIS file:///C:/output
Retry Count	0
Retry Iteration Interval	30

7. Select **file** from the Protocol drop-down list.

8. Enter the path to a destination folder on your file system in the Endpoint URI field and click **Add**.

9. Click **Next**.

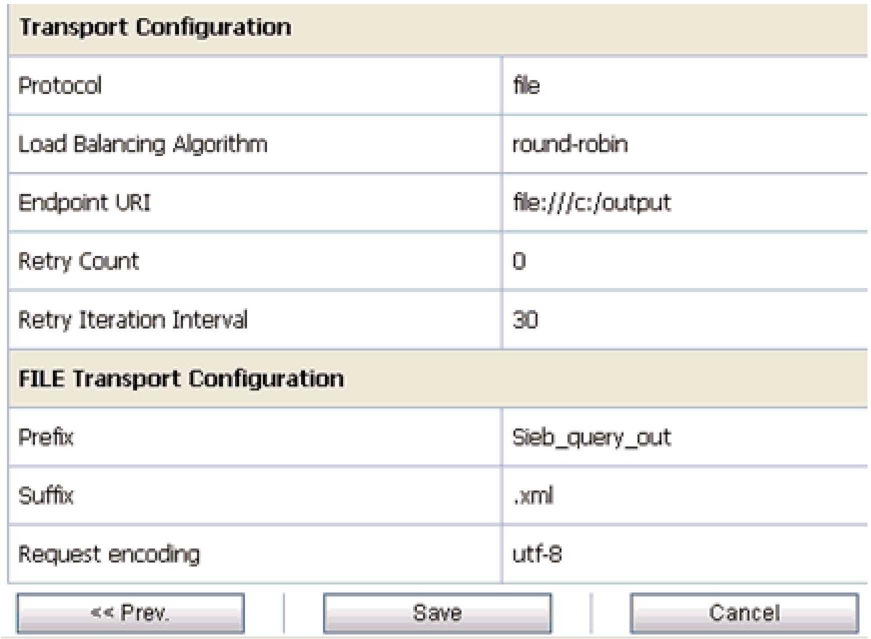


Create a Business Service (default/Business Service/Sieb_file_out1)

FILE Transport Configuration

Prefix	Sieb_query_out
Suffix	.xml
Request encoding	utf-8

10. Enter the prefix and suffix for the output file to be received and click **Next**.



Transport Configuration	
Protocol	file
Load Balancing Algorithm	round-robin
Endpoint URI	file:///c:/output
Retry Count	0
Retry Iteration Interval	30

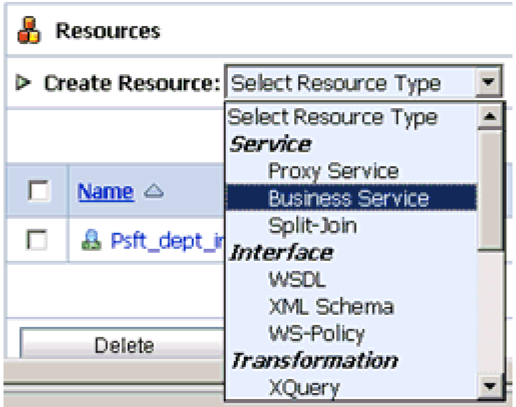
FILE Transport Configuration	
Prefix	Sieb_query_out
Suffix	.xml
Request encoding	utf-8

11. Review all the information for your Business Service and click **Save**.

Configuring a WSDL Type Business Service

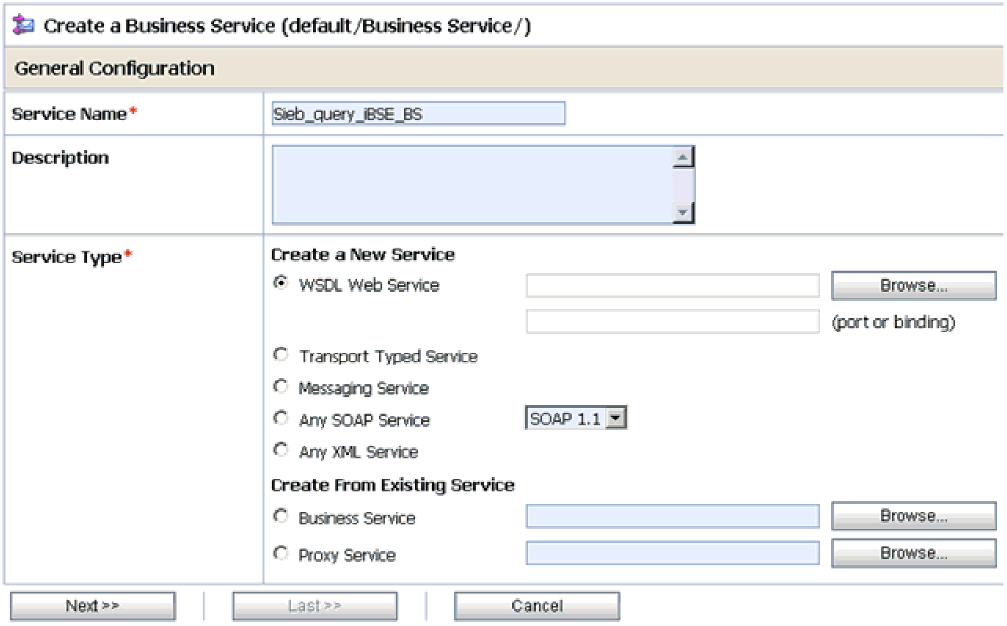
This section describes how to configure a WSDL type Business Service using the Oracle Service Bus Console.

1. Select the **Business Service** folder you created in the left pane.



2. In the right pane, select **Business Service** from the Create Resource menu.

   The Create a Business Service - General Configuration page is displayed.



Create a Business Service (default/Business Service/)

General Configuration

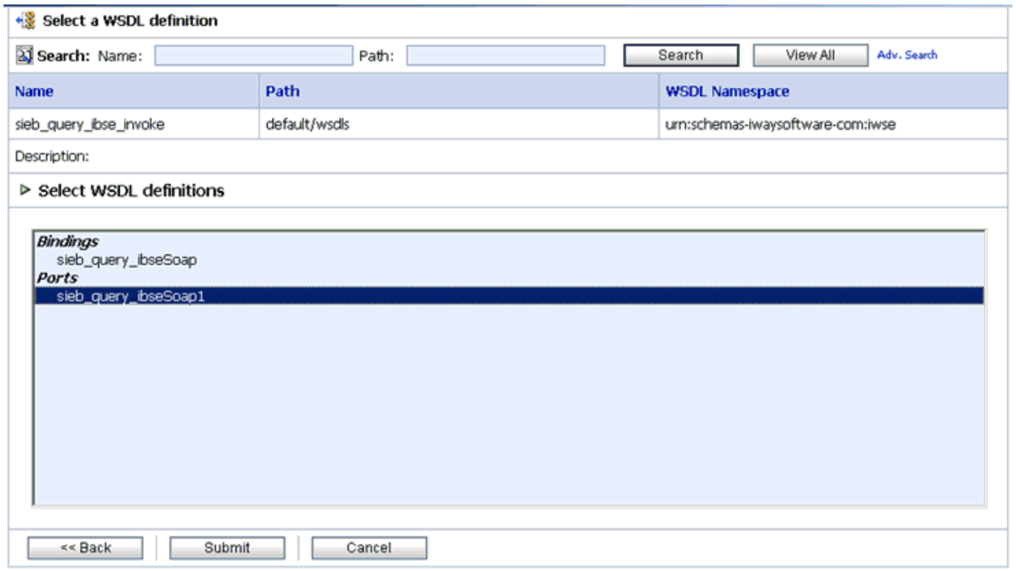
Service Name*	Sieb_query_iBSE_BS
Description	
Service Type*	Create a New Service ● WSDL Web Service [ ] Browse... [ ] (port or binding) ○ Transport Typed Service ○ Messaging Service ○ Any SOAP Service SOAP 1.1 ○ Any XML Service Create From Existing Service ○ Business Service [ ] Browse... ○ Proxy Service [ ] Browse...

Next >> | Last >> | Cancel

3. Provide a name for the Business Service and from the Service Type area select **WSDL Web Service**.

4. Click **Browse**.

   The Select a WSDL Definition dialog box is displayed.



Select a WSDL definition

Search: Name: Path:

Name	Path	WSDL Namespace
sieb_query_ibse_invoke	default/wsdls	urn:schemas-iwaysoftware-com:iwse

Description:

Select WSDL definitions

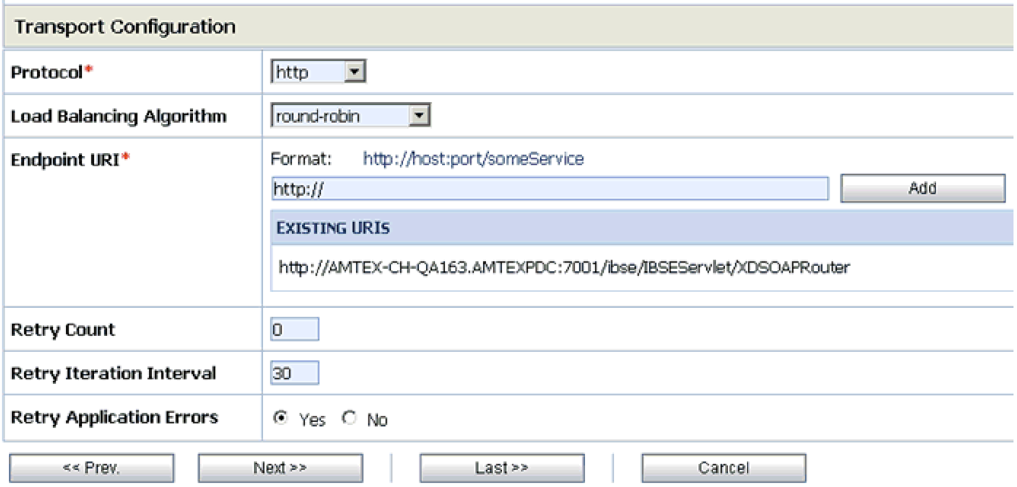
Bindings
sieb_query_ibseSoap
Ports
sieb_query_ibseSoap1

5. Select the WSDL file that you published using Application Explorer. Then select the WSDL definition under the Ports section.

6. Click **Submit**.

   You are returned to the General Configuration page where the WSDL you selected is now available.

7. Click **Next**.



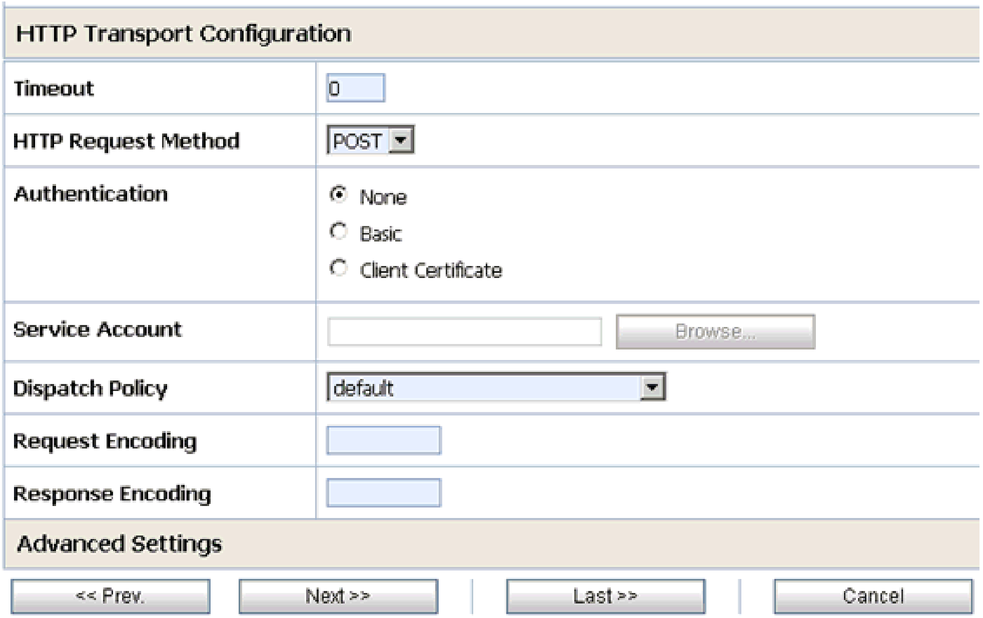
Transport Configuration

Protocol*	http
Load Balancing Algorithm	round-robin
Endpoint URI*	Format: http://host:port/someService http:// EXISTING URIS http://AMTEX-CH-QA163.AMTEXPDC:7001/ibse/IBSEServlet/XDSOAPRouter
Retry Count	0
Retry Iteration Interval	30
Retry Application Errors	● Yes ○ No

8. Select **http** from the Protocol drop-down list.

9. Enter the Endpoint URI in HTTP format and click **Add**.

10. Click **Next**.

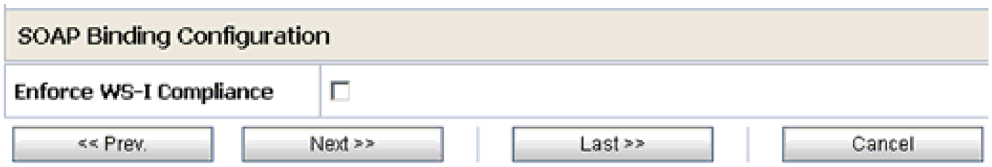


HTTP Transport Configuration

Timeout	0
HTTP Request Method	POST
Authentication	● None ○ Basic ○ Client Certificate
Service Account	
Dispatch Policy	default
Request Encoding	
Response Encoding	

Advanced Settings

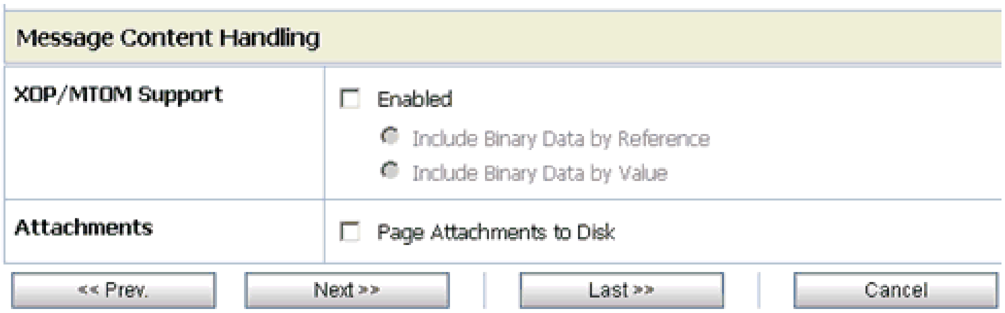
11. Click **Next**.



SOAP Binding Configuration

Enforce WS-I Compliance	□

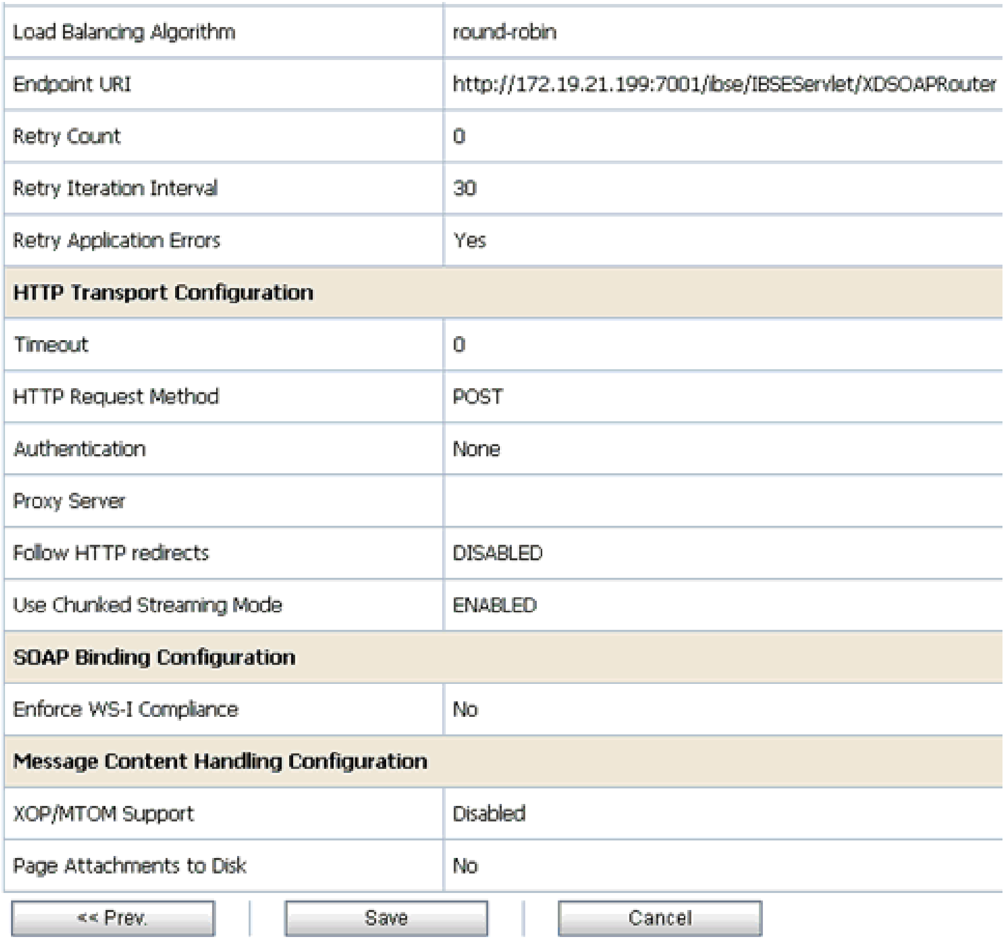
12. Click **Next**.



Message Content Handling

XOP/MTOM Support	□ Enabled ● Include Binary Data by Reference ○ Include Binary Data by Value
Attachments	□ Page Attachments to Disk

13. Click **Next**.



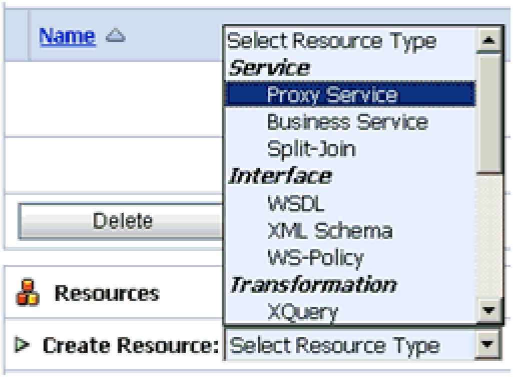
Load Balancing Algorithm	round-robin
Endpoint URI	http://172.19.21.199:7001/ibse/IBSEServlet/XDSOAPRouter
Retry Count	0
Retry Iteration Interval	30
Retry Application Errors	Yes
HTTP Transport Configuration	
Timeout	0
HTTP Request Method	POST
Authentication	None
Proxy Server	
Follow HTTP redirects	DISABLED
Use Chunked Streaming Mode	ENABLED
SOAP Binding Configuration	
Enforce WS-I Compliance	No
Message Content Handling Configuration	
XOP/MTOM Support	Disabled
Page Attachments to Disk	No

14. Review all the information for your Business Service and click **Save**.

Configuring a Proxy Service

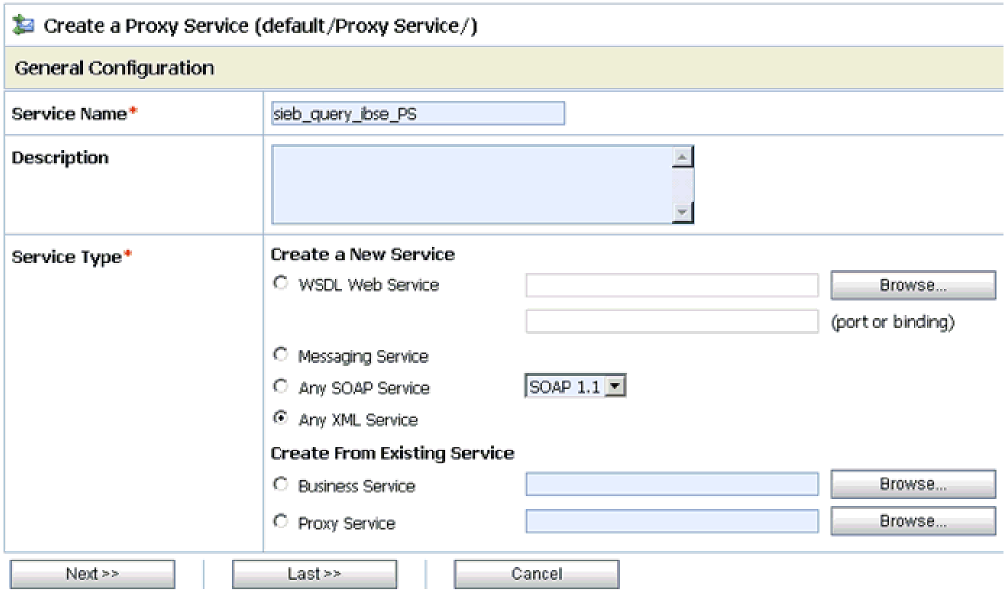
This section describes how to configure a Proxy Service using the Oracle Service Bus Console.

1. Select the **Proxy Service** folder you created in the left pane.



2. In the right pane, select **Proxy Service** from the Create Resource menu.

   The Create a Proxy Service - General Configuration page is displayed.



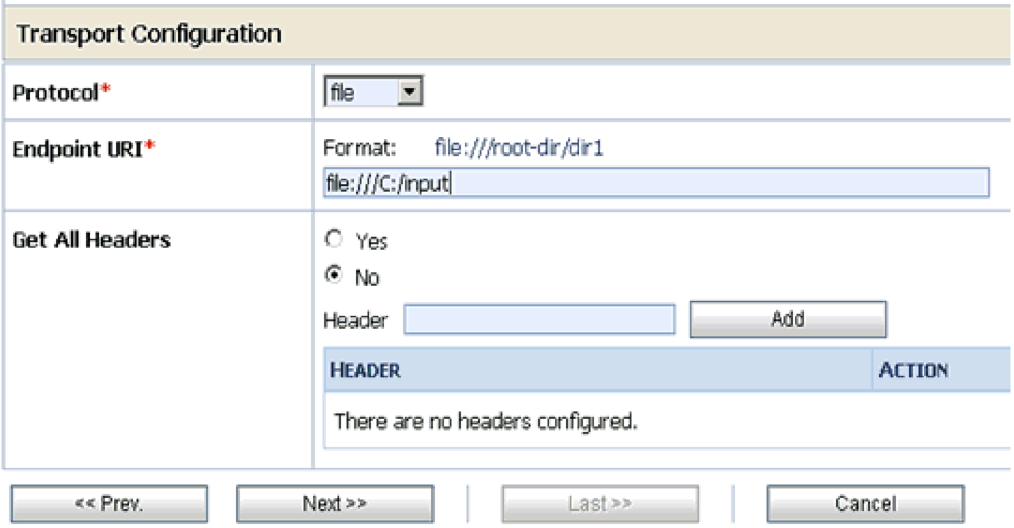
Create a Proxy Service (default/Proxy Service/)

General Configuration

Service Name*	sieb_query_ibse_PS
Description	
Service Type*	**Create a New Service** ○ WSDL Web Service (port or binding) ○ Messaging Service ○ Any SOAP Service SOAP 1.1 ● Any XML Service **Create From Existing Service** ○ Business Service ○ Proxy Service

3. Provide a name for the Proxy Service and from the Service Type area select **Any XML Service**.

4. Click **Next**.



Transport Configuration

Protocol*	file
Endpoint URI*	Format: file:///root-dir/dir1 file:///C:/input
Get All Headers	○ Yes ● No Header

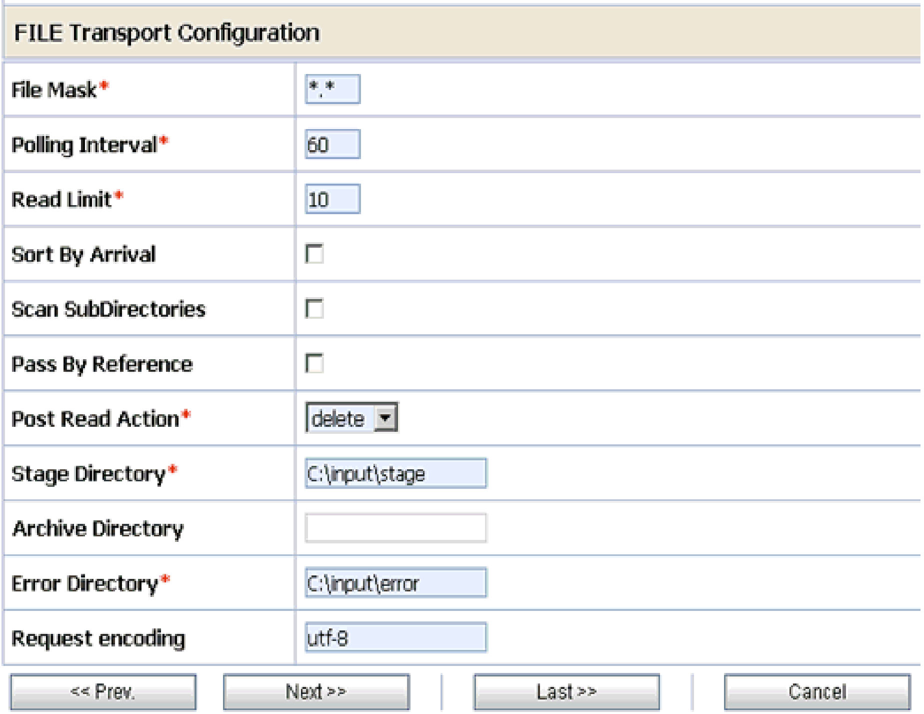
HEADER	ACTION
There are no headers configured.	

5. Select **file** from the Protocol drop-down list.

6. Enter the path to an input folder on your file system in the Endpoint URI field.

   This is the folder where the XML input file will be copied during runtime.

7. Click **Next**.

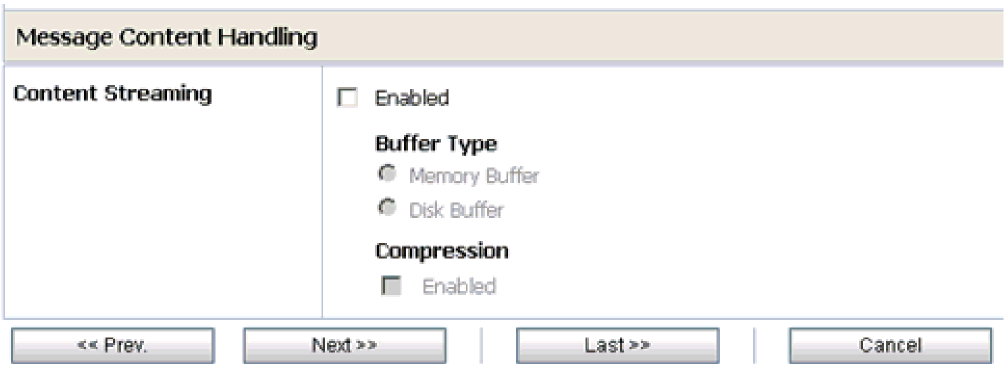


FILE Transport Configuration

File Mask*	*.*
Polling Interval*	60
Read Limit*	10
Sort By Arrival	□
Scan SubDirectories	□
Pass By Reference	□
Post Read Action*	delete
Stage Directory*	C:\input\stage
Archive Directory	
Error Directory*	C:\input\error
Request encoding	utf-8

8. Provide any folder locations on your file system for the Stage Directory and Error Directory fields.

9. Click **Next**.



Message Content Handling

Content Streaming

□ Enabled

Buffer Type

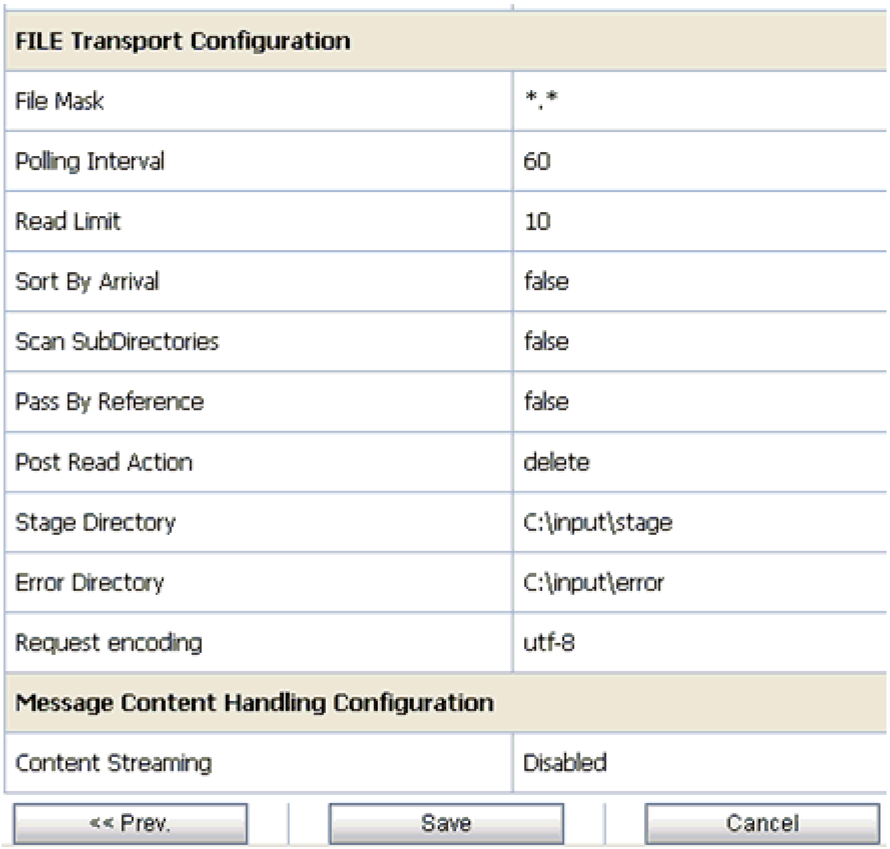
○ Memory Buffer

○ Disk Buffer

Compression

□ Enabled

10. Click **Next**.



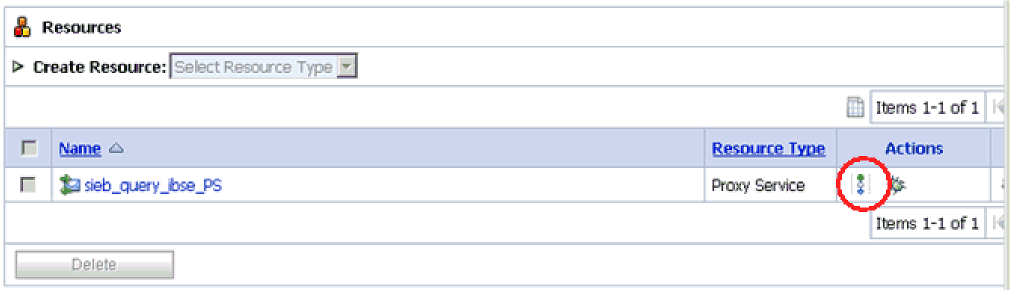
FILE Transport Configuration	
File Mask	*.*
Polling Interval	60
Read Limit	10
Sort By Arrival	false
Scan SubDirectories	false
Pass By Reference	false
Post Read Action	delete
Stage Directory	C:\input\stage
Error Directory	C:\input\error
Request encoding	utf-8
Message Content Handling Configuration	
Content Streaming	Disabled

11. Review all the information for your Proxy Service and click **Save**.

Configuring a Pipeline

This section describes how to configure a Pipeline using the Oracle Service Bus Console.

1. Click the **Edit Message Flow** icon in the row of the Proxy Service you created.



Resources

Create Resource: Select Resource Type

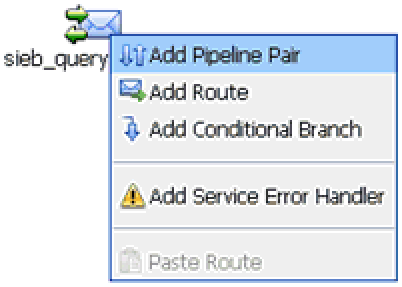
Items 1-1 of 1

□	Name	Resource Type	Actions
□	sieb_query_ibse_PS	Proxy Service	

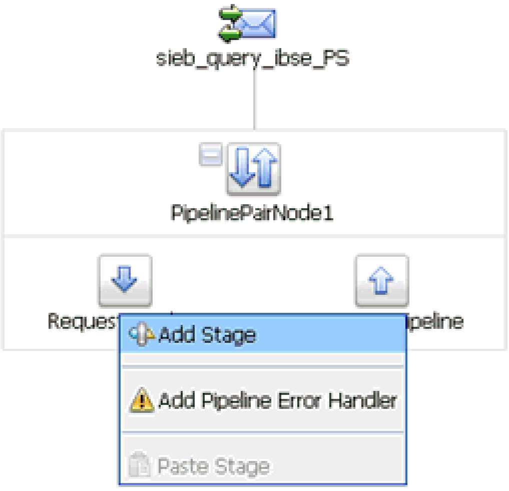
Items 1-1 of 1

The Edit Message Flow workspace area is displayed.

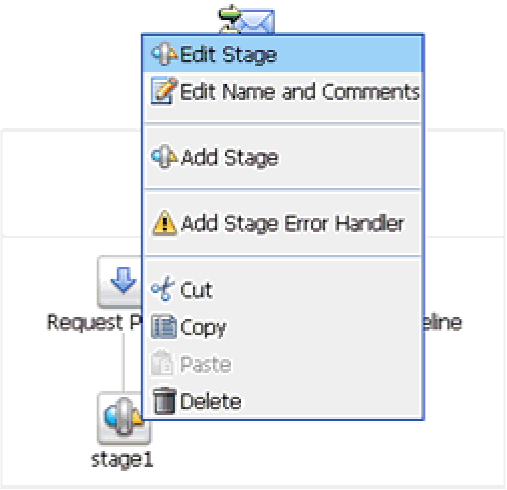
2. Click the **Proxy Service** icon and select **Add Pipeline Pair** from the context menu, as shown in the following image.



3. Click the **Request Pipeline** icon and select **Add Stage** from the context menu.

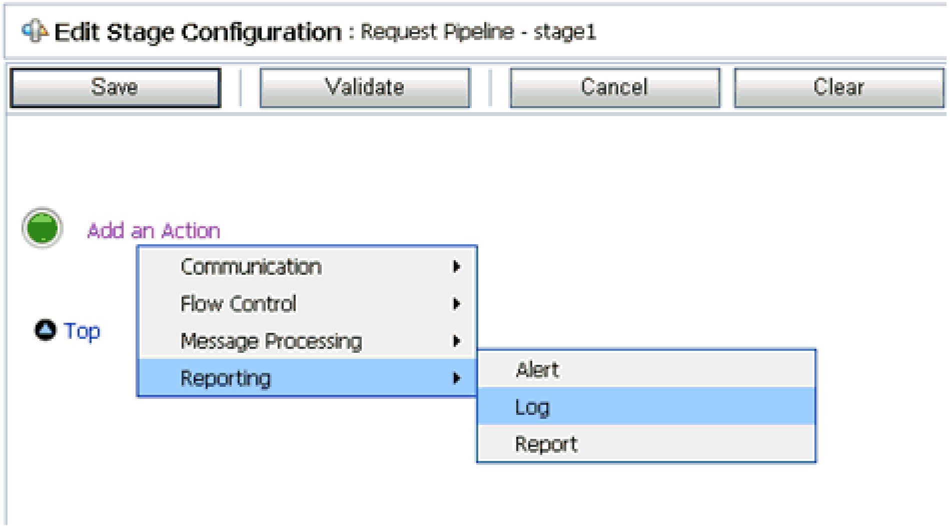


The Stage1 icon is added below the Request Pipeline icon.

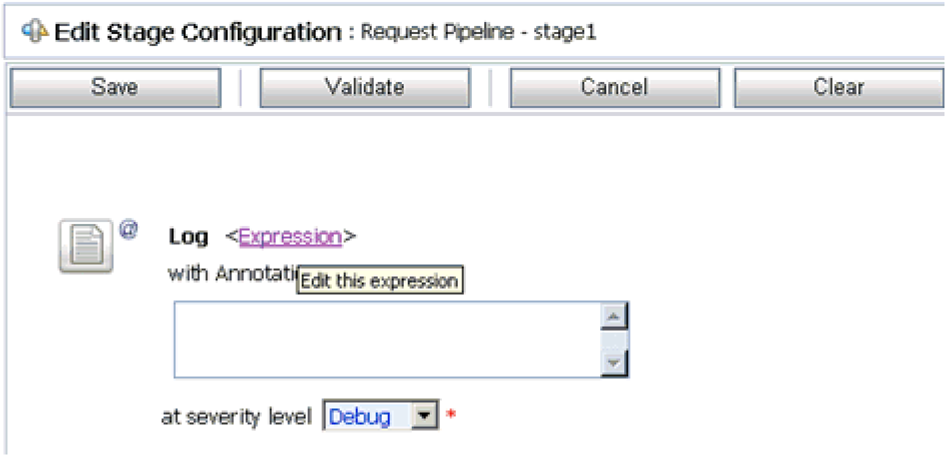


4. Click the **Stage1** icon and select **Edit Stage** from the context menu.

The Edit Stage Configuration workspace area is displayed.

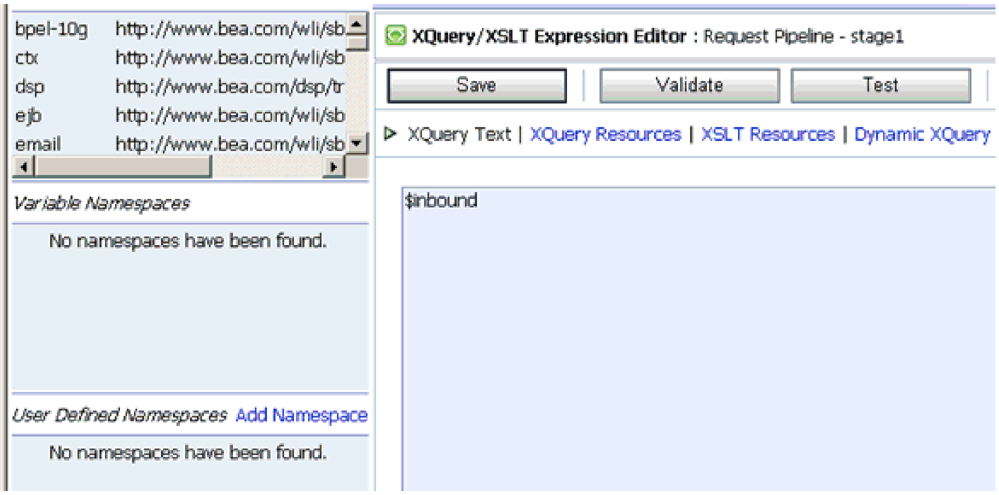


5. Click **Add an Action**, select **Reporting** from the context menu, and click **Log**.



6. Click **<Expression>** to edit the expression.

   The XQuery/XSLT Expression Editor is displayed.

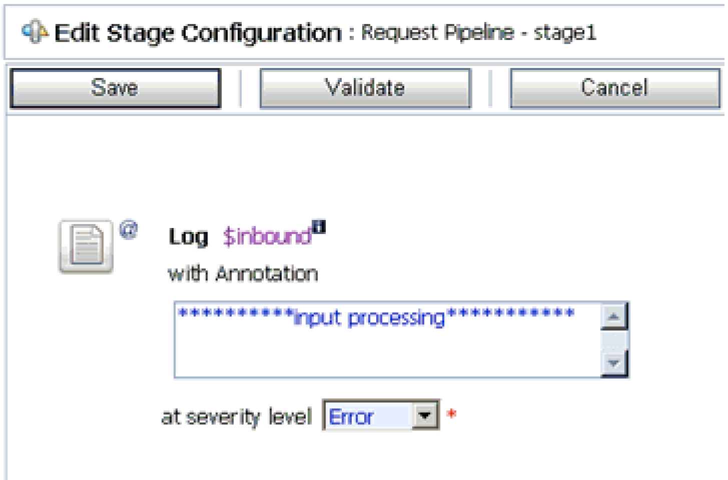

bpel-10g http://www.bea.com/wli/sb
ctx http://www.bea.com/wli/sb
dsp http://www.bea.com/dsp/tr
ejb http://www.bea.com/wli/sb
email http://www.bea.com/wli/sb
Variable Namespaces
No namespaces have been found.
User Defined Namespaces
Add Namespace
No namespaces have been found.
XQuery/XSLT Expression Editor : Request Pipeline - stage1
Save
Validate
Test
XQuery Text | XQuery Resources | XSLT Resources | Dynamic XQuery

$inbound

7. In the XQuery Text area, type **$inbound**.

8. Click **Validate** and then **Save**.

   You are returned to the Edit Stage Configuration workspace area.



Edit Stage Configuration : Request Pipeline - stage1

Log $inbound

with Annotation

**********input processing***********

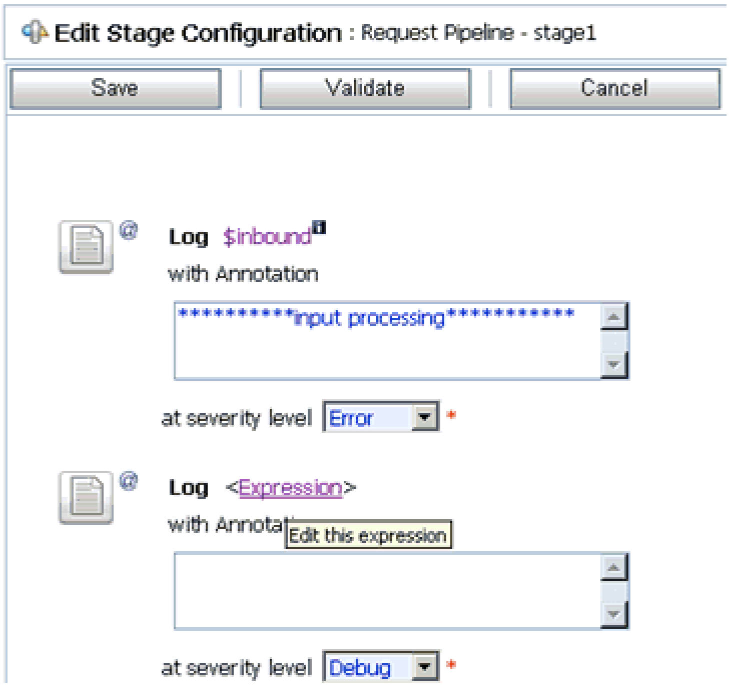
at severity level Error *

9. Type any annotation/comments in the text box (for example, **********input processing***********).

10. Select **Error** from the severity level drop-down list.

11. Add one more Log action.

    A new Log configuration is added, as shown in the following image.



Edit Stage Configuration : Request Pipeline - stage1

Log $inbound

with Annotation

**********input processing***********

at severity level Error *

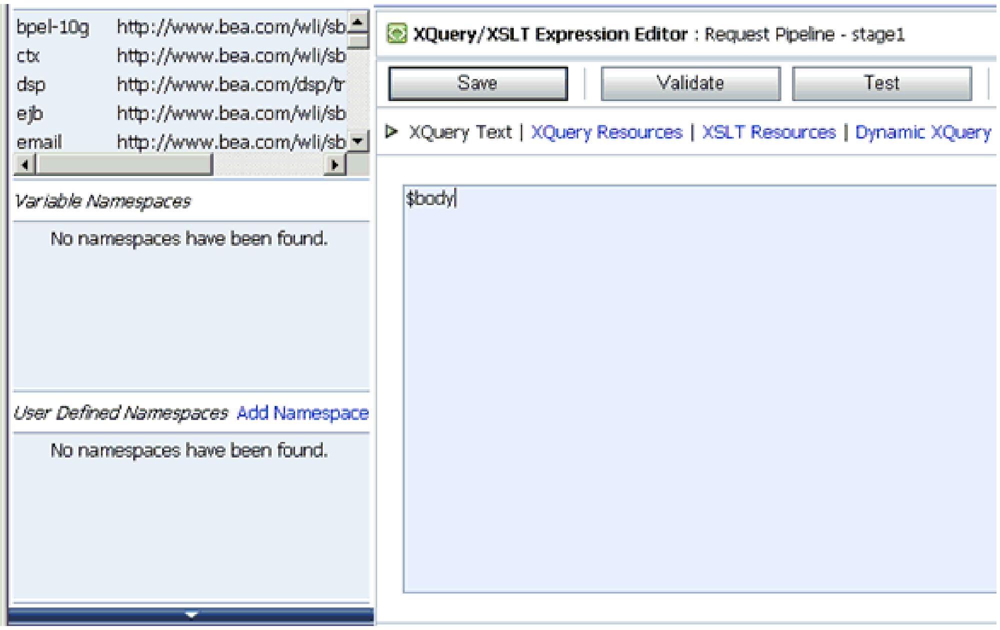
Log <Expression>

with Annotation

at severity level Debug *

12. Click **<Expression>** to edit the expression.

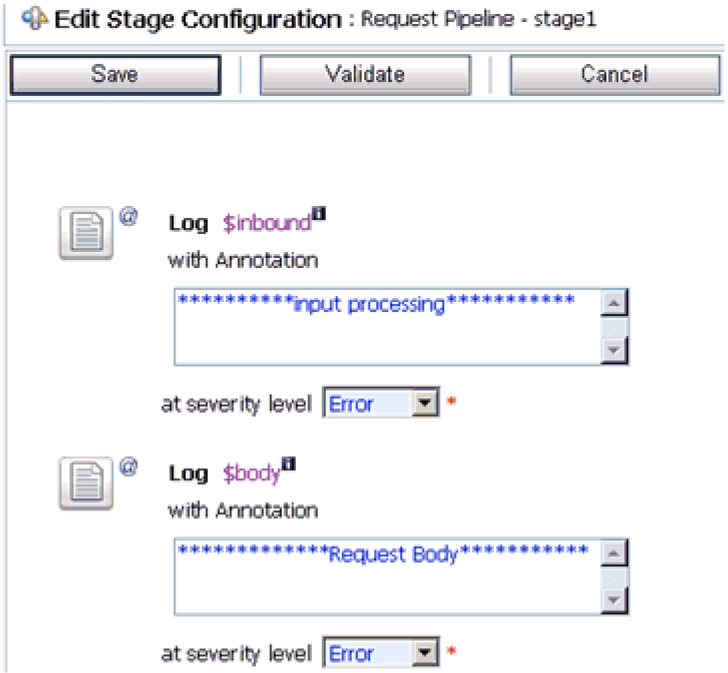
    The XQuery/XSLT Expression Editor is displayed.


bpel-10g http://www.bea.com/wli/sb
ctx http://www.bea.com/wli/sb
dsp http://www.bea.com/dsp/tr
ejb http://www.bea.com/wli/sb
email http://www.bea.com/wli/sb
Variable Namespaces
No namespaces have been found.
User Defined Namespaces Add Namespace
No namespaces have been found.
XQuery/XSLT Expression Editor : Request Pipeline - stage1
Save
Validate
Test
XQuery Text | XQuery Resources | XSLT Resources | Dynamic XQuery
$body

13. In the XQuery Text area, type **$body**.

14. Click **Validate** and then **Save**.

    You are returned to the Edit Stage Configuration workspace area.

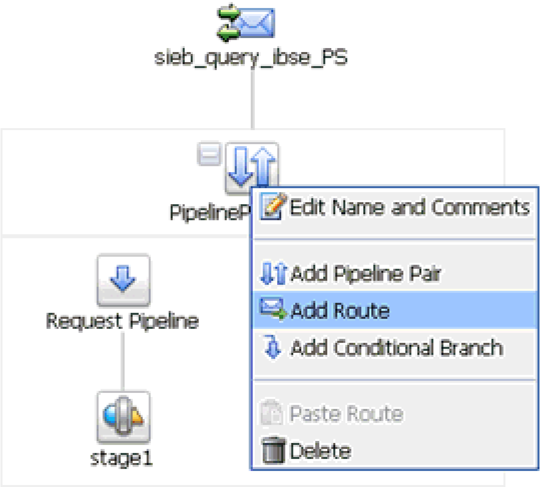

Edit Stage Configuration : Request Pipeline - stage1
Save
Validate
Cancel
Log $inbound
with Annotation
***********input processing************
at severity level Error *
Log $body
with Annotation
**************Request Body************
at severity level Error *

15. Type any annotation/comments in the text box (for example, **********Request Body***********).

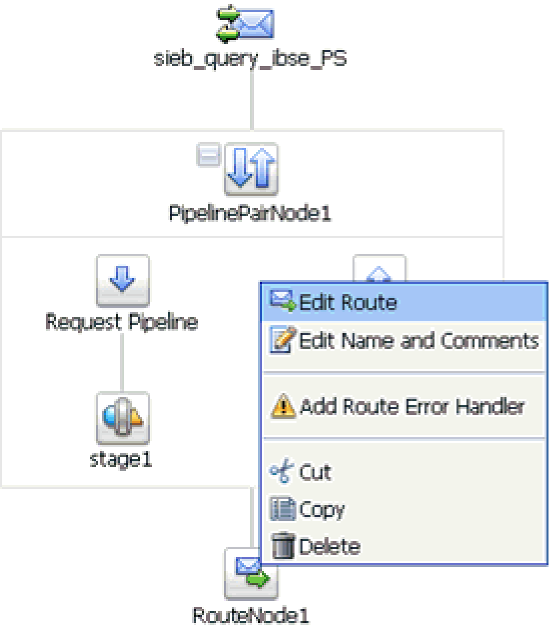
16. Select **Error** from the severity level drop-down list.

