Oracle® Fusion Middleware

Application Adapter for Siebel User's Guide for Oracle WebLogic Server

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Oracle Fusion Middleware Application Adapter for Siebel User's Guide for Oracle WebLogic Server, 11*g* Release 1 (11.1.1)

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Preface

Oracle Fusion Middleware Application Adapter for Siebel User's Guide for Oracle WebLogic Server describes how to provide connectivity and integrate with Siebel systems.

Audience

Oracle Fusion Middleware Application Adapter for Siebel User's Guide for Oracle WebLogic Server is intended for those who integrate with Siebel systems and develop applications.

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For more information, see the following documents in the Oracle Enterprise Repository 11*g* Release 1 (11.1.1) documentation set:

- *Oracle Fusion Middleware Application Adapters Installation Guide for Oracle WebLogic Server*
- *Oracle Fusion Middleware Application Adapter Upgrade Guide for Oracle WebLogic Server*
- *Oracle Fusion Middleware Application Adapter Best Practices Guide for Oracle WebLogic Server*
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  http://my.oracle.com/portal/page/myo/ROOTCORNER/KNOWLEDGEAREAS1/BUSINESS_PRACTICE/Methods/Learn_about_OUM.html

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
`monospace`	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

1 Introduction

Oracle WebLogic Server connects to a Siebel system through Oracle Application Adapter for Siebel. Oracle Application Adapter for Siebel provides connectivity and carries out interactions on a Siebel system. This chapter discusses the following topics:

This chapter discusses the following topics:

1.1 Adapter Features

Oracle Application Adapter for Siebel 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 Guide*

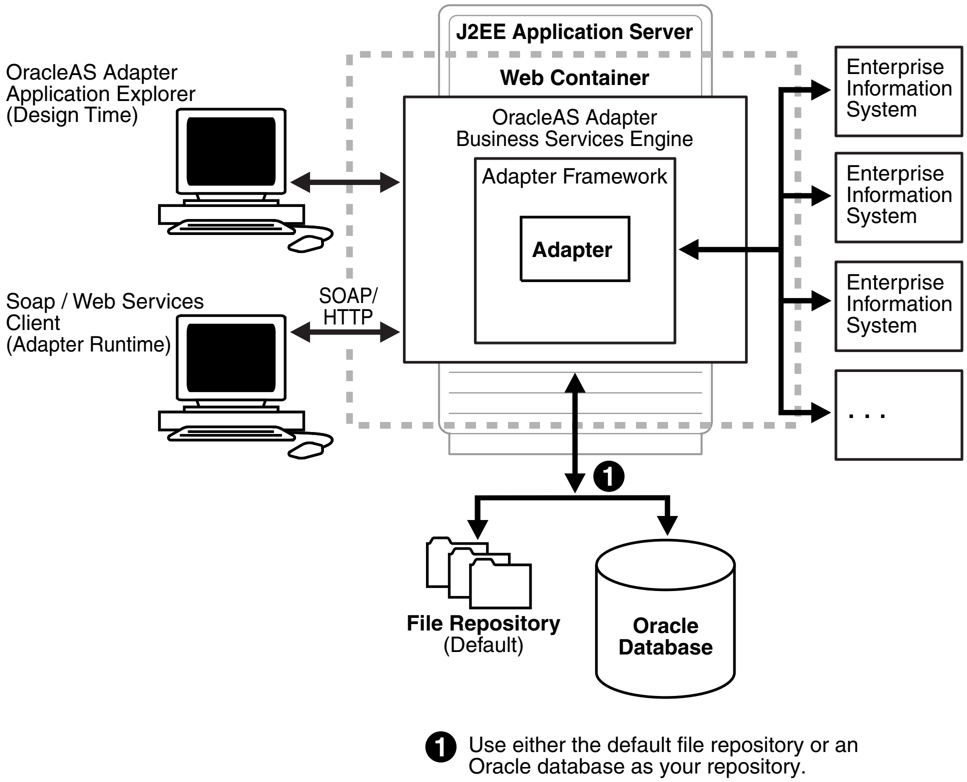
Oracle Adapter Business Services Engine (BSE) Architecture

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, and configure services. 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


J2EE Application Server
Web Container
OracleAS Adapter Application Explorer (Design Time)
Soap / Web Services Client (Adapter Runtime)
SOAP/ HTTP
OracleAS Adapter Business Services Engine
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.

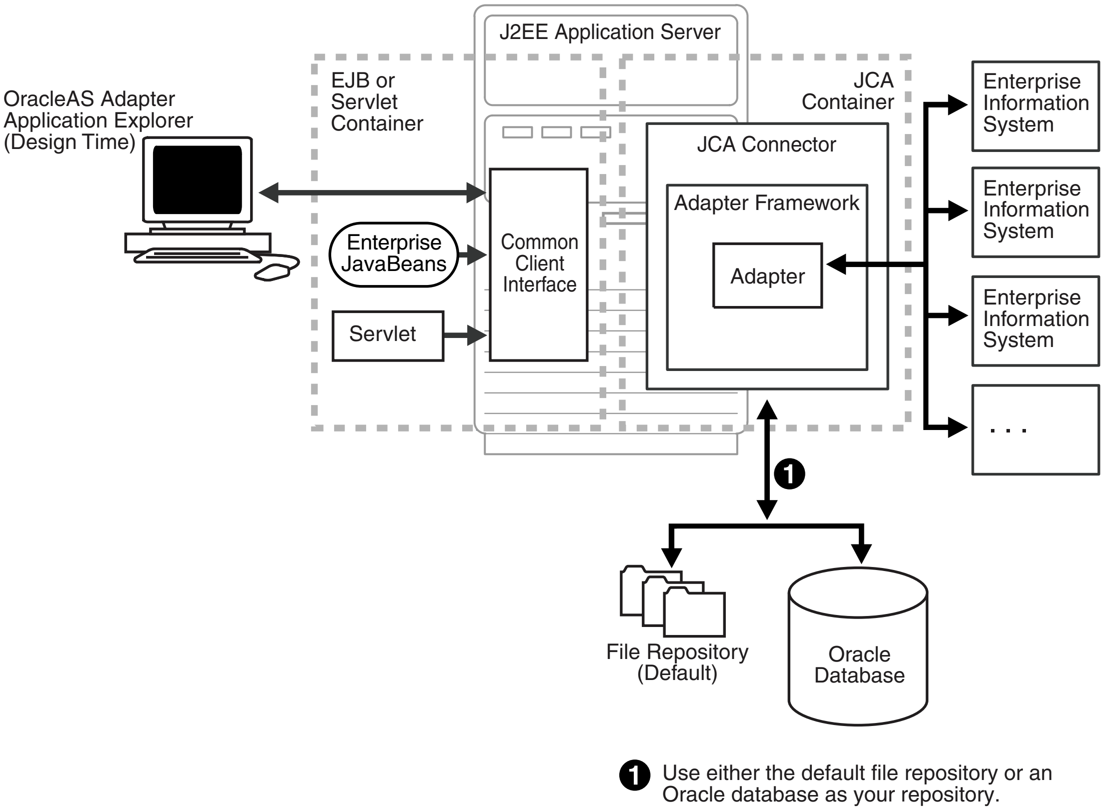
Note: Do not use a file repository for BSE in production environments.

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, and configure services. 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



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

1.2 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.

1.3 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

1.3.1 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.

1.4 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 Guide*
> - *Oracle Fusion Middleware Application Adapters Installation Guide for Oracle WebLogic Server*

1.5 BSE Versus Oracle Adapter J2CA Deployment

If you are using Oracle Application Adapter for Siebel with with Business Process Execution Language (BPEL) Process Manager, please note that:

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

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 Server 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 results in an error and prevents you from connecting 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, add the following Java file encoding option to the startWebLogic.sh file:

```
JAVA_OPTIONS="${SAVE_JAVA_OPTIONS} -Dfile.encoding=ISO8859_1"
```

The startWebLogic.sh file is located in the following directory:

```
C:\oracle\Middleware\user_projects\domains\base_domain\bin
```

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)
   ```

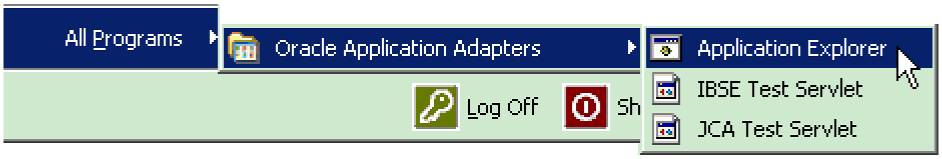
7. Provide the full path to the uagent.cfg file when creating an adapter target connection, for example:

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

2.1 Starting Application Explorer

To start Application Explorer:

1. Ensure that Oracle WebLogic Server is started, which is where Application Explorer is deployed.
2. Start Application Explorer by clicking the Windows **Start** menu, selecting **All Programs**, **Oracle Application Adapters**, and clicking **Application Explorer**.



   You can also start Application Explorer by executing the **ae.bat** file, which is located in the following directory:

   ```
   C:\oracle\Middleware\home_0309\Oracle_
   SOA1\soa\thirdparty\ApplicationAdapters\tools\iwae\bin\ae.bat
   ```

   It is a good practice to create a shortcut for the **ae.bat** file on your desktop.

If you are using a UNIX or Linux platform you can start Application Explorer by executing the **iwae.sh** file.

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

2.2 Configuring Repository Settings

You need not configure BSE for a file-based repository because it is configured during the installation.

2.2.1 Configuring the Database Repository for BSE

After BSE is deployed to Oracle WebLogic Server, you can configure it through the BSE configuration page. This configuration is required only when using a database repository with BSE.

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

To configure BSE:

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:

   ```
   C:\oracle\Middleware\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\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 `web.xml` file for database user credentials.

   ```
   C:\oracle\Middleware\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\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 11g Enterprise Edition Release 11.1.1.2.0 - Production
   With the Partitioning, OLAP and Data Mining options

   SQL>@ iwse.ora
   ```

2. Open the following page in your browser:

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

   Where *`host name`* is the system where BSE is installed and *`port`* is the HTTP port for a managed Oracle WebLogic server (for example, soa_server1).

   For example,

   ```
   http://localhost:8001/ibse
   ```

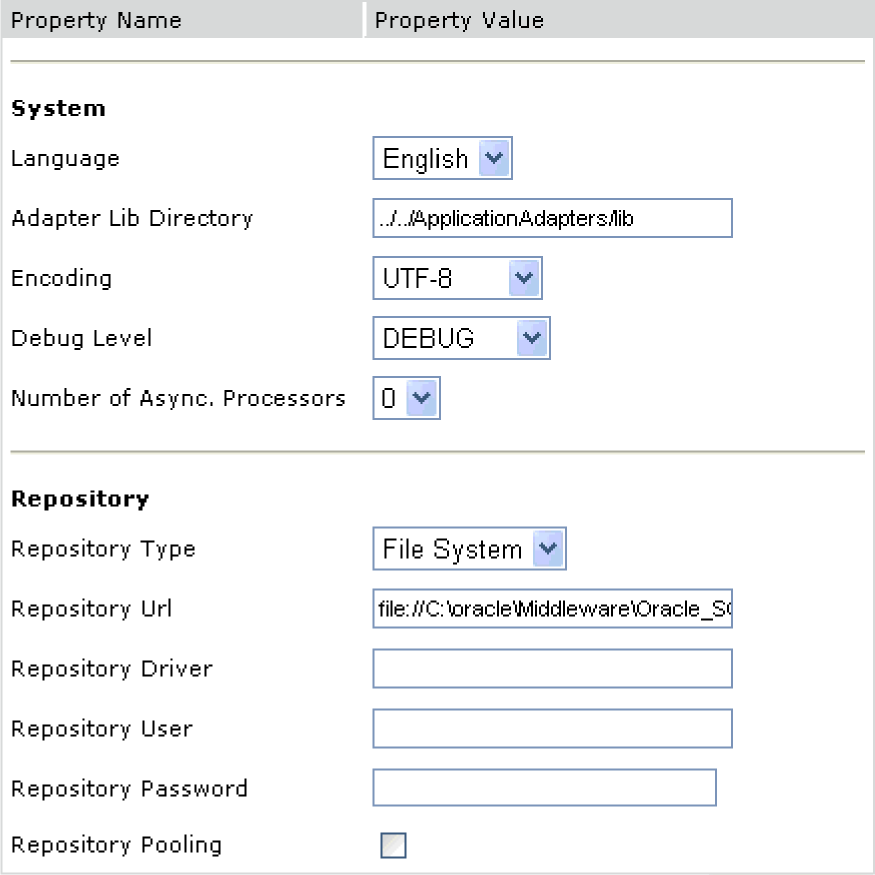
Note: If you are accessing this page for the first time, it may take longer to load.