17. Click **Validate** and then **Save**.

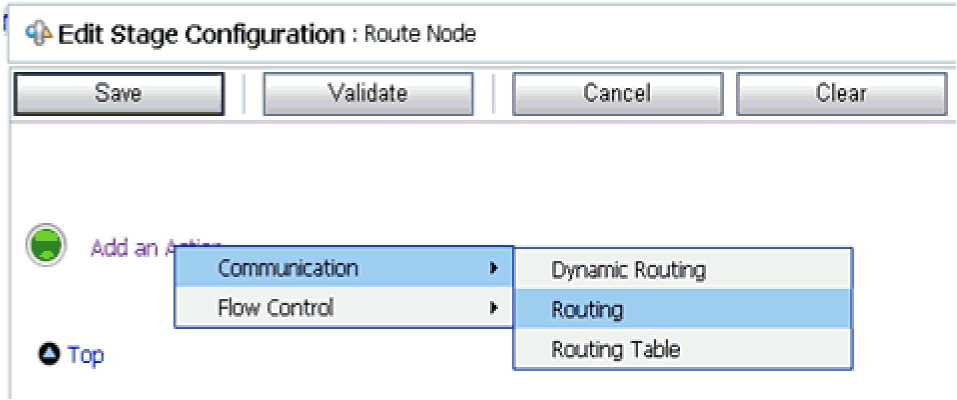
    You are returned to the main Pipeline configuration area.



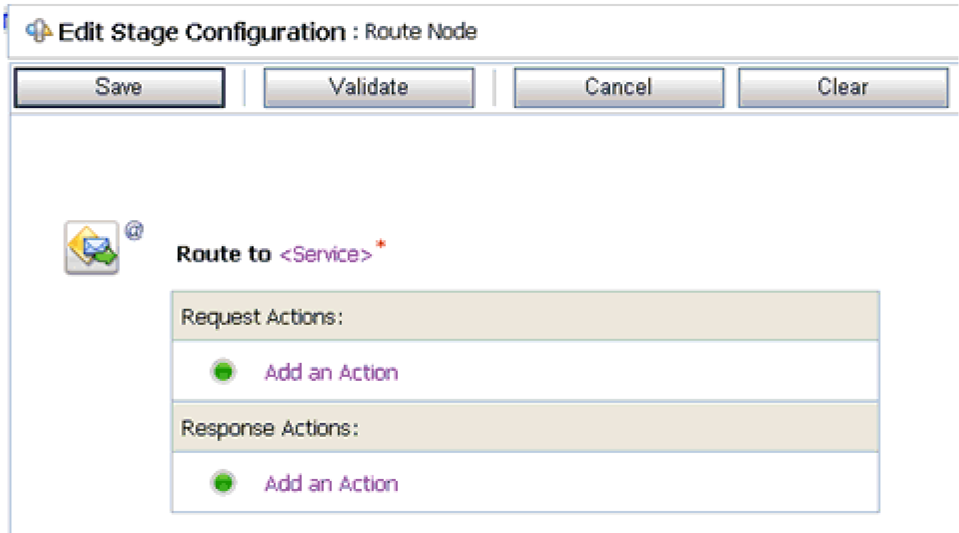
18. Click the **PipelinePairNode1** icon and select **Add Route** from the context menu.



19. Click the **RouteNode1** icon and select **Edit Route** from the context menu.

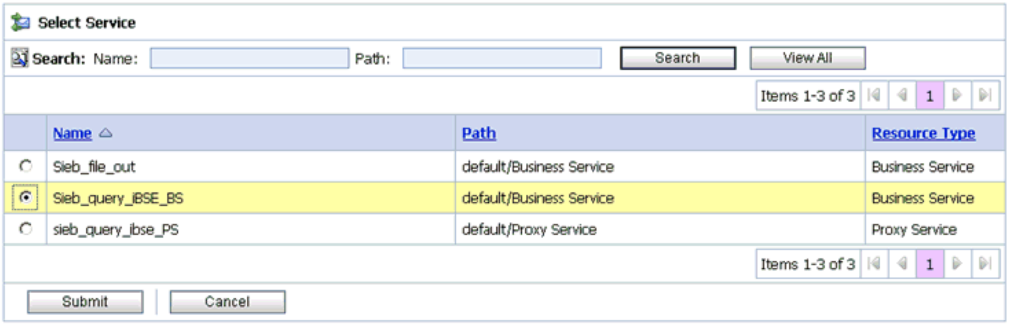


20. Click **Add an Action**, select **Communication** from the context menu, and click **Routing**.



21. Click **<Service>**.

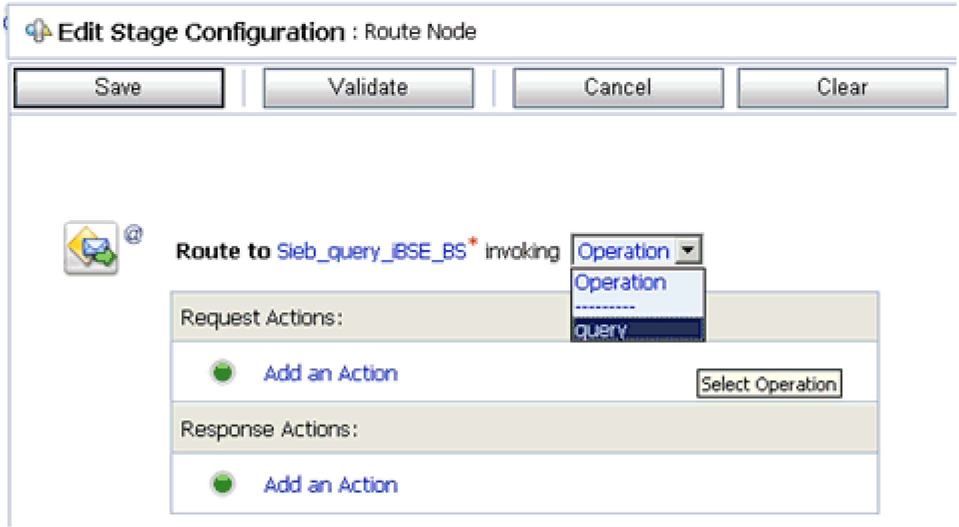
The Select Service dialog box is displayed.



	Name	Path	Resource Type
○	Sieb_file_out	default/Business Service	Business Service
●	Sieb_query_IBSE_BS	default/Business Service	Business Service
○	sieb_query_ibse_PS	default/Proxy Service	Proxy Service

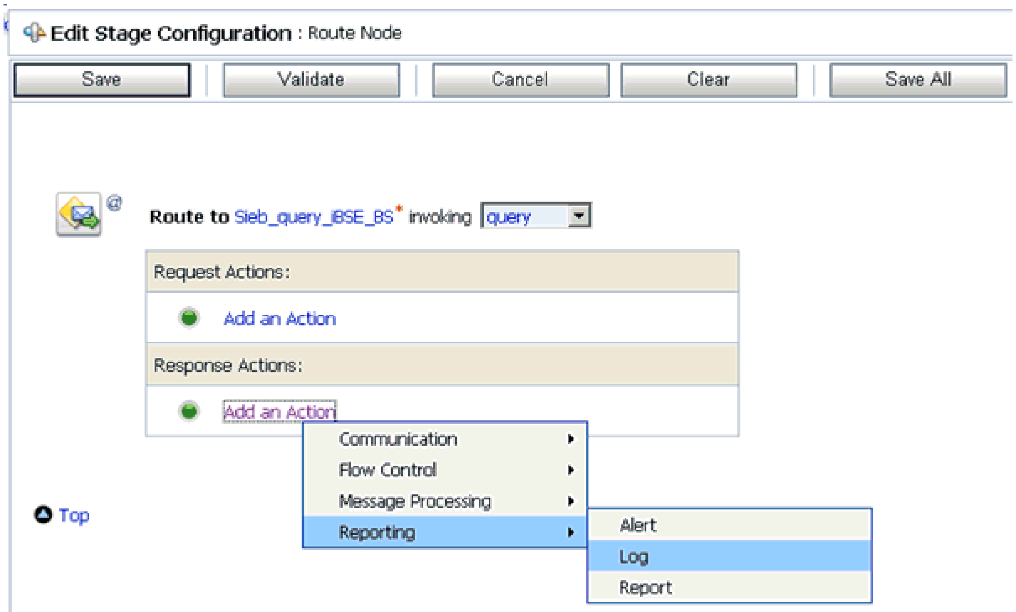
22. Select a WSDL type Business Service and click **Submit**.

You are returned to the Edit Stage Configuration workspace area.



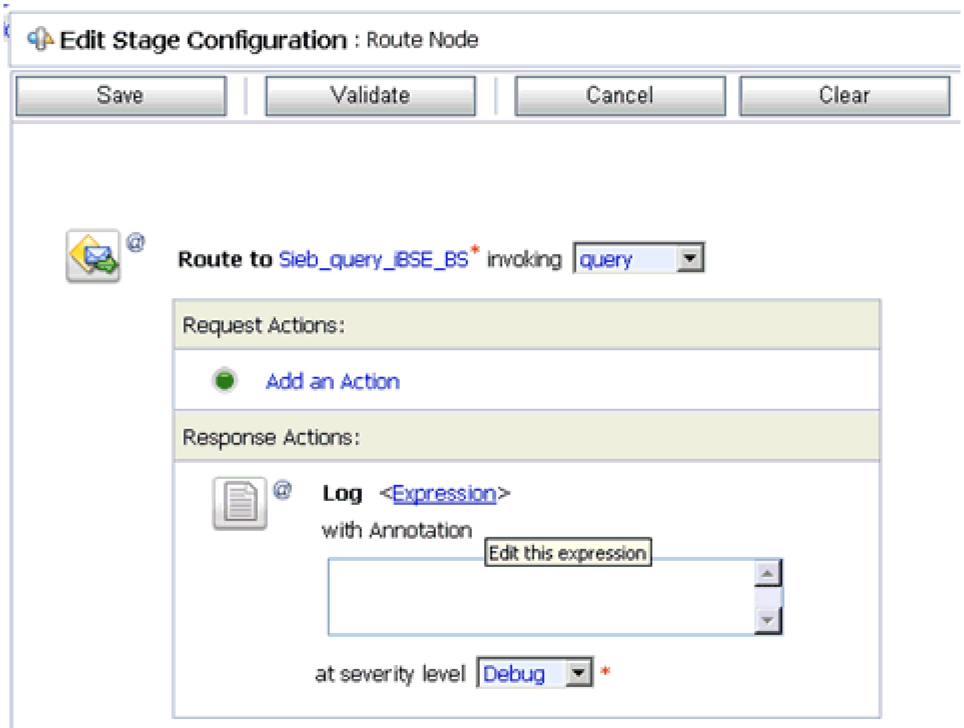
23. Select **query** as the operational attribute from the drop-down list.

24. Click **Validate** and then **Save**.



Route to Sieb_query_iBSE_BS* invoking query

25. In the Response Actions area, click **Add an Action**, select **Reporting** from the context menu, and click **Log**.



Route to Sieb_query_iBSE_BS* invoking query

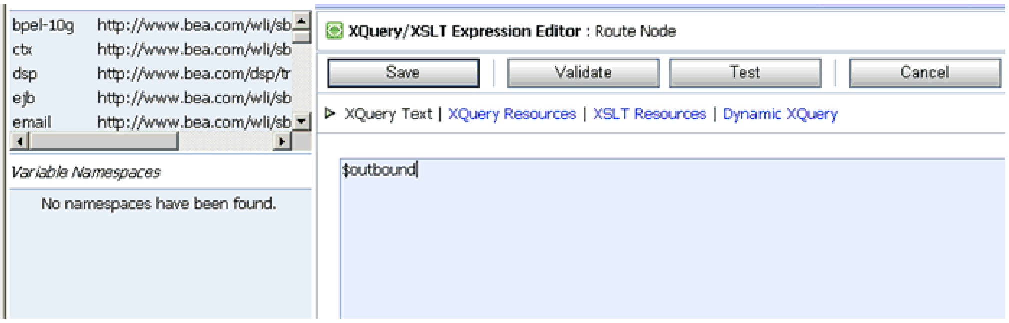
Log <Expression>

with Annotation

at severity level Debug *

26. Click **<Expression>** to edit the expression.

The XQuery/XSLT Expression Editor is displayed.


Save
Validate
Test
Cancel
▷ XQuery Text | XQuery Resources | XSLT Resources | Dynamic XQuery

bpel-10g	http://www.bea.com/wli/sb
ctx	http://www.bea.com/wli/sb
dsp	http://www.bea.com/dsp/tr
ejb	http://www.bea.com/wli/sb
email	http://www.bea.com/wli/sb

Variable Namespaces

No namespaces have been found.

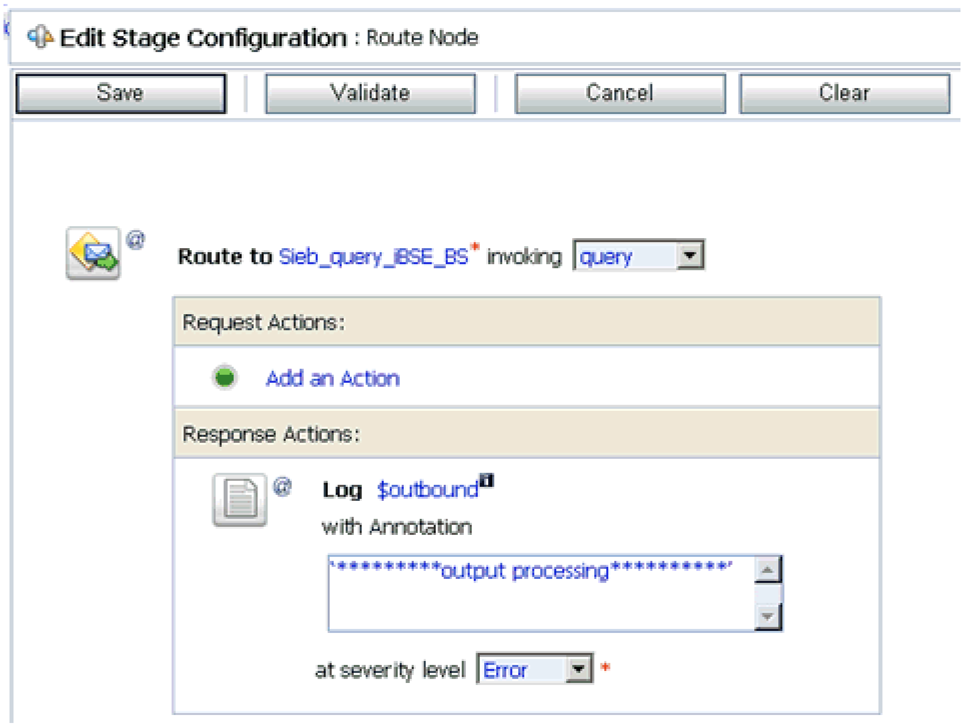
XQuery/XSLT Expression Editor : Route Node

$outbound

27. In the XQuery Text area, type **$outbound**.

28. Click **Validate** and then **Save**.

    You are returned to the Edit Stage Configuration workspace area.



Edit Stage Configuration : Route Node

Route to Sieb_query_BSE_BS* invoking query

Request Actions:

Response Actions:

Log $outbound

with Annotation

'*********output processing**********'

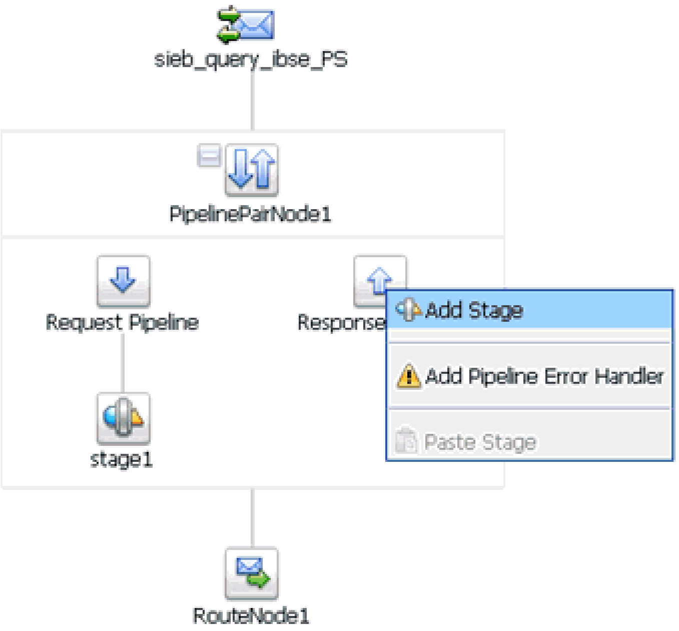
at severity level Error *

29. Type any annotation/comments in the text box (for example, *********output processing**********).

30. Select **Error** from the severity level drop-down list.

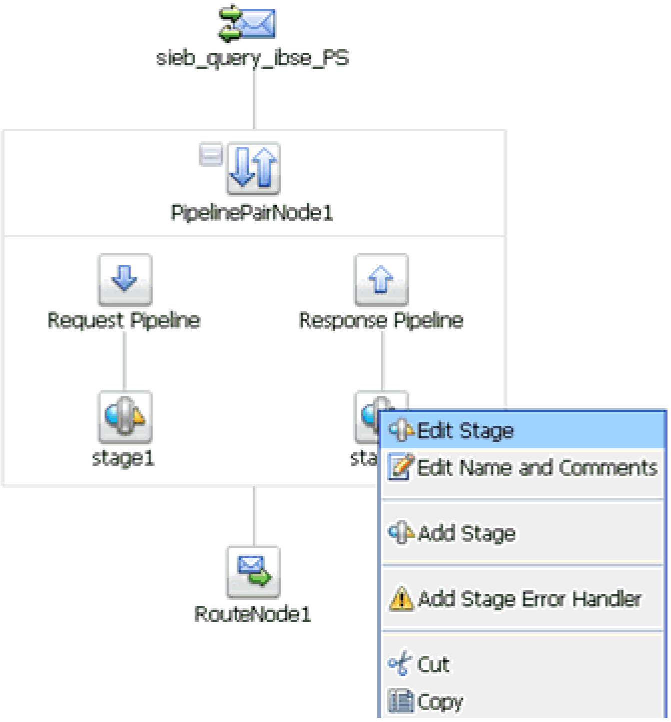
31. Click **Validate** and then **Save**.

    You are returned to the main Pipeline configuration area.



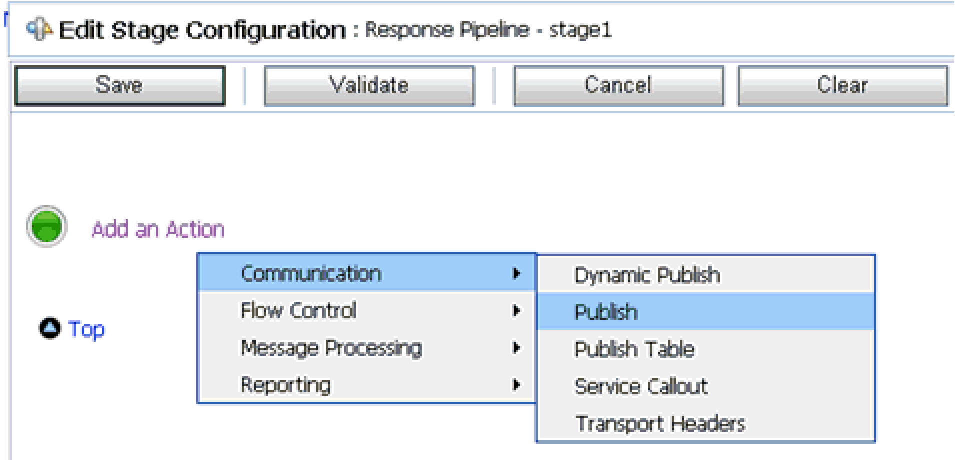
32. Click the **Response Pipeline** icon and select **Add Stage** from the context menu.

    The Stage1 icon is added below the Response Pipeline icon.

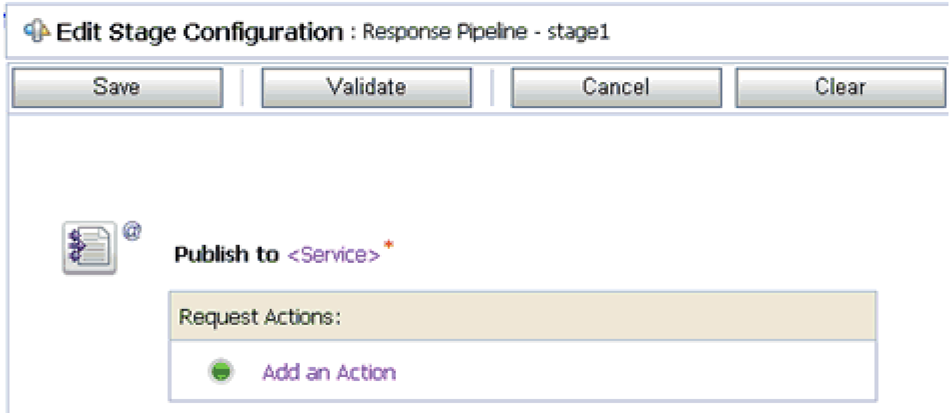


33. Click the **Stage1** icon and select **Edit Stage** from the context menu.

    The Edit Stage Configuration workspace area is displayed.

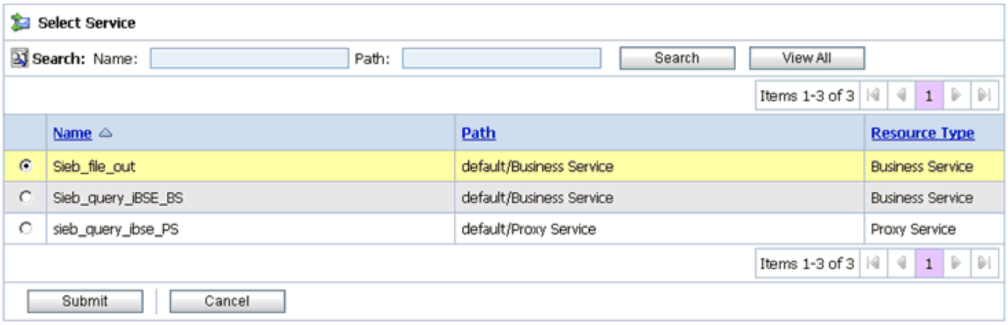


34. Click **Add an Action**, select **Communication** from the context menu, and click **Publish**.



35. Click **<Service>**.

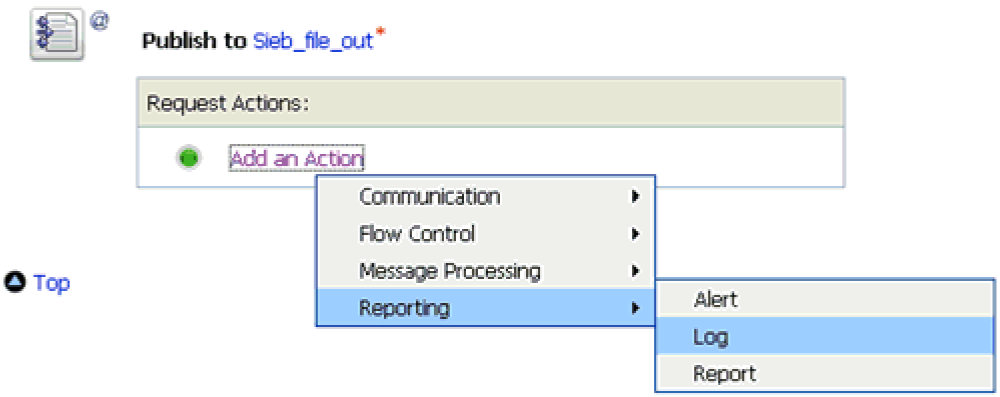
The Select Service dialog box is displayed.



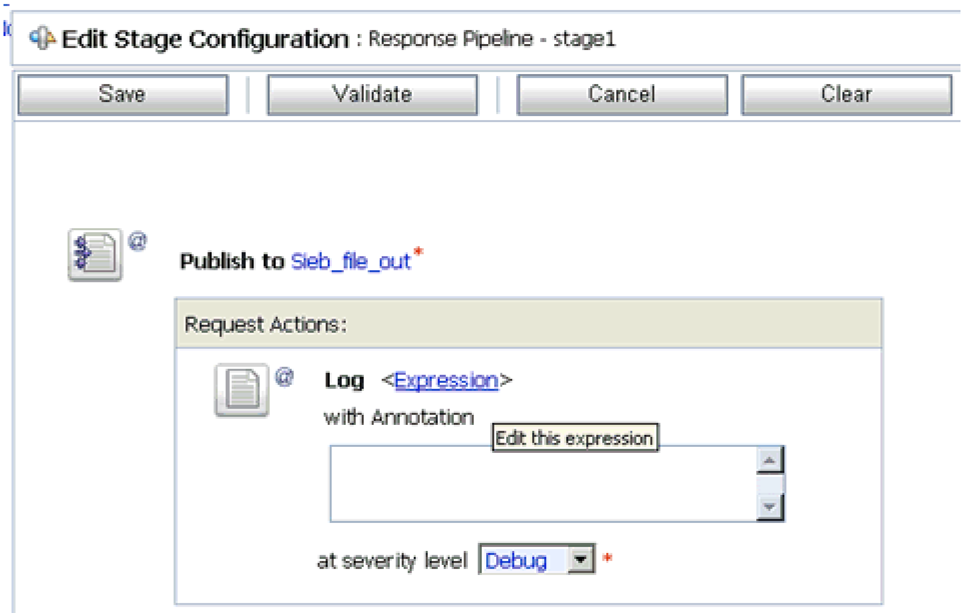
	Name	Path	Resource Type
●	Sieb_file_out	default/Business Service	Business Service
○	Sieb_query_BSE_BS	default/Business Service	Business Service
○	sieb_query_bse_PS	default/Proxy Service	Proxy Service

36. Select a File type Business Service and click **Submit**.

You are returned to the Edit Stage Configuration workspace area.

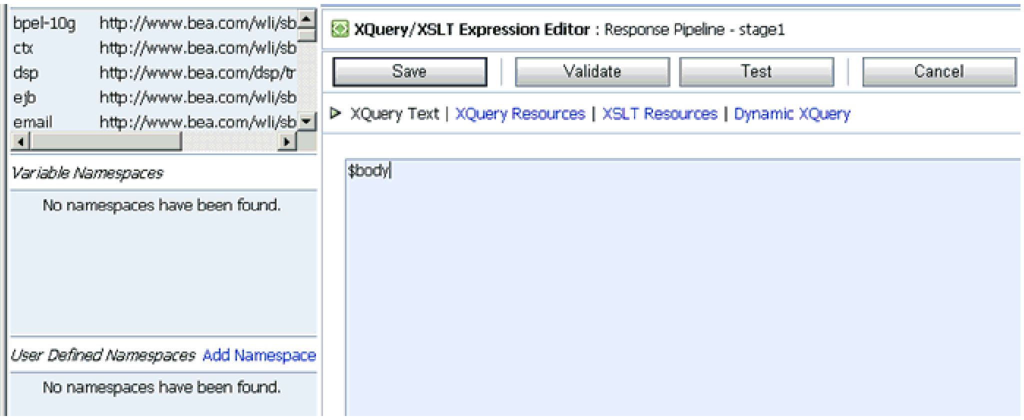


37. In the Request Actions area, click **Add an Action**, select **Reporting** from the context menu, and click **Log**.


Edit Stage Configuration : Response Pipeline - stage1
Save
Validate
Cancel
Clear
Publish to Sieb_file_out*
Request Actions:
Log <Expression>
with Annotation
Edit this expression
at severity level Debug *

38. Click **<Expression>** to edit the expression.

The XQuery/XSLT Expression Editor is displayed.

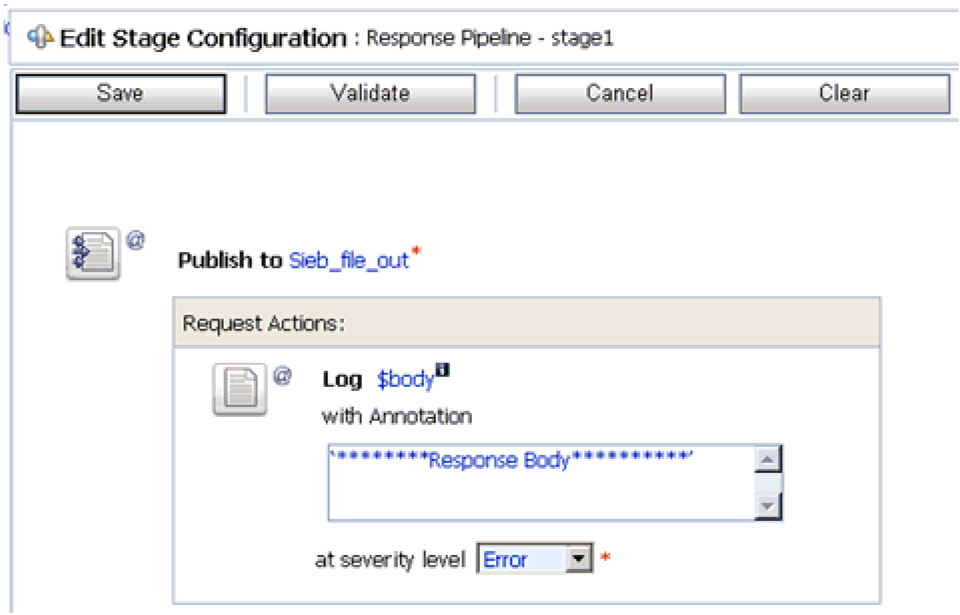

bpel-10g http://www.bea.com/wli/sb
ctx http://www.bea.com/wli/sb
dsp http://www.bea.com/dsp/tr
ejb http://www.bea.com/wli/sb
email http://www.bea.com/wli/sb
Variable Namespaces
No namespaces have been found.
User Defined Namespaces Add Namespace
No namespaces have been found.
XQuery/XSLT Expression Editor : Response Pipeline - stage1
Save
Validate
Test
Cancel
XQuery Text | XQuery Resources | XSLT Resources | Dynamic XQuery

$body

39. In the XQuery Text area, type **$body**.

40. Click **Validate** and then **Save**.

    You are returned to the Edit Stage Configuration workspace area.



Edit Stage Configuration : Response Pipeline - stage1

Publish to Sieb_file_out*

Request Actions:

Log $body

with Annotation

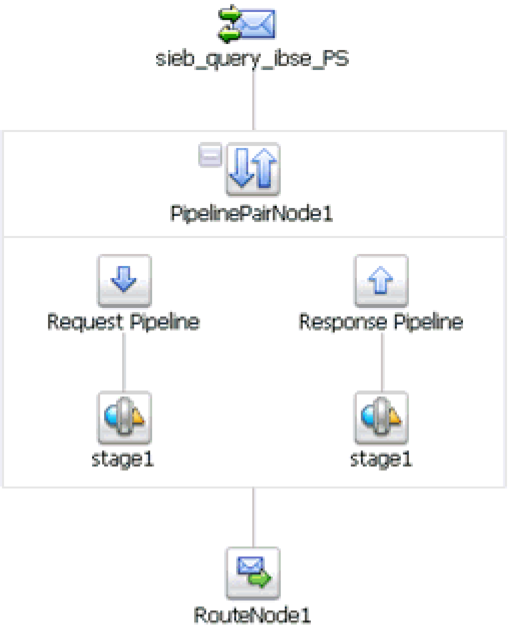
'*********Response Body***********'

at severity level Error *

41. Type any annotation/comments in the text box (for example, **********Response Body***********).

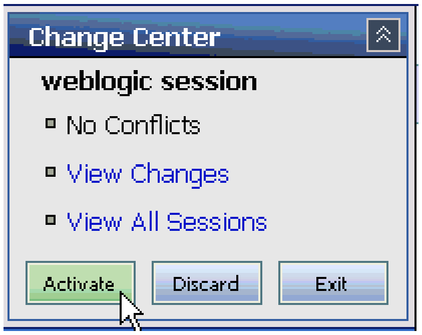
42. Select **Error** from the severity level drop-down list.

43. Click **Validate** and then **Save**.

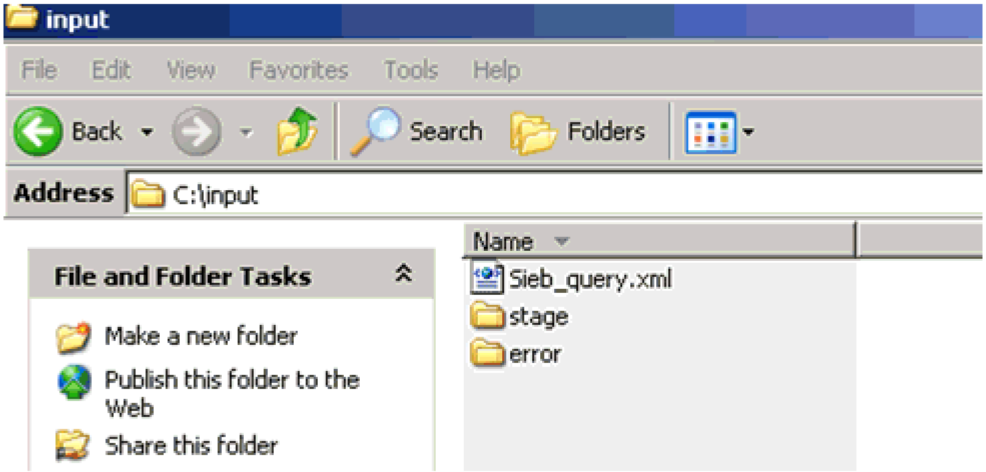


44. Click **Save**.

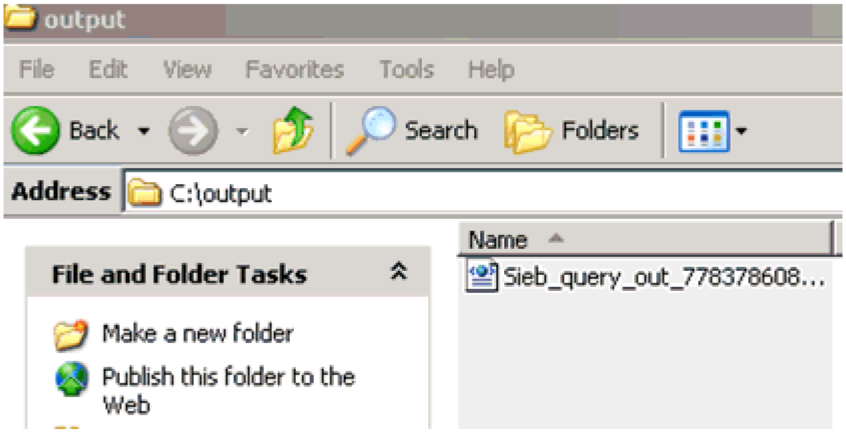
45. Click **Activate** in the Change Center area to activate your changes in the Oracle Service Bus session.



46. Copy and paste an input XML file in the input folder you have configured.



An output XML file is received in the destination folder.



5

Configuring Inbound and Outbound Processing Using Oracle Service Bus (J2CA Configuration)

Oracle Application Adapter for Siebel integrates seamlessly with Oracle Service Bus (OSB) to facilitate integration. OSB is based on the Service-Oriented Architecture (SOA). It consumes adapter services exposed as Web Service Definition Language (WSDL) documents.

This chapter includes the following topics:

- Overview of Application Adapter Integration with Oracle Service Bus
- Configuring Inbound Processing Using Oracle Service Bus (J2CA Configuration)
- Configuring Outbound Processing Using Oracle Service Bus (J2CA Configuration)

Overview of Application Adapter Integration with Oracle Service Bus

To integrate with Oracle Service Bus (OSB), Oracle Application Adapter for Siebel must be deployed on the same Oracle WebLogic Server as OSB. The underlying adapter services must be exposed as WSDL files, which are generated during design time in Oracle WebLogic Server Adapter Application Explorer (Application Explorer) for both request-response (outbound) and event notification (inbound) services of the adapter.

Configuring Inbound Processing Using Oracle Service Bus (J2CA Configuration)

In this scenario, an XML document is published in Siebel for an event (Sample Account). The OSB Proxy Service captures the event and stores the output in XML format into a designated folder using the File type Business Service. The File type Business Service and Proxy Service are connected through a Pipeline. Please note that a Siebel workflow for publishing account details must already be created in Siebel for this scenario. For more information, see Creating a Siebel Workflow for an Event Using HTTP Transport on page A-13.

This section includes the following topics:

- Creating a Channel and Publishing a WSDL From Application Explorer to Oracle Service Bus
- Starting Oracle Service Bus and Creating Project Folders
- Configuring a File Type Business Service

- Configuring a Proxy Service
- Configuring a Pipeline

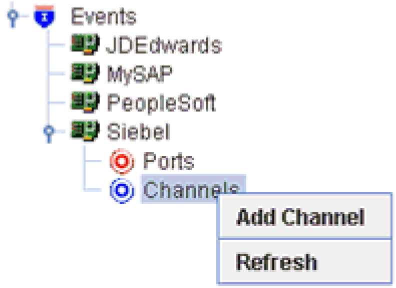
Creating a Channel and Publishing a WSDL From Application Explorer to Oracle Service Bus

This section describes how to create a channel and publish a WSDL from Application Explorer (J2CA configuration) to Oracle Service Bus.

1. Start Application Explorer, connect to a J2CA configuration, and connect to a Siebel target.

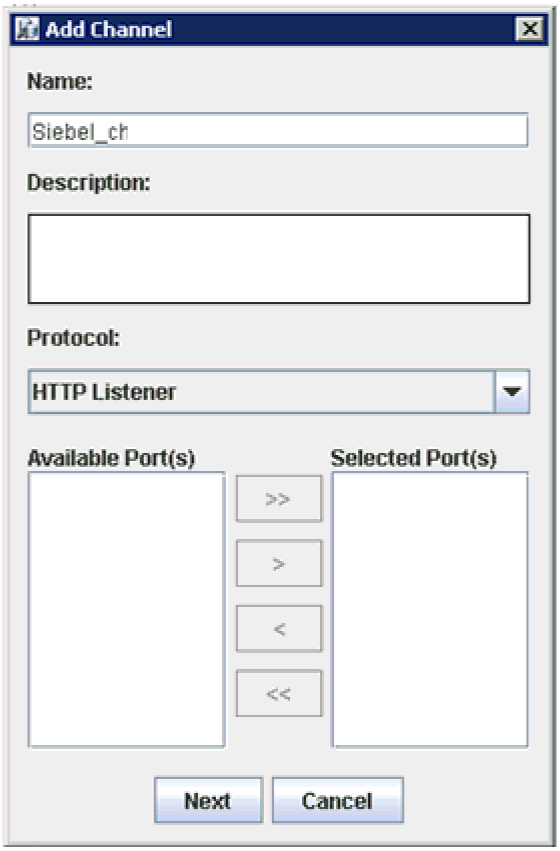
   For more information, see Chapter 2, "Configuring Oracle Application Adapter for Siebel".

2. Navigate to the **Events** node and select the **Siebel** node.



3. Right-click the **Channels** node for Siebel and select **Add Channel** from the context menu.

   The Add Channel dialog box is displayed.



Add Channel

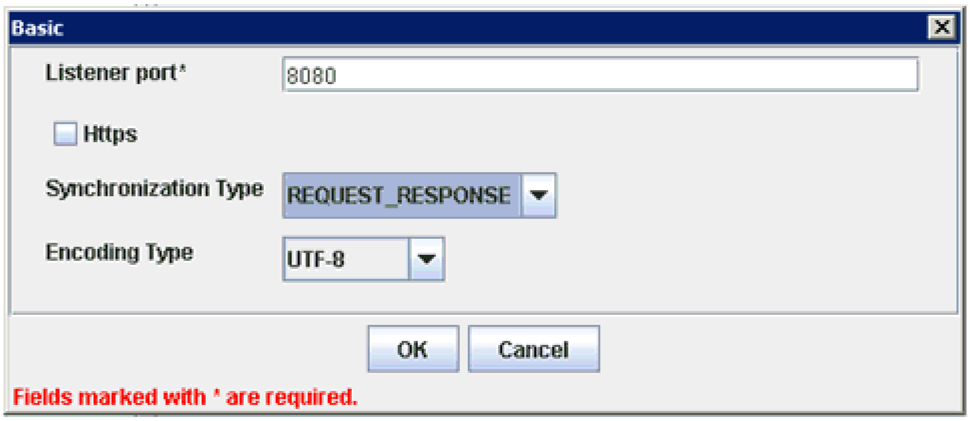
Name: Siebel_ch

Description:

Protocol: HTTP Listener

4. Enter a name for the new Siebel channel, select **HTTP Listener** from the Protocol drop-down list, and click **Next**.

   The Basic dialog box is displayed.



Basic

Listener port* 8080

□ Https

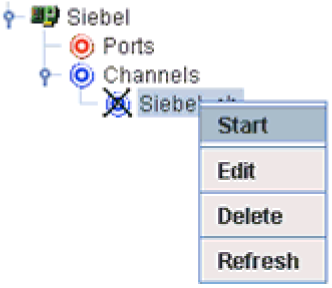
Synchronization Type REQUEST_RESPONSE

Encoding Type UTF-8

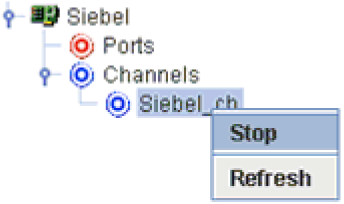
Fields marked with * are required.

5. Enter a port number in the Listener port field, select **REQUEST_RESPONSE** from the Synchronization Type drop-down list, and select **UTF-8** from the Encoding Type drop-down list.

6. Click **OK**.



7. Right-click the new channel that you just created and select **Start** from the context menu.



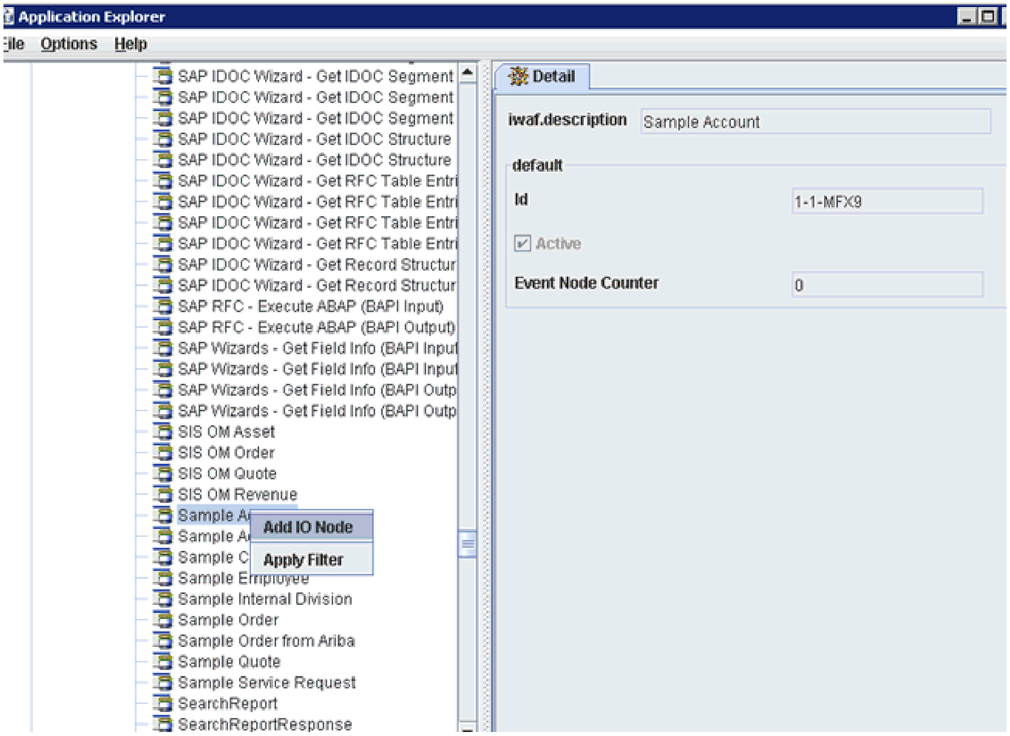
This will ensure that the channel can be started successfully.

8. Right-click the started channel and select **Stop** from the context menu.

Verify that the channel is stopped at runtime. OSB manages the starting and stopping of the channels. Leaving the channel running from Application Explorer will not provide the desired results.

9. Navigate and select the **Services** node for the Siebel adapter target.

10. Expand the **Integration Object** node and select **Sample Account**.


Application Explorer
File Options Help
SAP IDOC Wizard - Get IDOC Segment
SAP IDOC Wizard - Get IDOC Segment
SAP IDOC Wizard - Get IDOC Segment
SAP IDOC Wizard - Get IDOC Structure
SAP IDOC Wizard - Get IDOC Structure
SAP IDOC Wizard - Get RFC Table Entri
SAP IDOC Wizard - Get RFC Table Entri
SAP IDOC Wizard - Get RFC Table Entri
SAP IDOC Wizard - Get RFC Table Entri
SAP IDOC Wizard - Get Record Structur
SAP IDOC Wizard - Get Record Structur
SAP RFC - Execute ABAP (BAPI Input)
SAP RFC - Execute ABAP (BAPI Output)
SAP Wizards - Get Field Info (BAPI Input
SAP Wizards - Get Field Info (BAPI Input
SAP Wizards - Get Field Info (BAPI Outp
SAP Wizards - Get Field Info (BAPI Outp
SIS OM Asset
SIS OM Order
SIS OM Quote
SIS OM Revenue
Sample A
Sample A
Sample C
Sample Employee
Sample Internal Division
Sample Order
Sample Order from Ariba
Sample Quote
Sample Service Request
SearchReport
SearchReportResponse
Add IO Node
Apply Filter
Detail

iwaf.description Sample Account

default

Id 1-1-MFX9

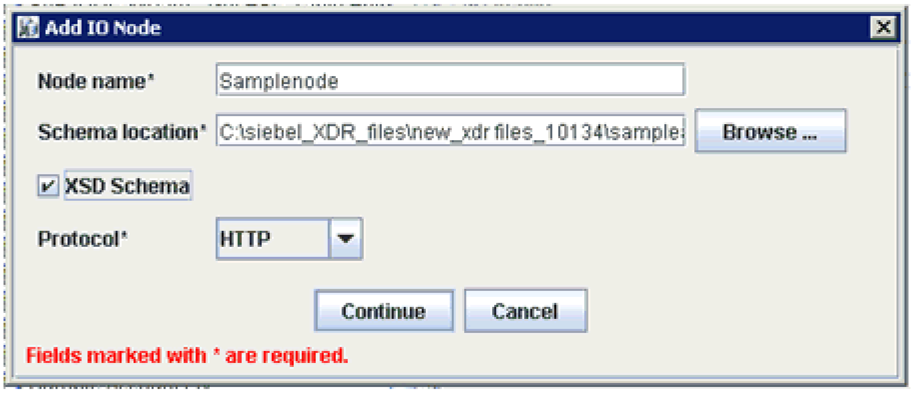
☑ Active

Event Node Counter 0

11. Right-click the **Sample Account** node and select **Add IO Node** from the context menu.

    For more information on how to add an IO node, see XXX.

    The Add IO Node dialog box is displayed.



Add IO Node

Node name* Samplenode

Schema location* C:\siebel_XDR_files\new_xdr files_10134\sample

☑ XSD Schema

Protocol* HTTP

Fields marked with * are required.

Note: For Siebel 7.5 or later: Generate XSD schemas directly from Siebel tools. You use the XSD schemas when you create Web services in Application Explorer. After you generate an XSD schema through Siebel tools, use it to create an IO node and a Web service.

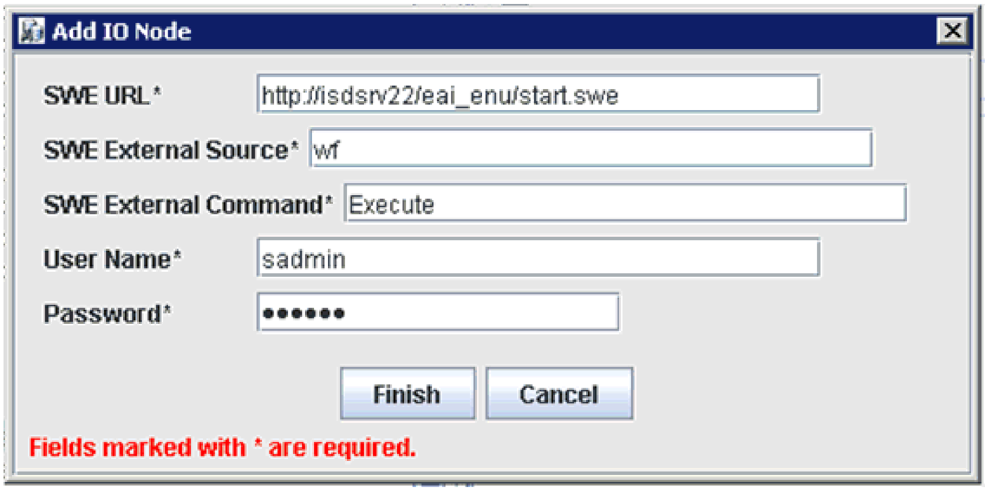
For Siebel 7.0: You cannot generate XSD schemas directly from Siebel tools; only XDR schemas can be created. Before you create a Web service, you must first generate an XSD schema from the XDR schema using Application Explorer.

12. If the XSD schema has already been generated, select the XSD Schema check box. If you are using Siebel-generated XDR schemas, do not select the XSD schema check box.

13. Select a protocol from the Protocol drop-down list.

14. Click **Continue**.

    The following dialog box is displayed.



Add IO Node

SWE URL* http://isdsrv22/eai_enu/start.swe

SWE External Source* wf

SWE External Command* Execute

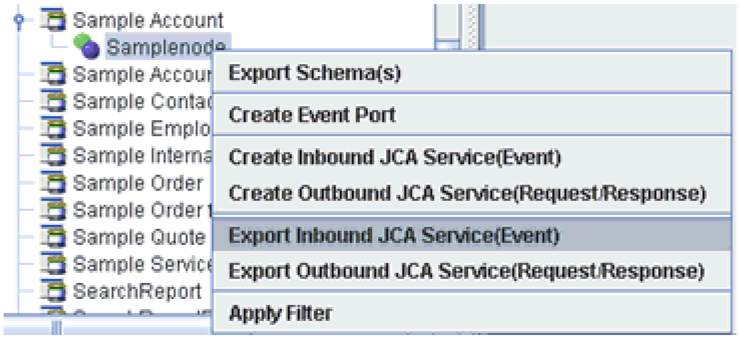
User Name* sadmin

Password* ●●●●●●

Fields marked with * are required.

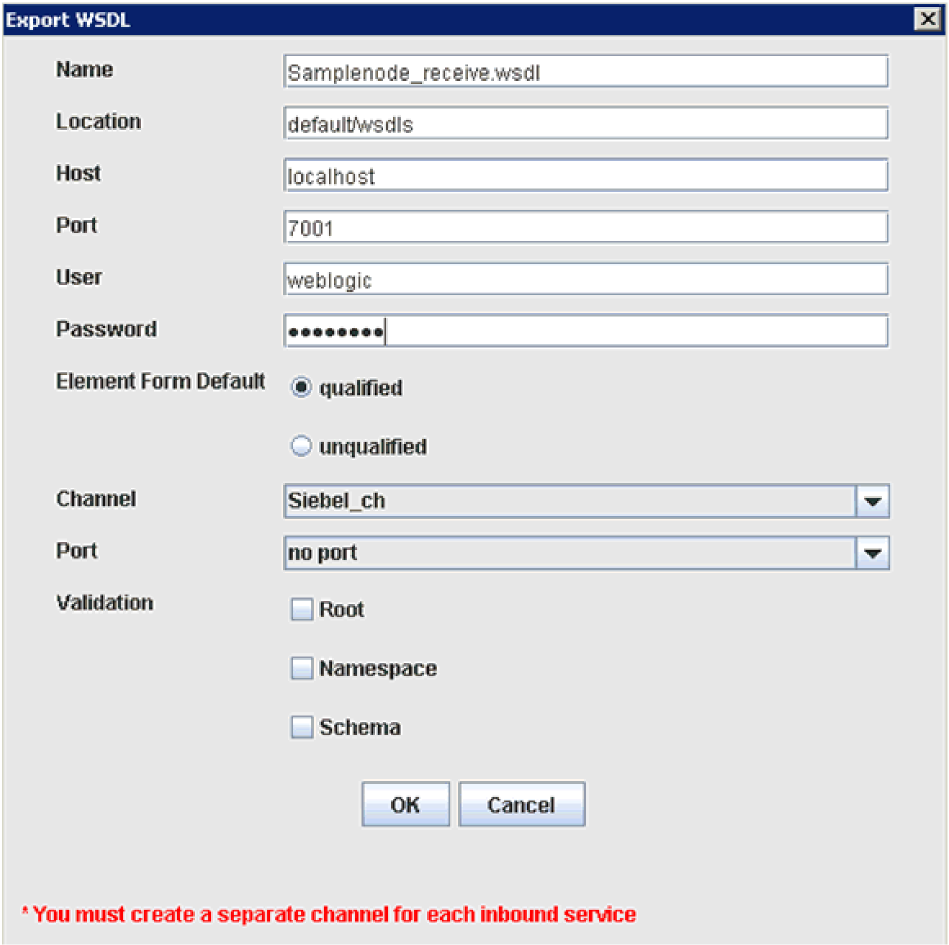
15. Enter the appropriate parameter values that correspond to your Siebel configuration.

16. Click **Finish**.



17. Right-click the created IO node, and select **Export Inbound JCA Service(Event)** from the context menu.

The Export WSDL dialog box is displayed.



Name	Samplenode_receive.wsdl
Location	default/wsdls
Host	localhost
Port	7001
User	weblogic
Password	••••••••
Element Form Default	● qualified ○ unqualified
Channel	Siebel_ch
Port	no port
Validation	□ Root □ Namespace □ Schema

* You must create a separate channel for each inbound service

18. In the Name field, a default file name for the WSDL file is provided. You can accept the default or provide your own.

19. In the Location field, enter the location where you want to publish the WSDL document.

The location is composed of an Oracle Service Bus project name and optionally, one or more folder names. The project name and any folder names must be separated by a forward slash character "/".

20. In the Host field, enter the name of the machine where Oracle WebLogic Server is running.
21. In the Port field, enter the port for the domain you are using.
22. In the User field, enter your username to access Oracle Service Bus.
23. In the Password field, enter your password to access Oracle Service Bus.
24. Ensure that **qualified** is selected as the element form, which is the default.
25. Select an available channel from the Channel drop-down list.
26. Select **no port** from the Port drop-down list.
27. Select the validation type (if required) by selecting either Root, Namespace, or Schema.
28. Click **OK**.

    The WSDL is published to the location specified in the Export WSDL dialog box and is now available for use with a Business Service or Proxy Service in Oracle Service Bus.

Starting Oracle Service Bus and Creating Project Folders

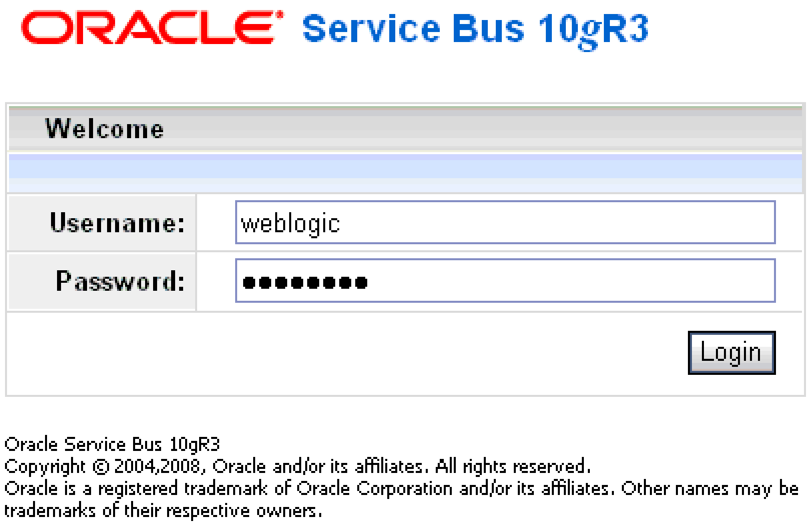
This section describes how to access the Oracle Service Bus Console and create project folders.

1. Start the Oracle WebLogic Server for the Oracle WebLogic Server domain that you have configured.
2. Open the Oracle Service Bus Console in a Web browser by entering the following URL:

    ```
    http://hostname:port/sbconsole
    ```

    Where *hostname* is the name of the machine where Oracle WebLogic Server is running and *port* is the port for the domain you are using. The port for the default domain is 7001.

    The Oracle Service Bus Console logon page is displayed.



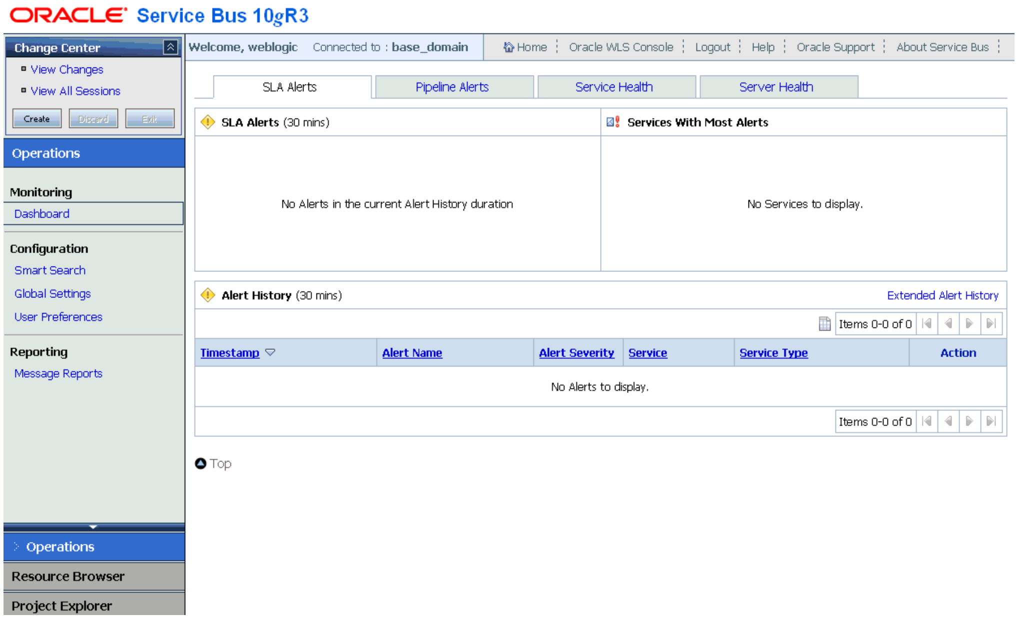
Username: weblogic

Password: ●●●●●●●●●

Oracle Service Bus 10gR3
Copyright © 2004,2008, Oracle and/or its affiliates. All rights reserved.
Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

3. Log on to the Oracle Service Bus Console using a valid user name and password.

   The Oracle Service Bus Console home page is displayed.



Welcome, weblogic Connected to : base_domain

SLA Alerts (30 mins)

No Alerts in the current Alert History duration

Services With Most Alerts

No Services to display.

Alert History (30 mins)

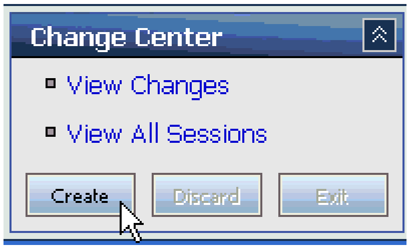
Items 0-0 of 0

Timestamp	Alert Name	Alert Severity	Service	Service Type	Action

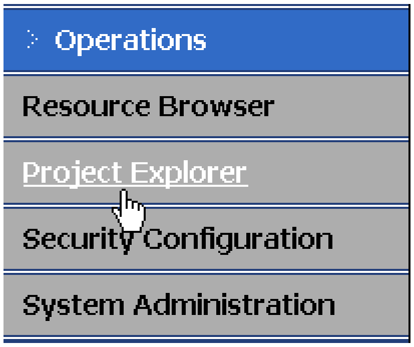
No Alerts to display.

Items 0-0 of 0

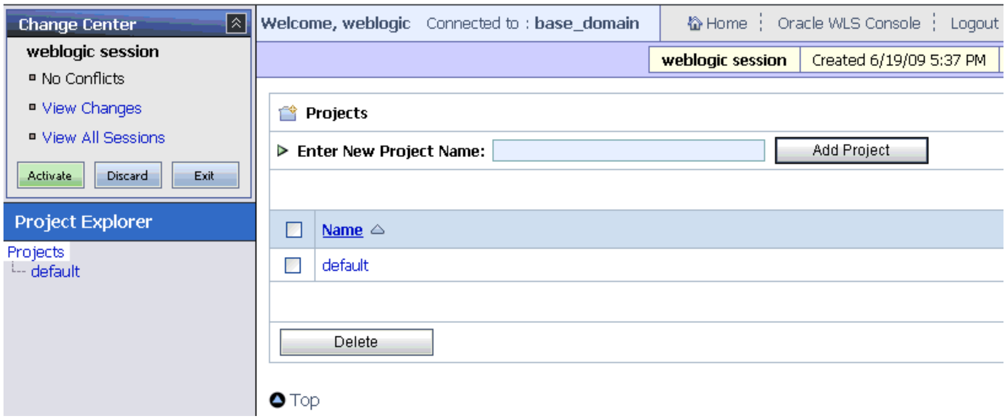
4. Click **Create** in the Change Center area to start a new Oracle Service Bus session.



5. Click **Project Explorer** in the left pane.



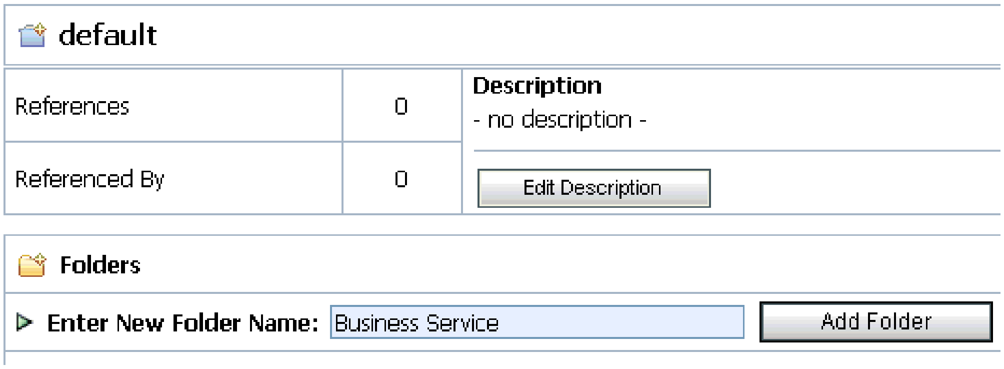
The Project Explorer page is displayed.



Enter New Project Name:

6. Click the **default** project node in the left pane.

   The default project page is displayed.



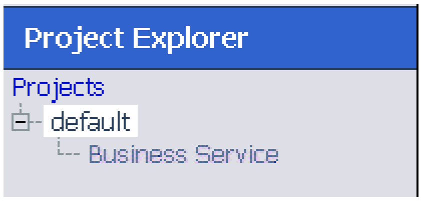
References	0
Referenced By	0

Description: - no description -

Enter New Folder Name: Business Service

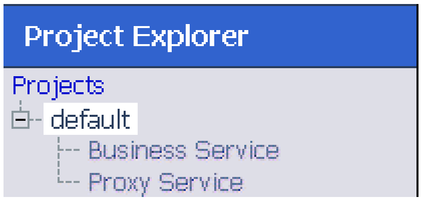
7. In the Enter New Folder Name field, type **Business Service** and click **Add Folder**.

   The Business Service folder is listed in the left pane below the default project node.



8. In the Enter New Folder Name field, type **Proxy Service** and click **Add Folder**.

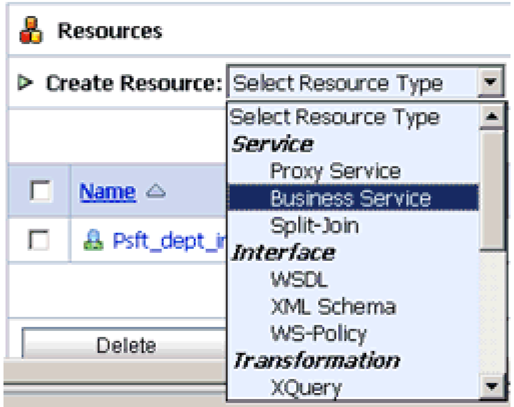
The Business Service and Proxy Service folders are listed in the left pane below the default project node.



Configuring a File Type Business Service

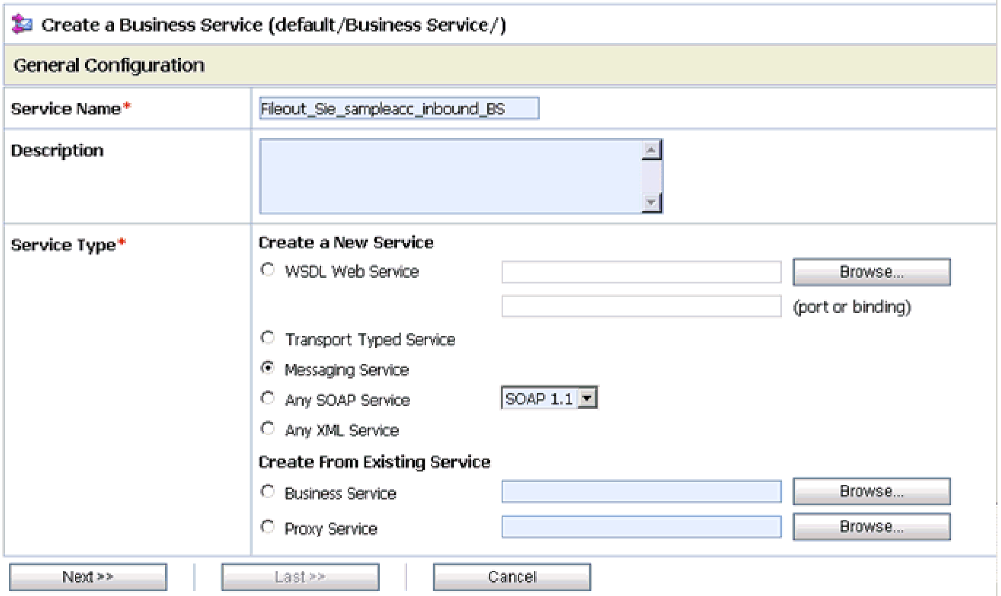
This section describes how to configure a File type Business Service using the Oracle Service Bus Console.

1. Select the **Business Service** folder you created in the left pane.



2. In the right pane, select **Business Service** from the Create Resource menu.

   The Create a Business Service - General Configuration page is displayed.

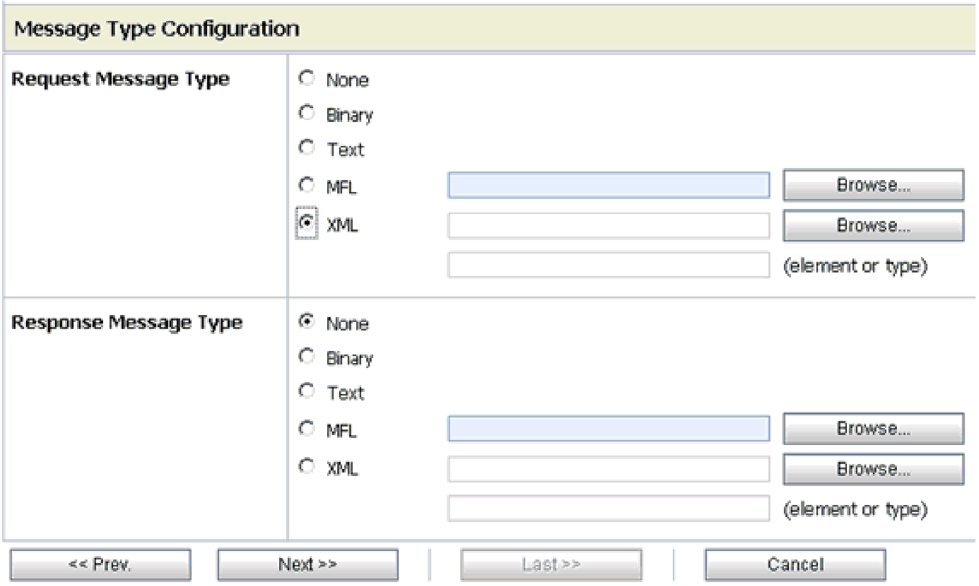

Create a Business Service (default/Business Service/)

General Configuration

Service Name*	Fileout_Sie_sampleacc_inbound_BS
Description	
Service Type*	Create a New Service ○ WSDL Web Service (port or binding) ○ Transport Typed Service ● Messaging Service ○ Any SOAP Service SOAP 1.1 ○ Any XML Service Create From Existing Service ○ Business Service ○ Proxy Service

3. Provide a name for the Business Service and from the Service Type area select **Messaging Service**.

4. Click **Next**.

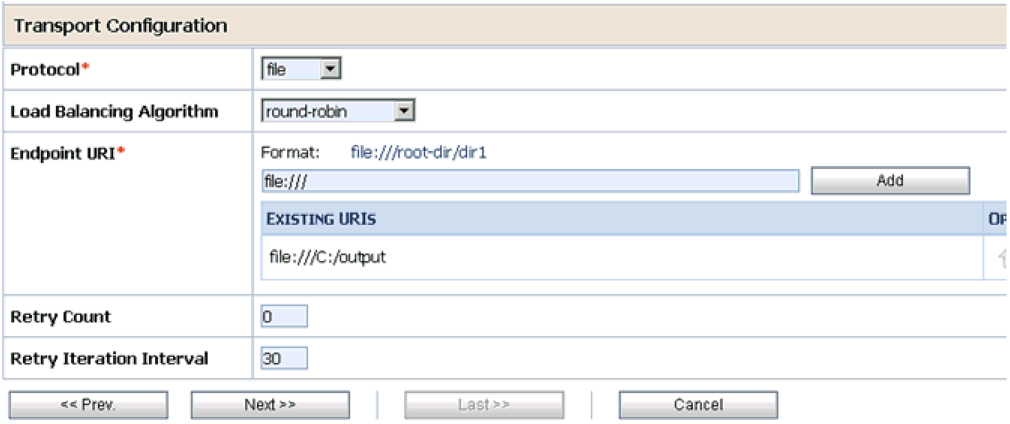


Message Type Configuration

Request Message Type	○ None ○ Binary ○ Text ○ MFL ● XML (element or type)
Response Message Type	● None ○ Binary ○ Text ○ MFL ○ XML (element or type)

5. Select **XML** as the Request Message Type and **None** as the Response Message Type.

6. Click **Next**.



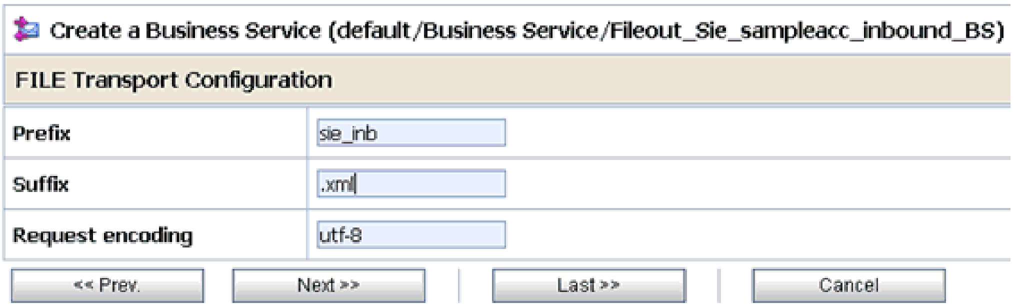
Transport Configuration

Protocol*	file
Load Balancing Algorithm	round-robin
Endpoint URI*	Format: file:///root-dir/dir1 file:/// EXISTING URIS file:///C:/output
Retry Count	0
Retry Iteration Interval	30

7. Select **file** from the Protocol drop-down list.

8. Enter the path to a destination folder on your file system in the Endpoint URI field and click **Add**.

9. Click **Next**.

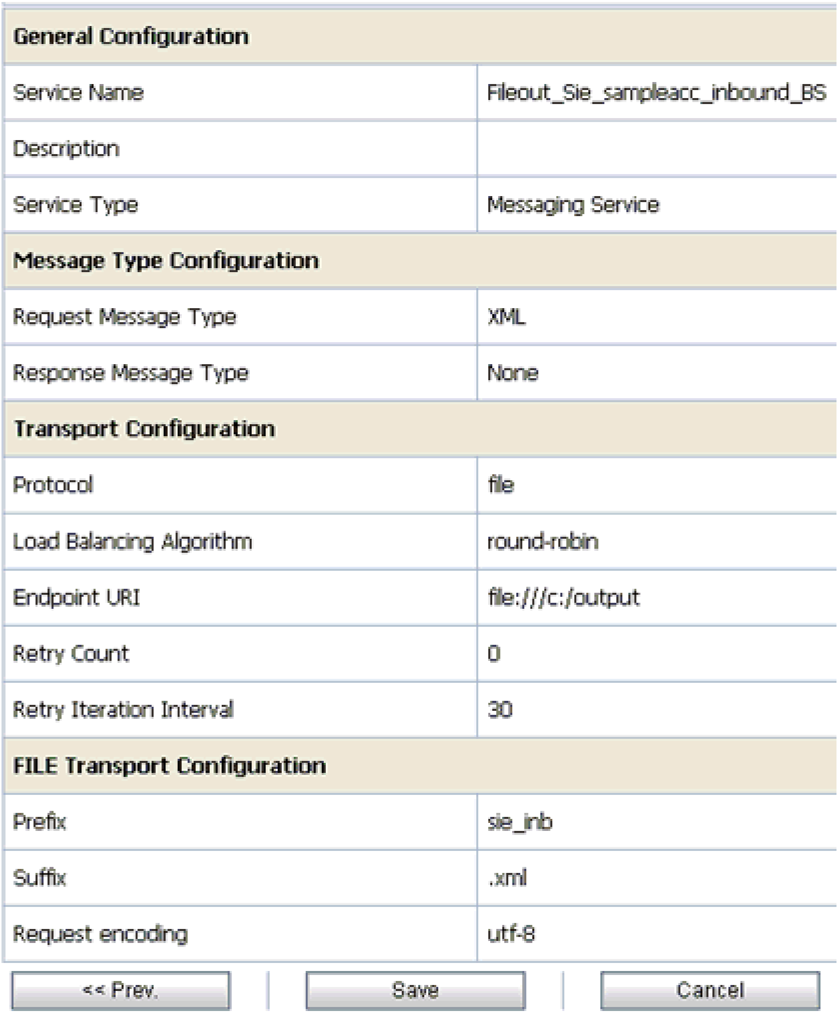


Create a Business Service (default/Business Service/Fileout_Sie_sampleacc_inbound_BS)

FILE Transport Configuration

Prefix	sie_inb
Suffix	.xml
Request encoding	utf-8

10. Enter the prefix and suffix for the output file to be received and click **Next**.



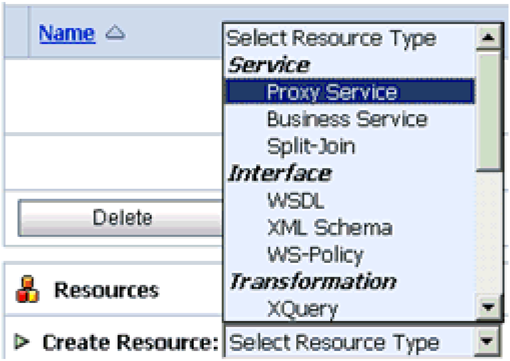
General Configuration	
Service Name	Fileout_Sie_sampleacc_inbound_BS
Description	
Service Type	Messaging Service
Message Type Configuration	
Request Message Type	XML
Response Message Type	None
Transport Configuration	
Protocol	file
Load Balancing Algorithm	round-robin
Endpoint URI	file:///c:/output
Retry Count	0
Retry Iteration Interval	30
FILE Transport Configuration	
Prefix	sie_inb
Suffix	.xml
Request encoding	utf-8

11. Review all the information for your Business Service and click **Save**.

Configuring a Proxy Service

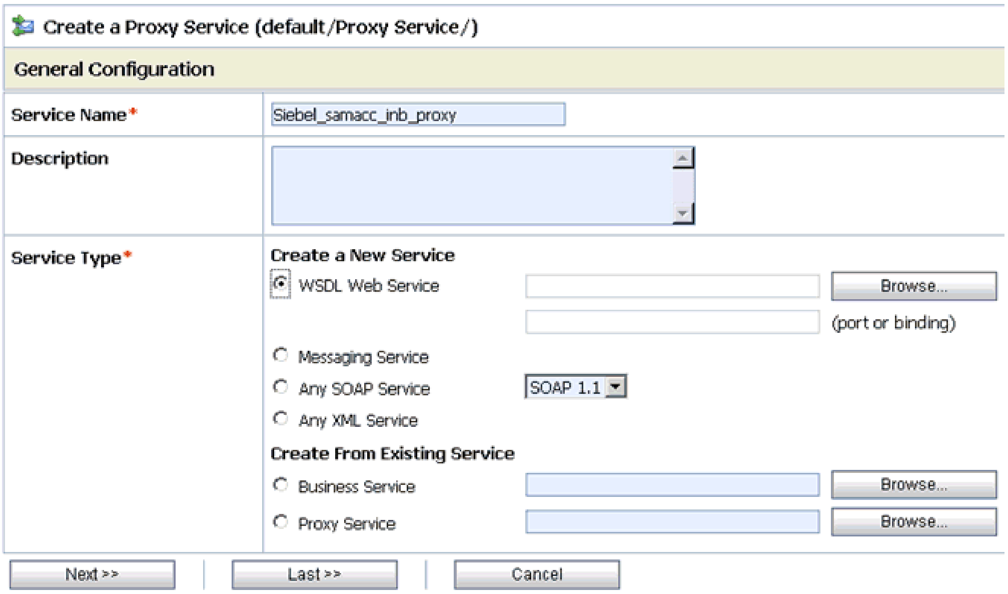
This section describes how to configure a Proxy Service using the Oracle Service Bus Console.

1. Select the **Proxy Service** folder you created in the left pane.



2. In the right pane, select **Proxy Service** from the Create Resource menu.

   The Create a Proxy Service - General Configuration page is displayed.



Create a Proxy Service (default/Proxy Service/)

General Configuration

Service Name*: Siebel_samacc_inb_proxy

Description:

Service Type*:

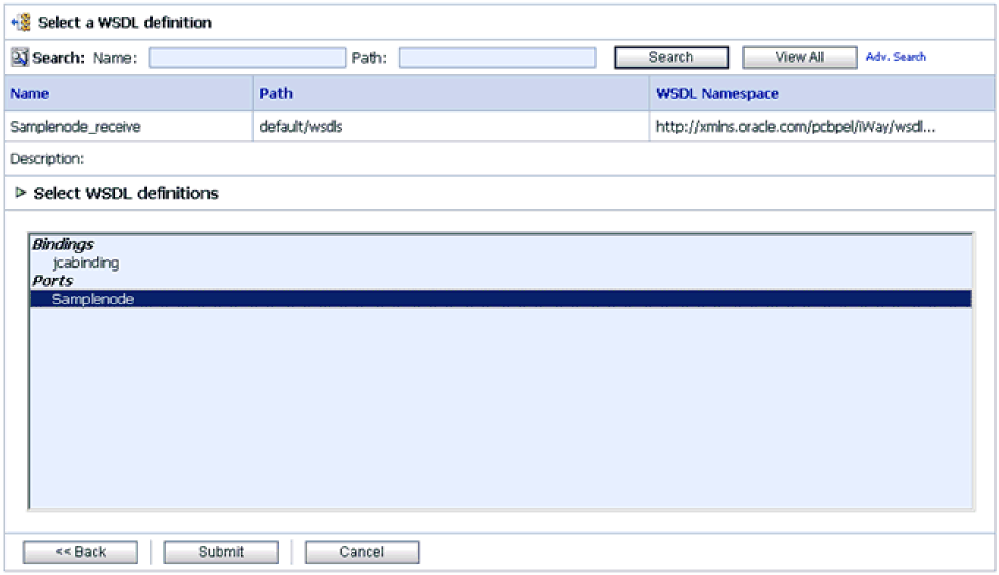
Create a New Service

● WSDL Web Service

3. Provide a name for the Proxy Service and from the Service Type area select **WSDL Web Service**.

4. Click **Browse**.

   The Select a WSDL definition dialog box is displayed.



Select a WSDL definition

Search: Name: Path:

Name	Path	WSDL Namespace
Samplenode_receive	default/wsdls	http://xmlns.oracle.com/pcbpel/iWay/wsdl...

Description:

Select WSDL definitions

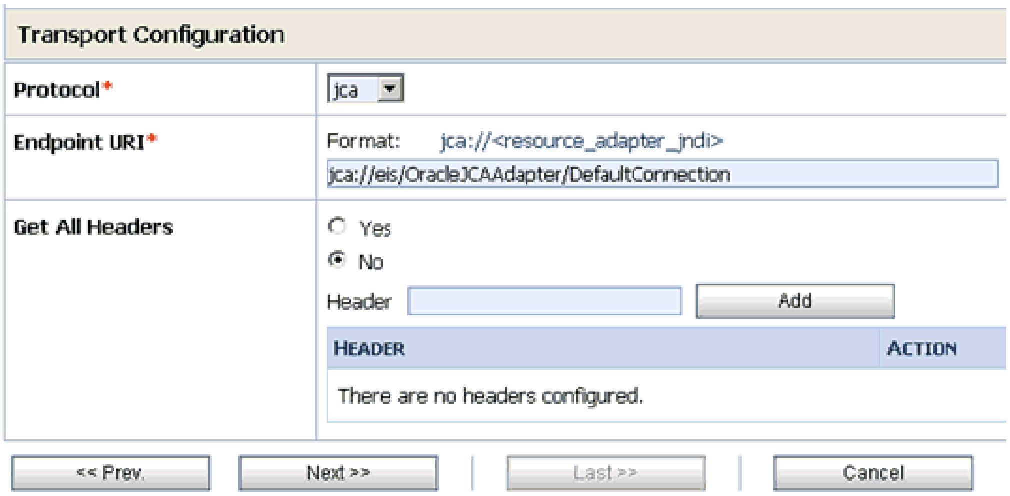
Bindings
jcabinding
Ports
Samplenode

   The WSDL definition can be found under the Ports section.

5. Select the inbound WSDL (Samplenode_receive.wsdl) that you exported earlier, and then select the WSDL definition under the Ports section.

6. Click **Submit**.

7. Click **Next**.

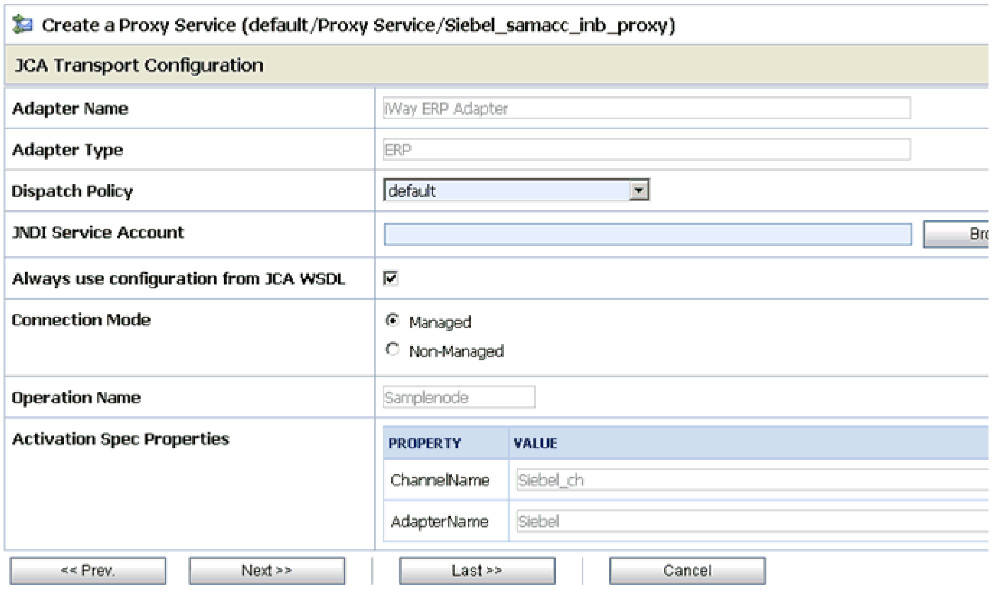


Transport Configuration

Protocol*	jca
Endpoint URI*	Format: jca://<resource_adapter_jndi> jca://eis/OracleJCAAdapter/DefaultConnection
Get All Headers	○ Yes ● No Header

HEADER	ACTION
There are no headers configured.	

8. Click **Next**.



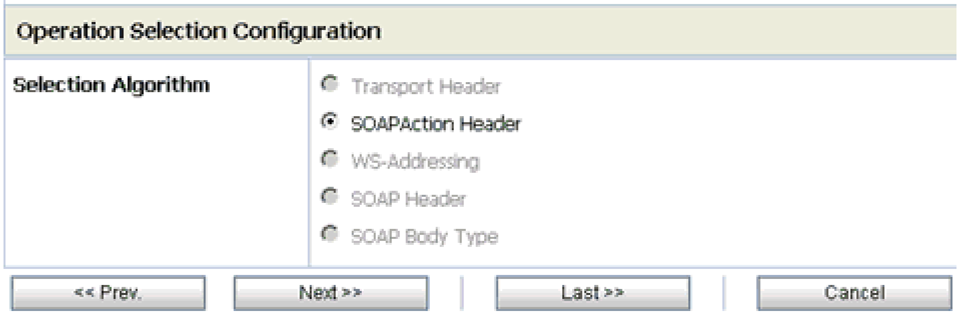
Create a Proxy Service (default/Proxy Service/Siebel_samacc_inb_proxy)

JCA Transport Configuration

Adapter Name	iWay ERP Adapter
Adapter Type	ERP
Dispatch Policy	default
JNDI Service Account	
Always use configuration from JCA WSDL	☑
Connection Mode	● Managed ○ Non-Managed
Operation Name	Samplenode
Activation Spec Properties	

PROPERTY	VALUE
ChannelName	Siebel_ch
AdapterName	Siebel

9. Click **Next**.

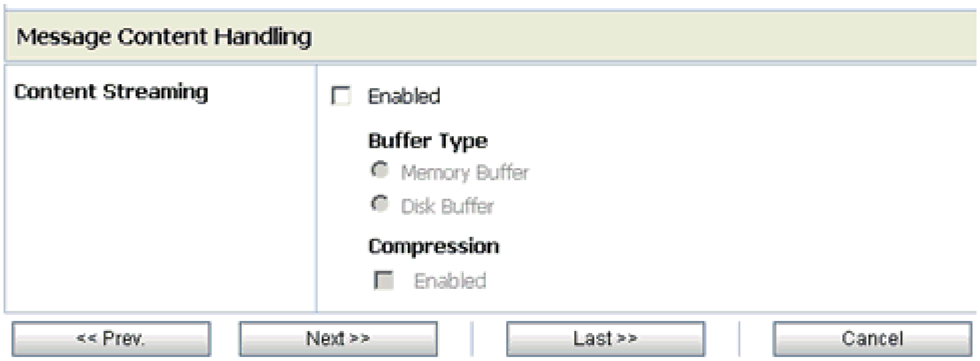


Operation Selection Configuration

Selection Algorithm

○ Transport Header
● SOAPAction Header
○ WS-Addressing
○ SOAP Header
○ SOAP Body Type

10. Click **Next**.



Message Content Handling

Content Streaming: □ Enabled

Buffer Type

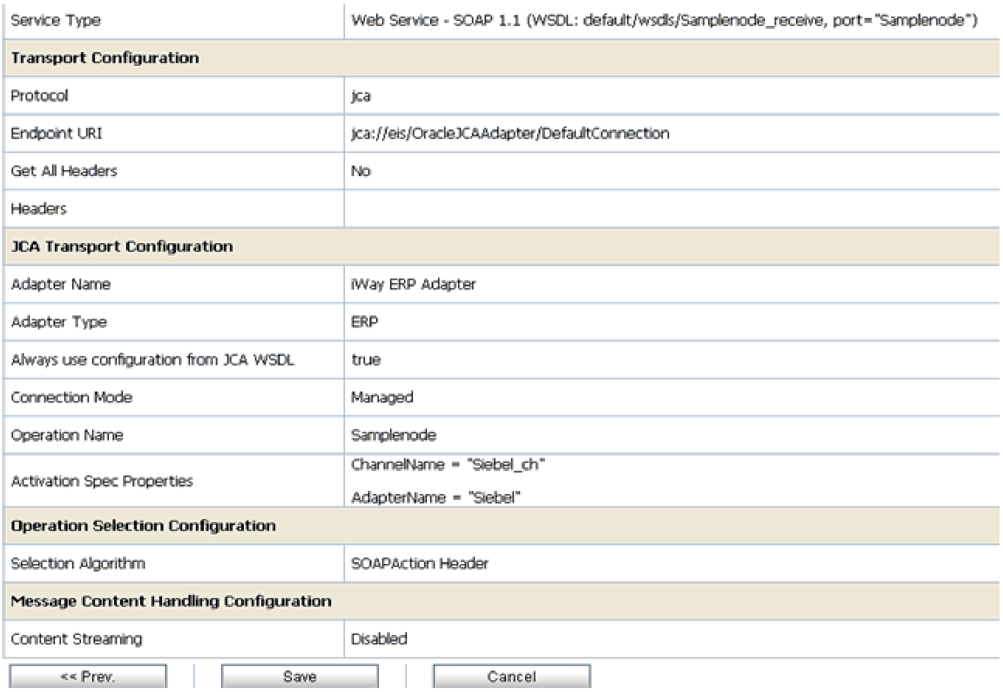
○ Memory Buffer

○ Disk Buffer

Compression

□ Enabled

11. Click **Next**.



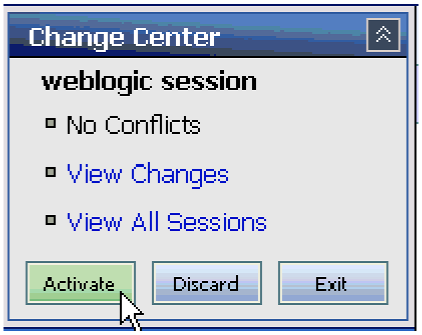
Service Type	Web Service - SOAP 1.1 (WSDL: default/wsdls/Samplenode_receive, port="Samplenode")
Transport Configuration	
Protocol	jca
Endpoint URI	jca://eis/OracleJCAAdapter/DefaultConnection
Get All Headers	No
Headers	
JCA Transport Configuration	
Adapter Name	iWay ERP Adapter
Adapter Type	ERP
Always use configuration from JCA WSDL	true
Connection Mode	Managed
Operation Name	Samplenode

Activation Spec Properties	ChannelName = "Siebel_ch"
	AdapterName = "Siebel"

Operation Selection Configuration	
Selection Algorithm	SOAPAction Header
Message Content Handling Configuration	
Content Streaming	Disabled

12. Review all the information for your Proxy Service and click **Save**.

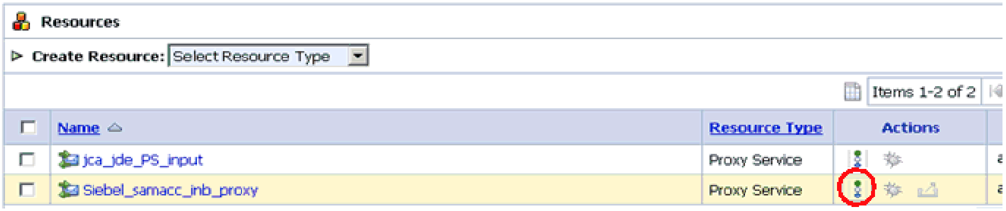
13. Click **Activate** in the Change Center area to activate your changes in the Oracle Service Bus session.



Configuring a Pipeline

This section describes how to configure a Pipeline using the Oracle Service Bus Console.

1. Click the **Edit Message Flow** icon in the row of the Proxy Service (Siebel_samacc_inb_proxy) that you created.



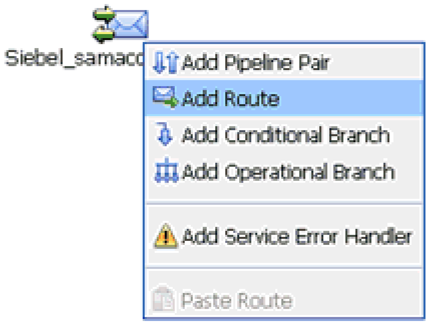
Resources

Create Resource: Select Resource Type

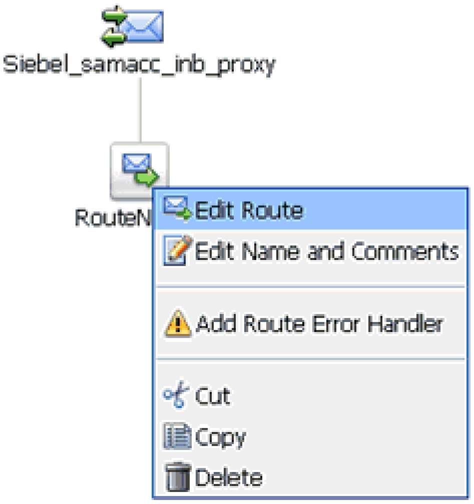
Items 1-2 of 2

□	Name	Resource Type	Actions
□	jca_jde_PS_input	Proxy Service	
□	Siebel_samacc_inb_proxy	Proxy Service	

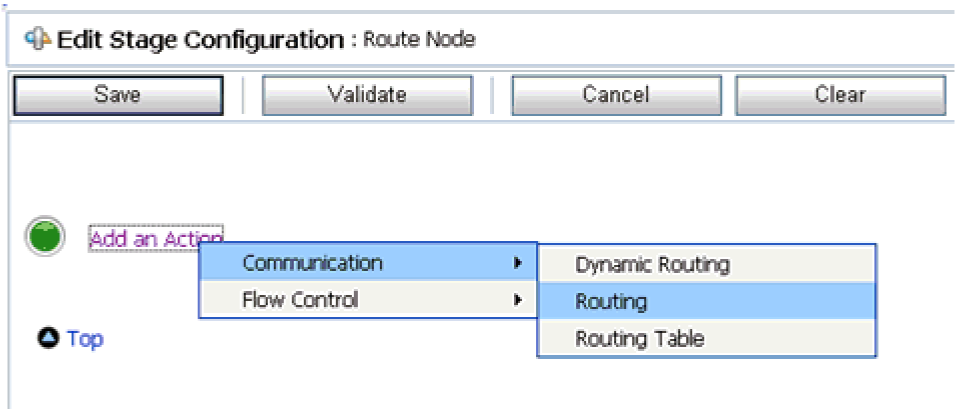
The Edit Message Flow workspace area is displayed.



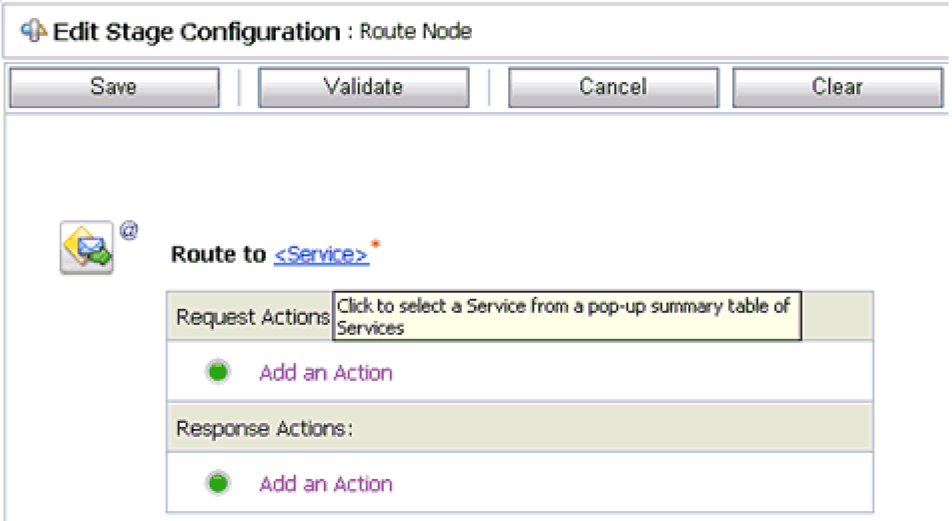
2. Click the **Proxy Service** icon and select **Add Route** from the context menu, as shown in the following image.



3. Click the **RouteNode1** icon and select **Edit Route** from the context menu.



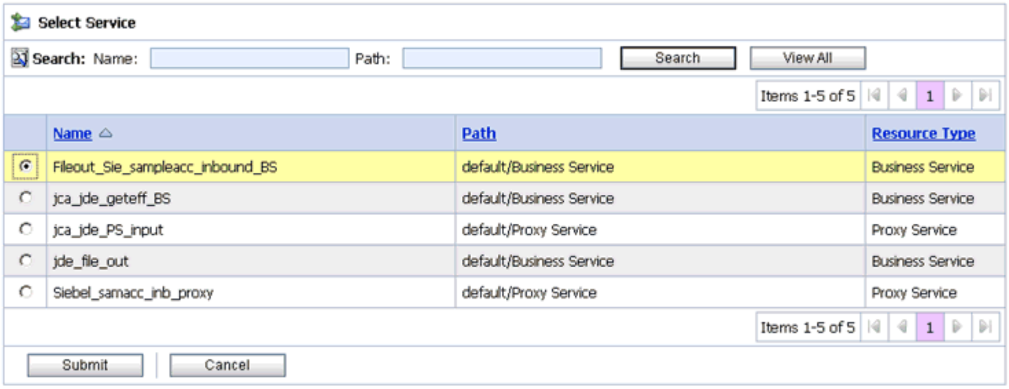
4. Click **Add an Action**, select **Communication** from the context menu, and click **Routing**.



Click to select a Service from a pop-up summary table of Services

5. Click **<Service>**.

   The Select Service dialog box is displayed.