3. 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	../../ApplicationAdapters/lib
Encoding	UTF-8
Debug Level	DEBUG
Number of Async. Processors	0
Repository	
Repository Type	File System
Repository Url	file://C:\oracle\Middleware\Oracle_S(
Repository Driver	
Repository User	
Repository Password	
Repository Pooling	□

4. The **ojdbc14.jar** file must be copied to the following directory:

   ```
   C:\oracle\Middleware\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\lib
   ```

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

   ```
   C:\oracle\Middleware\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\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.

---

6. Click Save.

2.2.1.1 Configuring BSE System Settings

To configure BSE system settings:

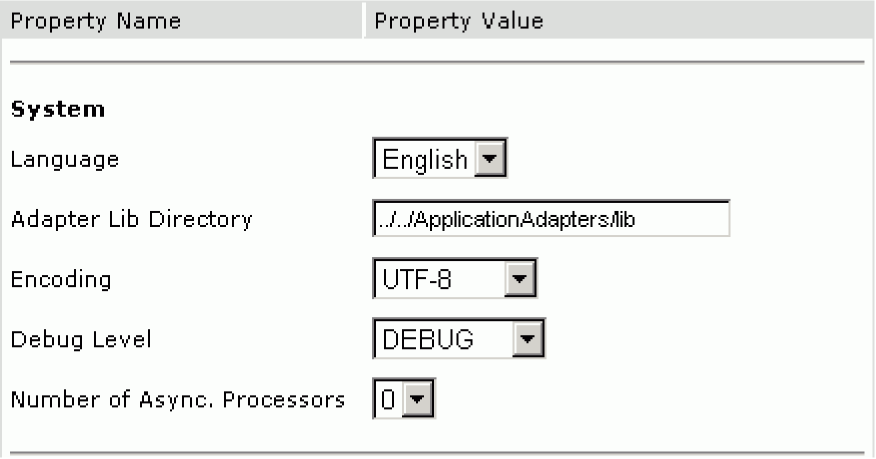
1. Display the **BSE configuration** page in a browser:

   `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.

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

   The BSE settings page is displayed, as shown in the following image.



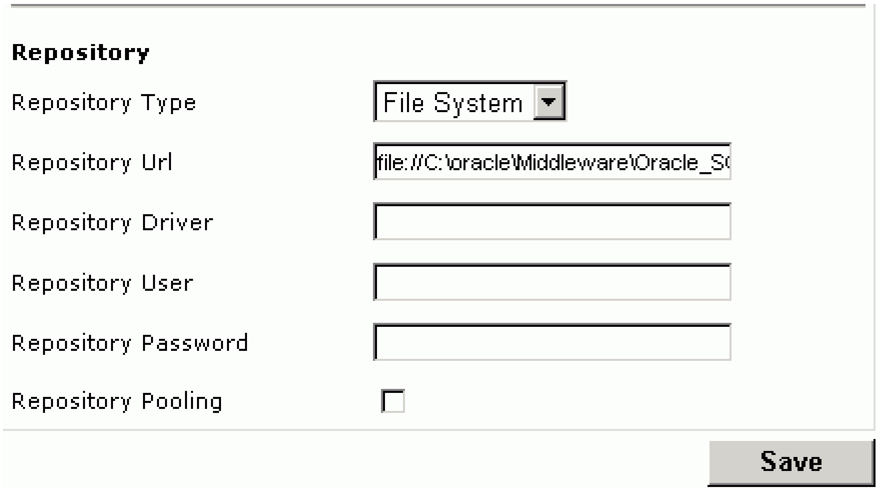
Property Name	Property Value
System	
Language	English
Adapter Lib Directory	../../ApplicationAdapters/lib
Encoding	UTF-8
Debug Level	DEBUG
Number of Async. Processors	0

2. Configure the system settings.

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

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 fields and check boxes for the Repository page.



Repository

Repository Type: File System

Repository Url: file://C:\oracle\Middleware\Oracle_S(

Repository Driver:

Repository User:

Repository Password:

Repository Pooling: □

3. Configure the repository settings.

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

   See "Configuring a File System Repository" on page 2-7 for more information.

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

Parameter	Description
Repository Type	Select one of the following repositories from the list: ■ Oracle ■ File (Do not use for BSE in production environments.)
Repository URL	Enter 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`

Parameter	Description
Repository Driver	Provide the JDBC driver class to use when opening a connection to the database (optional). For example, the following repository driver format is used when connecting to Oracle: `oracle.jdbc.driver.OracleDriver`
Repository User	Enter a valid user ID to use when opening a connection to the database.
Repository Password	Enter a valid password that is associated with the user ID.
Repository Pooling	If selected, repository pooling is used. This option is disabled by default.

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:

```
C:\oracle\Middleware\user_projects\domains\base_domain\servers\soa_
server1\stage\ibse\ibse.war
```

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.

2.2.2 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:

   ```
   C:\oracle\Middleware\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\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:\oracle\Middleware\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\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 11g Enterprise Edition Release 11.1.1.2.0 - 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:

   ```
   C:\oracle\Middleware\Oracle_
   SOA1\soa\thirdparty\ApplicationAdapters\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. The **ojdbc14.jar** file must be copied to the following directory:

   ```
   C:\oracle\Middleware\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\lib
   ```

5. Navigate to the following directory:

   ```
   C:\oracle\Middleware\Oracle_
   SOA1\soa\thirdparty\ApplicationAdapters\iwafjca.rar\META-INF
   ```

6. Open the `ra.xml` file in a text editor.
7. Provide the JDBC connection information as a value for the `IWAYRepo_URL` property.
8. Provide a valid user name for the `IWAYRepo_User` property.

9. Provide a valid password for the `IWAYRepo_Password` property.
10. Save your changes to the `ra.xml` file.

2.2.2.1 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 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 (318931973183297321831293164323332123227)
   ```
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.

2.3 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.

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

2.3.1 Creating a Configuration for BSE

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

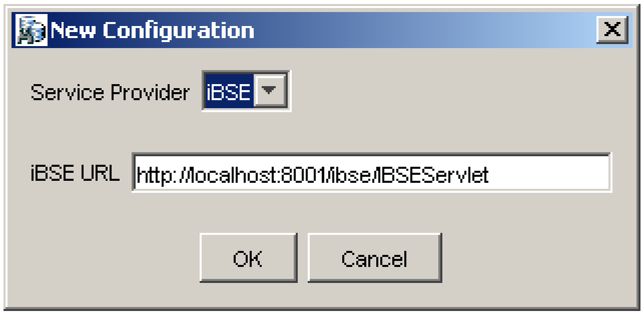
Defining a New Configuration for BSE

To create a new configuration for BSE:

1. Start the Application Explorer.
2. Right-click Configurations and select New.

   The New Configuration dialog is displayed.
3. Enter a name for the new configuration (for example, SampleConfig) and click OK.

   The New Configuration dialog is displayed.



Service Provider: iBSE

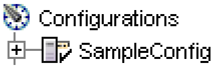
iBSE URL: http://localhost:8001/ibse/IBSEServlet

4. From the **Service Provider** list, select **iBSE**.
5. 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.
6. Click OK.