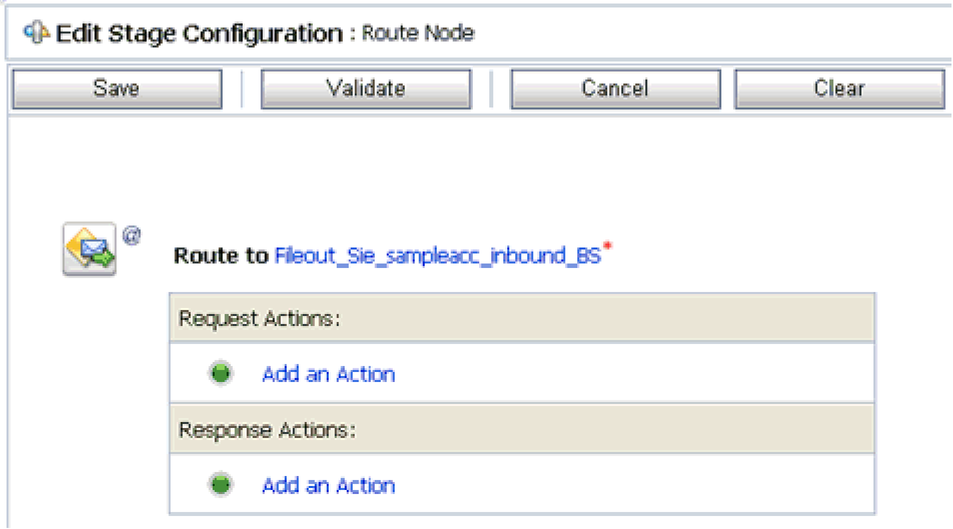


	Name	Path	Resource Type
●	Fileout_Sie_sampleacc_inbound_BS	default/Business Service	Business Service
○	jca_jde_geteff_BS	default/Business Service	Business Service
○	jca_jde_PS_input	default/Proxy Service	Proxy Service
○	jde_file_out	default/Business Service	Business Service
○	Siebel_samacc_inb_proxy	default/Proxy Service	Proxy Service

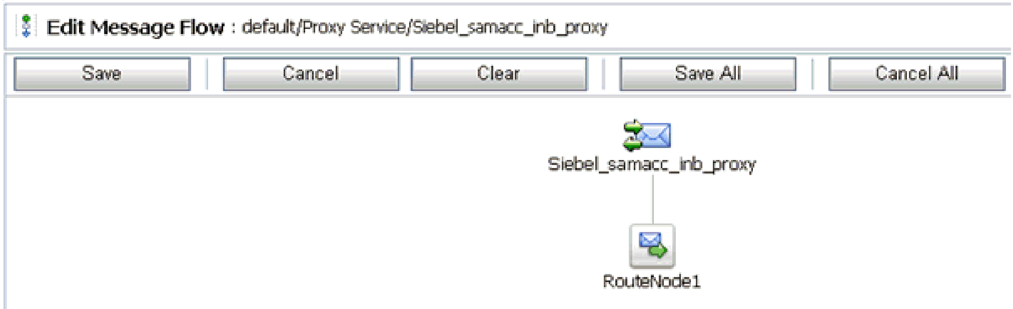
6. Select a File type Business Service and click **Submit**.

   This is the same File type Business Service (Fileout_Sie_sampleacc_inbound_BS) that was configured in Configuring a File Type Business Service on page 5-24.

   You are returned to the Edit Stage Configuration workspace area.

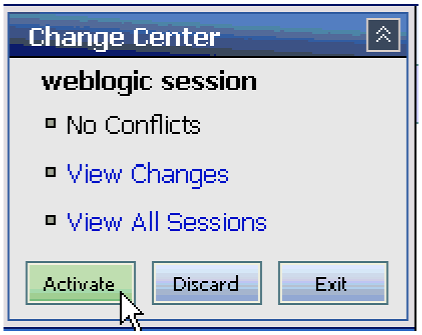


7. Click **Validate** and then **Save**.

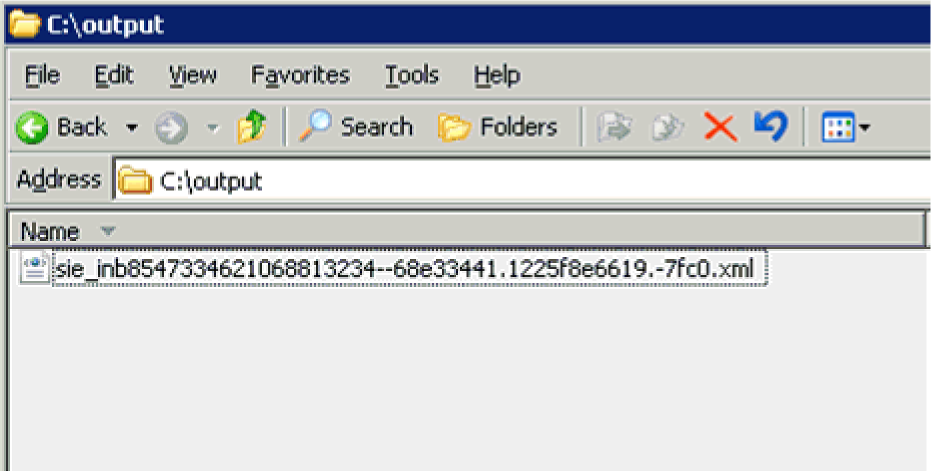


8. Click **Save**.

9. Click **Activate** in the Change Center area to activate your changes in the Oracle Service Bus session.



10. Trigger an event message from the Siebel system and you will receive the output XML in the destination folder.



sie_inb8547334621068813234--68e33441.1225f8e6619.-7fc0.xml

Configuring Outbound Processing Using Oracle Service Bus (J2CA Configuration)

In this scenario, OSB sends an XML request document to Siebel using the adapter and receives an XML response document as a result. The Business Object *Account* and *Query* operation are used as an example.

This section includes the following topics:

- Publishing a WSDL From Application Explorer to Oracle Service Bus
- Starting Oracle Service Bus and Creating Project Folders
- Configuring a File Type Business Service
- Configuring a WSDL Type Business Service
- Configuring a Proxy Service
- Configuring a Pipeline

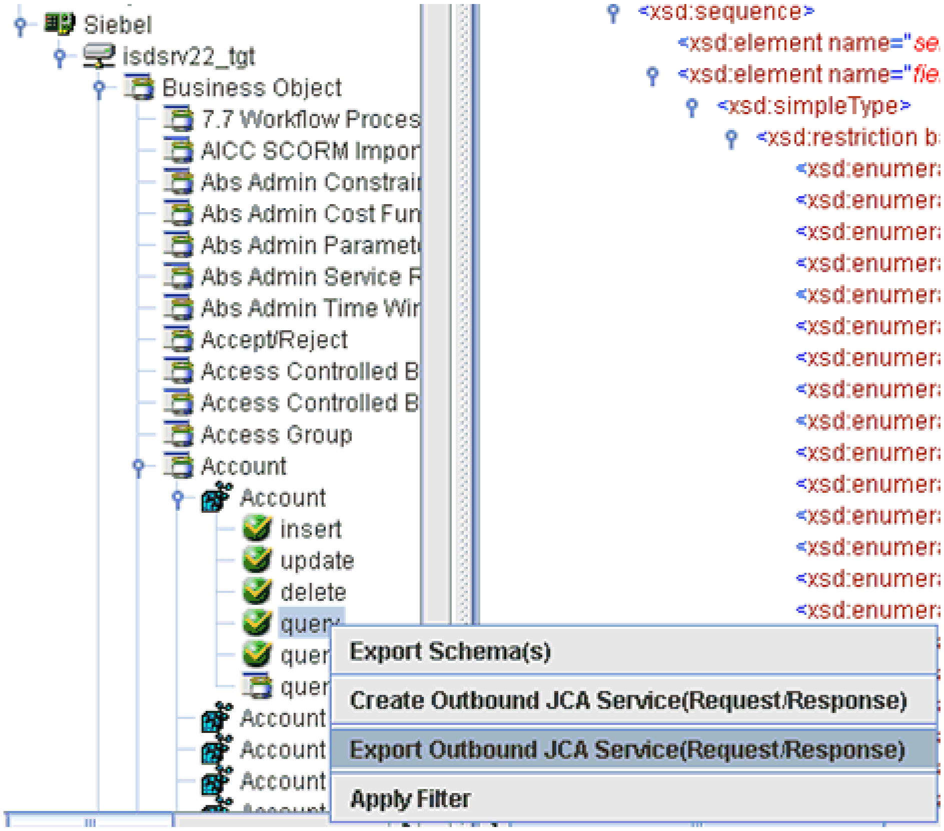
Publishing a WSDL From Application Explorer to Oracle Service Bus

This section describes how to publish a WSDL from Application Explorer (J2CA configuration) to Oracle Service Bus.

1. Start Application Explorer, connect to a J2CA configuration, and connect to a Siebel target.

   For more information, see Chapter 2, "Configuring Oracle Application Adapter for Siebel".

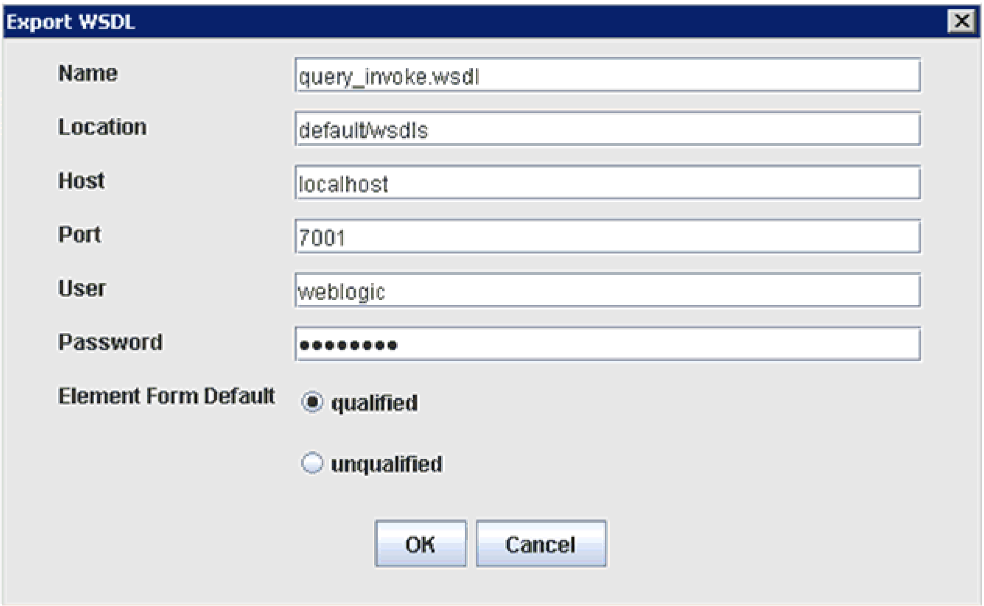
2. Expand the **Business Object** node and select the **Account** object.



3. Expand the **Account** business object.

4. Right-click the **query** method and select **Export Outbound JCA Service(Request/Response)** from the context menu.

   The Export WSDL dialog box is displayed.



Export WSDL

Name	query_invoke.wsdl
Location	default/wsdls
Host	localhost
Port	7001
User	weblogic
Password	●●●●●●●●
Element Form Default	● qualified ○ unqualified

5. In the Name field, a default file name for the WSDL file is provided. You can accept the default or provide your own.

6. In the Location field, enter the location where you want to publish the WSDL document.

   The location is composed of an Oracle Service Bus project name and optionally, one or more folder names. The project name and any folder names must be separated by a forward slash character "/".

7. In the Host field, enter the name of the machine where Oracle WebLogic Server is running.

8. In the Port field, enter the port for the domain you are using.

9. In the User field, enter your username to access Oracle Service Bus.

10. In the Password field, enter your password to access Oracle Service Bus.

11. Ensure that **qualified** is selected as the element form, which is the default.

12. Click **OK**.

    The WSDL is published to the location specified in the Export WSDL dialog box and is now available for use with a Business Service or Proxy Service in Oracle Service Bus.

Starting Oracle Service Bus and Creating Project Folders

This section describes how to access the Oracle Service Bus Console and create project folders.

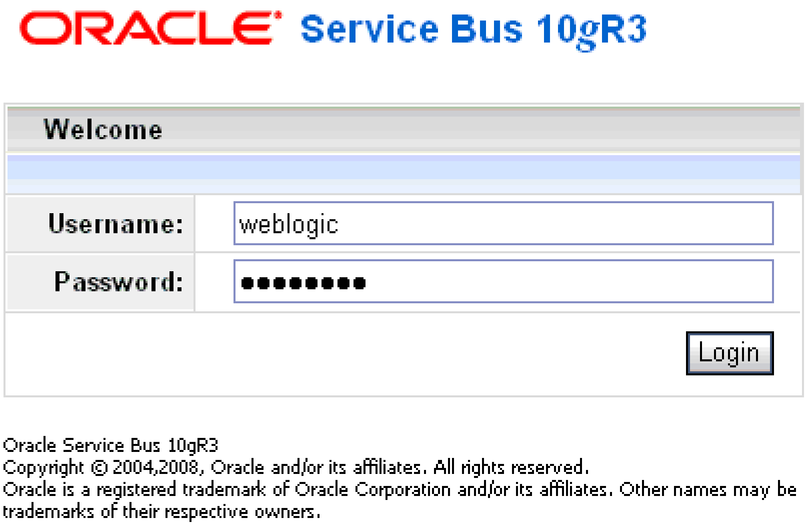
1. Start the Oracle WebLogic Server for the Oracle WebLogic Server domain that you have configured.

2. Open the Oracle Service Bus Console in a Web browser by entering the following URL:

   `http://`*`hostname`*`:`*`port`*`/sbconsole`

   Where *`hostname`* is the name of the machine where Oracle WebLogic Server is running and *`port`* is the port for the domain you are using. The port for the default domain is 7001.

   The Oracle Service Bus Console logon page is displayed.



Username: weblogic

Password: ●●●●●●●●●

Oracle Service Bus 10gR3
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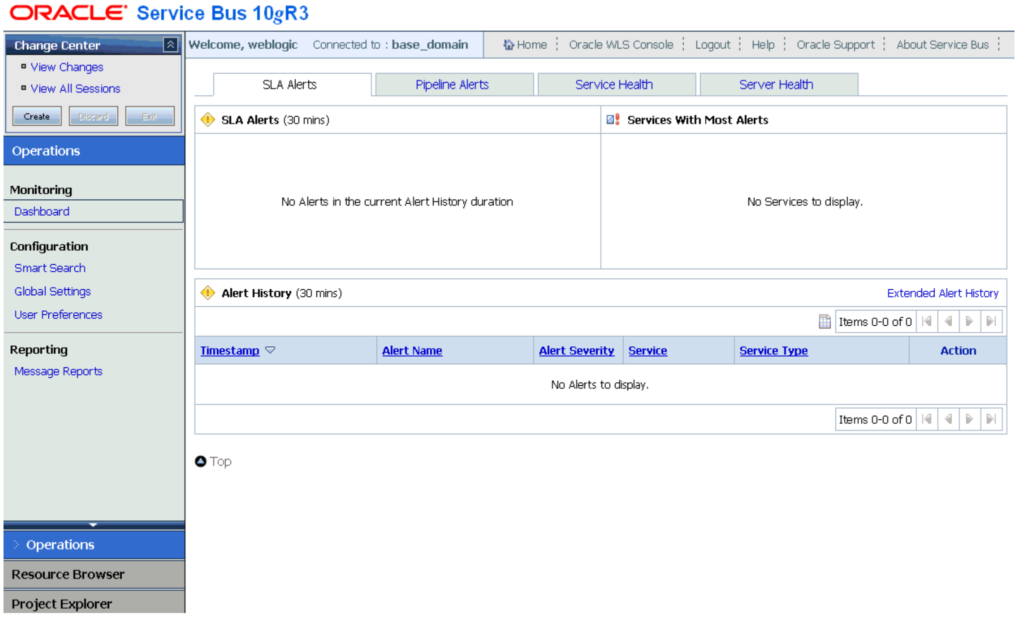
Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

3. Log on to the Oracle Service Bus Console using a valid user name and password.

   The Oracle Service Bus Console home page is displayed.

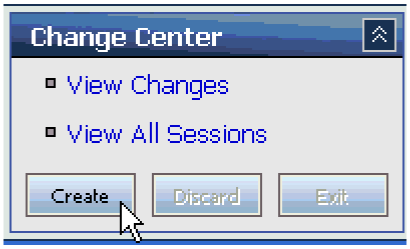


No Alerts in the current Alert History duration

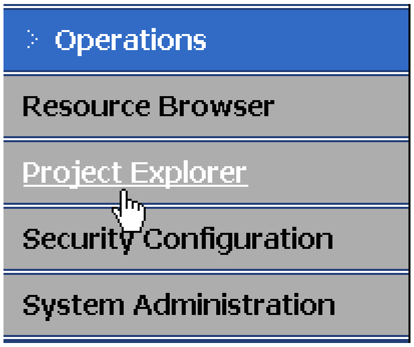
No Services to display.

No Alerts to display.

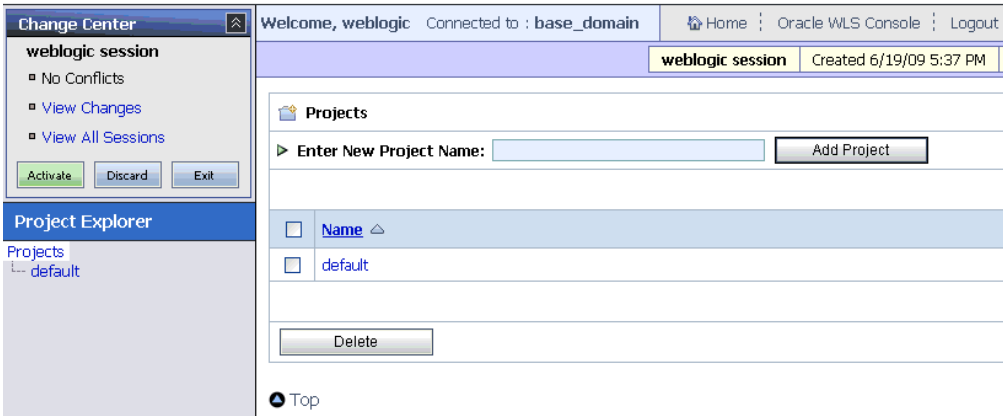
4. Click **Create** in the Change Center area to start a new Oracle Service Bus session.



5. Click **Project Explorer** in the left pane.

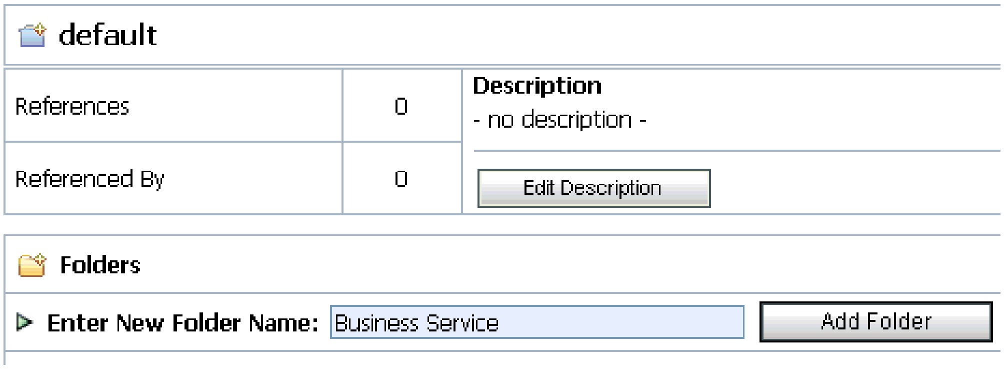


   The Project Explorer page is displayed.



6. Click the **default** project node in the left pane.

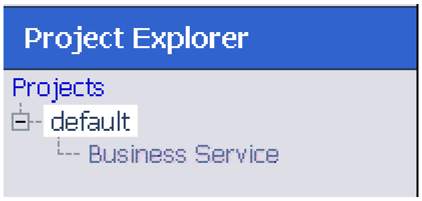
   The default project page is displayed.



Enter New Folder Name: Business Service

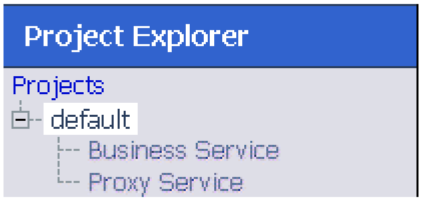
7. In the Enter New Folder Name field, type **Business Service** and click **Add Folder**.

   The Business Service folder is listed in the left pane below the default project node.



8. In the Enter New Folder Name field, type **Proxy Service** and click **Add Folder**.

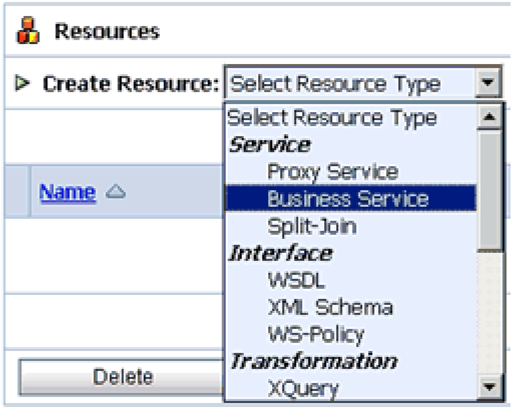
   The Business Service and Proxy Service folders are listed in the left pane below the default project node.



Configuring a File Type Business Service

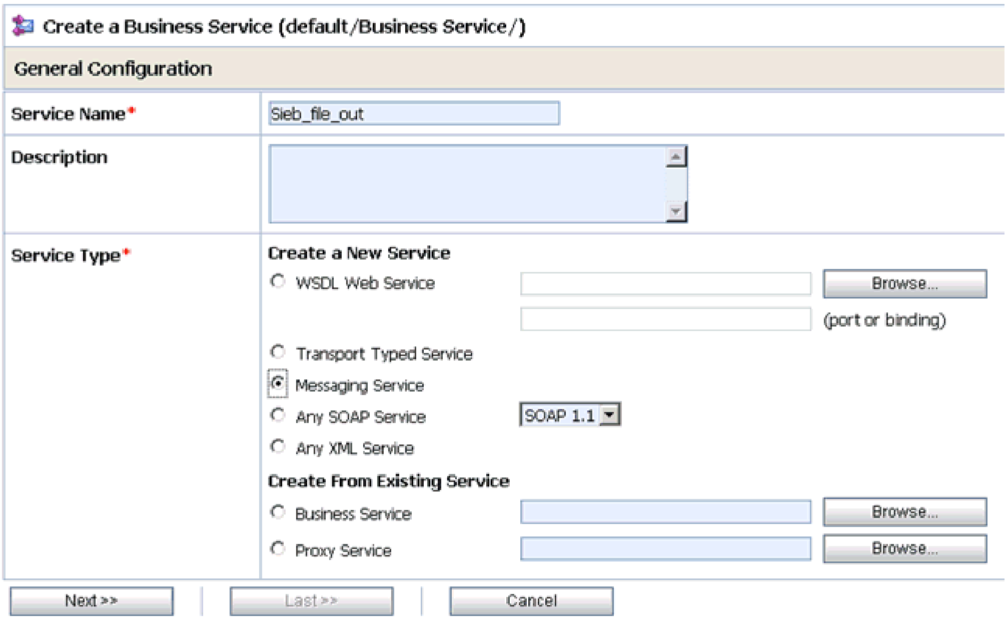
This section describes how to configure a File type Business Service using the Oracle Service Bus Console.

1. Select the **Business Service** folder you created in the left pane.



2. In the right pane, select **Business Service** from the Create Resource menu.

   The Create a Business Service - General Configuration page is displayed.



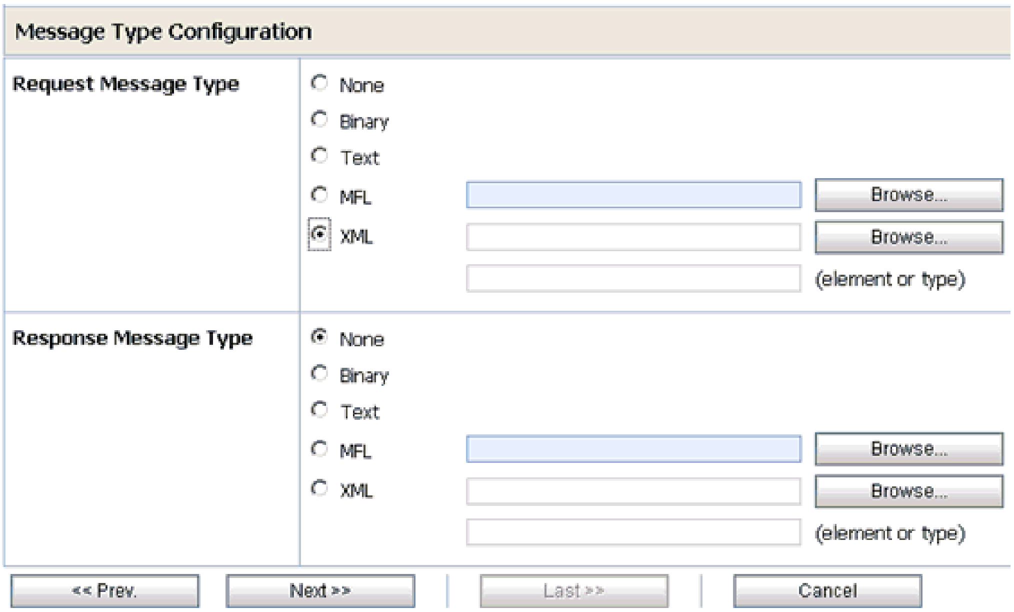
Create a Business Service (default/Business Service/)

General Configuration

Service Name*: Sieb_file_out

Service Type*: ● Messaging Service

3. Provide a name for the Business Service and from the Service Type area select **Messaging Service**.
4. Click **Next**.

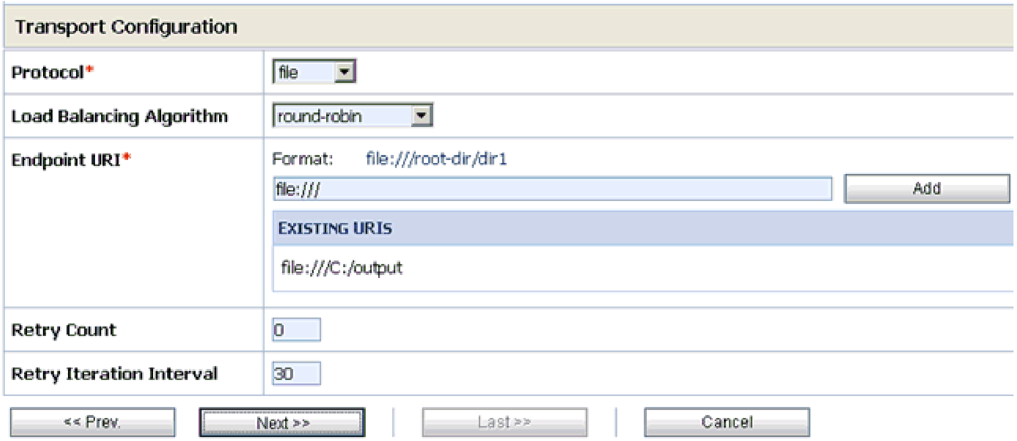


Message Type Configuration

Request Message Type	○ None ○ Binary ○ Text ○ MFL ● XML (element or type)
Response Message Type	● None ○ Binary ○ Text ○ MFL ○ XML (element or type)

5. Select **XML** as the Request Message Type and **None** as the Response Message Type.

6. Click **Next**.



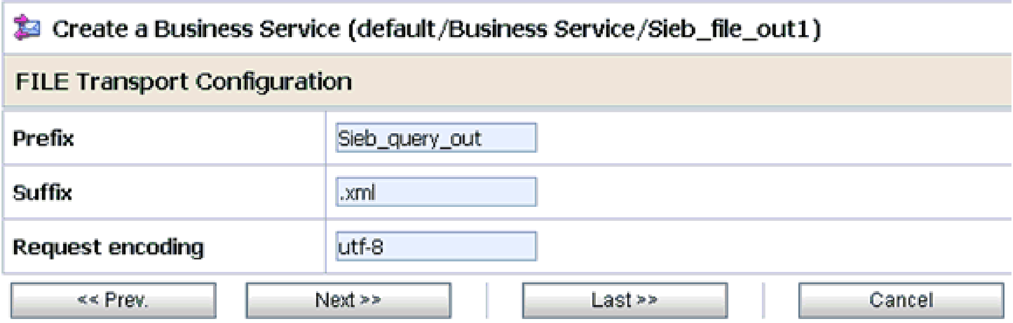
Transport Configuration

Protocol*	file
Load Balancing Algorithm	round-robin
Endpoint URI*	Format: file:///root-dir/dir1 file:/// EXISTING URIS file:///C:/output
Retry Count	0
Retry Iteration Interval	30

7. Select **file** from the Protocol drop-down list.

8. Enter the path to a destination folder on your file system in the Endpoint URI field and click **Add**.

9. Click **Next**.

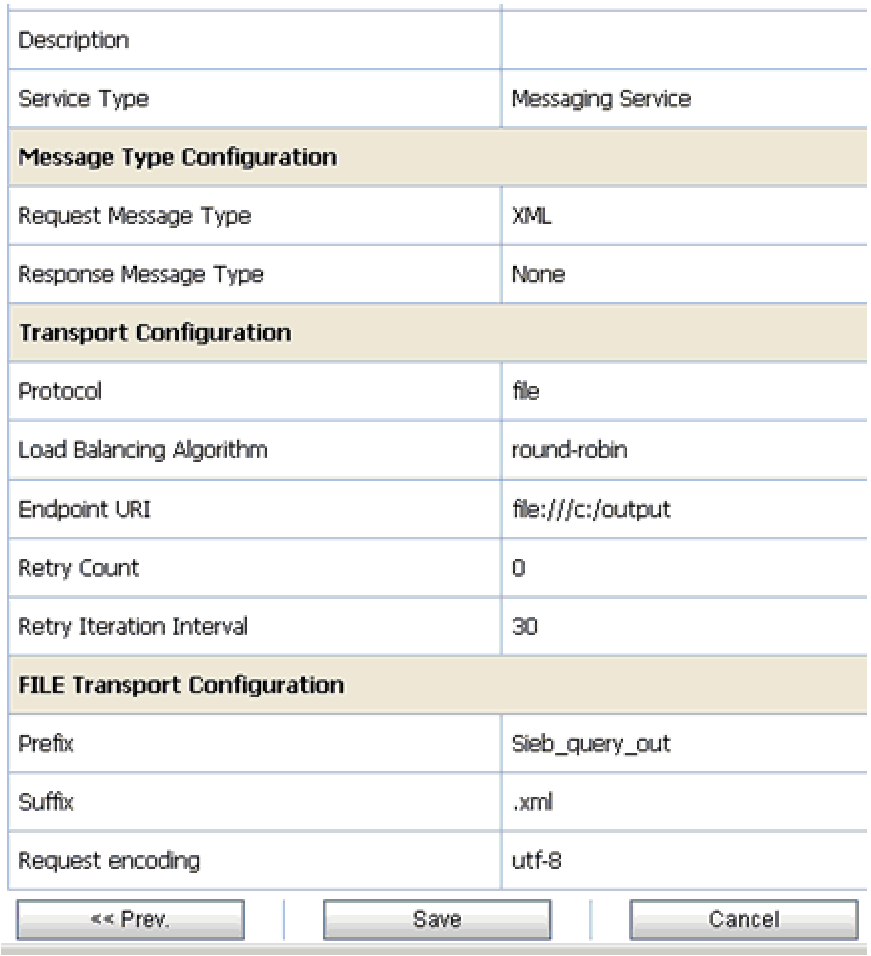


Create a Business Service (default/Business Service/Sieb_file_out1)

FILE Transport Configuration

Prefix	Sieb_query_out
Suffix	.xml
Request encoding	utf-8

10. Enter the prefix and suffix for the output file to be received and click **Next**.



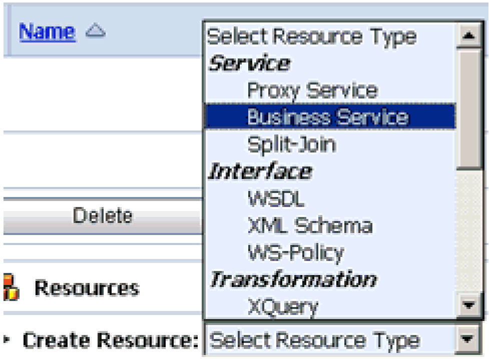
Description	
Service Type	Messaging Service
Message Type Configuration	
Request Message Type	XML
Response Message Type	None
Transport Configuration	
Protocol	file
Load Balancing Algorithm	round-robin
Endpoint URI	file:///c:/output
Retry Count	0
Retry Iteration Interval	30
FILE Transport Configuration	
Prefix	Sieb_query_out
Suffix	.xml
Request encoding	utf-8

11. Review all the information for your Business Service and click **Save**.

Configuring a WSDL Type Business Service

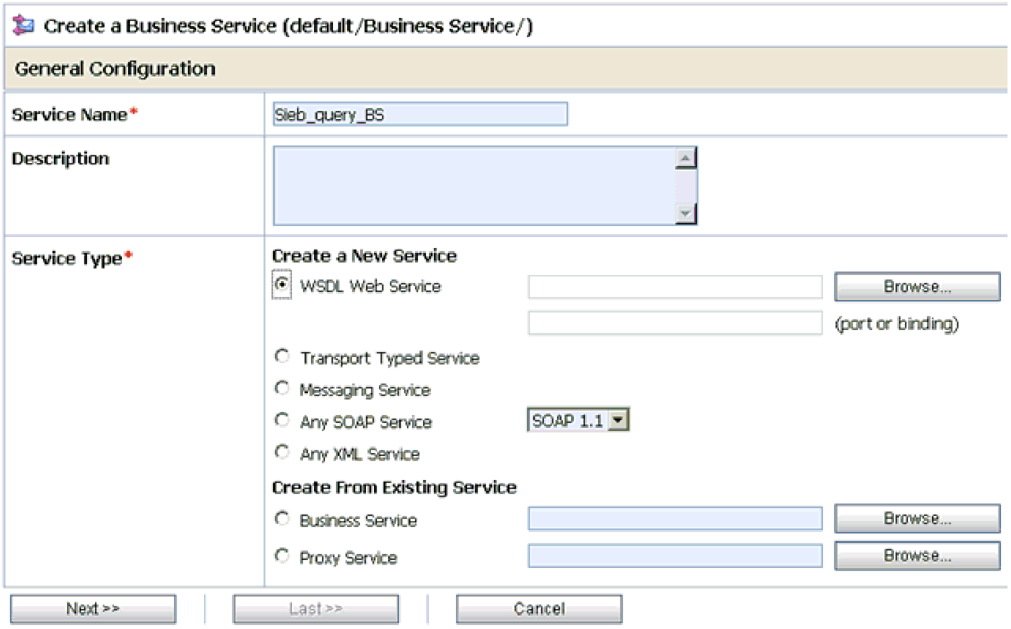
This section describes how to configure a WSDL type Business Service using the Oracle Service Bus Console.

1. Select the **Business Service** folder you created in the left pane.



2. In the right pane, select **Business Service** from the Create Resource menu.

The Create a Business Service - General Configuration page is displayed.



Create a Business Service (default/Business Service/)

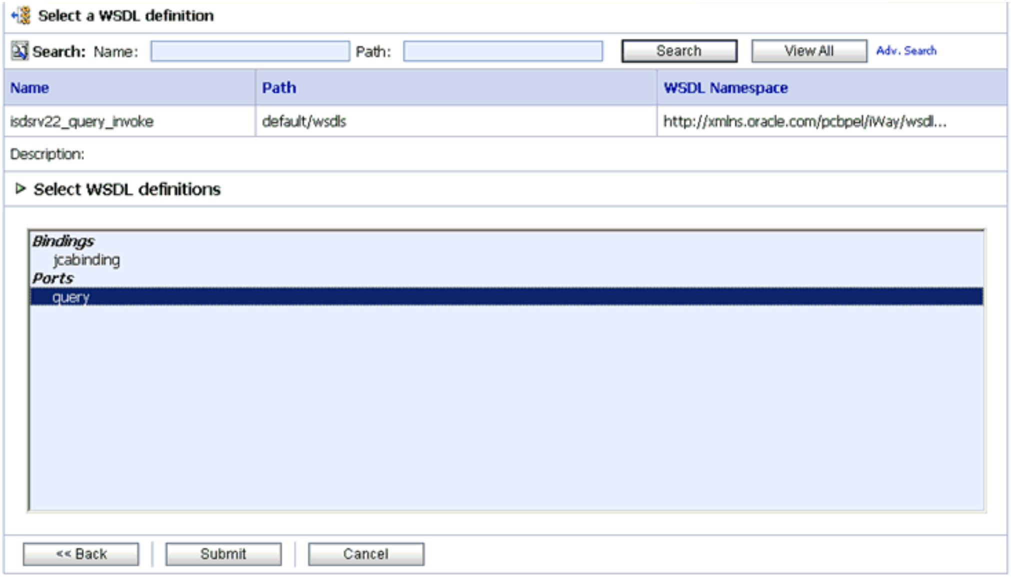
General Configuration

Service Name*	Sieb_query_BS
Description	
Service Type*	**Create a New Service** ● WSDL Web Service [Browse...] (port or binding) ○ Transport Typed Service ○ Messaging Service ○ Any SOAP Service SOAP 1.1 ○ Any XML Service **Create From Existing Service** ○ Business Service [Browse...] ○ Proxy Service [Browse...]

3. Provide a name for the Business Service and from the Service Type area select **WSDL Web Service**.

4. Click **Browse**.

   The Select a WSDL Definition dialog box is displayed.



Select a WSDL definition

Name	Path	WSDL Namespace
isdsrv22_query_invoke	default/wsdls	http://xmlns.oracle.com/pcbpel/iWay/wsdl...

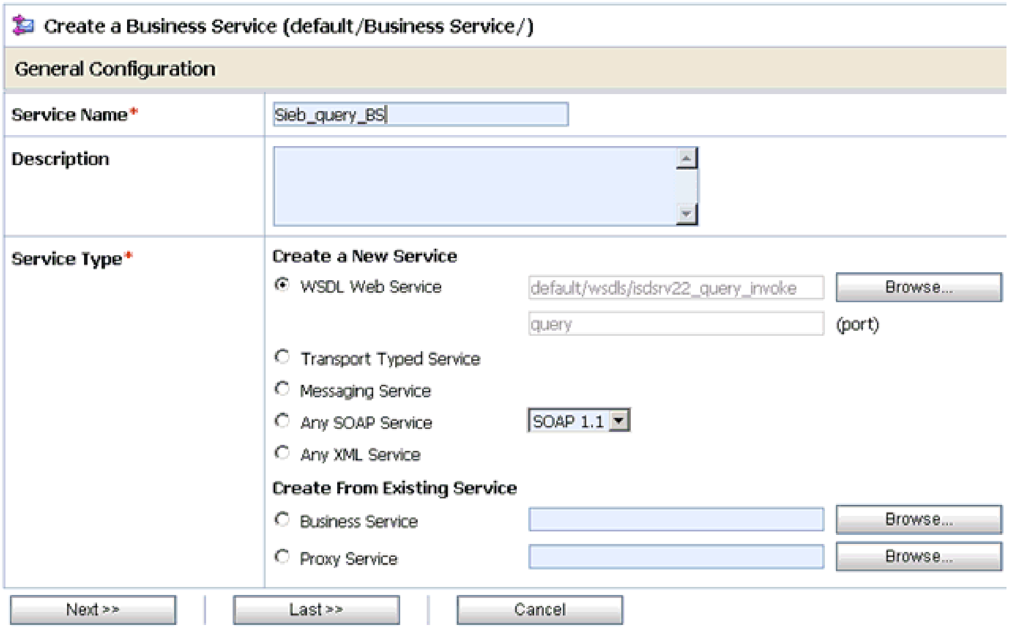
Description:

Select WSDL definitions

Bindings
jcabinding
Ports
query

5. Select the outbound WSDL that you generated for the *Account - Query* operation, then select the WSDL definition under the Ports section.

6. Click **Submit**.

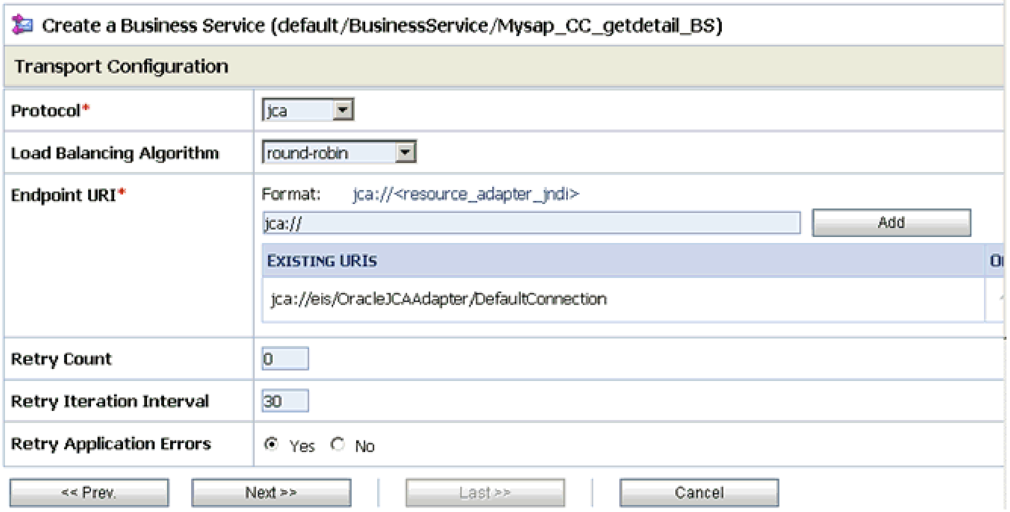


Create a Business Service (default/Business Service/)

General Configuration

Service Name*	Sieb_query_BS
Description	
Service Type*	Create a New Service ● WSDL Web Service default/wsdls/isdsrv22_query_invoke Browse... query (port) ○ Transport Typed Service ○ Messaging Service ○ Any SOAP Service SOAP 1.1 ○ Any XML Service Create From Existing Service ○ Business Service Browse... ○ Proxy Service Browse...

7. Click **Next**.



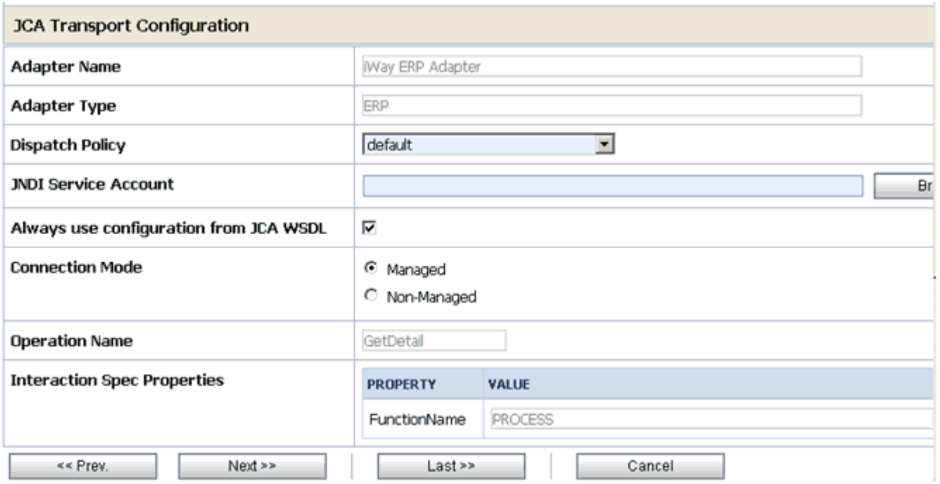
Create a Business Service (default/BusinessService/Mysap_CC_getdetail_BS)

Transport Configuration

Protocol*	jca
Load Balancing Algorithm	round-robin
Endpoint URI*	Format: jca://<resource_adapter_jndi> jca:// Add EXISTING URIS jca://eis/OracleJCAAdapter/DefaultConnection
Retry Count	0
Retry Iteration Interval	30
Retry Application Errors	● Yes ○ No

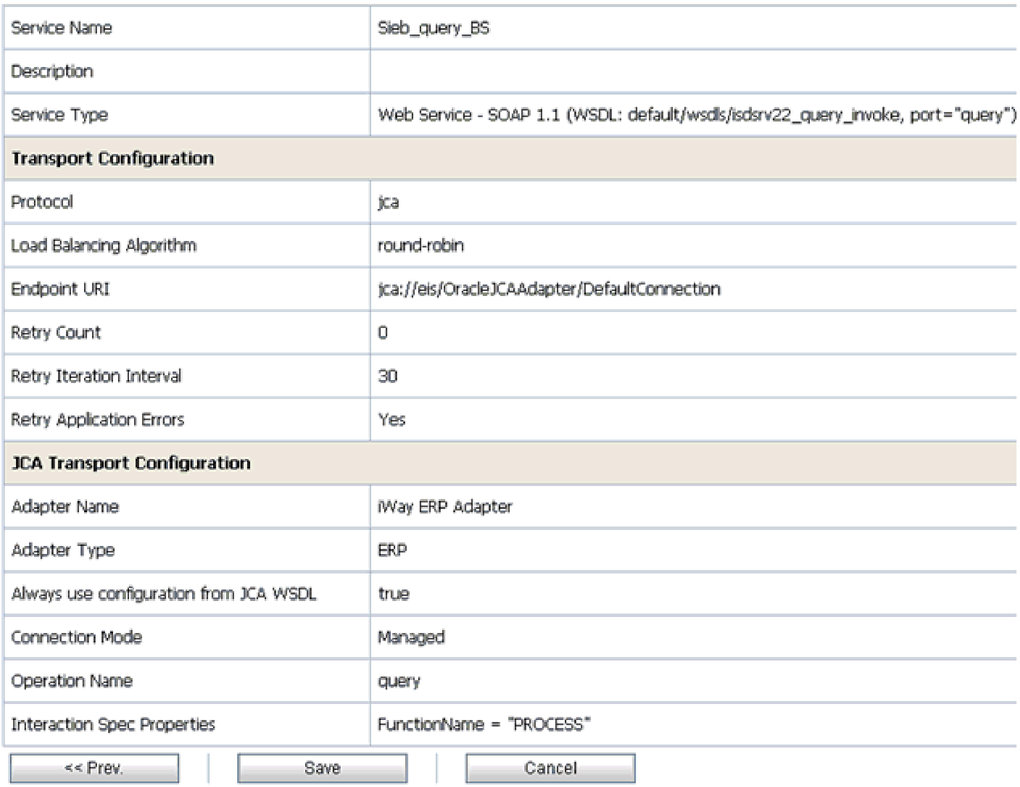
8. Select **jca** from the Protocol drop-down list.

9. Click **Next**.



JCA Transport Configuration	
Adapter Name	iWay ERP Adapter
Adapter Type	ERP
Dispatch Policy	default
JNDI Service Account	
Always use configuration from JCA WSDL	☑
Connection Mode	● Managed ○ Non-Managed
Operation Name	GetDetail
Interaction Spec Properties	PROPERTY: FunctionName — VALUE: PROCESS

10. Click **Next**.



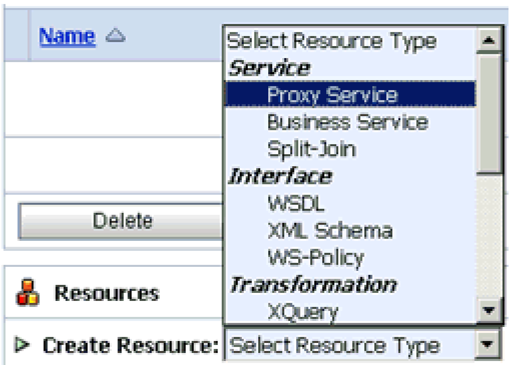
Service Name	Sieb_query_BS
Description	
Service Type	Web Service - SOAP 1.1 (WSDL: default/wsdls/isdsrv22_query_invoke, port="query")
Transport Configuration	
Protocol	jca
Load Balancing Algorithm	round-robin
Endpoint URI	jca://eis/OracleJCAAdapter/DefaultConnection
Retry Count	0
Retry Iteration Interval	30
Retry Application Errors	Yes
JCA Transport Configuration	
Adapter Name	iWay ERP Adapter
Adapter Type	ERP
Always use configuration from JCA WSDL	true
Connection Mode	Managed
Operation Name	query
Interaction Spec Properties	FunctionName = "PROCESS"

11. Review all the information for your Business Service and click **Save**.

Configuring a Proxy Service

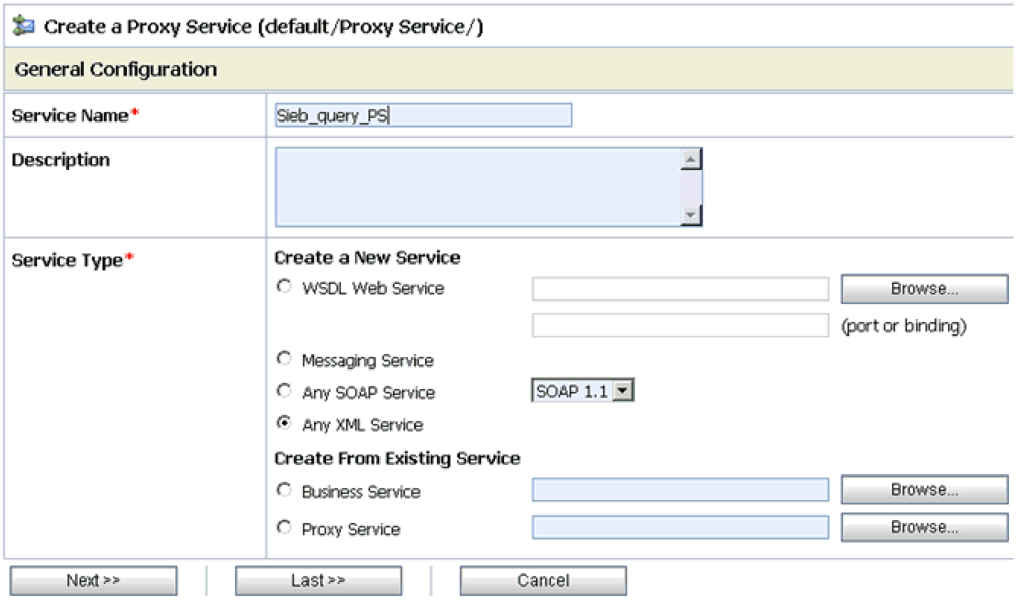
This section describes how to configure a Proxy Service using the Oracle Service Bus Console.

1. Select the **Proxy Service** folder you created in the left pane.



2. In the right pane, select **Proxy Service** from the Create Resource menu.

   The Create a Proxy Service - General Configuration page is displayed.

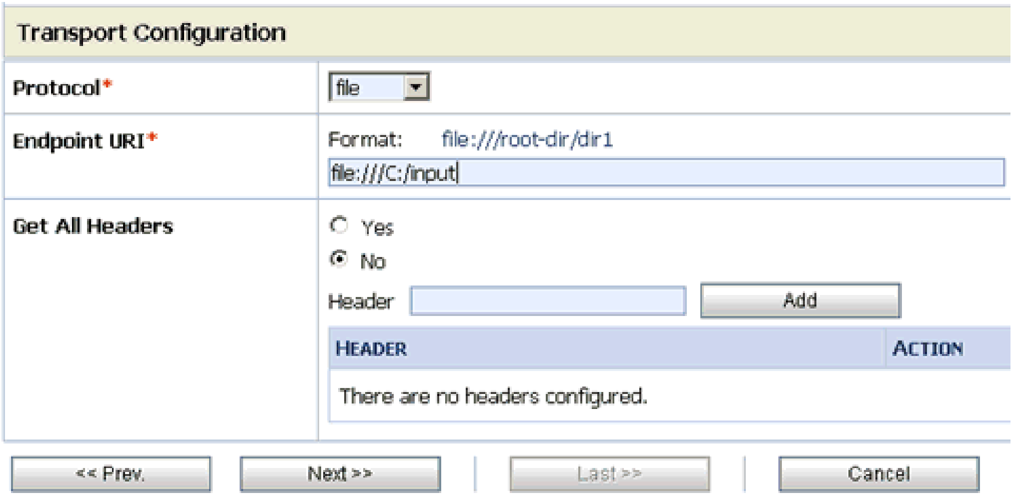


Create a Proxy Service (default/Proxy Service/)

General Configuration

Service Name*	Sieb_query_PS
Description	
Service Type*	Create a New Service ○ WSDL Web Service (port or binding) ○ Messaging Service ○ Any SOAP Service SOAP 1.1 ● Any XML Service Create From Existing Service ○ Business Service ○ Proxy Service

3. Provide a name for the Proxy Service and from the Service Type area select **Any XML Service**.
4. Click **Next**.



Transport Configuration

Protocol*	file
Endpoint URI*	Format: file:///root-dir/dir1 file:///C:/input
Get All Headers	○ Yes ● No Header

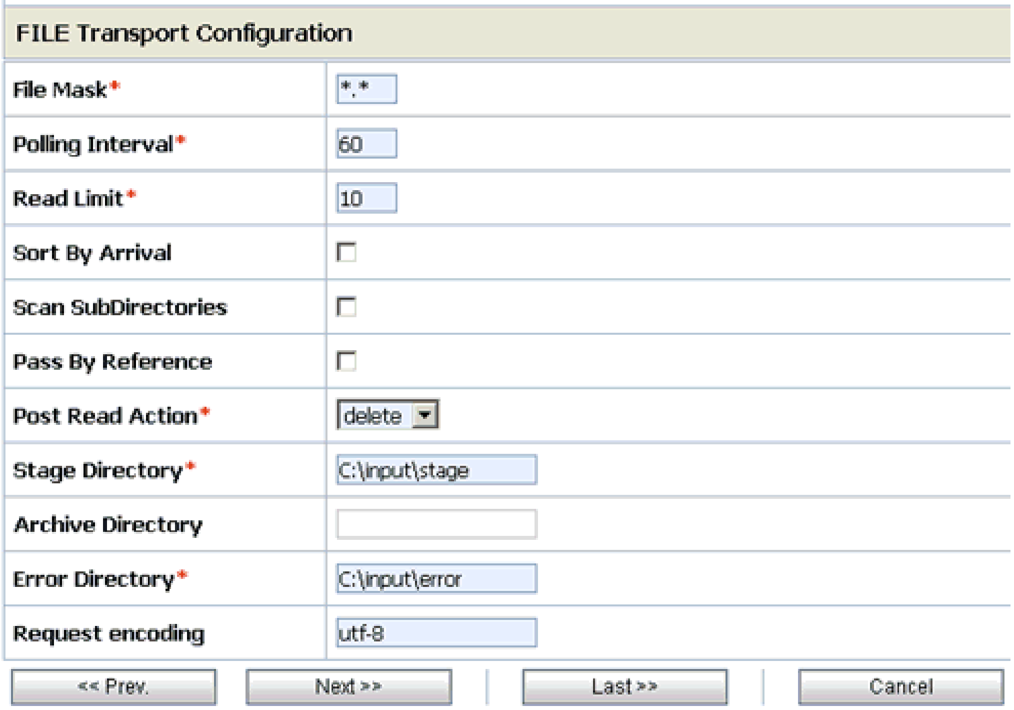
HEADER	ACTION
There are no headers configured.	

5. Select **file** from the Protocol drop-down list.

6. Enter the path to an input folder on your file system in the Endpoint URI field.

   This is the folder from where the Proxy Service reads the XML input file.

7. Click **Next**.

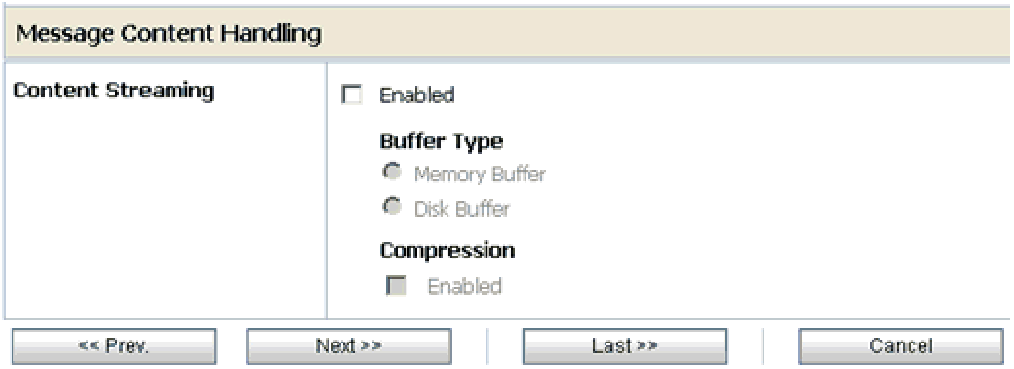


FILE Transport Configuration

File Mask*	*.*
Polling Interval*	60
Read Limit*	10
Sort By Arrival	□
Scan SubDirectories	□
Pass By Reference	□
Post Read Action*	delete
Stage Directory*	C:\input\stage
Archive Directory	
Error Directory*	C:\input\error
Request encoding	utf-8

8. Provide any folder locations on your file system for the Stage Directory and Error Directory fields.

9. Click **Next**.



Message Content Handling

Content Streaming: ☐ Enabled

Buffer Type

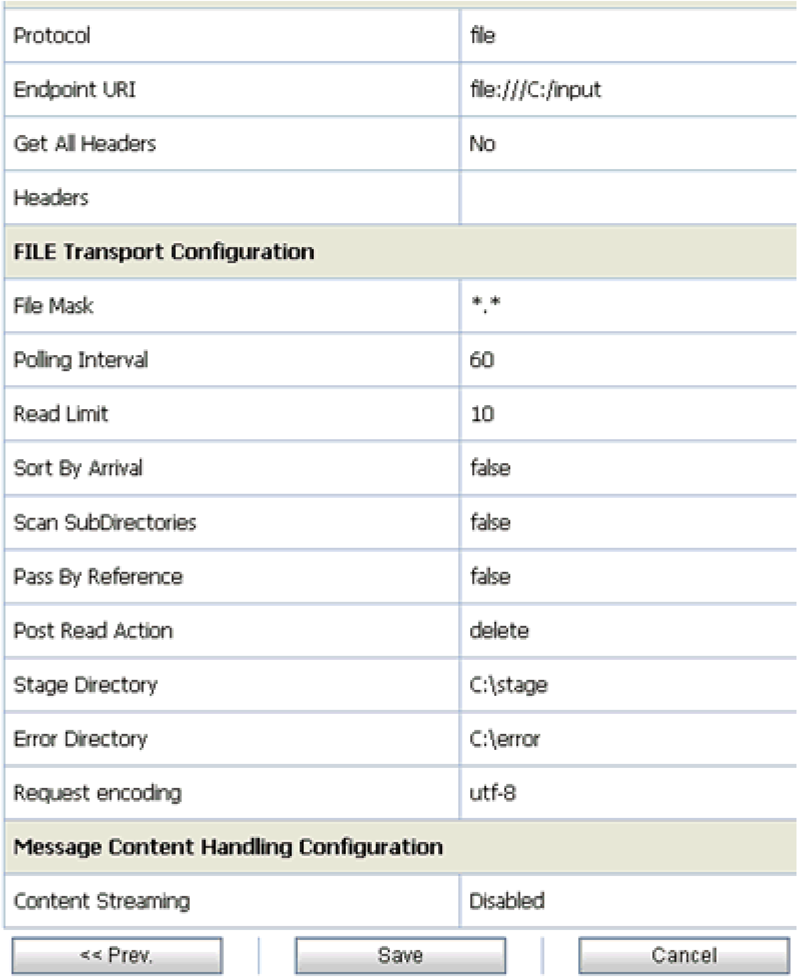
○ Memory Buffer

○ Disk Buffer

Compression

☐ Enabled

10. Click **Next**.



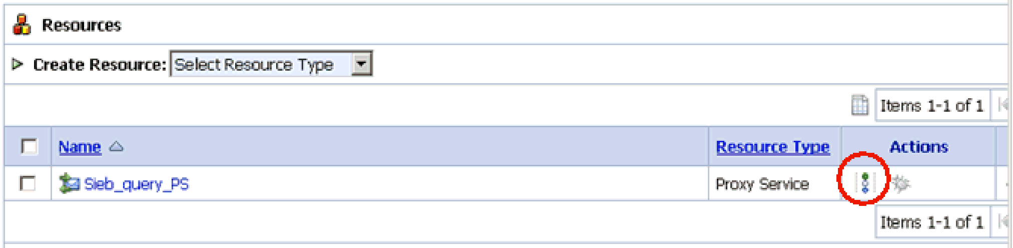
Protocol	file
Endpoint URI	file:///C:/input
Get All Headers	No
Headers	
FILE Transport Configuration	
File Mask	*.*
Polling Interval	60
Read Limit	10
Sort By Arrival	false
Scan SubDirectories	false
Pass By Reference	false
Post Read Action	delete
Stage Directory	C:\stage
Error Directory	C:\error
Request encoding	utf-8
Message Content Handling Configuration	
Content Streaming	Disabled

11. Review all the information for your Proxy Service and click **Save**.

Configuring a Pipeline

This section describes how to configure a Pipeline using the Oracle Service Bus Console.

1. Click the **Edit Message Flow** icon in the row of the Proxy Service you created.



Resources

▷ Create Resource: Select Resource Type

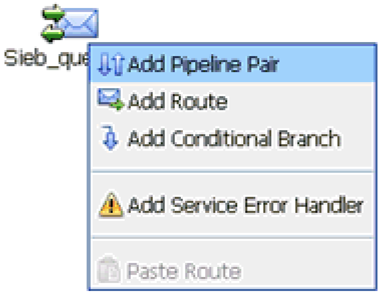
Items 1-1 of 1

□	Name	Resource Type	Actions
□	Sieb_query_PS	Proxy Service	

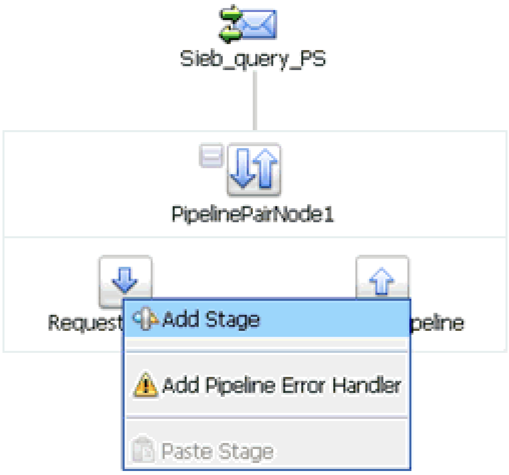
Items 1-1 of 1

The Edit Message Flow workspace area is displayed.

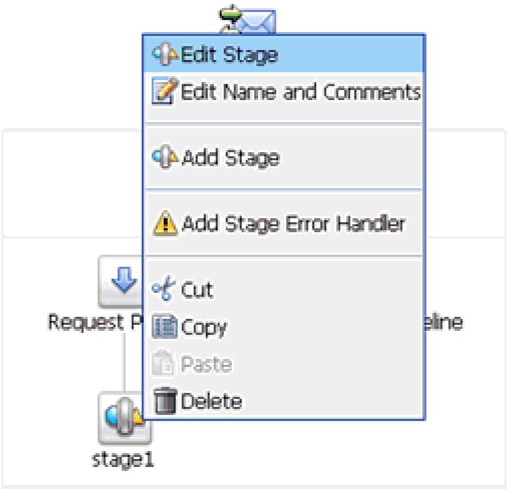
2. Click the **Proxy Service** icon and select **Add Pipeline Pair** from the context menu, as shown in the following image.



3. Click the **Request Pipeline** icon and select **Add Stage** from the context menu.

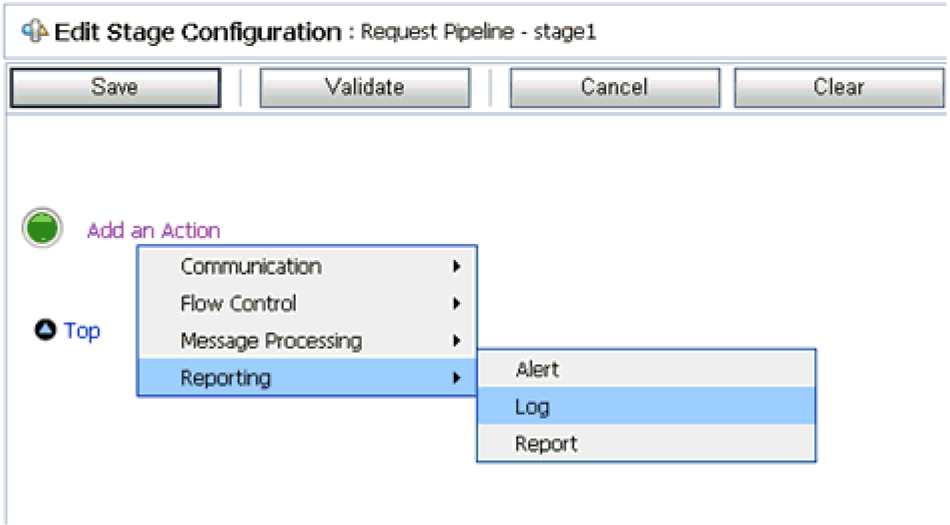


The Stage1 icon is added below the Request Pipeline icon.

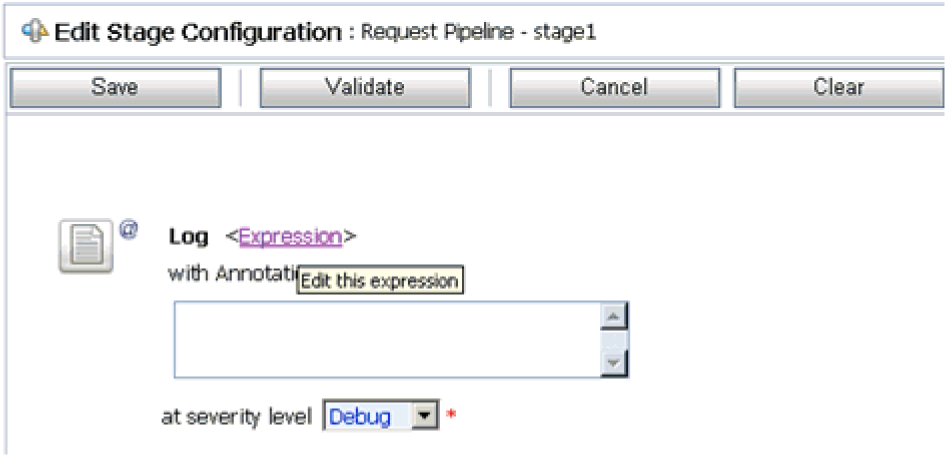


4. Click the **Stage1** icon and select **Edit Stage** from the context menu.

   The Edit Stage Configuration workspace area is displayed.



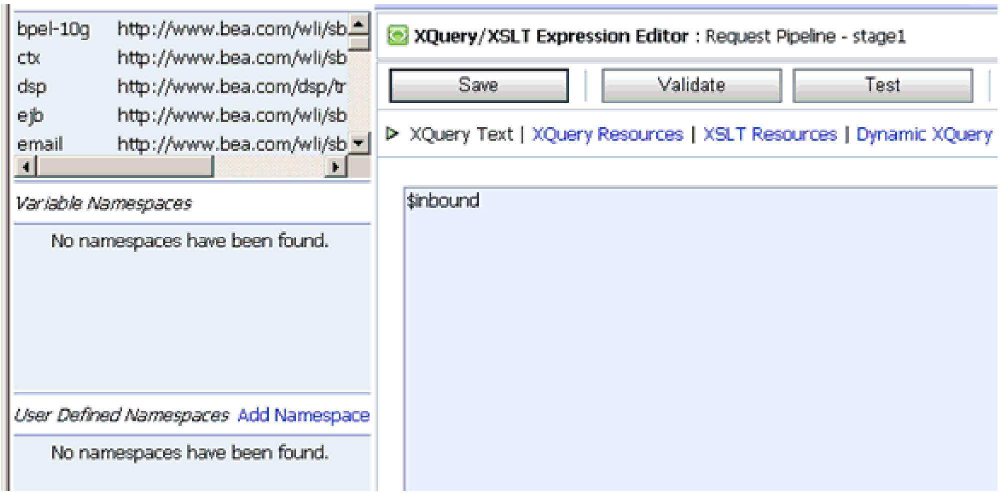
5. Click **Add an Action**, select **Reporting** from the context menu, and click **Log**.



at severity level Debug

6. Click **<Expression>** to edit the expression.

   The XQuery/XSLT Expression Editor is displayed.


XQuery/XSLT Expression Editor : Request Pipeline - stage1
Save
Validate
Test
XQuery Text | XQuery Resources | XSLT Resources | Dynamic XQuery
Variable Namespaces
No namespaces have been found.
User Defined Namespaces Add Namespace
No namespaces have been found.

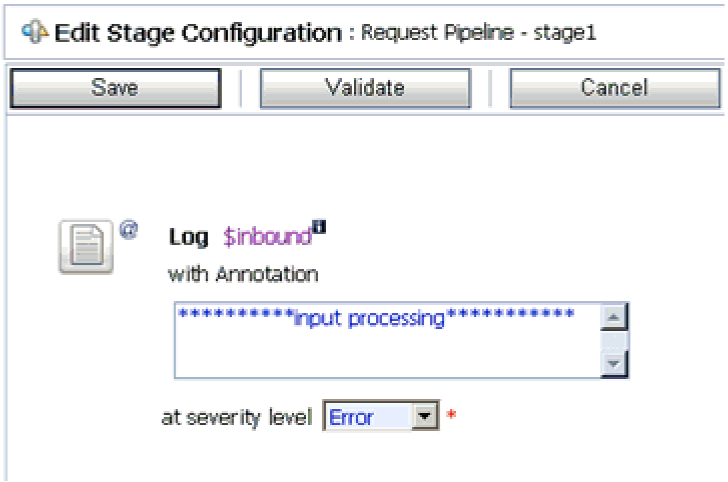
bpel-10g	http://www.bea.com/wli/sb
ctx	http://www.bea.com/wli/sb
dsp	http://www.bea.com/dsp/tr
ejb	http://www.bea.com/wli/sb
email	http://www.bea.com/wli/sb

$inbound

7. In the XQuery Text area, type **$inbound**.

8. Click **Validate** and then **Save**.

   You are returned to the Edit Stage Configuration workspace area.



Log $inbound

with Annotation

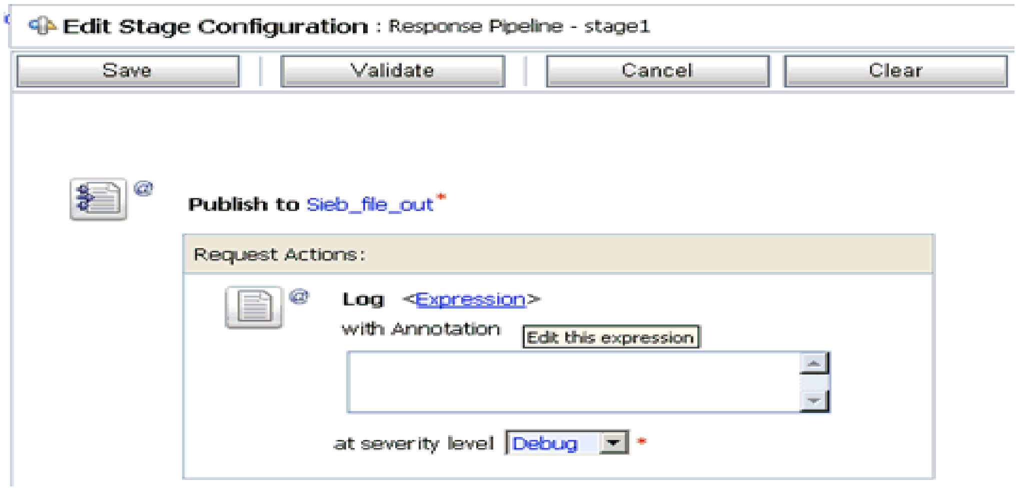
**********input processing***********

at severity level Error *

9. Type any annotation/comments in the text box (for example, **********input processing***********).

10. Select **Error** from the severity level drop-down list.

11. Add one more Log action as shown in the following image.



Edit Stage Configuration : Response Pipeline - stage1

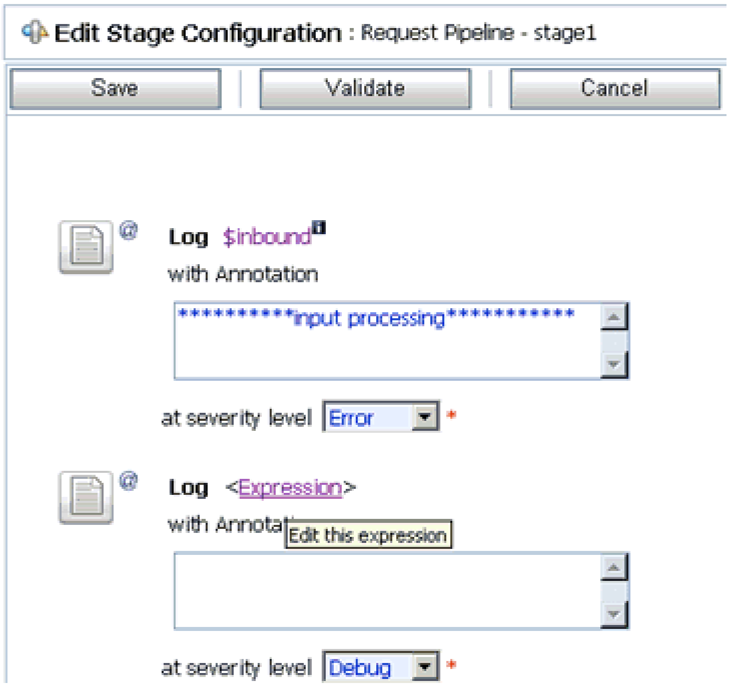
Publish to Sieb_file_out*

Request Actions:

Log <Expression>
with Annotation

at severity level Debug *

A new Log configuration is added, as shown in the following image.



Edit Stage Configuration : Request Pipeline - stage1

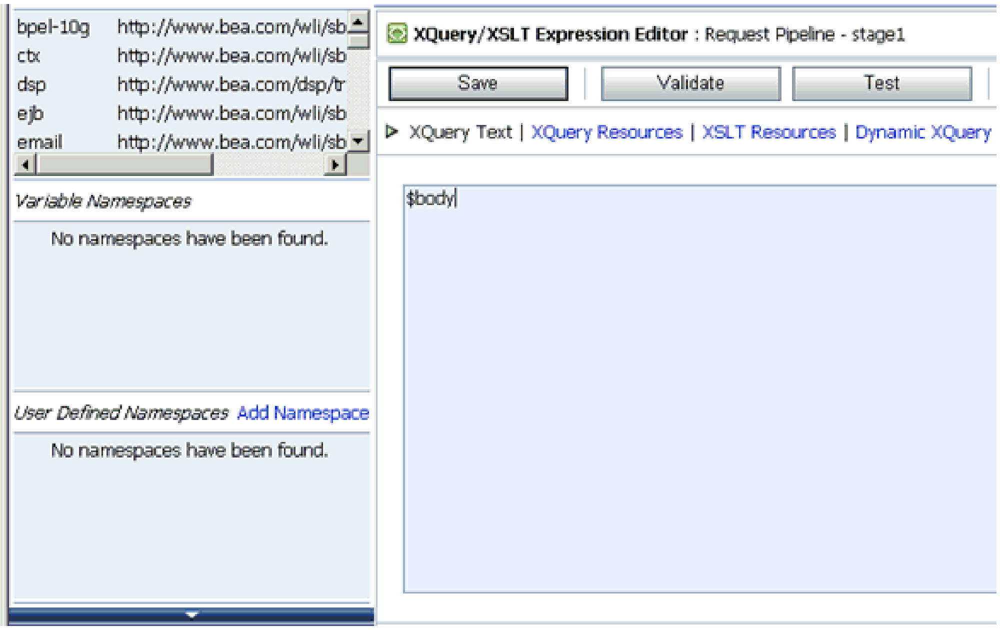
Log $inbound
with Annotation
**********input processing***********
at severity level Error *

Log <Expression>
with Annotation

at severity level Debug *

12. Click **<Expression>** to edit the expression.

    The XQuery/XSLT Expression Editor is displayed.



bpel-10g	http://www.bea.com/wli/sb
ctx	http://www.bea.com/wli/sb
dsp	http://www.bea.com/dsp/tr
ejb	http://www.bea.com/wli/sb
email	http://www.bea.com/wli/sb

Variable Namespaces

No namespaces have been found.

User Defined Namespaces Add Namespace

No namespaces have been found.

XQuery/XSLT Expression Editor : Request Pipeline - stage1

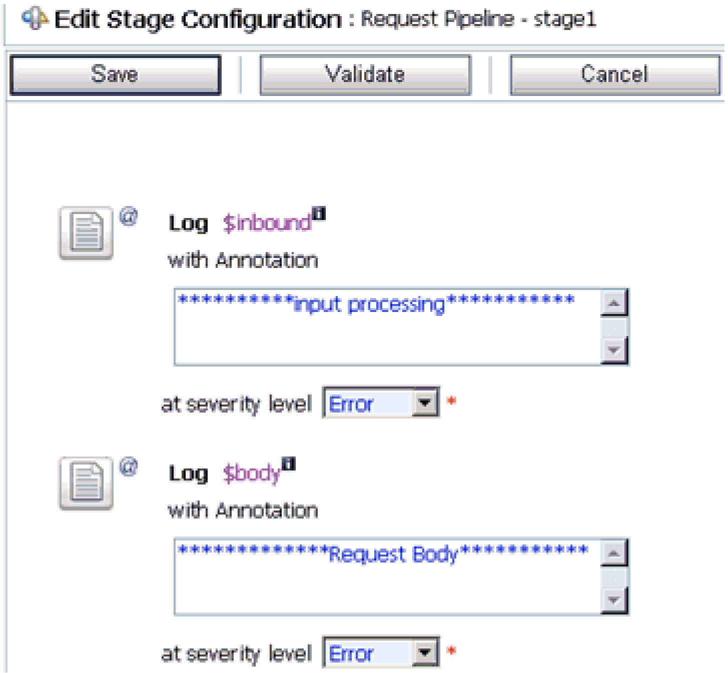
```
$body
```

Save
Validate
Test
XQuery Text | XQuery Resources | XSLT Resources | Dynamic XQuery

13. In the XQuery Text area, type **$body**.

14. Click **Validate** and then **Save**.

    You are returned to the Edit Stage Configuration workspace area.



Edit Stage Configuration : Request Pipeline - stage1

Log $inbound with Annotation

**********input processing***********

at severity level Error *

Log $body with Annotation

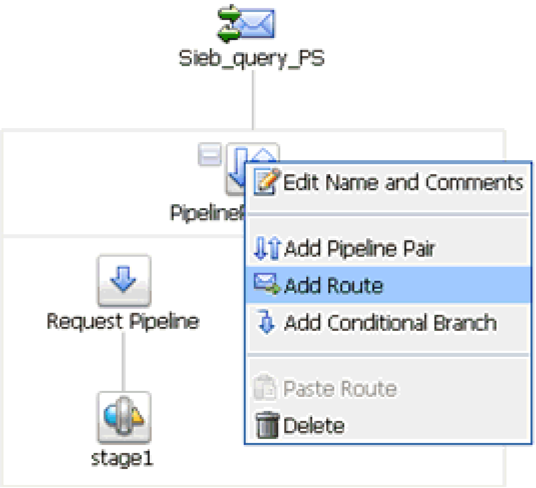
*************Request Body***********

at severity level Error *

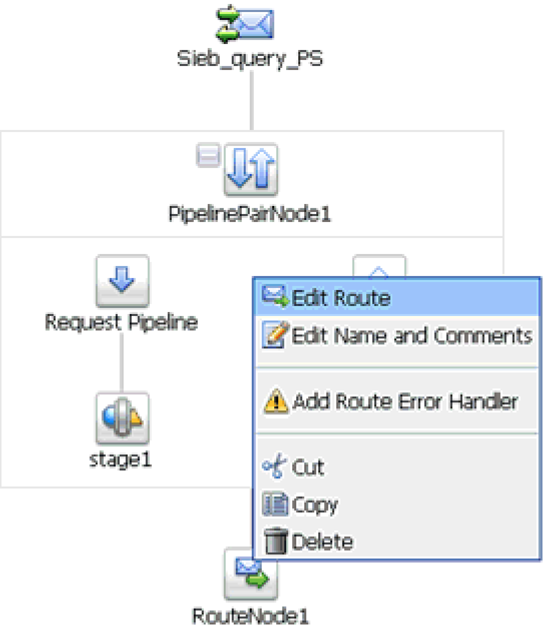
15. Type any annotation/comments in the text box (for example, **********Request Body***********).

16. Select **Error** from the severity level drop-down list.

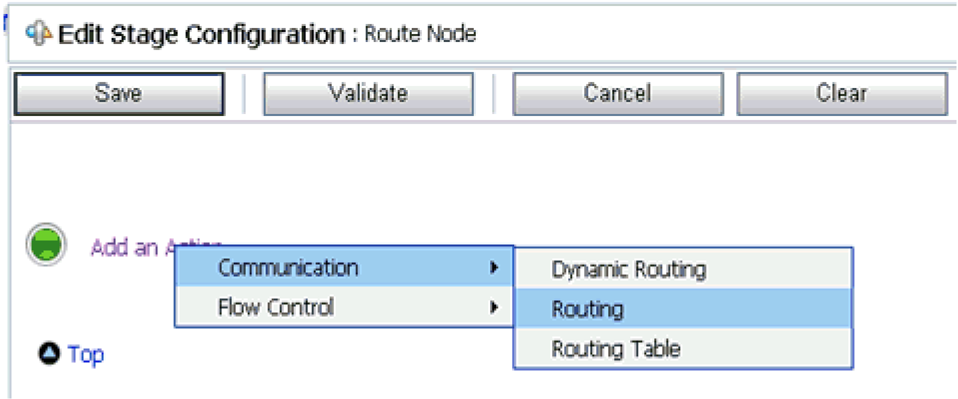
17. Click **Validate** and then **Save**.



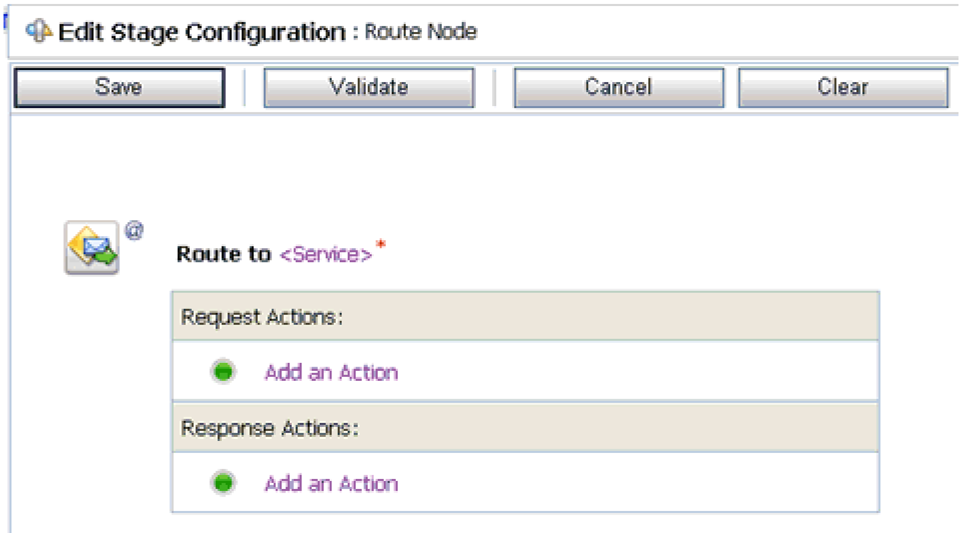
18. Click the **PipelinePairNode1** icon and select **Add Route** from the context menu.



19. Click the **RouteNode1** icon and select **Edit Route** from the context menu.

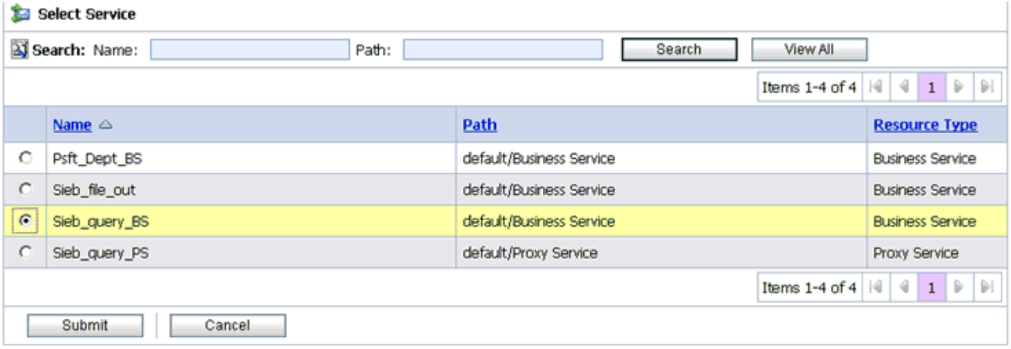


20. Click **Add an Action**, select **Communication** from the context menu, and click **Routing**.



21. Click **<Service>**.

The Select Service dialog box is displayed.

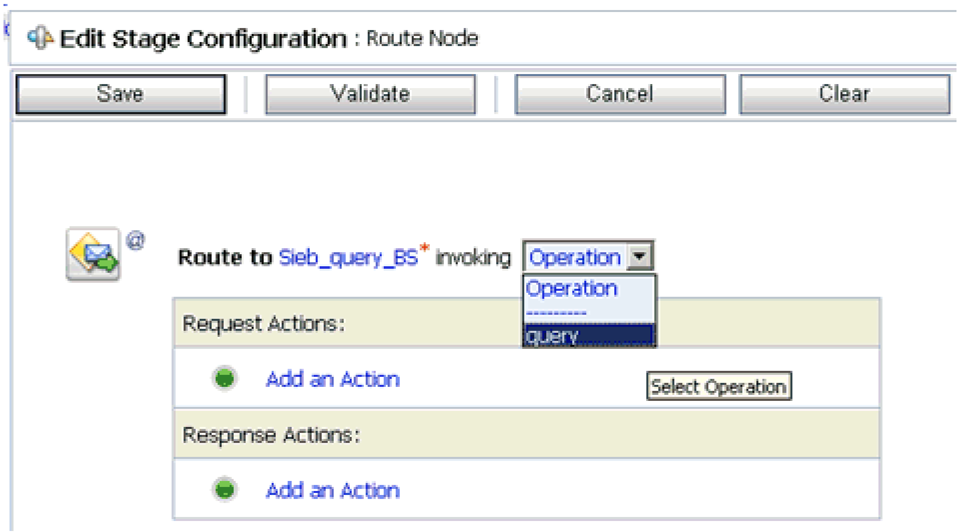


	Name	Path	Resource Type
○	Psft_Dept_BS	default/Business Service	Business Service
○	Sieb_file_out	default/Business Service	Business Service
●	Sieb_query_BS	default/Business Service	Business Service
○	Sieb_query_PS	default/Proxy Service	Proxy Service

22. Select a WSDL type Business Service and click **Submit**.

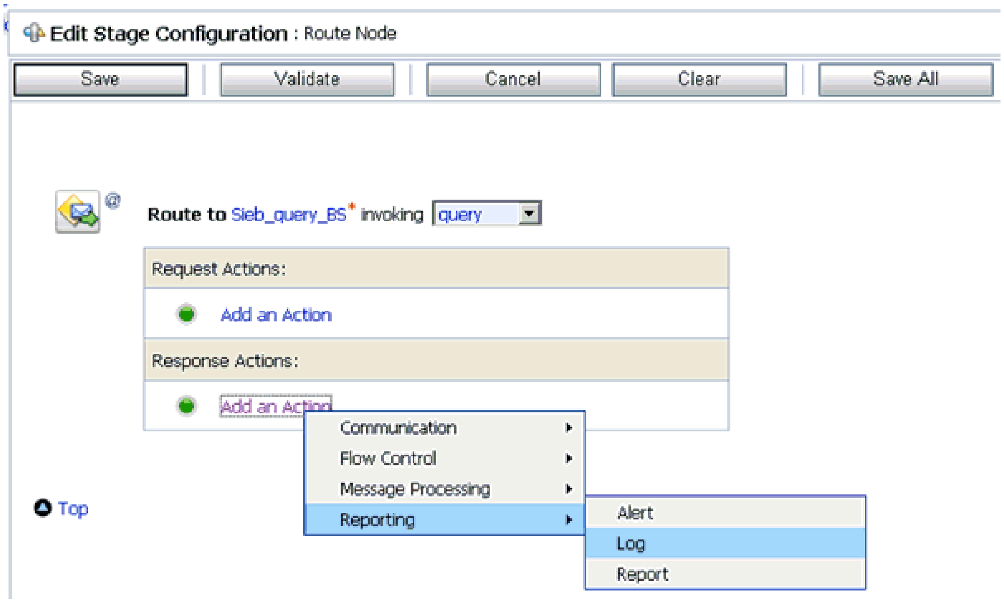
This is the Business Service that you configured earlier in Configuring a WSDL Type Business Service on page 5-26.

You are returned to the Edit Stage Configuration workspace area.

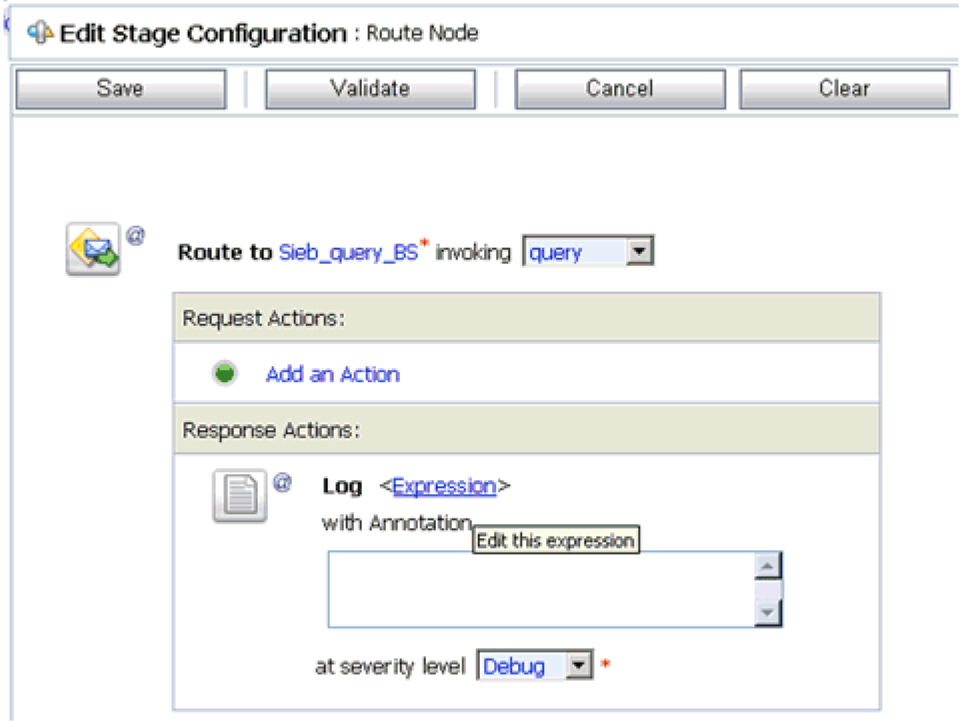


23. Select **query** as the operational attribute from the drop-down list.

24. Click **Validate** and then **Save**.



25. In the Response Actions area, click **Add an Action**, select **Reporting** from the context menu, and click **Log**.



Route to Sieb_query_BS* invoking query

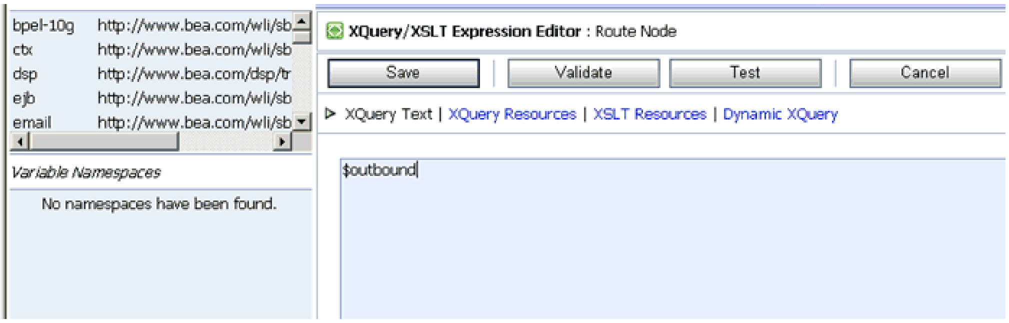
Log <Expression>

with Annotation

at severity level Debug *

26. Click **<Expression>** to edit the expression.

    The XQuery/XSLT Expression Editor is displayed.


XQuery/XSLT Expression Editor : Route Node
Save
Validate
Test
Cancel
XQuery Text | XQuery Resources | XSLT Resources | Dynamic XQuery
Variable Namespaces

bpel-10g	http://www.bea.com/wli/sb
ctx	http://www.bea.com/wli/sb
dsp	http://www.bea.com/dsp/tr
ejb	http://www.bea.com/wli/sb
email	http://www.bea.com/wli/sb

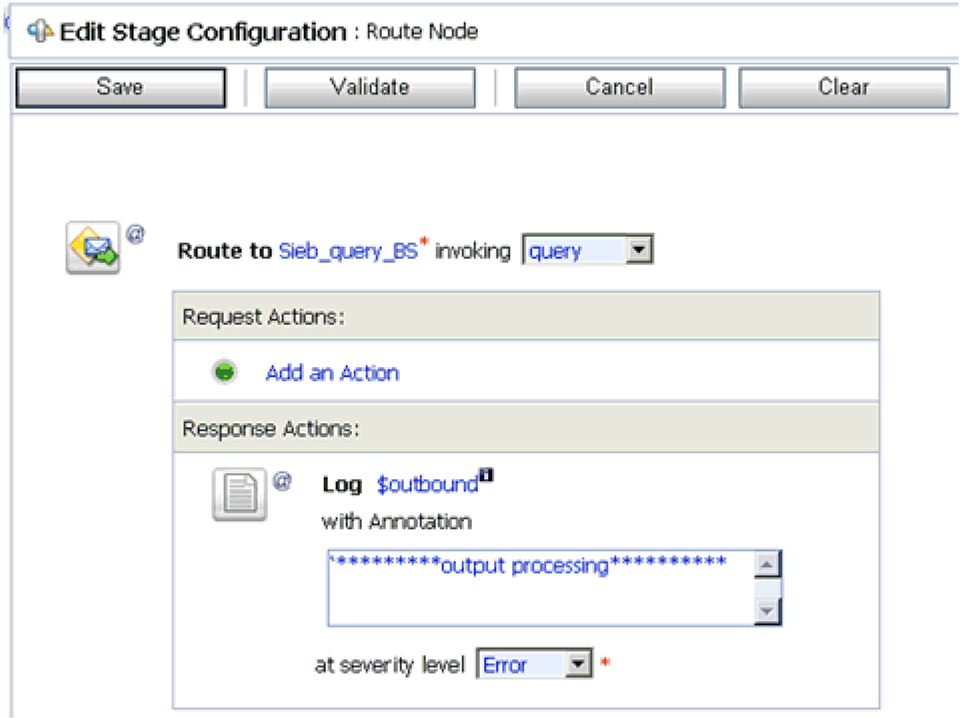
No namespaces have been found.

$outbound

27. In the XQuery Text area, type **$outbound**.

28. Click **Validate** and then **Save**.

    You are returned to the Edit Stage Configuration workspace area.



Route to Sieb_query_BS* invoking query

Log $outbound with Annotation

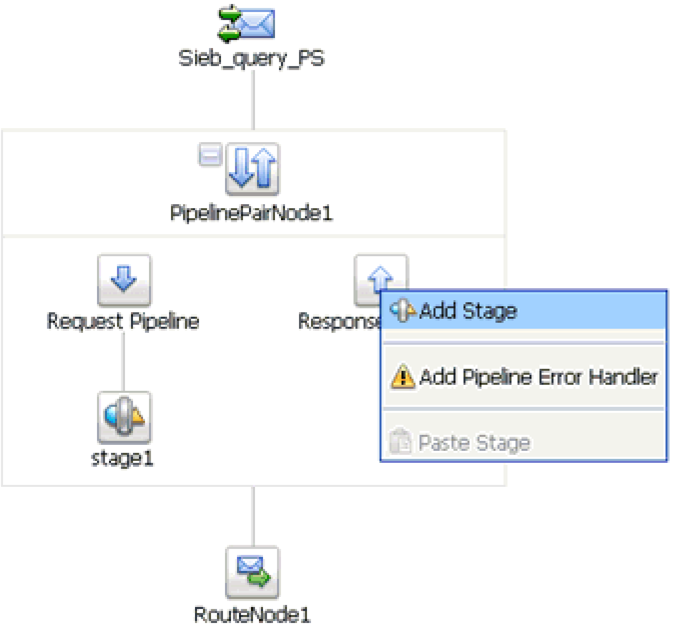
**********output processing**********

at severity level Error *

29. Type any annotation/comments in the text box (for example, **********output processing**********).

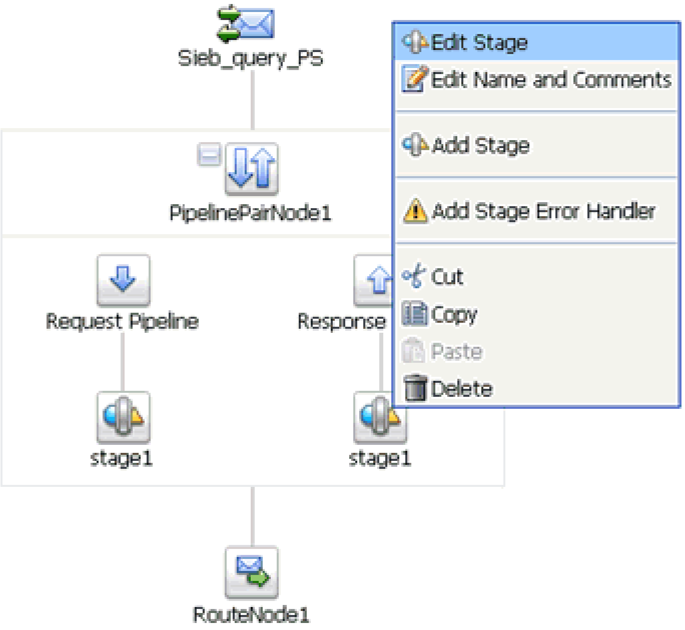
30. Select **Error** from the severity level drop-down list.