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



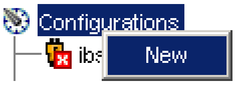
2.3.2 Creating a Configuration for J2CA

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

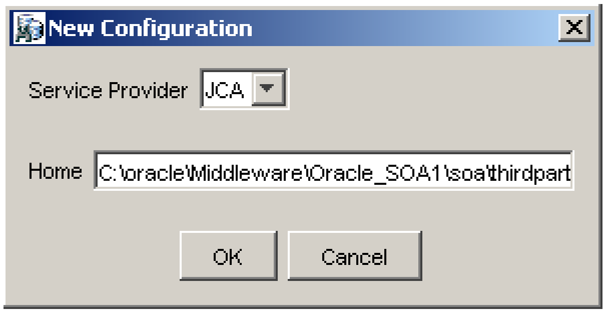
Defining a New Configuration for J2CA

To define a new configuration for J2CA:

1. Start the Application Explorer.
2. Right-click Configurations and select New.



   The New Configuration dialog is displayed.
3. Enter a name for the new configuration (for example, SampleConfig) and click OK.

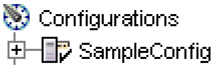


Service Provider: JCA

Home: C:\oracle\Middleware\Oracle_SOA1\soa\thirdpart

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

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



The Oracle Adapter J2CA configuration file is stored in:

```
C:\oracle\Middleware\Oracle_
SOA1\soa\thirdparty\ApplicationAdapters\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 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://iwserv14:8001/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.

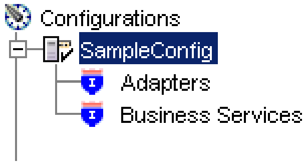
   Note: When you configure an Adapter target with the J2CA HTTP repository, you are not required to restart the Oracle WebLogic Server for run time purposes.

2.3.3 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, the Business Services node is not shown. The following is an example of a BSE configuration named SampleConfig:



- 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 (available for J2CA configurations only) 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.

2.4 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 2-12. Failure to add the encoding option as described in this section results in an error and you are not 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, perform the following steps:

1. Add the following Java file encoding option to the **startWebLogic.sh** file:

   ```
   JAVA_OPTIONS="${SAVE_JAVA_OPTIONS} -Dfile.encoding=ISO8859_1"
   ```

   The **startWebLogic.sh** file is located in the following directory:

```
C:\oracle\Middleware\user_projects\domains\base_domain\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"
```

2.4.1 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:

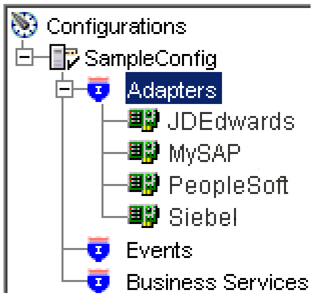
```
drive:\SiebelRoot\SWEApp\BIN
```

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 is displayed. Provide the following information:

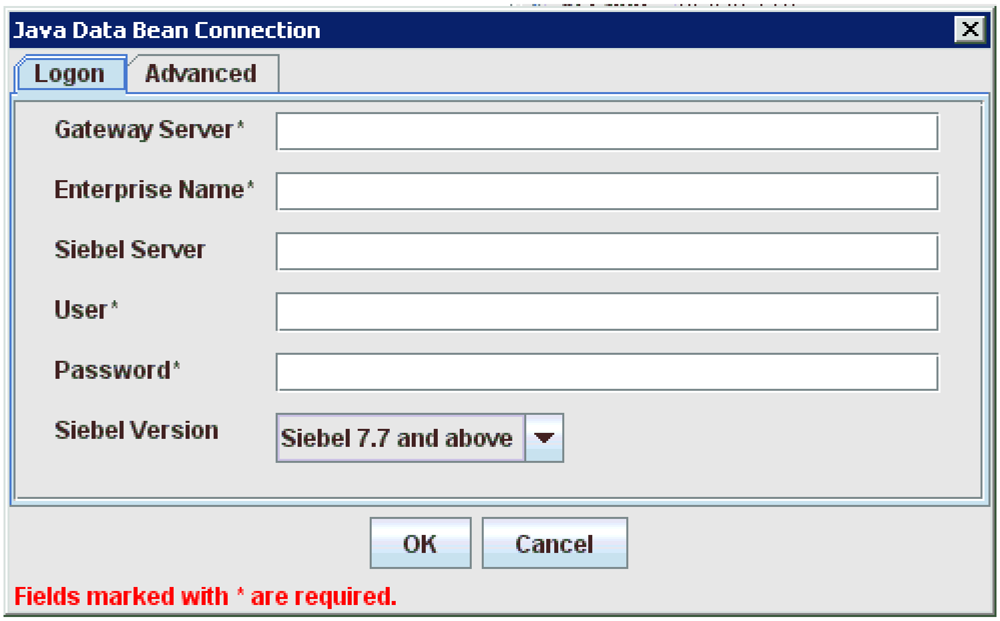
   a. In the Name field, enter a name for the new target.

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

   c. From the Target Type list, select **Java Bean Data Connection** (default).

3. Click **OK**.

   The Java Data Bean Connection dialog is displayed.



Siebel Version: Siebel 7.7 and above

Fields marked with * are required.

Enter the system information as specified in the following steps:

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.

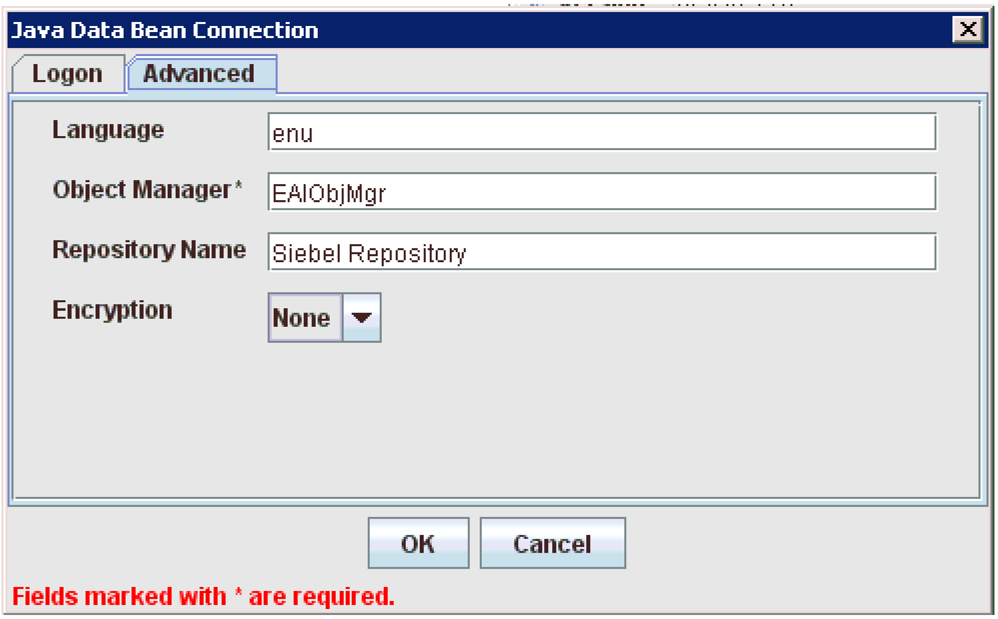
e. In the Password field, enter the password associated with the user name.

f. From the Siebel Version list, select **Siebel 7.7 and above** (default) or **Siebel 7.5 and below**.

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

Language

Object Manager



Language: enu

Object Manager*: EAIObjMgr

Repository Name: Siebel Repository

Encryption: None

Fields marked with * are required.

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 Name

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 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.

Encryption

A new parameter named Encryption is now introduced to the Advanced tab when using the Siebel adapter to create a target during design time. This parameter has two values, None and RSA. The default value is None, where no encryption is performed. By choosing RSA, an RSA-encrypted connection to the object manager specified is established.

To use RSA encryption, the Object Manager must be specified as **SCCObjMgr_enu**.

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.

---

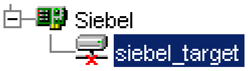
4. Click **OK**.

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

2.4.2 Connecting to a Defined Target

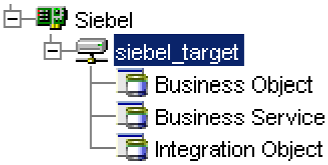
To connect to a defined target:

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.

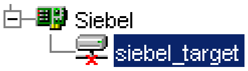
2.4.3 Disconnecting From Siebel

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**.

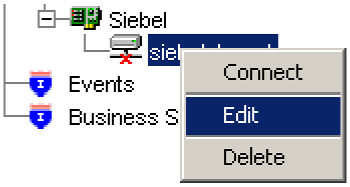
   Disconnecting from the application system drops the target, but the node remains. The SiebelConnection node in the left pane changes to reflect that the target is disconnected.



2.4.4 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**.

2.4.5 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 message is displayed.
3. Click **OK** to delete the target you selected.

   The Siebel connection node disappears from the left pane.

2.5 Viewing Application System Objects

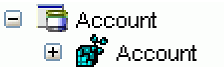
Application Explorer gives you the flexibility to view all Siebel application system objects. One benefit of this flexibility is that you can gain an understanding of the Siebel data structure. You can review parameters, data types, and other attributes of the Siebel data in the right pane.

2.5.1 Viewing Metadata

To view metadata:

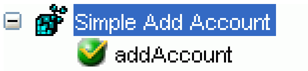