31. Click **Validate** and then **Save**.



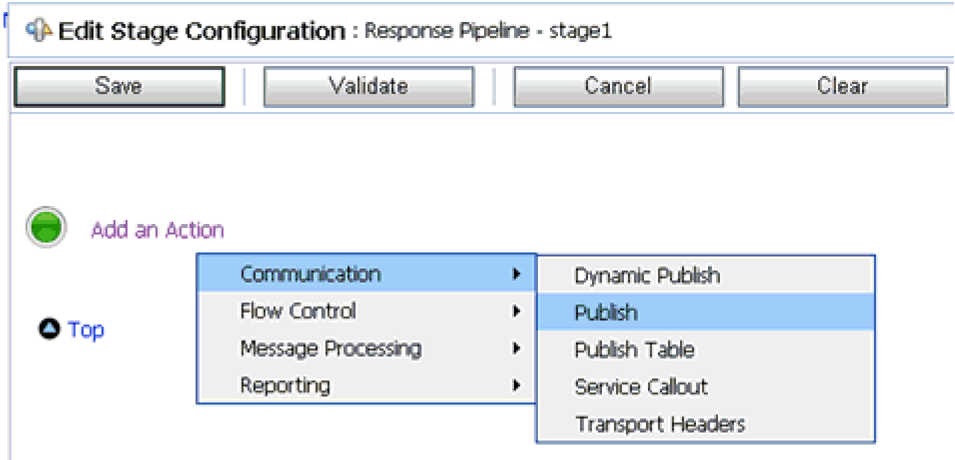
32. Click the **Response Pipeline** icon and select **Add Stage** from the context menu.

    The Stage1 icon is added below the Response Pipeline icon.

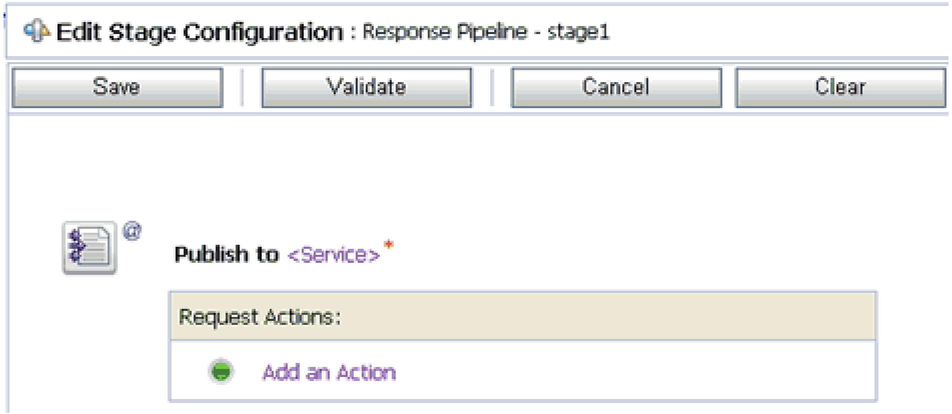


33. Click the **Stage1** icon and select **Edit Stage** from the context menu.

    The Edit Stage Configuration workspace area is displayed.

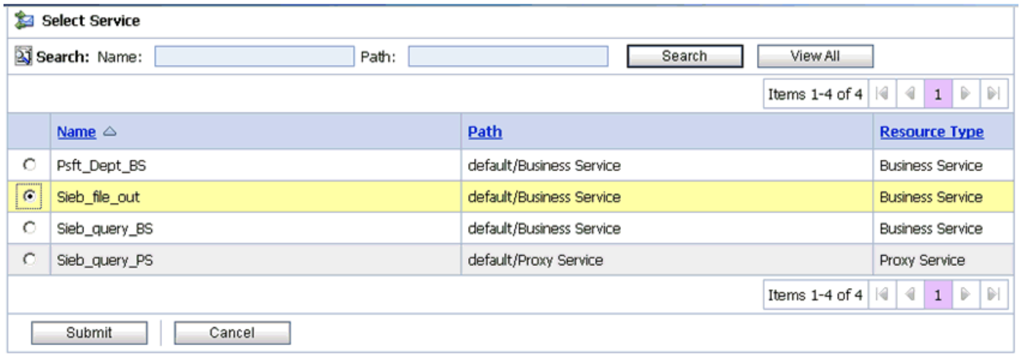


34. Click **Add an Action**, select **Communication** from the context menu, and click **Publish**.



35. Click **<Service>**.

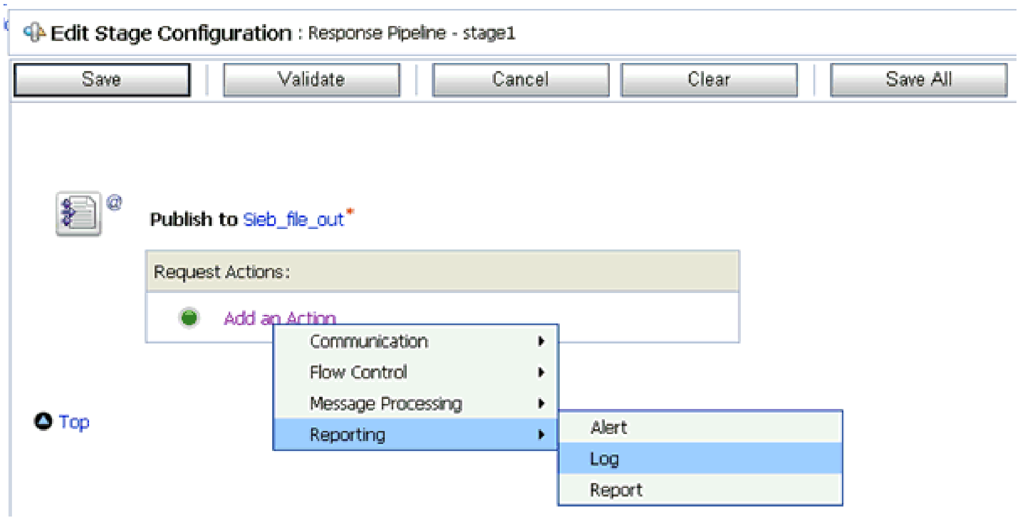
    The Select Service dialog box is displayed.



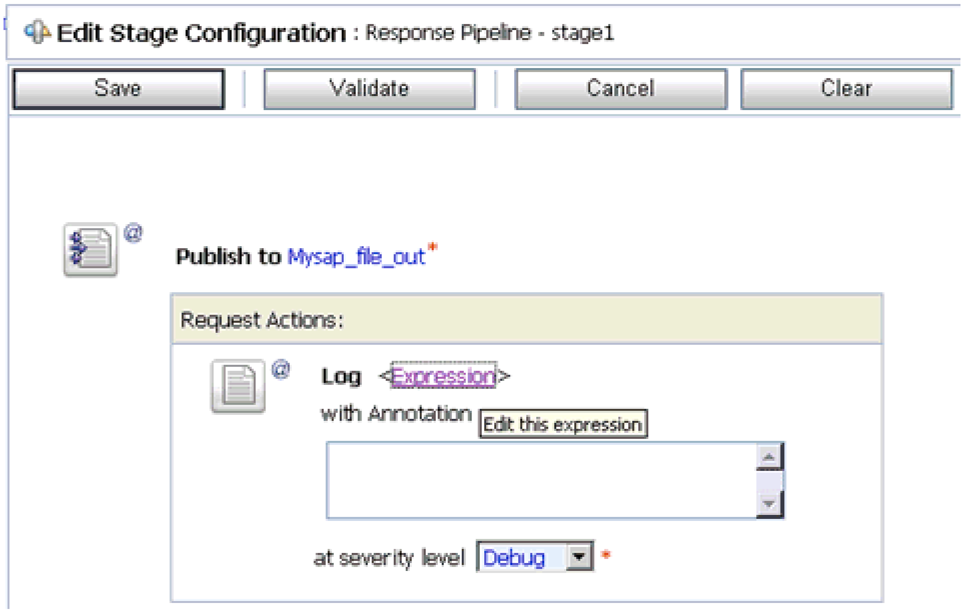
	Name	Path	Resource Type
○	Psft_Dept_BS	default/Business Service	Business Service
●	Sieb_file_out	default/Business Service	Business Service
○	Sieb_query_BS	default/Business Service	Business Service
○	Sieb_query_PS	default/Proxy Service	Proxy Service

36. Select a File type Business Service and click **Submit**.

    You are returned to the Edit Stage Configuration workspace area.

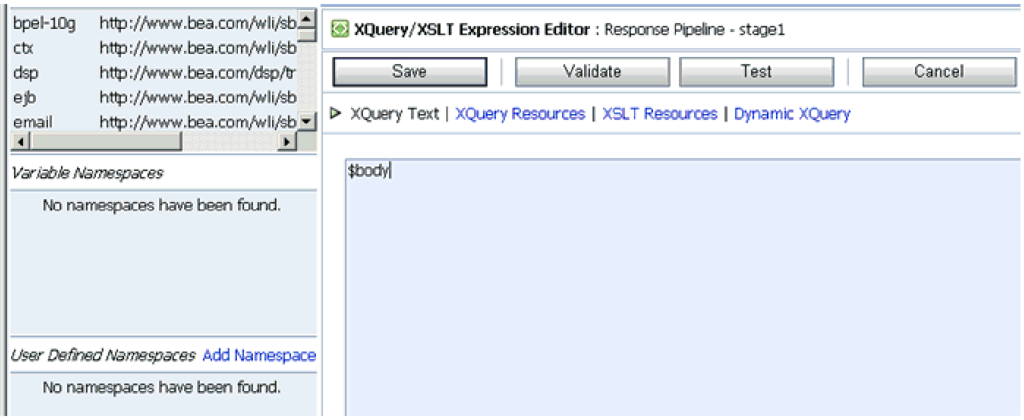


37. In the Request Actions area, click **Add an Action**, select **Reporting** from the context menu, and click **Log**.



38. Click **<Expression>** to edit the expression.

The XQuery/XSLT Expression Editor is displayed.

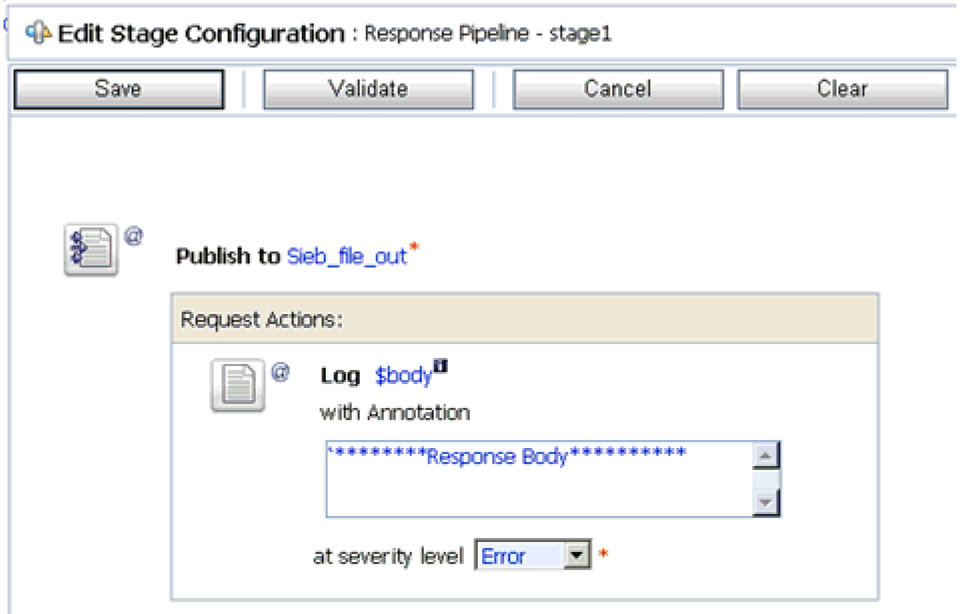

bpel-10g http://www.bea.com/wli/sb
ctx http://www.bea.com/wli/sb
dsp http://www.bea.com/dsp/tr
ejb http://www.bea.com/wli/sb
email http://www.bea.com/wli/sb
Variable Namespaces
No namespaces have been found.
User Defined Namespaces Add Namespace
No namespaces have been found.
XQuery/XSLT Expression Editor : Response Pipeline - stage1
Save
Validate
Test
Cancel
XQuery Text | XQuery Resources | XSLT Resources | Dynamic XQuery

```
$body
```

39. In the XQuery Text area, type **$body**.

40. Click **Validate** and then **Save**.

You are returned to the Edit Stage Configuration workspace area.



Edit Stage Configuration : Response Pipeline - stage1

Publish to Sieb_file_out*

Request Actions:

Log $body

with Annotation

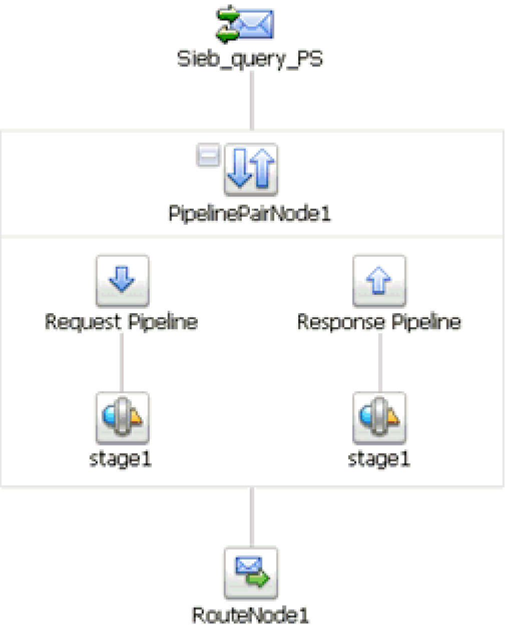
*********Response Body**********

at severity level Error *

41. Type any annotation/comments in the text box (for example, **********Response Body***********).

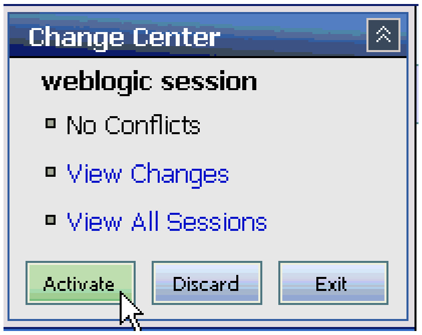
42. Select **Error** from the severity level drop-down list.

43. Click **Validate** and then **Save**.

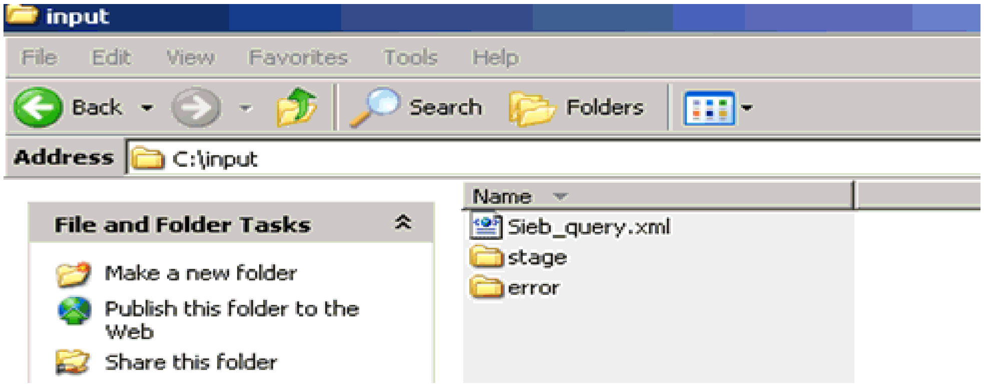


44. Click **Save**.

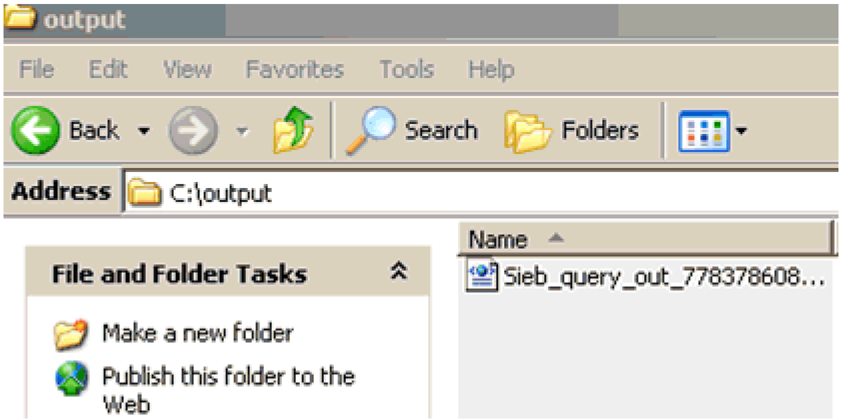
45. Click **Activate** in the Change Center area to activate your changes in the Oracle Service Bus session.



46. Copy and paste an input XML file in the input folder you have configured.



An output XML file is received in the destination folder.


output
File Edit View Favorites Tools Help
Back
Search
Folders
Address
C:\output
File and Folder Tasks
Make a new folder
Publish this folder to the Web
Name
Sieb_query_out_778378608...

6

Troubleshooting and Error Messages

This chapter explains the limitations and workarounds when connecting to Siebel. The following topics are discussed:

- Troubleshooting
- BSE Error Messages

Troubleshooting

This topic provides troubleshooting information for Siebel, separated into four categories:

- General Usage Notes for the Oracle Application Adapter for Siebel
- Application Explorer
- Siebel
- Oracle Adapter J2CA
- Oracle Adapter Business Services Engine (BSE)

> **Note:** Log file information that can be relevant in troubleshooting can be found in the following locations:
>
> - The Oracle Adapter J2CA trace information can be found under the `wls_home\erp-adapters\config\config_name\log` directory.
> - BSE trace information can be found under the `wls_home\erp-adapters\ibse.war\ibselogs` directory.
> - The log file for Application Explorer can be found under the `wls_home\erp-adapters\tools\iwae\bin` directory.

General Usage Notes for the Oracle Application Adapter for Siebel

The Oracle Application Adapter for Siebel is subject to the following limitations:

- The HTTPS protocol is not supported for services and events.
- Updates for multi-value (MVG) fields with join specifications are not supported.
- When a connection is lost, the adapter does not automatically reconnect to Siebel.

Application Explorer

To use Application Explorer on **Windows** for debugging or testing purposes, load the batch script `ae.bat`, found under:

```
wls_home\erp-adapters\tools\iwae\bin
```

On **UNIX**, load the shell script `iwae.sh`, found under:

```
wls_home/erp-adapters/tools/iwae/bin
```

Error	Solution
Siebel does not appear in the Application Explorer Adapter node list.	Ensure that the Siebel jar files supplied with your Siebel distribution media have been placed in the *`wls_home`*`\erp-adapters\lib` directory. For example, for Siebel 7.03 environments, the `SiebelJI_Common.jar` and `SiebelJI_enu.jar` should be placed in the *`wls_home`*`\erp-adapters\lib` directory.
Target Type drop down contains only Java Data Bean Connection and COM connection type is desired.	Ensure that the Siebel thin client is installed correctly on the system hosting Application Explorer so that appropriate COM environment is available.
An error message that includes the name of the Siebel Gateway server appears when you try to connect to a Siebel target. For example, `Problem activating adapter (<server_name>). Check logs for more information.`	Ensure that the name of the Siebel Gateway server is correctly defined for the target you are using.
You receive the following error when trying to connect to a Siebel target: `Problem activating adapter. (You have entered an invalid set of logon parameters. Please type in your logon parameters again.). Check logs for more information.`	Ensure that the User ID and password parameter values to connect to your Siebel system are correct.
You receive the following error when trying to connect to a Siebel target: `Problem activating adapter. (Couldn't get nameserver connection). Check logs for more information.`	Check on network connectivity to Siebel environment. Correct networking problem and retry connection.
You receive the following error when attempting to connect to a Siebel target: `Problem activating adapter. (NSReadKey request failed (no error information)...). Check logs for more information.`	Ensure that the values defined for Siebel Server, Enterprise Name, and Object Manager for the target you are using are correct, and retry the connection
You receive the following error when attempting to connect to a Siebel target: `Problem activating adapter. (Error loading translatable messages: com.siebel.locale.enux.messages.SSAMessages_enux). Check logs for more information`	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).

Error	Solution
A successful connection is made to Siebel environment but no values are available in Business Object, Business Service, and Integration Object nodes in Application Explorer tree.	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 that Repository Name is not valid for the targeted Siebel environment. Verify that the Repository Name is valid and contains components for interrogation then re-connect.
Logon failure error at run-time.	If the password for connecting to your Siebel system is not specified when creating a target or with the Edit option in Application Explorer, you will be unable to connect to Siebel. The connection password is not saved in `repository.xml`. Update the password using the Edit option in Application Explorer, then restart the application server.
The following exception occurs when you start Application Explorer by activating `ae.bat` (not `iaexplorer.exe`):	This is a benign exception. It does not affect adapter functionality. Download BouncyCastle files from:
`java.lang.ClassNotFoundException: org.bouncycastle.jce.provider.BouncyCastleProvider`	`ftp://ftp.bouncycastle.org/pub`
Unable to start Application Explorer in a Solaris environment. The following exception is thrown in the console:	`JAVACMD` is not set on the user system. Before starting Application Explorer, export `JAVACMD` as follows:
`javax.resource.ResourceException: IWAFManagedConnectionFactory: License violation.at com.ibi.afjca.spi.IWAFManagedConnectionFactory.createConnectionFactory(IWAFManagedConnectionFactory.java:98)at com.iwaysoftware.iwae.common.JCATransport.getConnectionFactory(JCATransport.java:133) at com.iwaysoftware.iwae.common.JCATransport.initJCA(JCATransport.java:69)at com.iwaysoftware.iwae.common.JCATransport.<init>(JCATransport.java:62)at com.iwaysoftware.iwae.common.AdapterClient.<init>(AdapterClient.java:85)at com.ibi.bse.ConfigWorker.run(ConfigWorker.java:41)at java.lang.Thread.run(Thread.java:534)`	`JAVACMD=/<jdk_home>/bin/java`, where `<jdk_home>` is the directory where JDK is installed on your system.
`Could not create the connection factory.`	

Siebel

The error messages listed can occur when using the adapter with either a BSE or Oracle Adapter J2CA repository project.

Error	Solution
A successful connection is made to Siebel environment but no values are available in Business Object, Business Service, and Integration Object nodes in Application Explorer tree.	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 that Repository Name is not valid for the targeted Siebel environment. Verify that the Repository Name is valid and contains components for interrogation then re-connect.
When executing a request, the following error message appears: `AdapterException: Unsupported Action: {0} Tquery`	Verify that method is available for specific request by verifying schema.
When executing a request, the following error message appears: `AdapterException: Field 'NFame' does not exist in definition for business component 'Account'. Please ask your systems administrator to check your application configuration.`	Ensure that field names are valid within request document by referring to schema for that specific object, and then re-submit the request.
When connecting to releases before Siebel 7.7 using the Java Data Bean Interface, you cannot reconnect after initial connection loss. This might occur when Application Explorer experiences a brief loss of network connection or if the Siebel Server or Gateway Service is restarted while Application Explorer is logged into the Siebel application.	Restart Oracle WebLogic Server and Application Explorer to log in successfully to the Siebel application. This is a known Siebel API issue. See Siebel Alert 984 for more information.
The following error may occur when adding a service node for a Business Service that includes methods containing method arguments having hierarchy data types. If you enter a valid `XMLCharEncoding` value such as UTF-8 or UTF-16, you will get the following error: `Invocation of Service failed.`	The method argument `XMLCharEncoding` is not supported. Leave this element blank in the XML payload.

Oracle Adapter J2CA

Error	Solution
In Application Explorer, the following error message appears when you attempt to connect to an Oracle Adapter J2CA configuration: `Could not initialize JCA`	In the Details tab in the right pane, ensure that the directory specified in the Home field points to the correct directory, for example, `*wls_home*\erp-adapters\tools\iwae\bin\..\..\..\`

BSE Error Messages

This topic discusses the different types of errors that can occur when processing Web services through BSE.

General Error Handling in BSE

BSE serves as both a SOAP gateway into the adapter framework and as the engine for some of the adapters. In both design time and run-time, various conditions can cause errors in BSE when Web services that use adapters run. 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 BSE passes a SOAP request message to the adapter required for the Web service. If an error occurs, how it is exposed depends on the adapter and the API or interfaces that the adapter uses. A few scenarios cause the SOAP gateway to generate a SOAP fault. In general, anytime the SOAP agent inside BSE 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 BSE receives an invalid SOAP request:

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

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

In this example, BSE 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 run-time, the SOAP agent in BSE produces a SOAP fault element in the generated SOAP response. The SOAP fault element contains fault code and fault string elements. The fault string contains the native error description from the adapter target system. Since adapters use the target system interfaces and APIs, whether 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 BSE, and that request is invalid based on the WSDL for that service, the adapter may raise an exception yielding a SOAP fault.

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

Oracle Application Adapter for Siebel Invalid SOAP Request

If Oracle Application Adapter for Siebel receives a SOAP request message that does not conform to the WSDL for the Web services being executed, then 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>
```

Empty Result From Siebel Request

If Oracle Application Adapter for Siebel cannot connect to Siebel when executing a Web service, then 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>
```

Oracle WebLogic Server Integration Adapters

Oracle Adapters connect BSE to adapters whose engines are other Oracle servers. Therefore, since this type of adapter is used to connect BSE to many different target systems, the error handling behavior is consistent. Check the user guide for your adapter to see if you require the Oracle WebLogic Server Integration Adapter when running Web services.

Invalid SOAP Request

If Oracle Application Adapter for Siebel receives a SOAP request message that does not conform to the WSDL for the Web services being executed, then 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 Oracle WebLogic Server Adapter Request

If Oracle Application Adapter for Siebel executes a SOAP request using input parameters passed that do not match records in the target system, then the following SOAP response is generated.

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

```
<SOAP-ENV:Envelope xmlns:xsi="http://www.w3.org/1999/XMLSchema-instance"
```

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

7

Advanced User Tools

This chapter includes the following topics:

- Web Services Policy-Based Security
- Migrating Repositories

Web Services Policy-Based Security

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

Web services provide a layer of abstraction between the back-end business logic and the user or application running the Web service. Easy application integration is enabled. However, the issue of controlling the use and implementation of critical and sensitive business logic that is run as a Web service is raised.

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

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

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

The iBS administrator creates an "instance" of a policy type, names it, associates individual users or groups (a collection of users), and then applies that policy to one or more Business Services.

You can assign a policy to an iBS, or to a method within an iBS. If a policy is only applied to a method, other methods in that iBS will not be governed by it. However, if a policy is applied to the iBS, all methods are governed by it. At run-time, the user ID and password that are sent to BSE in the SOAP request message are checked against the list of users for all policies applied to that specific iBS. The policy type that is supported is Resource Execution, which dictates who can or cannot execute the iBS.

When a policy is not applied, the default value for an iBS is to "grant all". For example, anybody can execute the iBS, until the Resource Execution policy is associated to the iBS. At that time, only those granted execution permissions, or users not part of the group that has been denied execution permissions, have access to the iBS.

Configuring Web Services Policy-Based Security

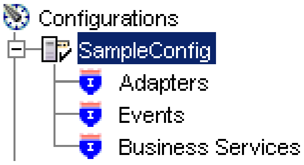
The following procedures describe how to configure Web services policy-based security.

Creating and Associating a User with a Policy

Before you create instances of policies, you must have a minimum of one user or one group to associate to an instance. You can create users and groups using Application Explorer.

1. Start Application Explorer.
2. Right-click the configuration to which you want to connect, for example, SampleConfig. See Chapter 2, "Configuring Oracle Application Adapter for Siebel" for information on creating a new configuration.
3. Select **Connect**.

   Nodes appear for **Adapters**, **Events**, and **Business Services** (also known as Web services).



   Perform the following steps:

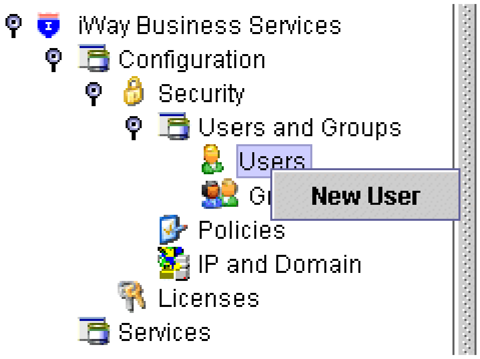
   a. Expand the **Business Services** node.

   b. Expand the **Configuration** node.

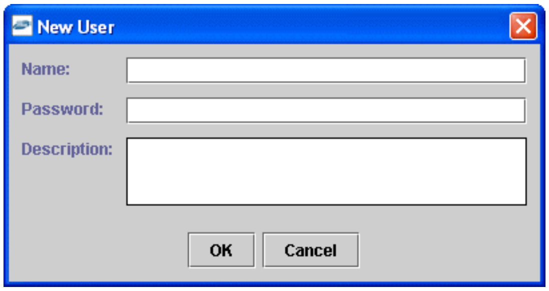
   c. Expand the **Security** node.

   d. Expand the **Users and Groups** node.

4. Right-click **Users** and then **New User**.



The New User dialog box is displayed.



Perform the following steps:

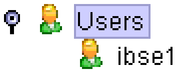
a. In the **Name** field, enter a user ID.

b. In the **Password** field, enter the password associated with the user ID.

c. In the **Description** field, enter a description of the user (optional).

5. Click **OK**.

   The new user is added under the Users node.

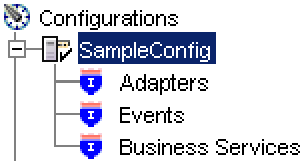


Creating a Group to Use With a Policy

To create a group to use with a policy:

1. Start Application Explorer.
2. Right-click the configuration to which you want to connect, for example, SampleConfig. See Chapter 2, "Configuring Oracle Application Adapter for Siebel" for information on creating a new configuration.
3. Select **Connect**.

   Nodes appear for **Adapters**, **Events**, and **Business Services** (also known as Web services).



Perform the following steps:

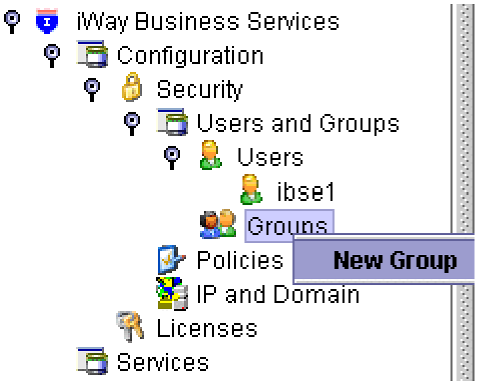
a. Expand the **Business Services** node.

b. Expand the **Configurations** node.

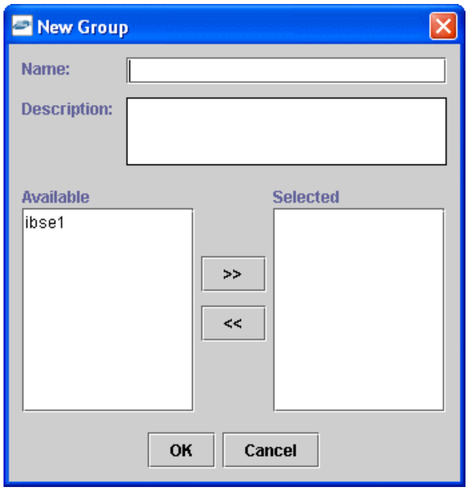
c. Expand the **Security** node.

d. Expand the **Users and Groups** node.

4. Right-click **Groups** and select **New Group**.



The New Group dialog box is displayed.



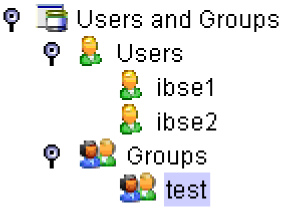
Perform the following steps:

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

b. In the Description field, enter a description for the group (optional).

c. From the available list of users in the left pane, select one or more users and add them to the Selected list by clicking the double right facing arrow.

5. When you have selected at least one user, click **OK**.



The new group is added under the Group node.

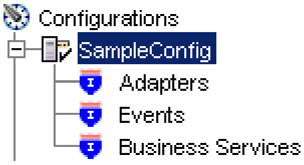
Creating an Execution Policy

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

To create an execution policy:

1. Start Application Explorer.
2. Right-click the configuration to which you want to connect, for example, SampleConfig. See Chapter 2, "Configuring Oracle Application Adapter for Siebel" for information on creating a new configuration.
3. Select **Connect**.

   Nodes appear for **Adapters**, **Events**, and **Business Services** (also known as Web services).



   Perform the following steps:

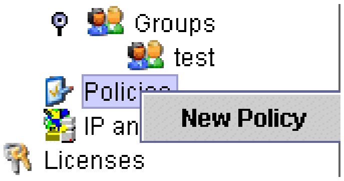
   a. Expand the **Business Services** node.

   b. Expand the **Configurations** node.

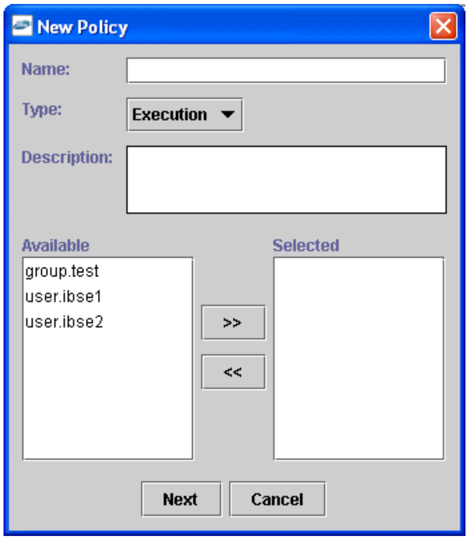
   c. Expand the **Security** node.

   d. Expand the **Policies** node.

4. Right-click **Policies** and select **New Policy**.



   The New policy dialog box is displayed.



Name:

Type: Execution

   Perform the following steps:

   a. In the **Name** field, enter a name for the policy.

b. From the **Type** list, select **Execution**.

c. In the **Description** field, enter a description for the policy (optional).

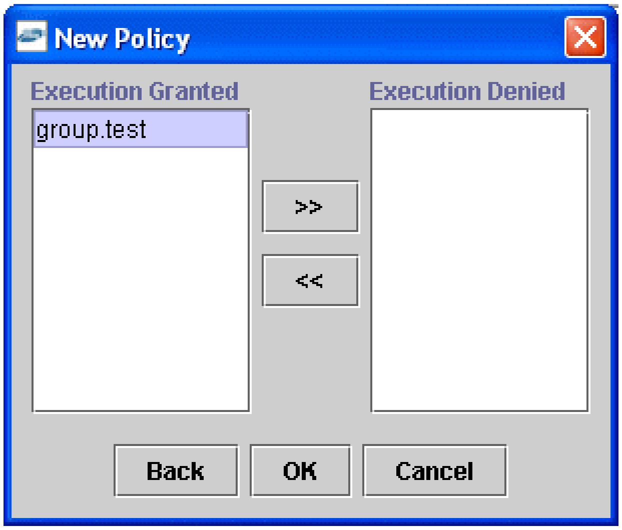
d. From the available list of users in the left pane, select one or more users and add them to the **Selected** list by clicking the double right facing arrow.

> **Note:** This user ID is checked against the value in the user ID element of the SOAP header sent to BSE in a SOAP request.

5. When you have selected at least one user, click **OK**.

6. Click **Next**.

The New Policy permissions dialog box is displayed.

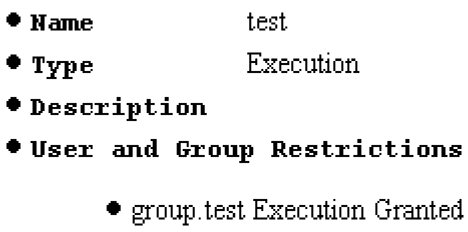


Execution Granted: group.test

- To grant permission to a user or group to execute an iBS, select the user or group and move them into the **Execution Granted** list by selecting the double left facing arrow.
- To deny permission to a user or group to execute an iBS, select the user or group and move them into the **Execution Denied** list by selecting the double right facing arrow.

7. Click **OK**.

The following pane summarizes your configuration.



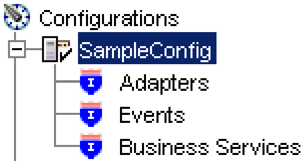
- **Name** test
- **Type** Execution
- **Description**
- **User and Group Restrictions**
  - group.test Execution Granted

Using the IP and Domain Restrictions Policy Type

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

1. Start Application Explorer.
2. Right-click the configuration to which you want to connect, for example, SampleConfig. See Chapter 2, "Configuring Oracle Application Adapter for Siebel" for information on creating a new configuration.
3. Select **Connect**.

   Nodes appear for **Adapters**, **Events**, and **Business Services** (also known as Web services).



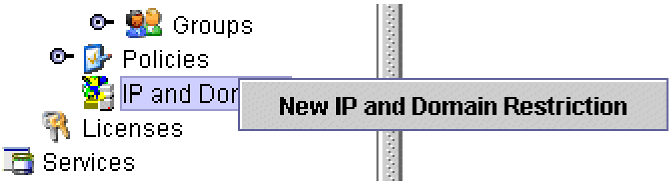
   Perform the following steps:

   a. Expand the **Business Services** node.

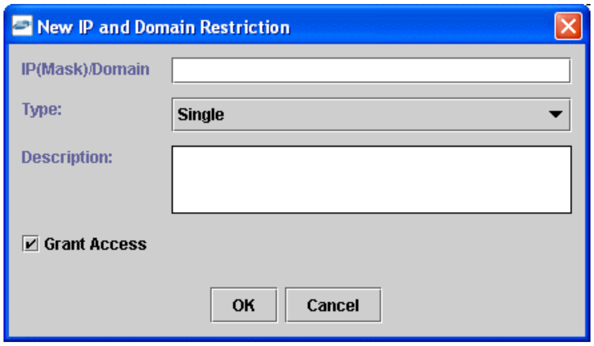
   b. Expand the **Configurations** node.

   c. Expand the **Security** node.

4. Right-click **IP and Domain** and select **New IP and Domain Restriction**.



   The New IP and Domain Restriction dialog box is displayed.



   Perform the following steps:

   a. In the **IP(Mask)/Domain** field, enter the IP or domain name using the following guidelines:

      If you select **Single** (Computer) from the **Type** list, you must provide the IP address for that computer. If you only know the DNS name for the computer, click **DNS Lookup** to obtain the IP Address based on the DNS name.

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

If you select **Domain**, you must provide the domain name.

b. From the **Type** list, select the type of restriction.

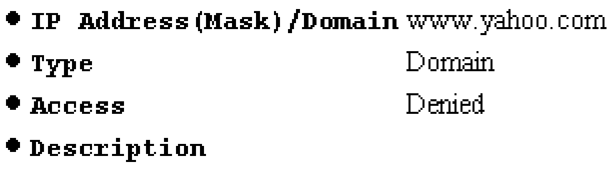
c. In the **Description** field, enter a description (optional).

d. To grant access, select the **Grant Access** check box.

5. Click **OK**.

The new domain is added under the IP and Domain node.

The following pane summarizes your configuration.



● **IP Address(Mask)/Domain**	www.yahoo.com
● **Type**	Domain
● **Access**	Denied
● **Description**	

Migrating Repositories

During design time, the Oracle repository is used to store metadata created when using Application Explorer to configure adapter connections, browse EIS objects, configure services, and configure listeners to listen for EIS events. The information in the repository is also referenced at run-time. For management purposes, you can migrate BSE and J2CA repositories that are configured for Oracle to new destinations without affecting your existing configuration. For example, you may want to migrate a repository from a test environment to a production environment.

Migrating a BSE Repository

To migrate a BSE repository:

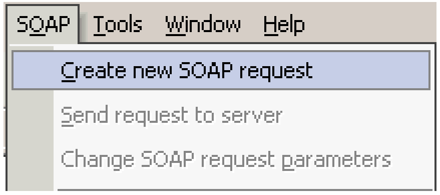
1. Copy the BSE control service URL, for example:

```
http://localhost:7777/ibse/IBSEServlet/admin/iwcontrol.ibs
```

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

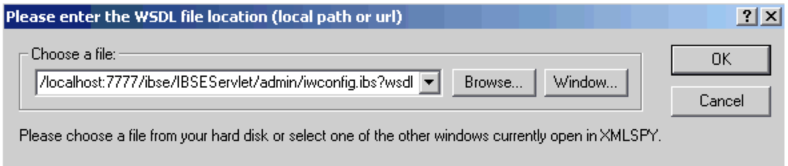
3. From the menu bar, click **SOAP**.

A list of options appears.



4. Select **Create new SOAP request**.

The WSDL file location dialog box is displayed.



Choose a file: /localhost:7777/ibse/IBSEServlet/admin/iwconfig.ibs?wsdl

Please choose a file from your hard disk or select one of the other windows currently open in XMLSPY.

Perform the following steps:

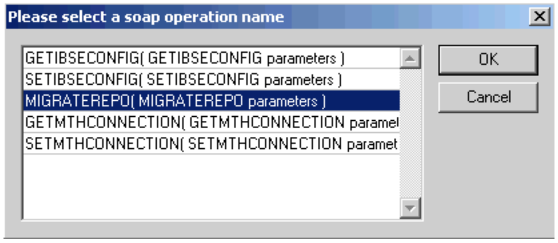
a. In the **Choose a file** field, paste the BSE control service URL.

b. Append **?wsdl** to the URL, for example:

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

5. Click **OK**.

The soap operation name dialog box displays the available control methods.

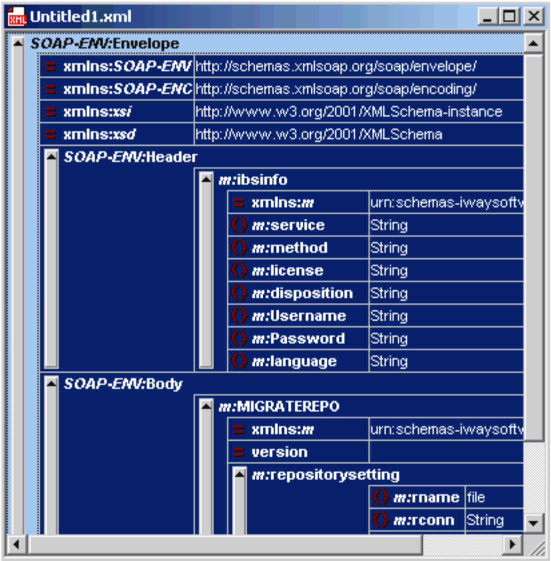


GETIBSECONFIG(GETIBSECONFIG parameters)
SETIBSECONFIG(SETIBSECONFIG parameters)
MIGRATEREPO(MIGRATEREPO parameters)
GETMTHCONNECTION(GETMTHCONNECTION paramet
SETMTHCONNECTION(SETMTHCONNECTION paramet

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

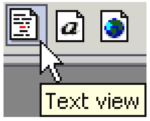
> **Note:** The **MIGRATEREPO(MIGRATEREPO parameters)** control method is available from the BSE administration console. This control method migrates all Web services to the new (empty) repository. You can choose to migrate select Web services only.

The following window is displayed, showing the structure of the SOAP envelope.



SOAP-ENV:Envelope
xmlns:SOAP-ENV http://schemas.xmlsoap.org/soap/envelope/
xmlns:SOAP-ENC http://schemas.xmlsoap.org/soap/encoding/
xmlns:xsi http://www.w3.org/2001/XMLSchema-instance
xmlns:xsd http://www.w3.org/2001/XMLSchema
SOAP-ENV:Header
m:ibsinfo
xmlns:m urn:schemas-iwaysoftw
m:service String
m:method String
m:license String
m:disposition String
m:Username String
m:Password String
m:language String
SOAP-ENV:Body
m:MIGRATEREPO
xmlns:m urn:schemas-iwaysoftw
version
m:repositorysetting
m:rname file
m:rconn String

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



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

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

9. Locate the following section:

   ```
   <m:MIGRATEREPO xmlns:m="urn:schemas-iwaysoftware-com:jul2003:ibse:config"
   version="">
     <m:repositorysetting>
       <m:rname>oracle</m:rname>
       <m:rconn>String</m:rconn>
       <m:rdriver>String</m:rdriver>
       <m:ruser>String</m:ruser>
       <m:rpwd>String</m:rpwd>
     </m:repositorysetting>
     <m:servicename>String</m:servicename>
   </m:MIGRATEREPO>
   ```

   Perform the following steps:

   a. For the <m:rconn> tag, replace the String placeholder with a repository URL where you want to migrate your existing BSE repository.

      The Oracle repository URL has the following format:

      ```
      jdbc:oracle:thin:@[host]:[port]:[sid]
      ```

   b. For the <m:rdriver> tag, replace the String placeholder with the location of your Oracle driver.

   c. For the <m:ruser> tag, replace the String placeholder with a valid user name to access the Oracle repository.

   d. For the <m:rpwd> tag, replace the String placeholder with a valid password to access the Oracle repository.

10. Perform one of the following migration options.

    - If you want to migrate a single Web service from the current BSE repository, enter the Web service name in the <m:servicename> tag, for example:

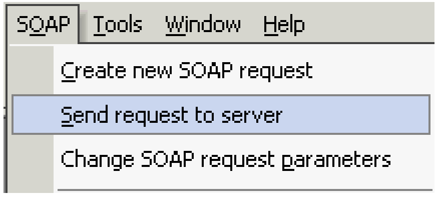
      ```
      <m:servicename>SiebelService1</m:servicename>
      ```

    - If you want to migrate multiple Web services from the current BSE repository, duplicate the <m:servicename> tag for each Web service, for example:

      ```
      <m:servicename>SiebelService1</m:servicename>
      <m:servicename>SiebelService2</m:servicename>
      ```

    - If you want to migrate all Web services from the current BSE repository, remove the <m:servicename> tag.

11. From the menu bar, click **SOAP** and select **Send request to server**.



Your BSE repository and any Web services you selected are now migrated to the new Oracle repository URL you specified.

Migrating a J2CA Repository

To migrate a J2CA repository:

1. Navigate to the location of your J2CA configuration directory where the repository schemas and other information is stored, for example:

   ```
   wls_home\erp-adapters\config\JCA_CONFIG
   ```

   Where `JCA_CONFIG` is the name of your J2CA configuration.

2. Locate and copy the `repository.xml` file.

3. Place this file in a new J2CA configuration directory to migrate the existing repository.

   Your J2CA repository is migrated to the new J2CA configuration directory.

A

Using Siebel Workflows

When using Siebel XML to integrate with Siebel Integration Objects, the interface uses a Siebel Workflow.

Note: This section is intended as a supplement to the documentation designed for Oracle 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.

Overview

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 describe the use and creation of workflows that employ the supported transport services.

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.

See Also:

Siebel Bookshelf documentation for more information on policy and other methods.

Using a Policy to Invoke a Siebel EAI Workflow

A workflow policy is defined by a set of conditions that performs 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.

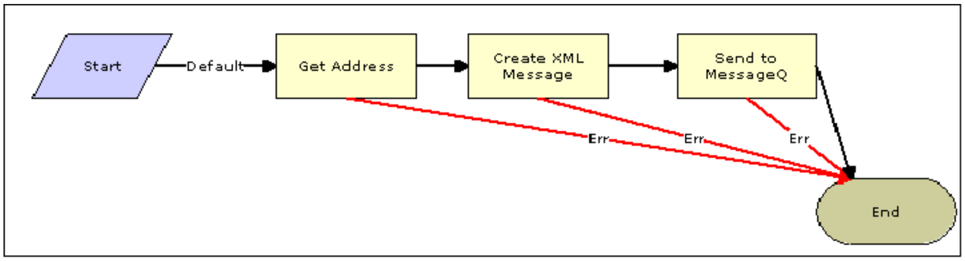
Siebel Workflow - Outbound

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 that 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 that converts the data into an XML message.
3. Calls the Siebel EAI MQSeries Transport that 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 Oracle Application Adapter for Siebel 6.3 and higher. The following Workflow sequence illustrates the previous steps.



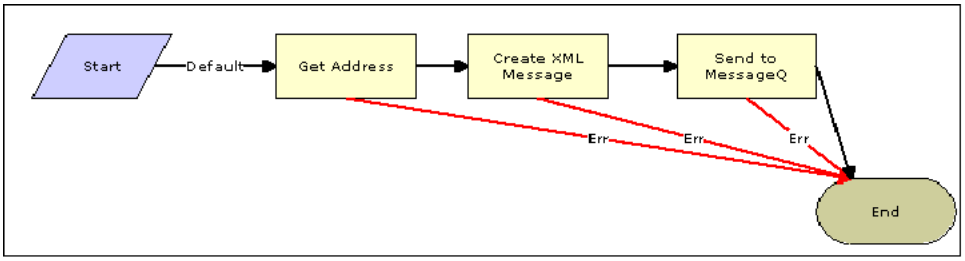
Siebel Workflow - Inbound

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 is a sample of the Workflow process.



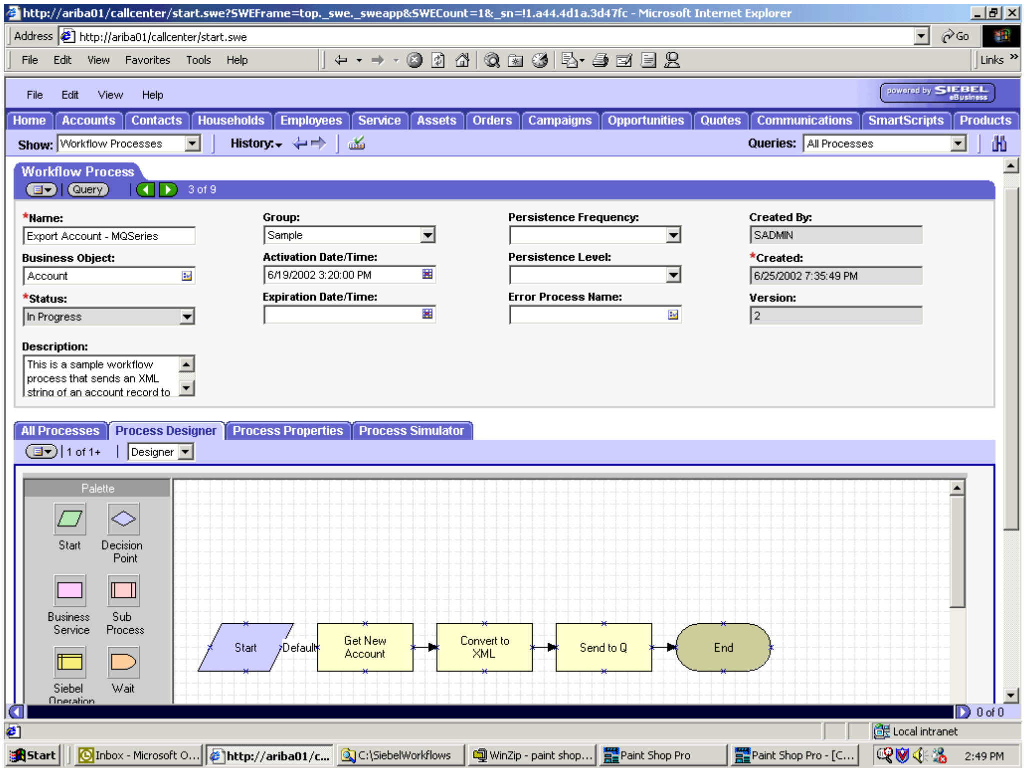
Creating a Siebel Workflow

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 is a Siebel Workflow Administration window.