1. If you have not started Application Explorer, start Application Explorer and connect to your Siebel system.
2. In the left pane, expand the Business Object or Business Service containing the component for which you want to generate schema.
3. Expand the Business Object or Business Service node.
4. 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.



- Account
  - Account

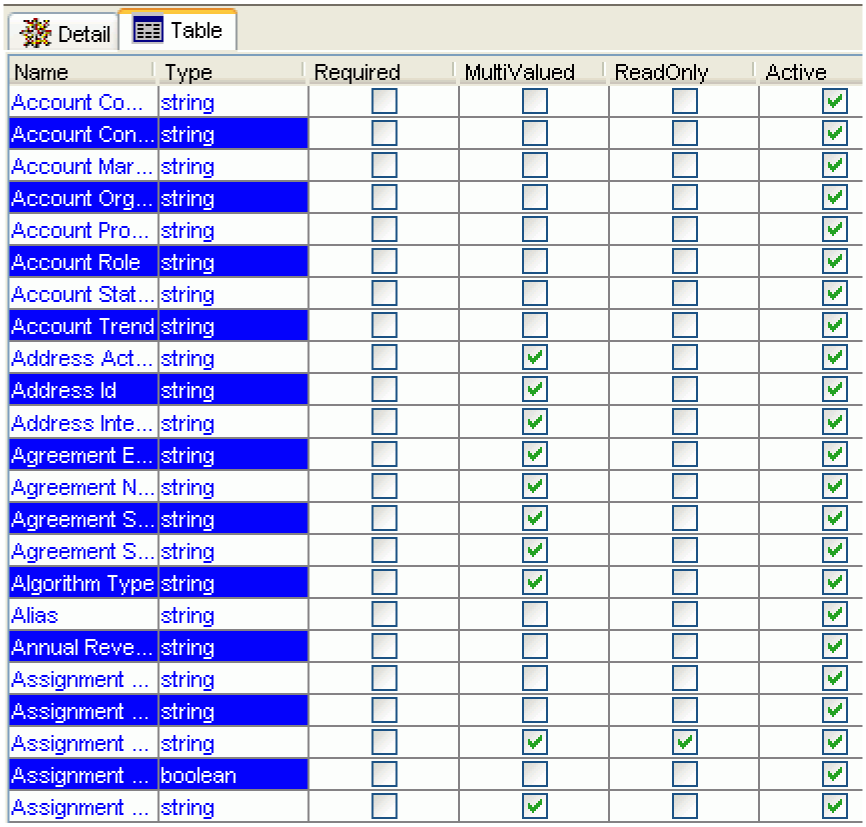
- For a Siebel Business Service ,select the object in which you are interested, for example, addAccount.



- Simple Add Account
  - 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	□	☑	□	☑

2.6 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 2-29 if you plan to deploy Oracle Application Adapter for Siebel in a Web services environment.

Siebel Schema Considerations

When inserting a record into Siebel, the data can be specified by the user or configured in Siebel to have default values or other system generated values. For example the Account Business Component, Currency Code, by default, has 'USD' and the system fields such as ROW_ID generated by the Siebel system when the record is inserted. The Siebel API does not provide this distinction. Therefore, the Oracle Application Adapter for Siebel can not anticipate what the required fields the user should enter are and what are the required fields that can be filled by Siebel. As a result, the adapter schemas have been modified to have all elements as optional by setting minoccurs=0 for the elements.

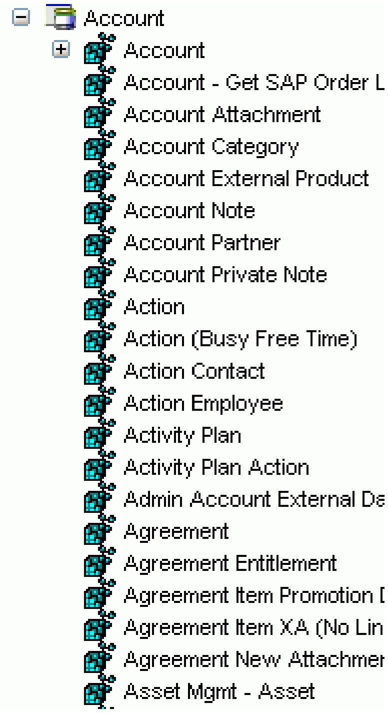
Hence, all users must determine which fields are mandatory through Siebel Tools and create a payload (request XML document) for Siebel services (outbound).

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.

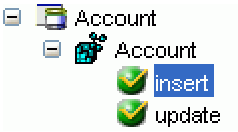


Creating an XML Schema for a Siebel Business Component or Business Service

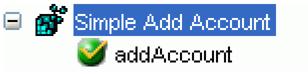
To generate service request and response schemas for a Business Component or Business Service:

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.



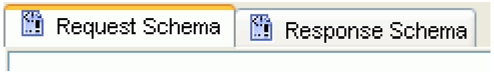
- For a Siebel Business Service, expand the Business Service node containing the object for which you want to create schema.



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

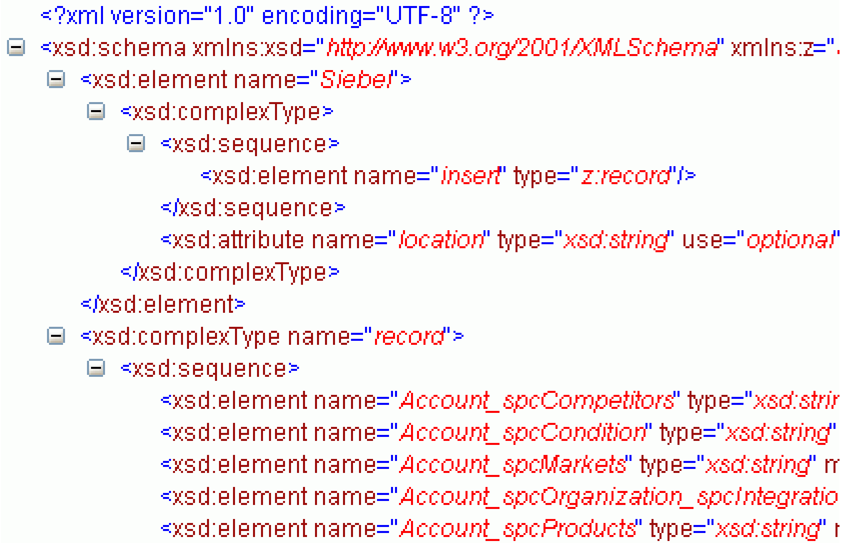
   Application Explorer accesses the Siebel repository and builds schemas.

   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 contains 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 returns 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 returns 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

2.7 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.

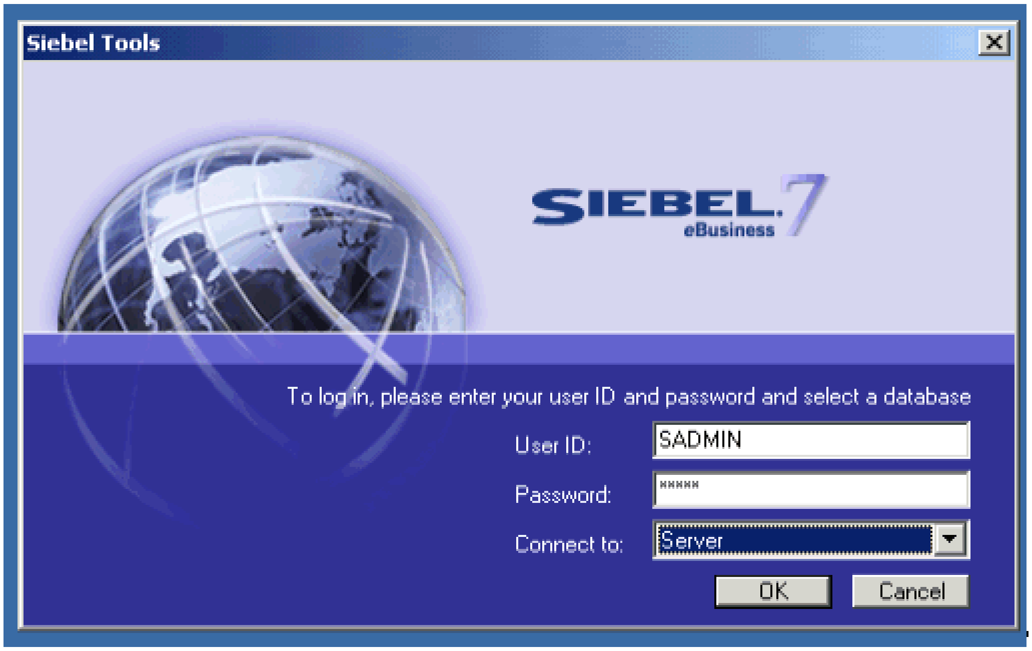
2.8 Creating Schemas for Siebel Integration Objects

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

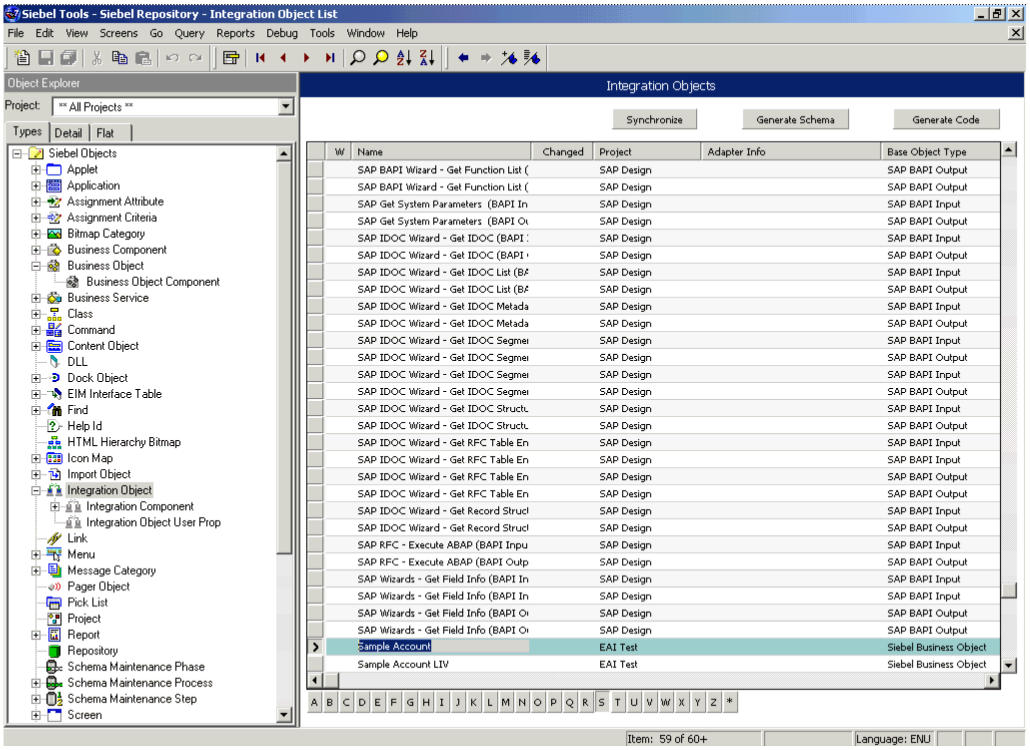
Perform the following steps:

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 Struct		SAP Design		SAP BAPI Input
		SAP IDOC Wizard - Get Record Struct		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 Ou		SAP Design		SAP BAPI Output
		SAP Wizards - Get Field Info (BAPI Ou		SAP Design		SAP BAPI Output
>		Sample Account		EAI Test		Siebel Business Object
		Sample Account LIV		EAI Test		Siebel Business Object

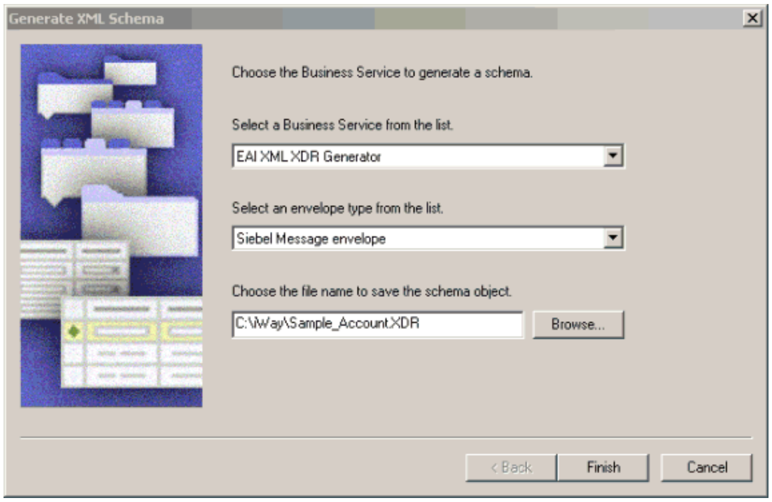
Item: 59 of 60+

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"
```

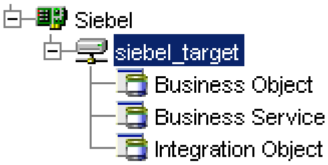
Now you can use Application Explorer to create Integration Object (IO) nodes for Siebel.

2.9 Creating Integration Object (IO) Nodes for Siebel

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

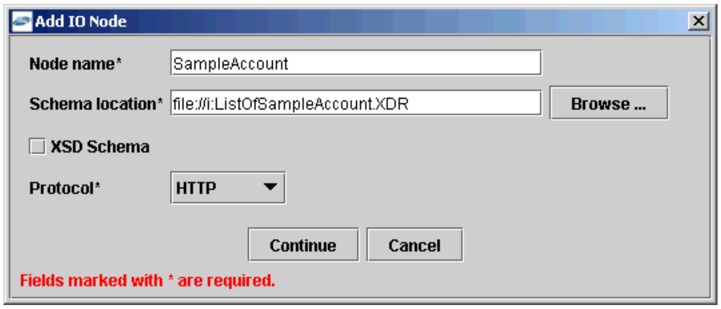
1. In Application Explorer, connect to a defined target. See "Connecting to a Defined Target" on page 2-16 for information on how to connect to a target.

   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 is displayed.



Node name* SampleAccount

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

□ XSD Schema

Protocol* HTTP

Fields marked with * are required.

Please note:

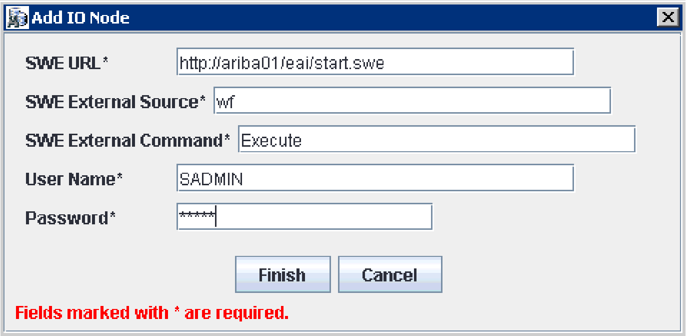
- **For Siebel 7.5 or later:** Generate XSD schemas directly from Siebel tools. You use the XSD schemas when you create Web services in Application Explorer. After you generate an XSD schema through Siebel tools, use it to create an IO node and a Web service.
- **For Siebel 7.0:** You cannot generate 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 2-22.

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 Add IO Node dialog is displayed.



Add IO Node

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:

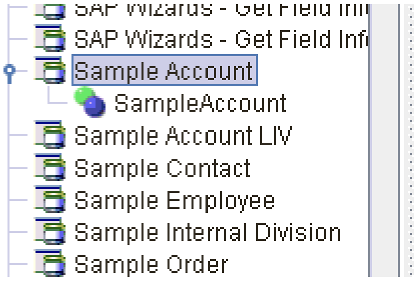
      ```
      http://web_server/eai/start.swe
      ```
      Where web_server is the name of the Web server that is hosting Siebel SWE.
   b. In the SWE External Source field, type the section within the eai.cfg file to execute, which is the [HTTP Services] section.

      For more information, see step 8 in Creating Schemas for Siebel Integration Objects on page 2-22.
   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.



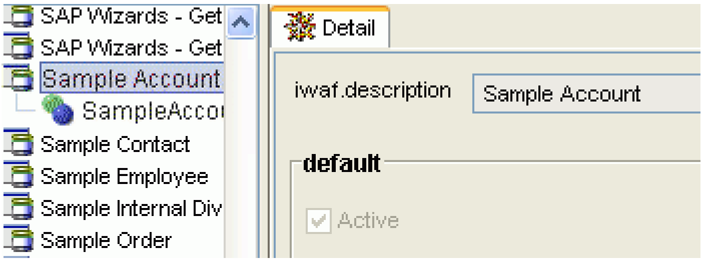
You can now create an XML schema.