*Name: Export Account - MQSeries

Business Object: Account

*Status: In Progress

Description: This is a sample workflow process that sends an XML string of an account record to

Group: Sample

Activation Date/Time: 6/19/2002 3:20:00 PM

Expiration Date/Time:

Persistence Frequency:

Persistence Level:

Error Process Name:

Created By: SADMIN

*Created: 6/25/2002 7:35:49 PM

Version: 2

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.

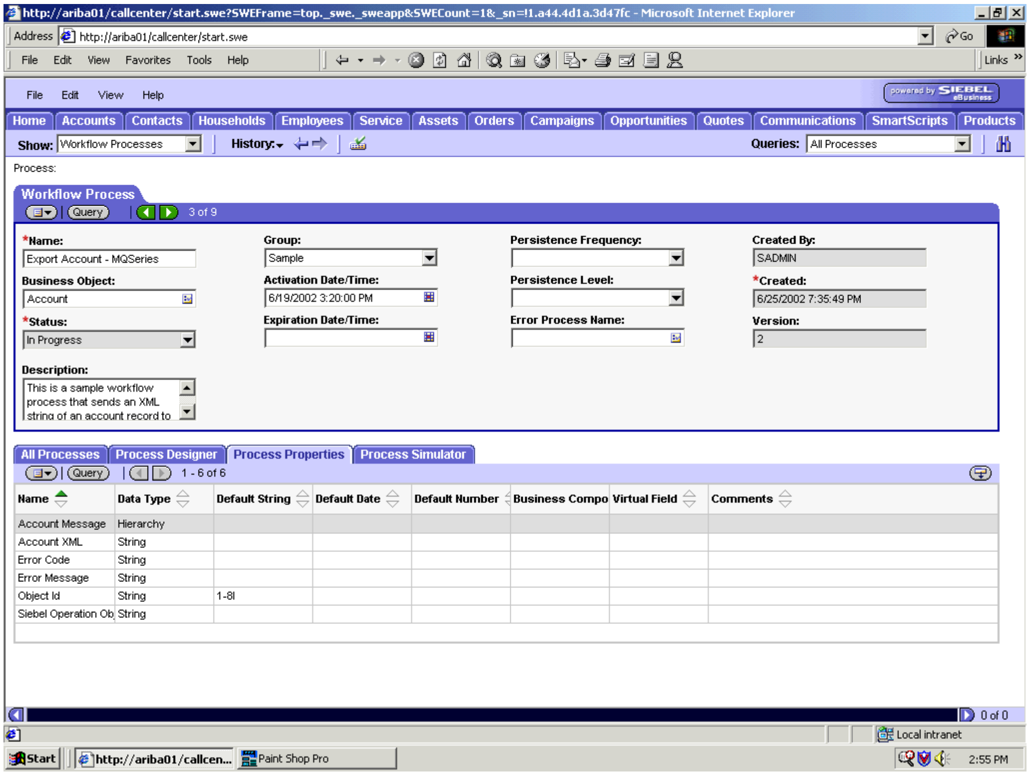
To create a Siebel Workflow:

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 window is displayed, showing the Process Properties tab active.



http://ariba01/callcenter/start.swe?SWEFrame=top._swe._sweapp&SWECount=1&_sn=!1.a44.4d1a.3d47fc - Microsoft Internet Explorer
Address http://ariba01/callcenter/start.swe
File Edit View Favorites Tools Help
Links
File Edit View Help
Home Accounts Contacts Households Employees Service Assets Orders Campaigns Opportunities Quotes Communications SmartScripts Products
Show: Workflow Processes
History:
Queries: All Processes
Process:
Workflow Process
Query
3 of 9

*Name: Export Account - MQSeries	Group: Sample	Persistence Frequency:	Created By: SADMIN
Business Object: Account	Activation Date/Time: 6/19/2002 3:20:00 PM	Persistence Level:	*Created: 6/25/2002 7:35:49 PM
*Status: In Progress	Expiration Date/Time:	Error Process Name:	Version: 2

Description: This is a sample workflow process that sends an XML string of an account record to

All Processes
Process Designer
Process Properties
Process Simulator
Query
1 - 6 of 6

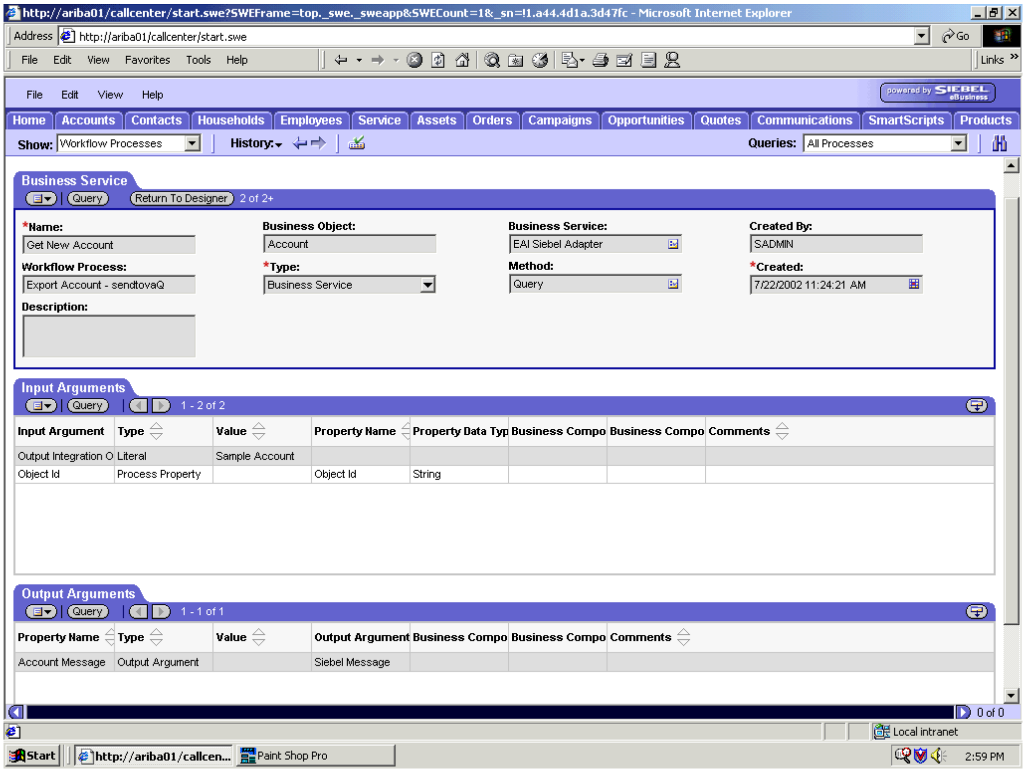
Name	Data Type	Default String	Default Date	Default Number	Business Compo	Virtual Field	Comments
Account Message	Hierarchy						
Account XML	String						
Error Code	String						
Error Message	String						
Object Id	String	1-8I					
Siebel Operation Ob	String						

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`.

   The Business Service obtains the Account information from Siebel using the Query method.

Output from this Business Service is generated in hierarchical format.


http://ariba01/callcenter/start.swe?SWEFrame=top._swe._sweapp&SWECount=1&_sn=!1.a44.4d1a.3d47fc - Microsoft Internet Explorer
Address http://ariba01/callcenter/start.swe
Home Accounts Contacts Households Employees Service Assets Orders Campaigns Opportunities Quotes Communications SmartScripts Products
Show: Workflow Processes
History:
Queries: All Processes

Business Service

Query | Return To Designer | 2 of 2+

*Name: Get New Account	Business Object: Account	Business Service: EAI Siebel Adapter	Created By: SADMIN
Workflow Process: Export Account - sendtovaQ	*Type: Business Service	Method: Query	*Created: 7/22/2002 11:24:21 AM
Description:			

Input Arguments

Query | 1 - 2 of 2

Input Argument	Type	Value	Property Name	Property Data Typ	Business Compo	Business Compo	Comments
Output Integration O	Literal	Sample Account					
Object Id	Process Property		Object Id	String			

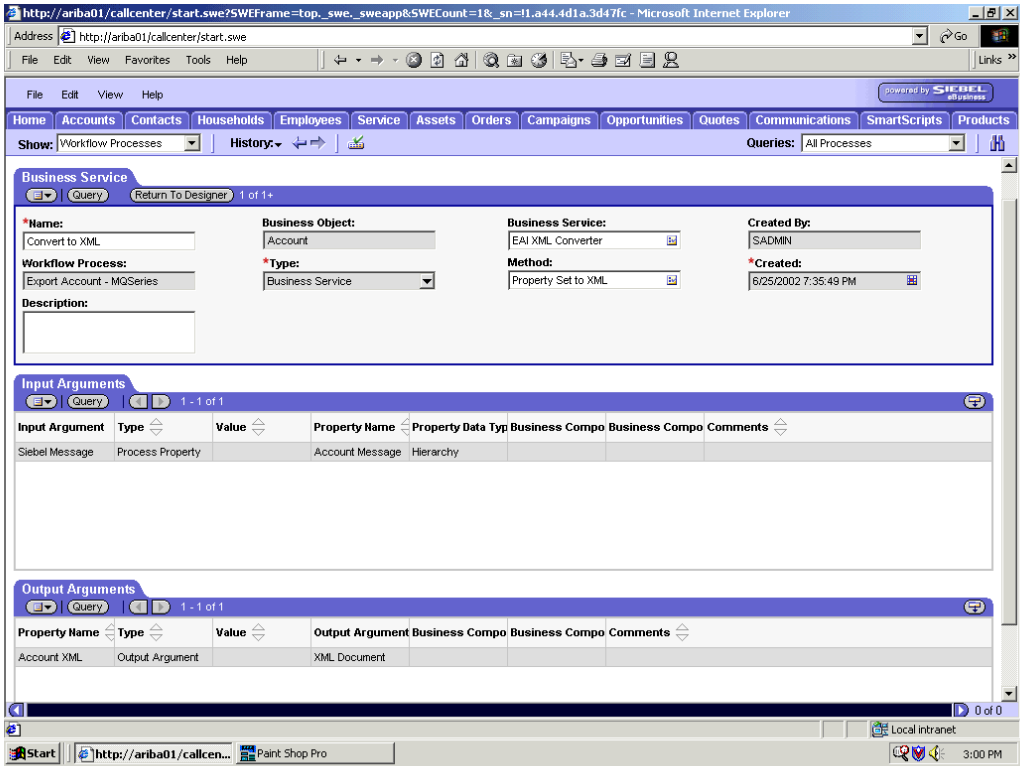
Output Arguments

Query | 1 - 1 of 1

Property Name	Type	Value	Output Argument	Business Compo	Business Compo	Comments
Account Message	Output Argument		Siebel Message			

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.


http://ariba01/callcenter/start.swe?SWEFrame=top._swe._sweapp&SWECount=1&_sn=!1.a44.4d1a.3d47fc - Microsoft Internet Explorer
Address http://ariba01/callcenter/start.swe
File Edit View Favorites Tools Help
Links
File Edit View Help
Home Accounts Contacts Households Employees Service Assets Orders Campaigns Opportunities Quotes Communications SmartScripts Products
Show: Workflow Processes
History:
Queries: All Processes
Query
Return To Designer
1 of 1+
Local intranet
Start
http://ariba01/callcen...
Paint Shop Pro
3:00 PM

Business Service

*Name: Convert to XML	Business Object: Account	Business Service: EAI XML Converter	Created By: SADMIN
Workflow Process: Export Account - MQSeries	*Type: Business Service	Method: Property Set to XML	*Created: 6/25/2002 7:35:49 PM
Description:			

Input Arguments 1 - 1 of 1

Input Argument	Type	Value	Property Name	Property Data Typ	Business Compo	Business Compo	Comments
Siebel Message	Process Property		Account Message	Hierarchy			

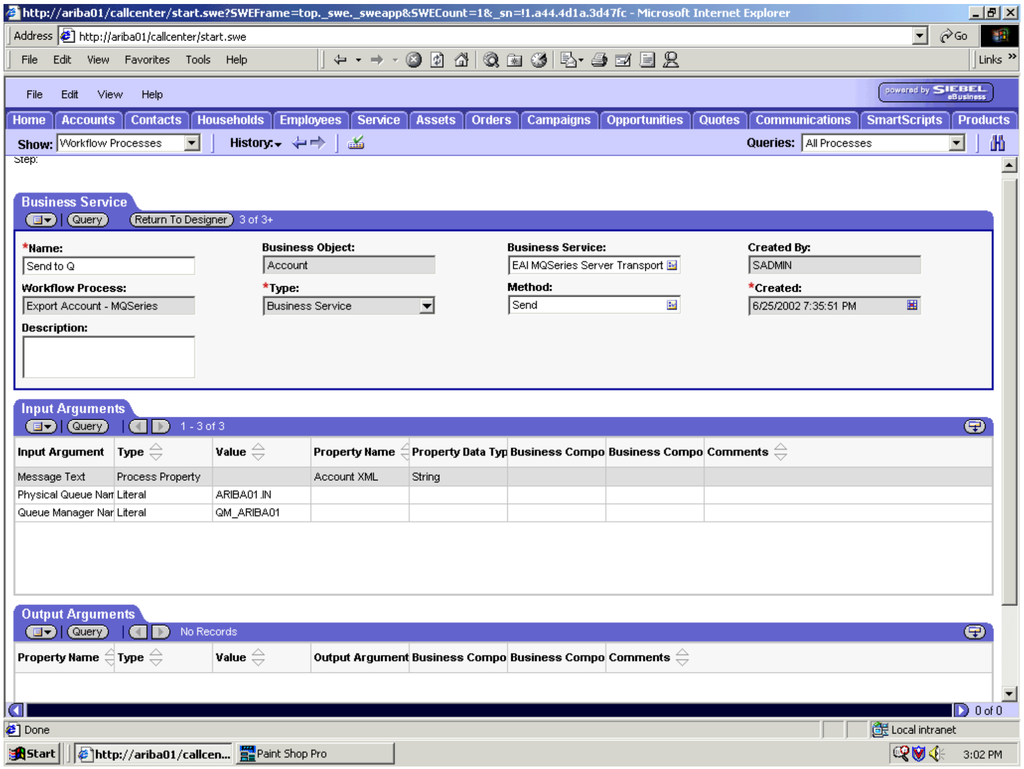
Output Arguments 1 - 1 of 1

Property Name	Type	Value	Output Argument	Business Compo	Business Compo	Comments
Account XML	Output Argument		XML Document			

0 of 0

5. 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.


http://ariba01/callcenter/start.swe?SWEFrame=top._swe._sweapp&SWECount=1&_sn=!1.a44.4d1a.3d47fc - Microsoft Internet Explorer
Address http://ariba01/callcenter/start.swe
File Edit View Favorites Tools Help
File Edit View Help
Home Accounts Contacts Households Employees Service Assets Orders Campaigns Opportunities Quotes Communications SmartScripts Products
History:
Query
Return To Designer
3 of 3+
1 - 3 of 3
No Records
0 of 0
Done
Local intranet
Start
http://ariba01/callcen...
Paint Shop Pro
3:02 PM

Show: Workflow Processes

Queries: All Processes

Step:

Business Service

*Name: Send to Q	Business Object: Account	Business Service: EAI MQSeries Server Transport	Created By: SADMIN
Workflow Process: Export Account - MQSeries	*Type: Business Service	Method: Send	*Created: 6/25/2002 7:35:51 PM
Description:			

Input Arguments

Input Argument	Type	Value	Property Name	Property Data Typ	Business Compo	Business Compo	Comments
Message Text	Process Property		Account XML	String			
Physical Queue Nar	Literal	ARIBA01.IN					
Queue Manager Nar	Literal	QM_ARIBA01					

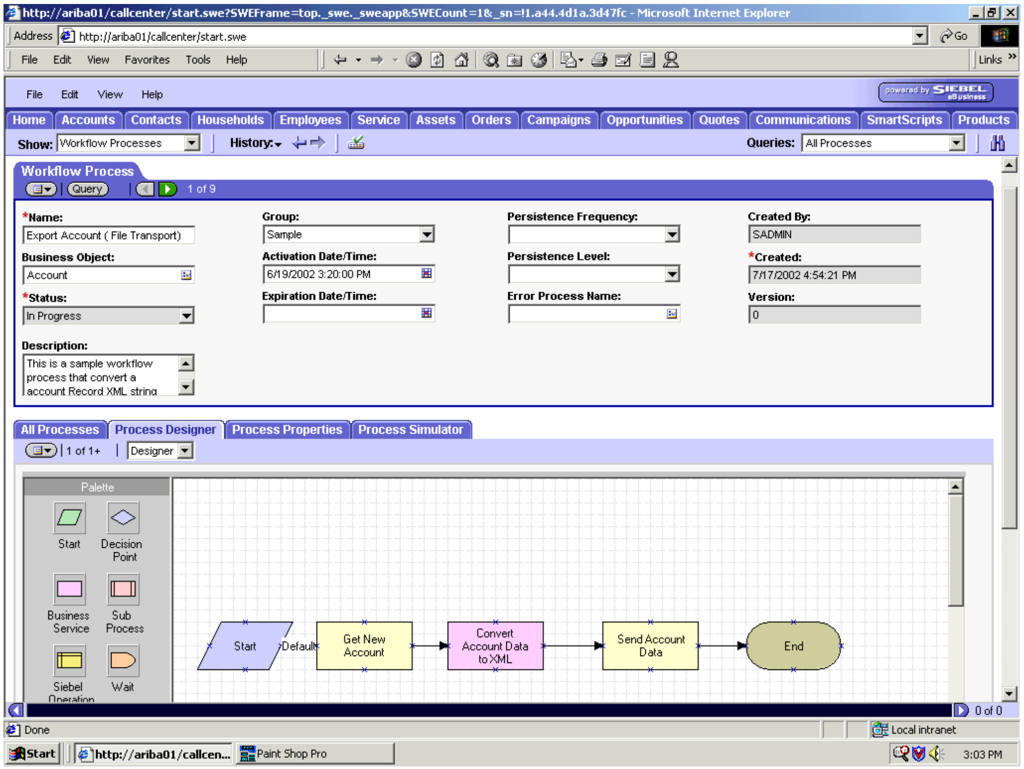
Output Arguments

Property Name	Type	Value	Output Argument	Business Compo	Business Compo	Comments

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 was designed for exporting Siebel Account record information using the File transport.

The following window is displayed with the Process Designer tab active.



http://ariba01/callcenter/start.swe?SWEFrame=top._swe._sweapp&SWECount=1&_sn=!1.a44.4d1a.3d47fc - Microsoft Internet Explorer

Address: http://ariba01/callcenter/start.swe

Show: Workflow Processes

Queries: All Processes

Workflow Process

1 of 9

*Name: Export Account (File Transport)

Business Object: Account

*Status: In Progress

Description: This is a sample workflow process that convert a account Record XML string

Group: Sample

Activation Date/Time: 6/19/2002 3:20:00 PM

Expiration Date/Time:

Persistence Frequency:

Persistence Level:

Error Process Name:

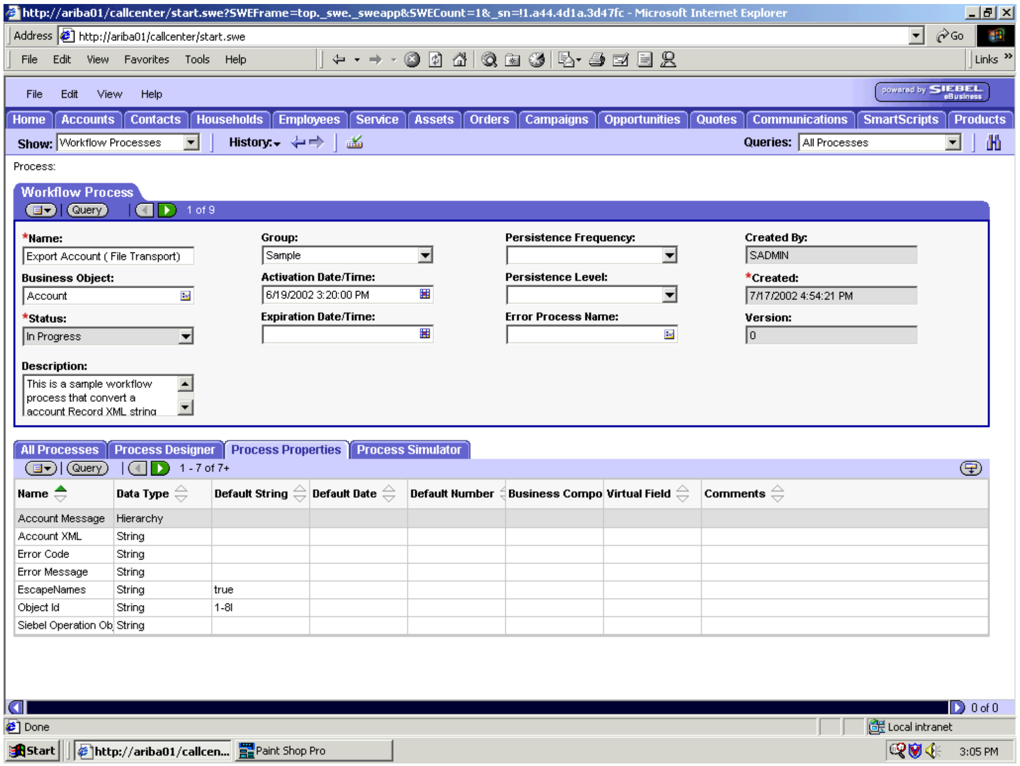
Created By: SADMIN

*Created: 7/17/2002 4:54:21 PM

Version: 0

This 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.

To create a Siebel Workflow:


http://ariba01/callcenter/start.swe?SWEFrame=top._swe._sweapp&SWECount=1&_sn=!1.a44.4d1a.3d47fc - Microsoft Internet Explorer
Address http://ariba01/callcenter/start.swe
Go
Links
File Edit View Favorites Tools Help
File Edit View Help
powered by SIEBEL eBusiness
Home Accounts Contacts Households Employees Service Assets Orders Campaigns Opportunities Quotes Communications SmartScripts Products
History:
Query
1 of 9
All Processes
Process Designer
Process Properties
Process Simulator
Query
1 - 7 of 7+
0 of 0
Done
Local intranet
Start
http://ariba01/callcen...
Paint Shop Pro
3:05 PM

Show: Workflow Processes

Queries: All Processes

Process:

Workflow Process

*Name: Export Account (File Transport)	Group: Sample	Persistence Frequency:	Created By: SADMIN
Business Object: Account	Activation Date/Time: 6/19/2002 3:20:00 PM	Persistence Level:	*Created: 7/17/2002 4:54:21 PM
*Status: In Progress	Expiration Date/Time:	Error Process Name:	Version: 0

Description: This is a sample workflow process that convert a account Record XML string

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	1-8I					
Siebel Operation Ob	String						

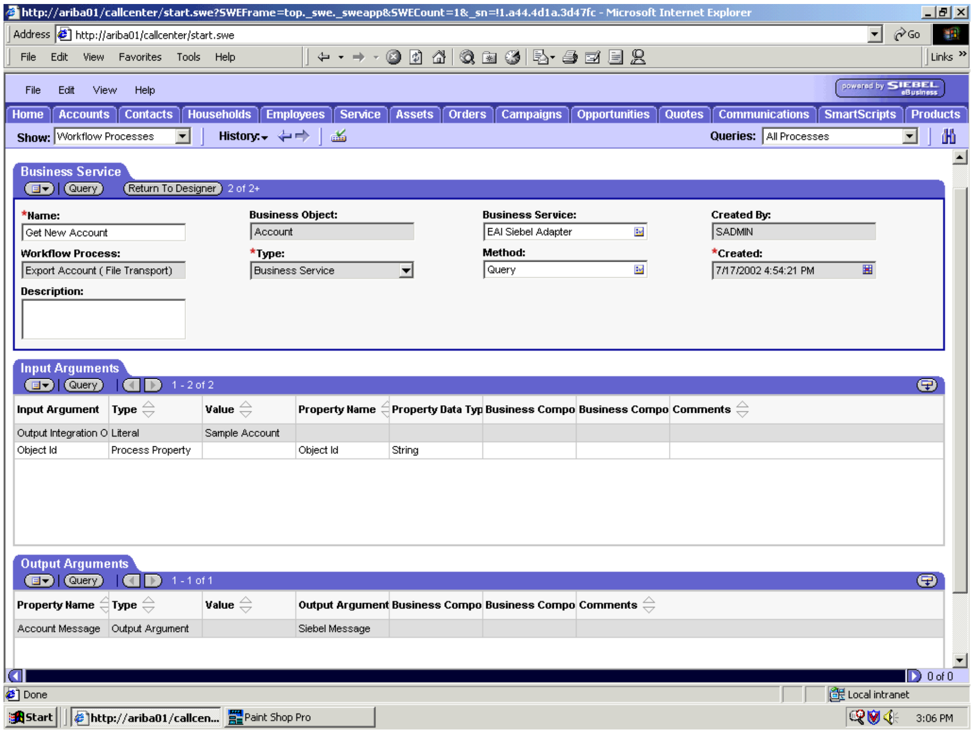
1. On the **Process Properties** tab of the **Workflow Process** window, define the Account message and Account XML process properties.

   Account message contains the Siebel Account data in hierarchical format.

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

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

The following is an example of a Siebel Workflow Administration window.


http://ariba01/callcenter/start.swe?SWEFrame=top._swe._sweapp&SWECount=1&_sn=!1.a44.4d1a.3d47fc - Microsoft Internet Explorer
Address http://ariba01/callcenter/start.swe
File Edit View Favorites Tools Help
Home Accounts Contacts Households Employees Service Assets Orders Campaigns Opportunities Quotes Communications SmartScripts Products
History:
Query
Return To Designer
2 of 2+
Done
Local intranet
Start
http://ariba01/callcen...
Paint Shop Pro
3:06 PM

Show: Workflow Processes

Queries: All Processes

Business Service

*Name: Get New Account	Business Object: Account	Business Service: EAI Siebel Adapter	Created By: SADMIN
Workflow Process: Export Account (File Transport)	*Type: Business Service	Method: Query	*Created: 7/17/2002 4:54:21 PM
Description:			

Input Arguments 1 - 2 of 2

Input Argument	Type	Value	Property Name	Property Data Typ	Business Compo	Business Compo	Comments
Output Integration O	Literal	Sample Account					
Object Id	Process Property		Object Id	String			

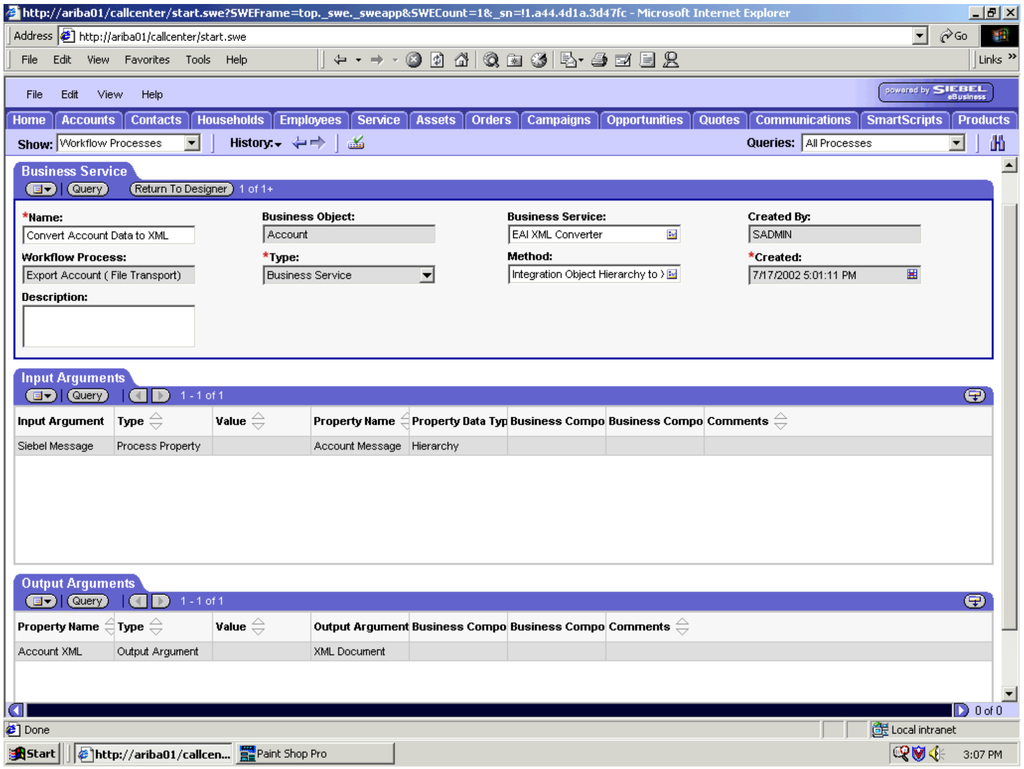
Output Arguments 1 - 1 of 1

Property Name	Type	Value	Output Argument	Business Compo	Business Compo	Comments
Account Message	Output Argument		Siebel Message			

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

   The Business Service obtains the Account information from Siebel using the Query method.

Output from this Business Service is generated in hierarchical format.



http://ariba01/callcenter/start.swe?SWEFrame=top._swe._sweapp&SWECount=1&_sn=!1.a44.4d1a.3d47fc - Microsoft Internet Explorer

Address http://ariba01/callcenter/start.swe

Show: Workflow Processes | Queries: All Processes

Business Service 1 of 1+

*Name:	Business Object:	Business Service:	Created By:
Convert Account Data to XML	Account	EAI XML Converter	SADMIN
Workflow Process:	*Type:	Method:	*Created:
Export Account (File Transport)	Business Service	Integration Object Hierarchy to >	7/17/2002 5:01:11 PM
Description:			

Input Arguments 1 - 1 of 1

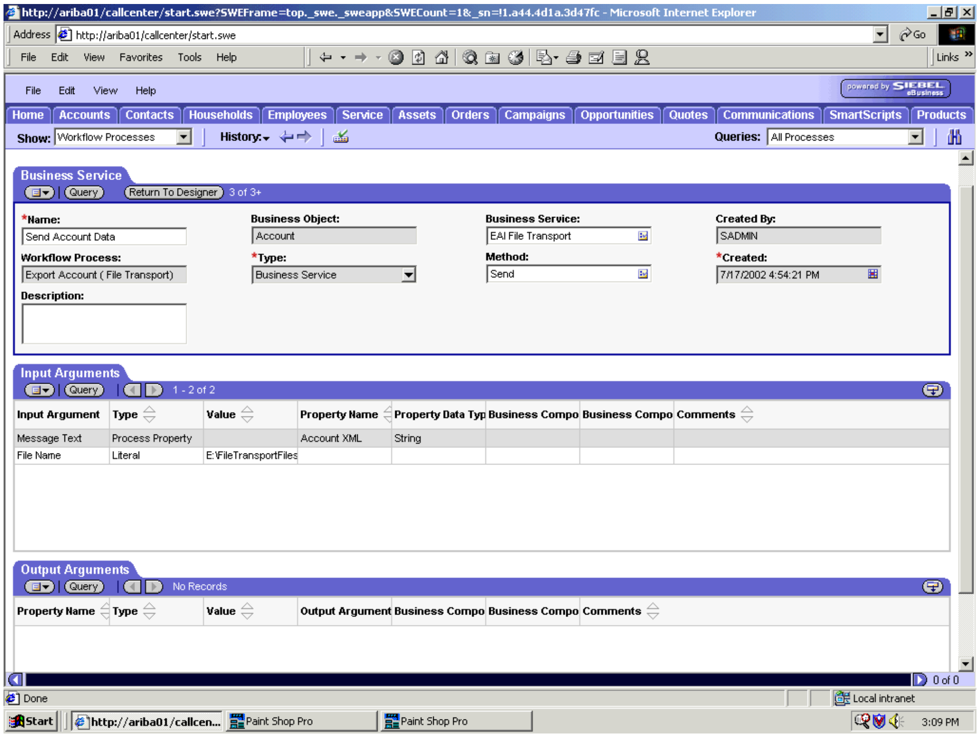
Input Argument	Type	Value	Property Name	Property Data Typ	Business Compo	Business Compo	Comments
Siebel Message	Process Property		Account Message	Hierarchy			

Output Arguments 1 - 1 of 1

Property Name	Type	Value	Output Argument	Business Compo	Business Compo	Comments
Account XML	Output Argument		XML Document			

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.



http://ariba01/callcenter/start.swe?SWEFrame=top._swe._sweapp&SWECount=1&_sn=!1.a44.4d1a.3d47fc - Microsoft Internet Explorer

Address http://ariba01/callcenter/start.swe

Show: Workflow Processes | Queries: All Processes

Business Service 3 of 3+

*Name:	Business Object:	Business Service:	Created By:
Send Account Data	Account	EAI File Transport	SADMIN
Workflow Process:	*Type:	Method:	*Created:
Export Account (File Transport)	Business Service	Send	7/17/2002 4:54:21 PM
Description:			

Input Arguments 1 - 2 of 2

Input Argument	Type	Value	Property Name	Property Data Typ	Business Compo	Business Compo	Comments
Message Text	Process Property		Account XML	String			
File Name	Literal	E:\FileTransportFiles					

Output Arguments No Records

Property Name	Type	Value	Output Argument	Business Compo	Business Compo	Comments

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

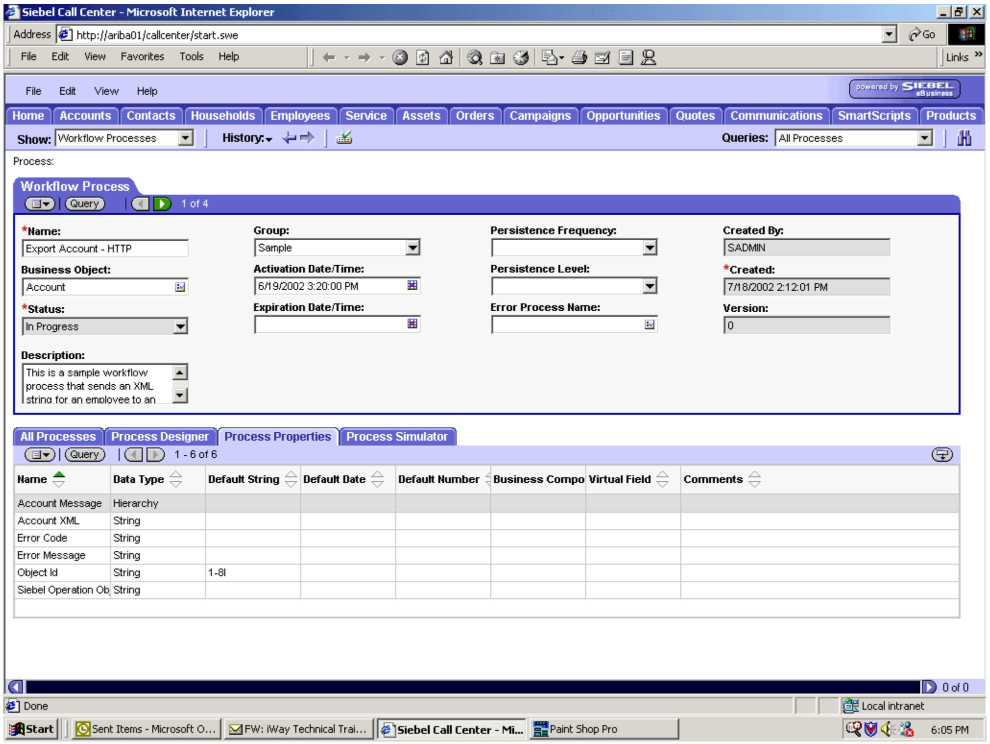
   This Business Service is defined to receive the Account data from the EAI XML Converter Business Service in Siebel XML format and send the Account XML to the file system in a specified directory using the Send method.

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.

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

To create a Siebel Workflow:


Siebel Call Center - Microsoft Internet Explorer
Address http://ariba01/callcenter/start.swe
File Edit View Favorites Tools Help
Links
File Edit View Help
powered by SIEBEL eBusiness
Home Accounts Contacts Households Employees Service Assets Orders Campaigns Opportunities Quotes Communications SmartScripts Products
History:
Process:
Workflow Process
Query
1 of 4
All Processes Process Designer Process Properties Process Simulator
Query
1 - 6 of 6
0 of 0
Done
Local intranet
Start Sent Items - Microsoft O... FW: iWay Technical Trai... Siebel Call Center - Mi... Paint Shop Pro
6:05 PM

Show: Workflow Processes

Queries: All Processes

*Name: Export Account - HTTP	Group: Sample	Persistence Frequency:	Created By: SADMIN
Business Object: Account	Activation Date/Time: 6/19/2002 3:20:00 PM	Persistence Level:	*Created: 7/18/2002 2:12:01 PM
*Status: In Progress	Expiration Date/Time:	Error Process Name:	Version: 0

Description: This is a sample workflow process that sends an XML string for an employee to an

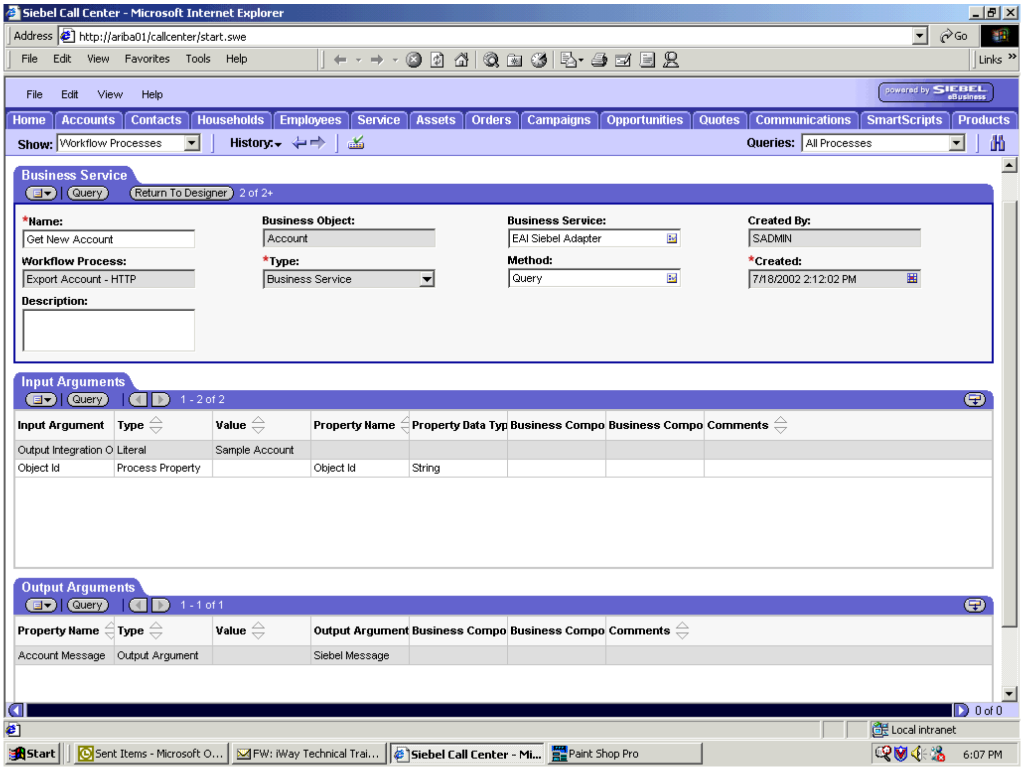
Name	Data Type	Default String	Default Date	Default Number	Business Compo	Virtual Field	Comments
Account Message	Hierarchy						
Account XML	String						
Error Code	String						
Error Message	String						
Object Id	String	1-8I					
Siebel Operation Ob	String						

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.


Siebel Call Center - Microsoft Internet Explorer
Address http://ariba01/callcenter/start.swe
File Edit View Favorites Tools Help
Links
File Edit View Help
powered by SIEBEL eBusiness
Home Accounts Contacts Households Employees Service Assets Orders Campaigns Opportunities Quotes Communications SmartScripts Products
Show: Workflow Processes
History:
Queries: All Processes
Business Service
Query
Return To Designer
2 of 2+

*Name: Get New Account	Business Object: Account	Business Service: EAI Siebel Adapter	Created By: SADMIN
Workflow Process: Export Account - HTTP	*Type: Business Service	Method: Query	*Created: 7/18/2002 2:12:02 PM
Description:			

Input Arguments
Query
1 - 2 of 2

Input Argument	Type	Value	Property Name	Property Data Typ	Business Compo	Business Compo	Comments
Output Integration O	Literal	Sample Account					
Object Id	Process Property		Object Id	String			

Property Name	Type	Value	Output Argument	Business Compo	Business Compo	Comments
Account Message	Output Argument		Siebel Message			

0 of 0
Local intranet
Start
Sent Items - Microsoft O...
FW: iWay Technical Trai...
Siebel Call Center - Mi...
Paint Shop Pro
6:07 PM

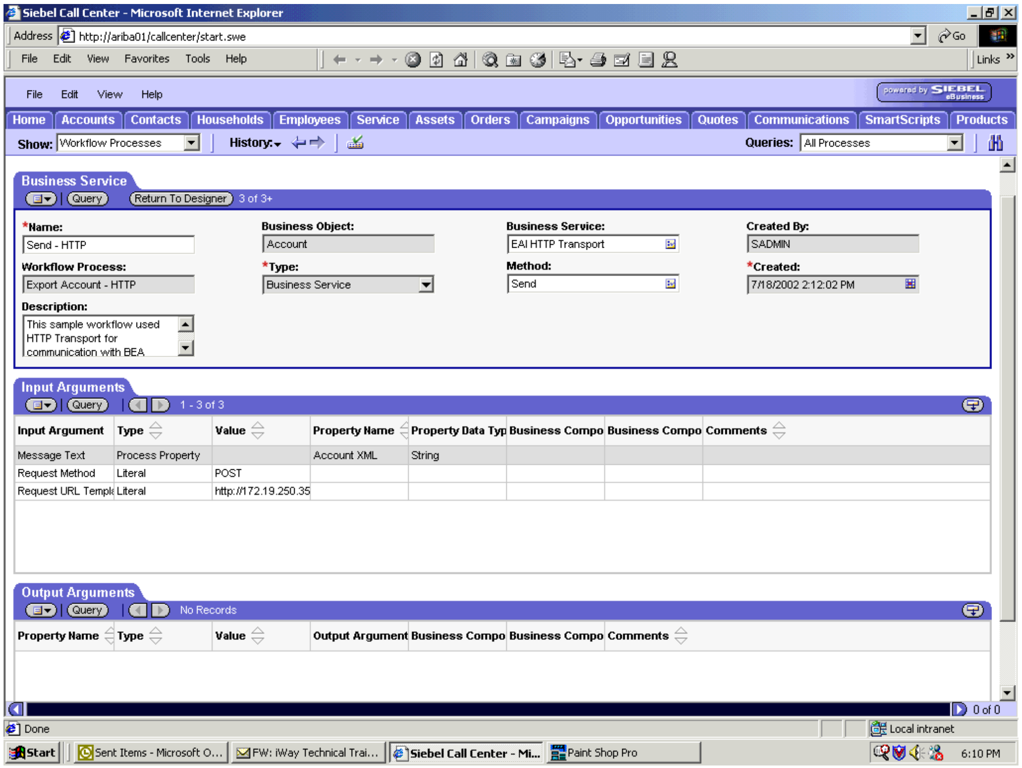
3. Define an **EAI Siebel Adapter Business Service** step to receive an instance of Account data and call it `Get New Account`.

   The Business Service obtains the Account information from Siebel using the Query method.

   Output from this Business Service is generated in hierarchical format.

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.


Siebel Call Center - Microsoft Internet Explorer
Address http://ariba01/callcenter/start.swe
File Edit View Favorites Tools Help
Home Accounts Contacts Households Employees Service Assets Orders Campaigns Opportunities Quotes Communications SmartScripts Products
Show: Workflow Processes
History:
Queries: All Processes
Query
Return To Designer
Done
Local intranet
Start
Sent Items - Microsoft O...
FW: iWay Technical Trai...
Siebel Call Center - Mi...
Paint Shop Pro
6:10 PM

Business Service 3 of 3+

*Name: Send - HTTP	Business Object: Account	Business Service: EAI HTTP Transport	Created By: SADMIN
Workflow Process: Export Account - HTTP	*Type: Business Service	Method: Send	*Created: 7/18/2002 2:12:02 PM
Description: This sample workflow used HTTP Transport for communication with BEA			

Input Arguments 1 - 3 of 3

Input Argument	Type	Value	Property Name	Property Data Typ	Business Compo	Business Compo	Comments
Message Text	Process Property		Account XML	String			
Request Method	Literal	POST					
Request URL Templ	Literal	http://172.19.250.35					

Output Arguments No Records

Property Name	Type	Value	Output Argument	Business Compo	Business Compo	Comments

0 of 0

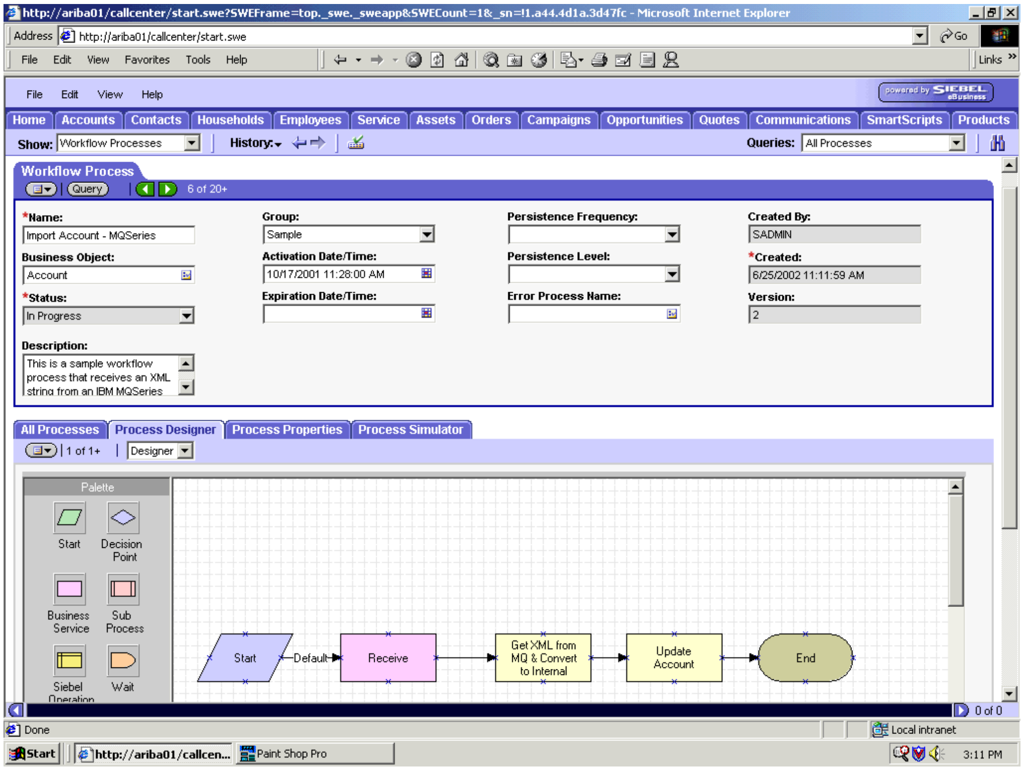
5. Define an **EAI HTTP Transport Business Service** step and call it `Send - HTTP`.

   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 is a sample Siebel Workflow Administration window.

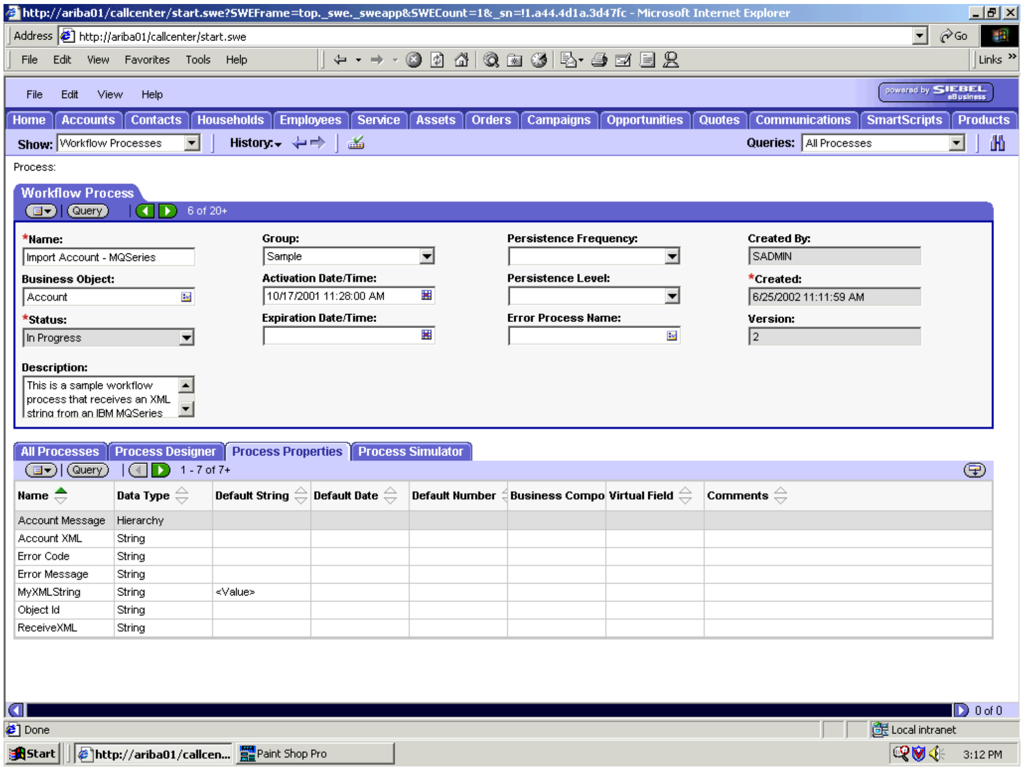

http://ariba01/callcenter/start.swe?SWEFrame=top._swe._sweapp&SWECount=1&_sn=!1.a44.4d1a.3d47fc - Microsoft Internet Explorer
Address http://ariba01/callcenter/start.swe
File Edit View Favorites Tools Help
Links
File Edit View Help
Home Accounts Contacts Households Employees Service Assets Orders Campaigns Opportunities Quotes Communications SmartScripts Products
Show: Workflow Processes
History:
Queries: All Processes
Workflow Process
Query
6 of 20+
All Processes Process Designer Process Properties Process Simulator
1 of 1+
Designer
Palette
Start
Decision Point
Business Service
Sub Process
Siebel Operation
Wait
Start
Default
Receive
Get XML from MQ & Convert to Internal
Update Account
End
0 of 0
Done
Local intranet
Start
http://ariba01/callcen...
Paint Shop Pro
3:11 PM

*Name: Import Account - MQSeries	Group: Sample	Persistence Frequency:	Created By: SADMIN
Business Object: Account	Activation Date/Time: 10/17/2001 11:28:00 AM	Persistence Level:	*Created: 6/25/2002 11:11:59 AM
*Status: In Progress	Expiration Date/Time:	Error Process Name:	Version: 2

Description: This is a sample workflow process that receives an XML string from an IBM MQSeries

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

To create a Siebel Workflow:


http://ariba01/callcenter/start.swe?SWEFrame=top._swe._sweapp&SWECount=1&_sn=!1.a44.4d1a.3d47fc - Microsoft Internet Explorer
Address http://ariba01/callcenter/start.swe
File Edit View Favorites Tools Help
Links
File Edit View Help
Home Accounts Contacts Households Employees Service Assets Orders Campaigns Opportunities Quotes Communications SmartScripts Products
Show: Workflow Processes
History:
Queries: All Processes
Process:
Workflow Process
Query
6 of 20+
All Processes Process Designer Process Properties Process Simulator
Query
1 - 7 of 7+
0 of 0
Done
Local intranet
Start
http://ariba01/callcen...
Paint Shop Pro
3:12 PM

*Name: Import Account - MQSeries	Group: Sample	Persistence Frequency:	Created By: SADMIN
Business Object: Account	Activation Date/Time: 10/17/2001 11:28:00 AM	Persistence Level:	*Created: 6/25/2002 11:11:59 AM
*Status: In Progress	Expiration Date/Time:	Error Process Name:	Version: 2

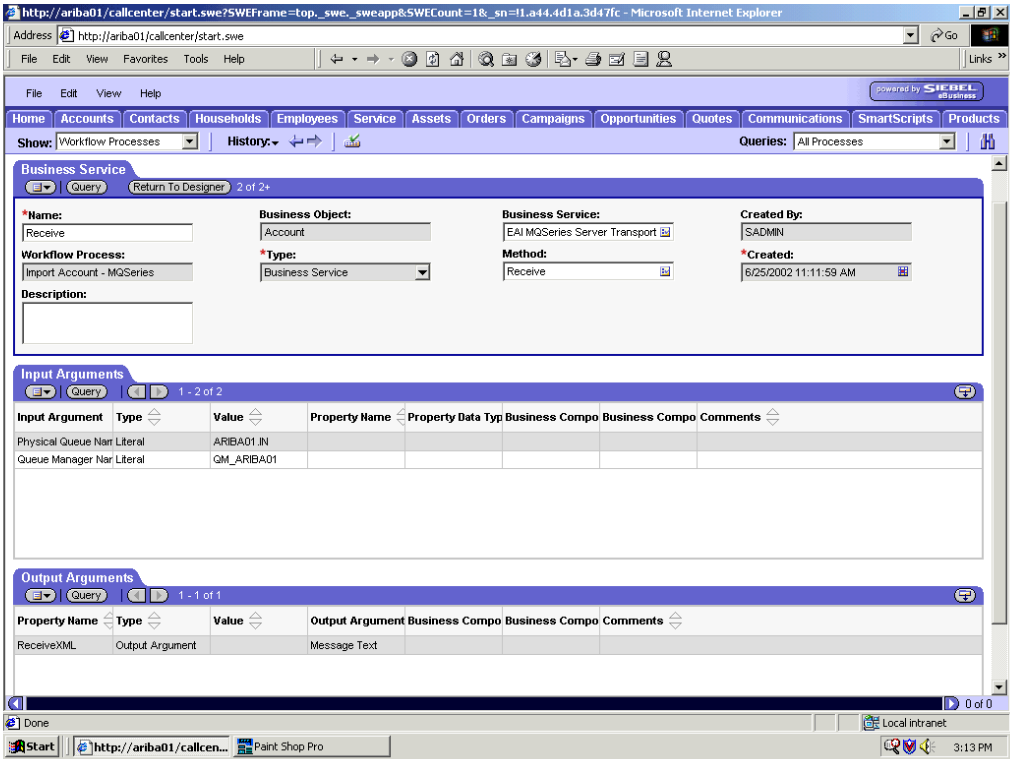
Description: This is a sample workflow process that receives an XML string from an IBM MQSeries

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						
MyXMLString	String	<Value>					
Object Id	String						
ReceiveXML	String						

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.



http://ariba01/callcenter/start.swe?SWEFrame=top._swe._sweapp&SWECount=1&_sn=!1.a44.4d1a.3d47fc - Microsoft Internet Explorer
Address http://ariba01/callcenter/start.swe
File Edit View Favorites Tools Help
Links
File Edit View Help
Home Accounts Contacts Households Employees Service Assets Orders Campaigns Opportunities Quotes Communications SmartScripts Products
History:
Query
Return To Designer
2 of 2+
1 - 2 of 2
1 - 1 of 1
0 of 0
Done
Local intranet
Start
http://ariba01/callcen...
Paint Shop Pro
3:13 PM

Show: Workflow Processes

Queries: All Processes

Business Service

*Name: Receive	Business Object: Account	Business Service: EAI MQSeries Server Transport	Created By: SADMIN
Workflow Process: Import Account - MQSeries	*Type: Business Service	Method: Receive	*Created: 6/25/2002 11:11:59 AM
Description:			

Input Arguments

Input Argument	Type	Value	Property Name	Property Data Typ	Business Compo	Business Compo	Comments
Physical Queue Nam	Literal	ARIBA01.IN					
Queue Manager Nar	Literal	QM_ARIBA01					

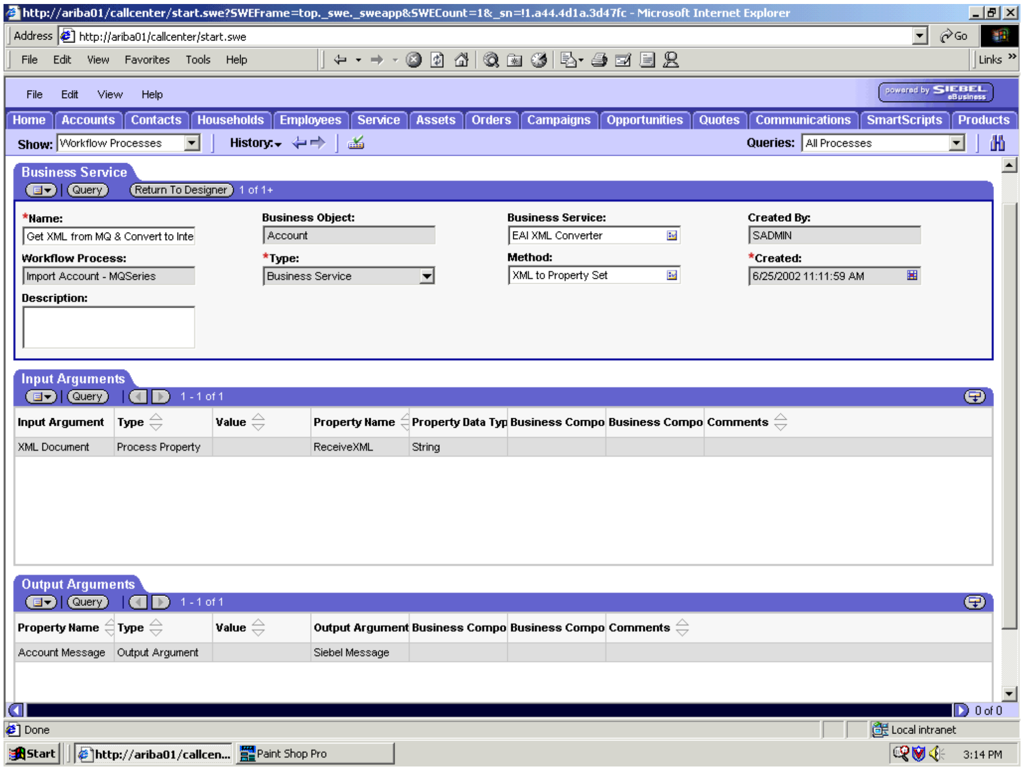
Output Arguments

Property Name	Type	Value	Output Argument	Business Compo	Business Compo	Comments
ReceiveXML	Output Argument		Message Text			

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.



Business Service

*Name: Get XML from MQ & Convert to Inte	Business Object: Account	Business Service: EAI XML Converter	Created By: SADMIN
Workflow Process: Import Account - MQSeries	*Type: Business Service	Method: XML to Property Set	*Created: 6/25/2002 11:11:59 AM
Description:			

Input Arguments

Input Argument	Type	Value	Property Name	Property Data Typ	Business Compo	Business Compo	Comments
XML Document	Process Property		ReceiveXML	String			

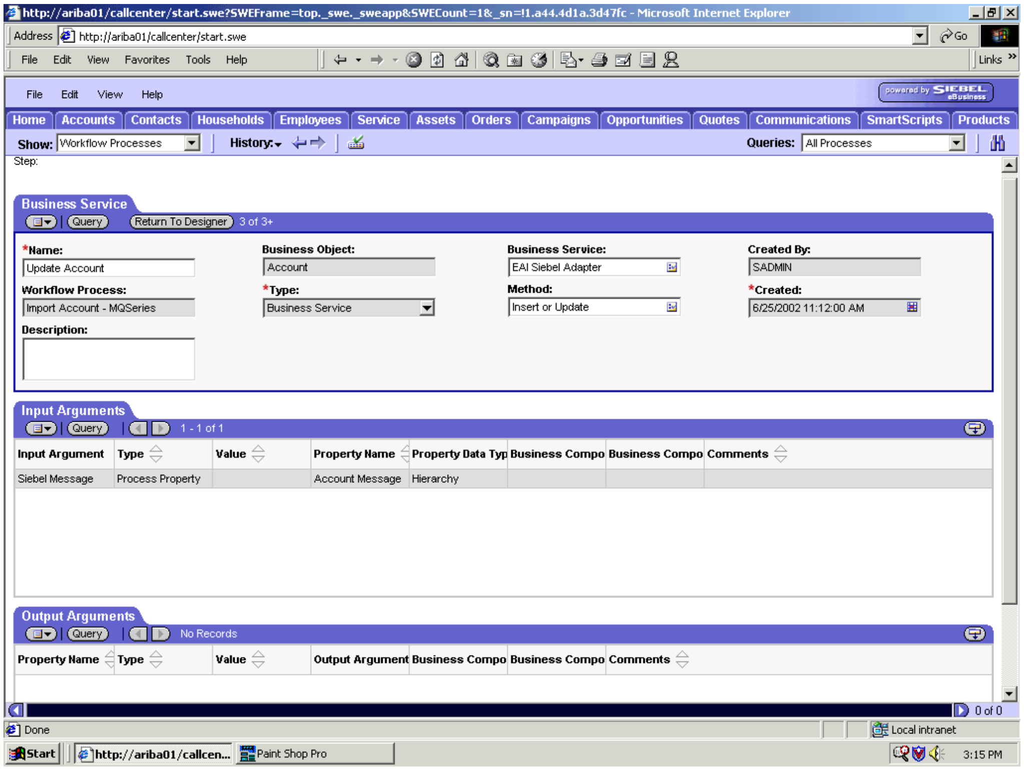
Output Arguments

Property Name	Type	Value	Output Argument	Business Compo	Business Compo	Comments
Account Message	Output Argument		Siebel Message			

http://ariba01/callcenter/start.swe?SWEFrame=top._swe._sweapp&SWECount=1&_sn=!1.a44.4d1a.3d47fc - Microsoft Internet Explorer
Address http://ariba01/callcenter/start.swe
File Edit View Favorites Tools Help
Home Accounts Contacts Households Employees Service Assets Orders Campaigns Opportunities Quotes Communications SmartScripts Products
Show: Workflow Processes
History:
Queries: All Processes
Query
Return To Designer
1 of 1+
1 - 1 of 1
0 of 0
Done
Local intranet
Start
http://ariba01/callcen...
Paint Shop Pro
3:14 PM

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.


http://ariba01/callcenter/start.swe?SWEFrame=top._swe._sweapp&SWECount=1&_sn=!1.a44.4d1a.3d47fc - Microsoft Internet Explorer
Address http://ariba01/callcenter/start.swe
File Edit View Favorites Tools Help
Links
File Edit View Help
Home Accounts Contacts Households Employees Service Assets Orders Campaigns Opportunities Quotes Communications SmartScripts Products
Show: Workflow Processes
History:
Queries: All Processes
Step:
Business Service
Query
Return To Designer
3 of 3+

*Name: Update Account	Business Object: Account	Business Service: EAI Siebel Adapter	Created By: SADMIN
Workflow Process: Import Account - MQSeries	*Type: Business Service	Method: Insert or Update	*Created: 6/25/2002 11:12:00 AM
Description:			

Input Arguments
Query
1 - 1 of 1

Input Argument	Type	Value	Property Name	Property Data Typ	Business Compo	Business Compo	Comments
Siebel Message	Process Property		Account Message	Hierarchy			

Property Name	Type	Value	Output Argument	Business Compo	Business Compo	Comments

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.

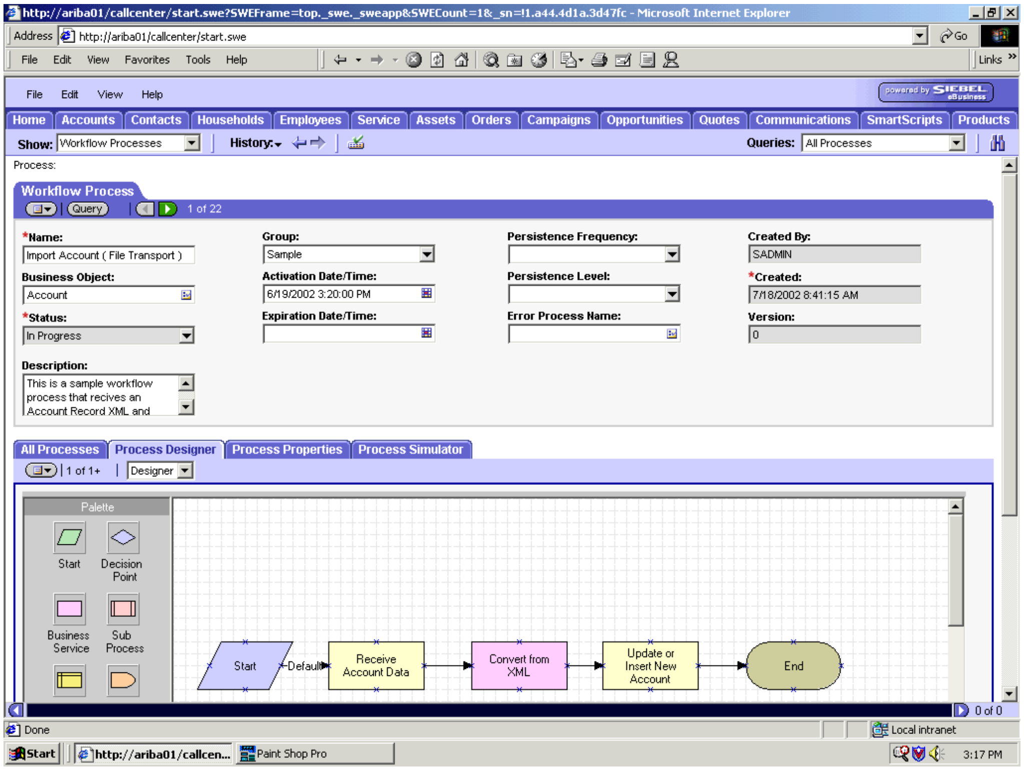
   The Business Service applies the Account information into Siebel using the Insert or Update method.

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

This 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 is a Siebel Workflow Administration window with the Process Designer tab active.



http://ariba01/callcenter/start.swe?SWEFrame=top._swe._sweapp&SWECount=1&_sn=!1.a44.4d1a.3d47fc - Microsoft Internet Explorer
Address http://ariba01/callcenter/start.swe
File Edit View Favorites Tools Help
Home Accounts Contacts Households Employees Service Assets Orders Campaigns Opportunities Quotes Communications SmartScripts Products
Show: Workflow Processes
History:
Queries: All Processes
Workflow Process
Query
1 of 22
All Processes
Process Designer
Process Properties
Process Simulator
1 of 1+
Designer
Palette
Start
Decision Point
Business Service
Sub Process
Start
Default
Receive Account Data
Convert from XML
Update or Insert New Account
End
0 of 0
Done
Local intranet
Start
http://ariba01/callcen...
Paint Shop Pro
3:17 PM

Process:

*Name: Import Account (File Transport)

Business Object: Account

*Status: In Progress

Description: This is a sample workflow process that recives an Account Record XML and

Group: Sample

Activation Date/Time: 6/19/2002 3:20:00 PM

Expiration Date/Time:

Persistence Frequency:

Persistence Level:

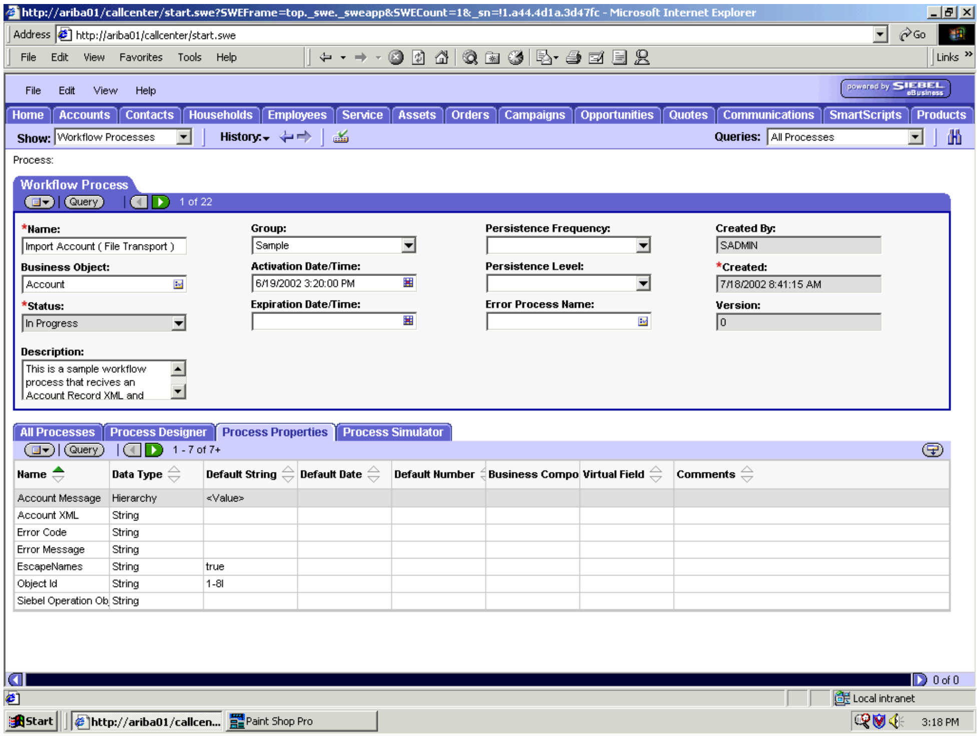
Error Process Name:

Created By: SADMIN

*Created: 7/18/2002 8:41:15 AM

Version: 0

To create a Siebel Workflow:



http://ariba01/callcenter/start.swe?SWEFrame=top._swe._sweapp&SWECount=1&_sn=!1.a44.4d1a.3d47fc - Microsoft Internet Explorer
Address http://ariba01/callcenter/start.swe
File Edit View Favorites Tools Help
Home Accounts Contacts Households Employees Service Assets Orders Campaigns Opportunities Quotes Communications SmartScripts Products
Show: Workflow Processes
History:
Queries: All Processes
Workflow Process
Query
1 of 22
All Processes
Process Designer
Process Properties
Process Simulator
Query
1 - 7 of 7+
0 of 0
Local intranet
Start
http://ariba01/callcen...
Paint Shop Pro
3:18 PM

Process:

*Name: Import Account (File Transport)

Business Object: Account

*Status: In Progress

Description: This is a sample workflow process that recives an Account Record XML and

Group: Sample

Activation Date/Time: 6/19/2002 3:20:00 PM

Expiration Date/Time:

Persistence Frequency:

Persistence Level:

Error Process Name:

Created By: SADMIN

*Created: 7/18/2002 8:41:15 AM

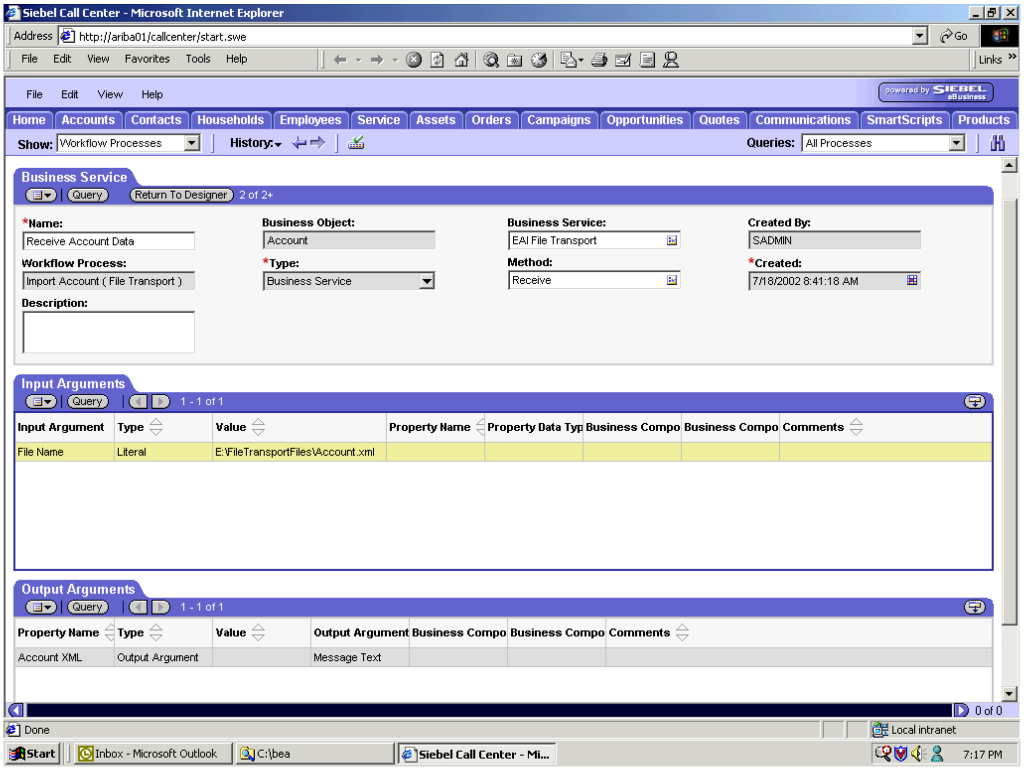
Version: 0

Name	Data Type	Default String	Default Date	Default Number	Business Compo	Virtual Field	Comments
Account Message	Hierarchy	<Value>					
Account XML	String						
Error Code	String						
Error Message	String						
EscapeNames	String	true					
Object Id	String	1-8I					
Siebel Operation Ob	String						

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.


Siebel Call Center - Microsoft Internet Explorer
Address http://ariba01/callcenter/start.swe
File Edit View Favorites Tools Help
Links
File Edit View Help
Home Accounts Contacts Households Employees Service Assets Orders Campaigns Opportunities Quotes Communications SmartScripts Products
Show: Workflow Processes
History:
Queries: All Processes
Business Service
Query
Return To Designer
2 of 2+
Input Arguments
Query
1 - 1 of 1
Output Arguments
Query
1 - 1 of 1
0 of 0
Done
Local intranet
Start
Inbox - Microsoft Outlook
C:\bea
Siebel Call Center - Mi...
7:17 PM

*Name: Receive Account Data	Business Object: Account	Business Service: EAI File Transport	Created By: SADMIN
Workflow Process: Import Account (File Transport)	*Type: Business Service	Method: Receive	*Created: 7/18/2002 8:41:18 AM
Description:			

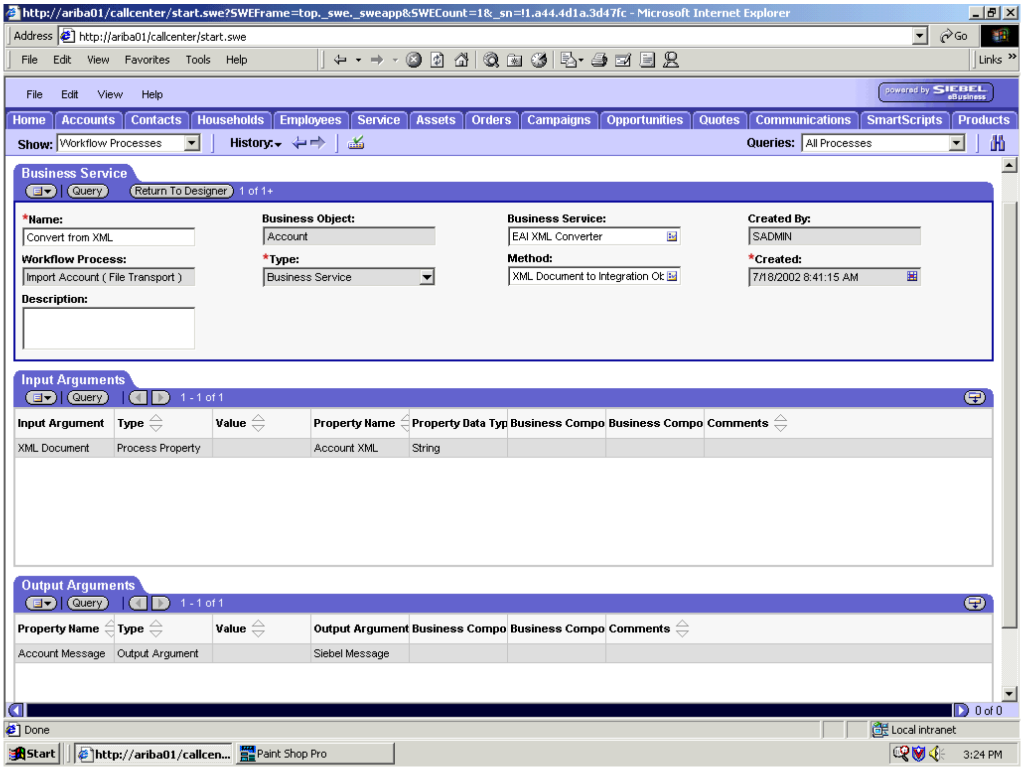
Input Argument	Type	Value	Property Name	Property Data Typ	Business Compo	Business Compo	Comments
File Name	Literal	E:\FileTransportFiles\Account.xml					

Property Name	Type	Value	Output Argument	Business Compo	Business Compo	Comments
Account XML	Output Argument		Message Text			

2. Define an **EAI FileTransport 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.


http://ariba01/callcenter/start.swe?SWEFrame=top._swe._sweapp&SWECount=1&_sn=!1.a44.4d1a.3d47fc - Microsoft Internet Explorer
Address http://ariba01/callcenter/start.swe
Go
File Edit View Favorites Tools Help
Links
File Edit View Help
powered by SIEBEL eBusiness
Home Accounts Contacts Households Employees Service Assets Orders Campaigns Opportunities Quotes Communications SmartScripts Products
Show: Workflow Processes
History:
Queries: All Processes
Business Service
Query
Return To Designer
1 of 1+
Input Arguments
Query
1 - 1 of 1
Output Arguments
Query
1 - 1 of 1
0 of 0
Done
Local intranet
Start
http://ariba01/callcen...
Paint Shop Pro
3:24 PM

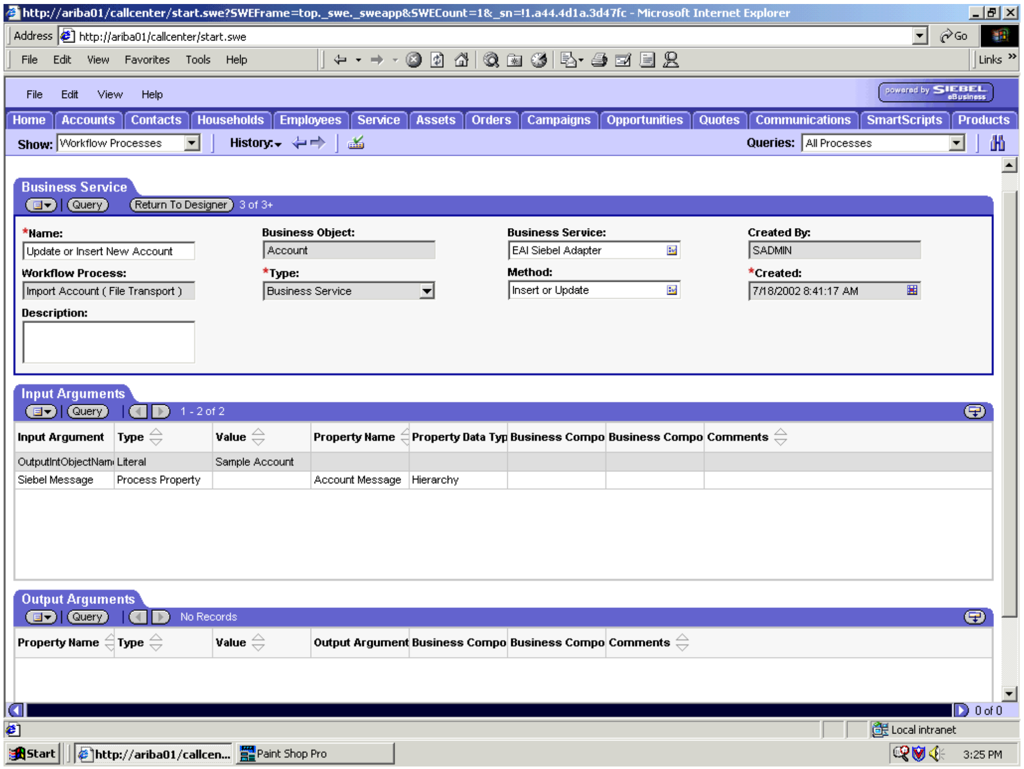
*Name: Convert from XML	Business Object: Account	Business Service: EAI XML Converter	Created By: SADMIN
Workflow Process: Import Account (File Transport)	*Type: Business Service	Method: XML Document to Integration Ol	*Created: 7/18/2002 8:41:15 AM
Description:			

Input Argument	Type	Value	Property Name	Property Data Typ	Business Compo	Business Compo	Comments
XML Document	Process Property		Account XML	String			

Property Name	Type	Value	Output Argument	Business Compo	Business Compo	Comments
Account Message	Output Argument		Siebel Message			

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.


http://ariba01/callcenter/start.swe?SWEFrame=top._swe._sweapp&SWECount=1&_sn=!1.a44.4d1a.3d47fc - Microsoft Internet Explorer
Address http://ariba01/callcenter/start.swe
File Edit View Favorites Tools Help
Links
File Edit View Help
powered by SIEBEL eBusiness
Home Accounts Contacts Households Employees Service Assets Orders Campaigns Opportunities Quotes Communications SmartScripts Products
Show: Workflow Processes
History:
Queries: All Processes
Query
Return To Designer
3 of 3+

Business Service

*Name: Update or Insert New Account	Business Object: Account	Business Service: EAI Siebel Adapter	Created By: SADMIN
Workflow Process: Import Account (File Transport)	*Type: Business Service	Method: Insert or Update	*Created: 7/18/2002 8:41:17 AM
Description:			

Input Arguments

1 - 2 of 2

Input Argument	Type	Value	Property Name	Property Data Typ	Business Compo	Business Compo	Comments
OutputIntObjectNam	Literal	Sample Account					
Siebel Message	Process Property		Account Message	Hierarchy			

Output Arguments

No Records

Property Name	Type	Value	Output Argument	Business Compo	Business Compo	Comments

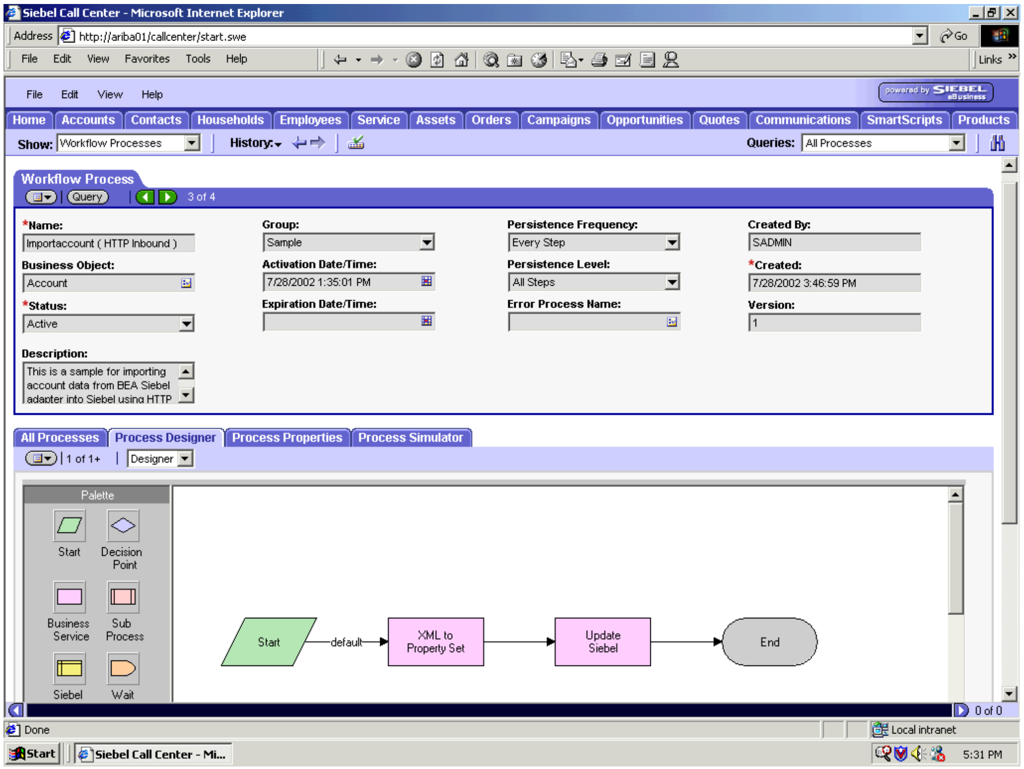
4. Define an **EAI Siebel Adapter Business Service** step and call it `Update or Insert New Account`.

   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.


Siebel Call Center - Microsoft Internet Explorer
Address http://ariba01/callcenter/start.swe
Go
File Edit View Favorites Tools Help
Links
File Edit View Help
powered by SIEBEL eBusiness
Home Accounts Contacts Households Employees Service Assets Orders Campaigns Opportunities Quotes Communications SmartScripts Products
History:
Workflow Process
Query
3 of 4
All Processes
Process Designer
Process Properties
Process Simulator
1 of 1+
Palette
Start
Decision Point
Business Service
Sub Process
Siebel
Wait
Start
default
XML to Property Set
Update Siebel
End
0 of 0
Done
Local intranet
Start
Siebel Call Center - Mi...
5:31 PM

Show: Workflow Processes

Queries: All Processes

*Name: Importaccount (HTTP Inbound)

Business Object: Account

*Status: Active

Description: This is a sample for importing account data from BEA Siebel adapter into Siebel using HTTP

Group: Sample

Activation Date/Time: 7/28/2002 1:35:01 PM

Expiration Date/Time:

Persistence Frequency: Every Step

Persistence Level: All Steps

Error Process Name:

Created By: SADMIN

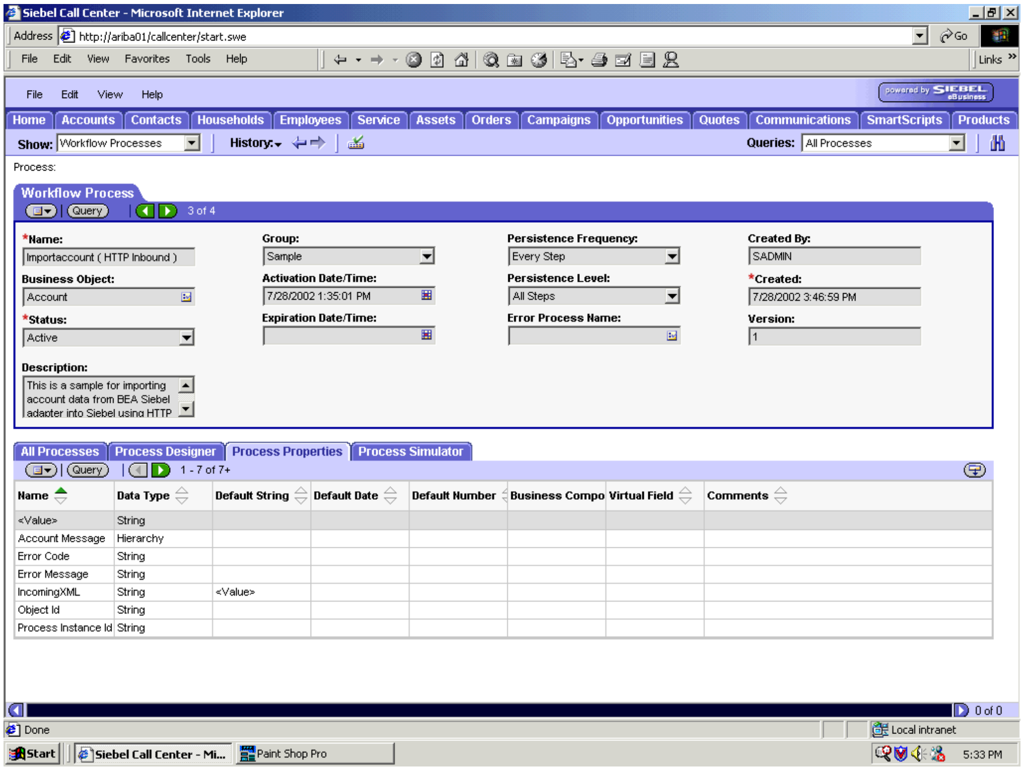
*Created: 7/28/2002 3:46:59 PM

Version: 1

Designer

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.

To create a Siebel Workflow:


Siebel Call Center - Microsoft Internet Explorer
Address http://ariba01/callcenter/start.swe
File Edit View Favorites Tools Help
Links
File Edit View Help
Home Accounts Contacts Households Employees Service Assets Orders Campaigns Opportunities Quotes Communications SmartScripts Products
History:
Workflow Process
Query
3 of 4
All Processes Process Designer Process Properties Process Simulator
Query
1 - 7 of 7+
0 of 0
Done
Local intranet
Start
Siebel Call Center - Mi...
Paint Shop Pro
5:33 PM

Show: Workflow Processes

Queries: All Processes

Process:

*Name: Importaccount (HTTP Inbound)	Group: Sample	Persistence Frequency: Every Step	Created By: SADMIN
Business Object: Account	Activation Date/Time: 7/28/2002 1:35:01 PM	Persistence Level: All Steps	*Created: 7/28/2002 3:46:59 PM
*Status: Active	Expiration Date/Time:	Error Process Name:	Version: 1

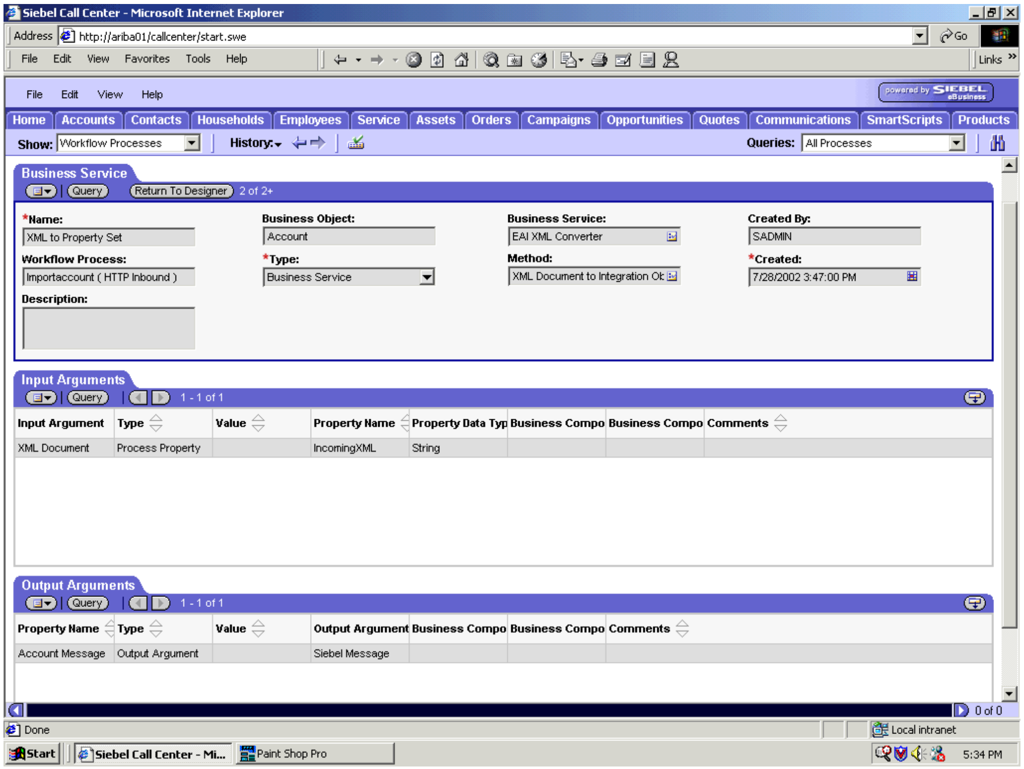
Description: This is a sample for importing account data from BEA Siebel adapter into Siebel using HTTP

Name	Data Type	Default String	Default Date	Default Number	Business Compo	Virtual Field	Comments
<Value>	String						
Account Message	Hierarchy						
Error Code	String						
Error Message	String						
IncomingXML	String	<Value>					
Object Id	String						
Process Instance Id	String						

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.


Siebel Call Center - Microsoft Internet Explorer
Address http://ariba01/callcenter/start.swe
Go
File Edit View Favorites Tools Help
Links
File Edit View Help
powered by SIEBEL eBusiness
Home Accounts Contacts Households Employees Service Assets Orders Campaigns Opportunities Quotes Communications SmartScripts Products
History:
Business Service
Query
Return To Designer
2 of 2+
Input Arguments
Query
1 - 1 of 1
Output Arguments
Query
1 - 1 of 1
0 of 0
Done
Local intranet
Start
Siebel Call Center - Mi...
Paint Shop Pro
5:34 PM

Show: Workflow Processes

Queries: All Processes

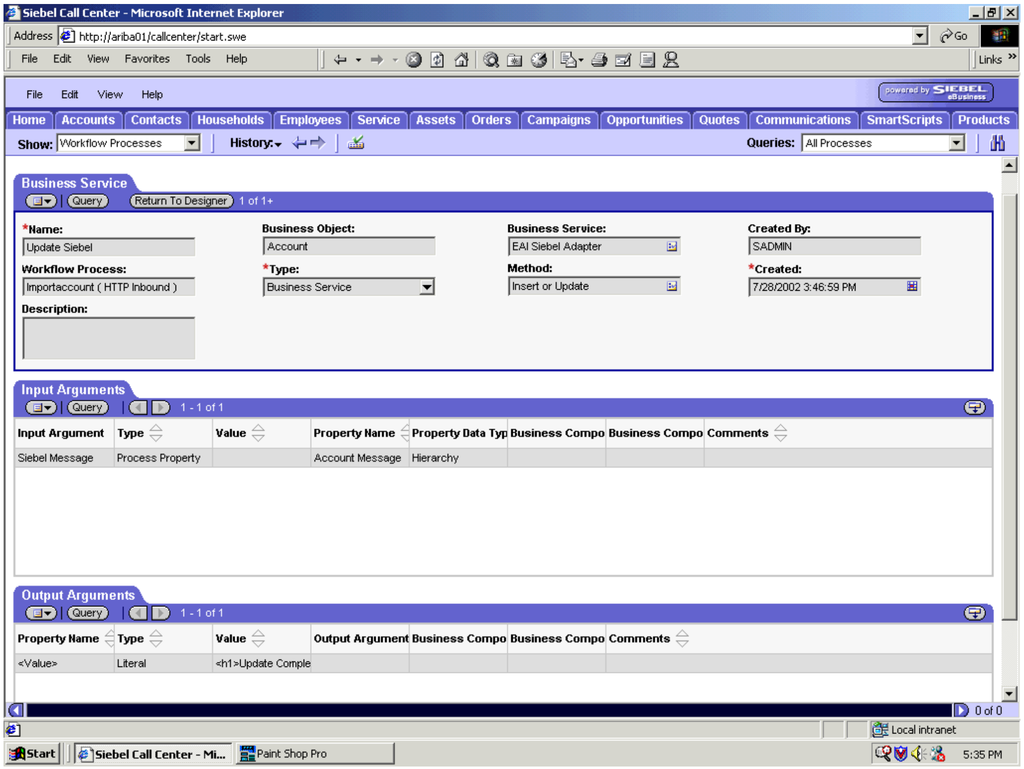
*Name: XML to Property Set	Business Object: Account	Business Service: EAI XML Converter	Created By: SADMIN
Workflow Process: Importaccount (HTTP Inbound)	*Type: Business Service	Method: XML Document to Integration Ok	*Created: 7/28/2002 3:47:00 PM
Description:			

Input Argument	Type	Value	Property Name	Property Data Typ	Business Compo	Business Compo	Comments
XML Document	Process Property		IncomingXML	String			

Property Name	Type	Value	Output Argument	Business Compo	Business Compo	Comments
Account Message	Output Argument		Siebel Message			

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.


Siebel Call Center - Microsoft Internet Explorer
Address http://ariba01/callcenter/start.swe
File Edit View Favorites Tools Help
Links
File Edit View Help
powered by SIEBEL eBusiness
Home Accounts Contacts Households Employees Service Assets Orders Campaigns Opportunities Quotes Communications SmartScripts Products
History:
Query
Return To Designer
1 of 1+
Local intranet
Start
Siebel Call Center - Mi...
Paint Shop Pro
5:35 PM

Show: Workflow Processes

Queries: All Processes

Business Service

*Name: Update Siebel	Business Object: Account	Business Service: EAI Siebel Adapter	Created By: SADMIN
Workflow Process: Importaccount (HTTP Inbound)	*Type: Business Service	Method: Insert or Update	*Created: 7/28/2002 3:46:59 PM
Description:			

Input Arguments

1 - 1 of 1

Input Argument	Type	Value	Property Name	Property Data Typ	Business Compo	Business Compo	Comments
Siebel Message	Process Property		Account Message	Hierarchy			

Output Arguments

1 - 1 of 1

Property Name	Type	Value	Output Argument	Business Compo	Business Compo	Comments
<Value>	Literal	<h1>Update Comple				

0 of 0

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.

Glossary

adapter

Provides universal connectivity by enabling an electronic interface to be accommodated (without loss of function) to another electronic interface.

agent

Supports service protocols in listeners and documents.

business service

Also known as a Web service. A Web service is a self-contained, modularized function that can be published and accessed across a network using open standards. It is the implementation of an interface by a component and is an executable entity.

channel

Represents configured connections to particular instances of back-end systems. A channel binds one or more event ports to a particular listener managed by an adapter.

listener

A component that accepts requests from client applications.

port

Associates a particular business object exposed by the adapter with a particular disposition. A disposition is a URL that defines the protocol and location of the event data. The port defines the end point of the event consumption.

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