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

default

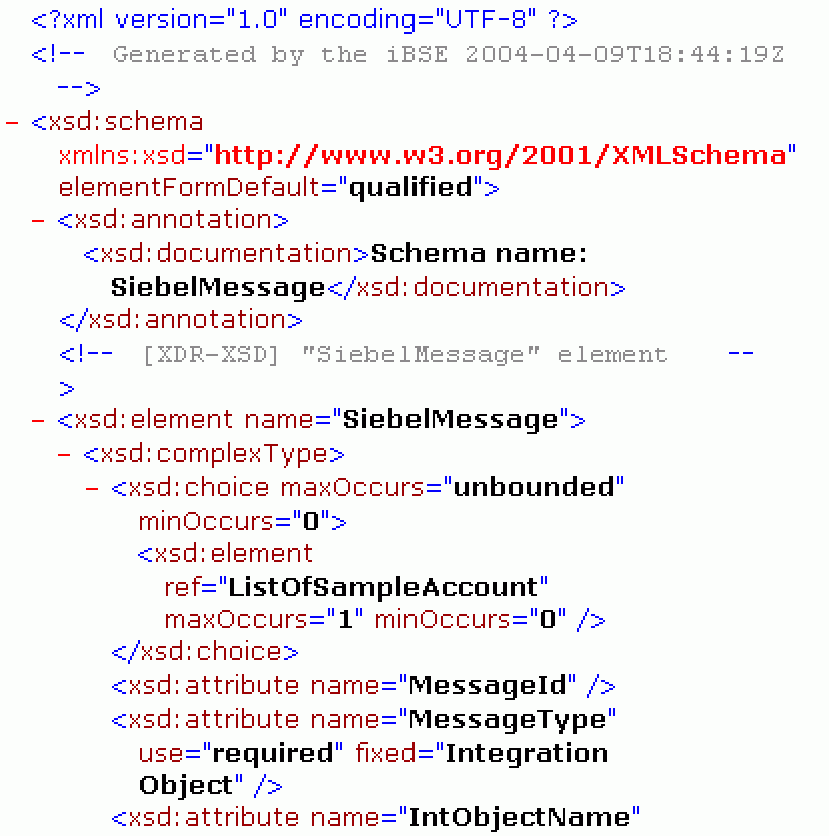
☑ Active

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"
```

2.10 Creating a Service Node for a Siebel Business Service

OracleAS 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:

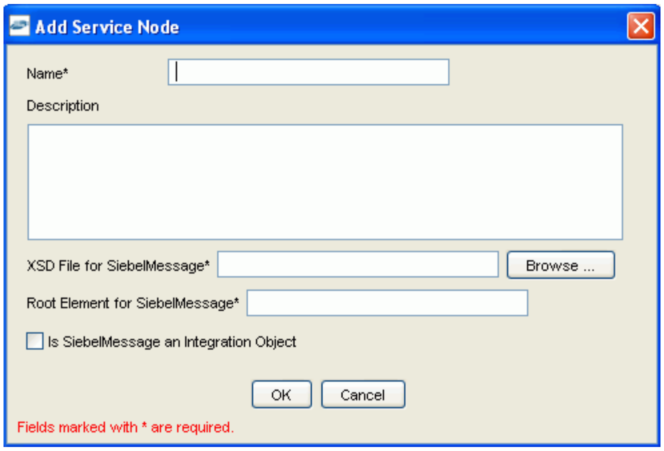
- The adapter supports only Integration Object hierarchy data types.
- Adding a Service node requires that you have previously generated an XSD schema for the Integration Object. For more information on generating XSD schemas for Siebel Integration Objects, see "Creating Schemas for Siebel Integration Objects" on page 2-22.
- 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, the following error is received:

  ```
  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 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.

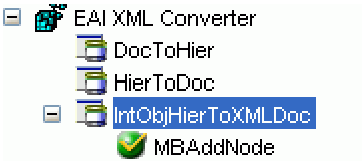
   d. Specify the root element for the XSD schema file. For many XSD schemas for Integration Objects, the root element is SiebelMessage.

   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.

2.11 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.

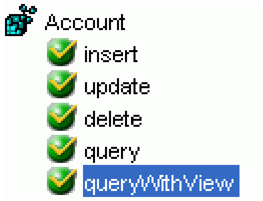
This section contains the following topics:

- "Creating a Web Service" on page 2-29
- "Testing a Web Service" on page 2-30

2.11.1 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 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 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**.

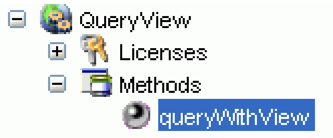
   Application Explorer switches the view to the **Business Services** node, and the new Web service appears in the left pane.

2.11.2 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.



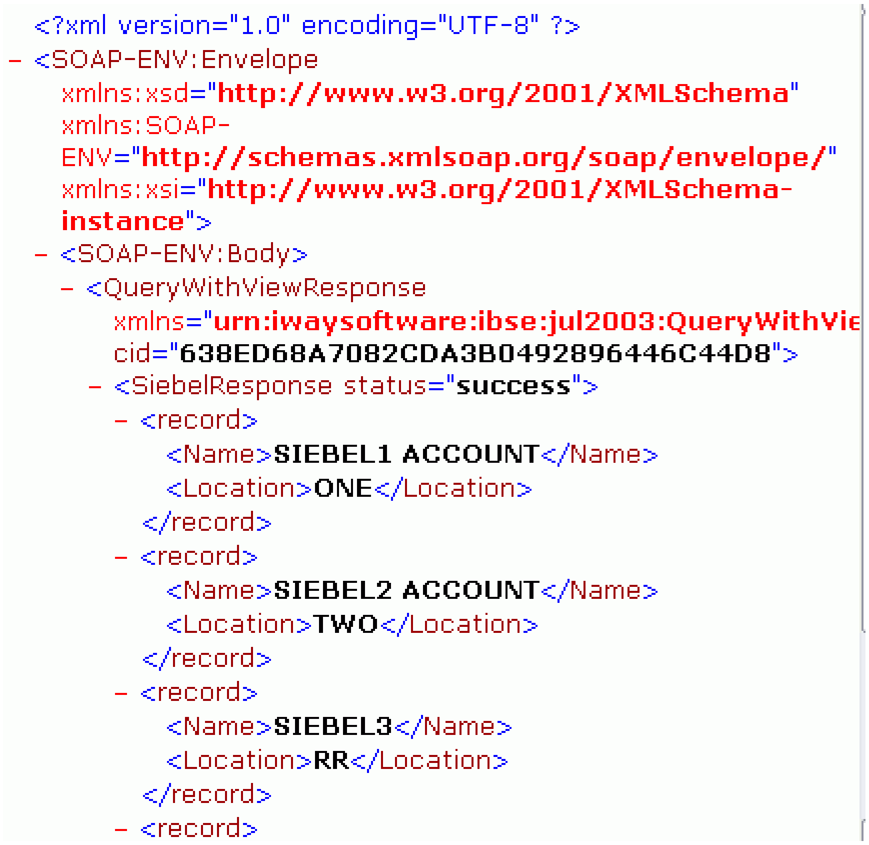
4. Expand the **Methods** node under the service and select the method you want to test.

   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.

2.12 Generating WSDL (J2CA Configurations Only)

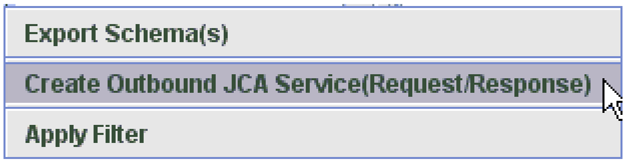
The Web Service Definition Language (WSDL) description of a Web service enables you to make the service available to other services within a host server. You use Application Explorer to create both request-response (outbound) and event notification (inbound) JCA services of the adapter.

> **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:

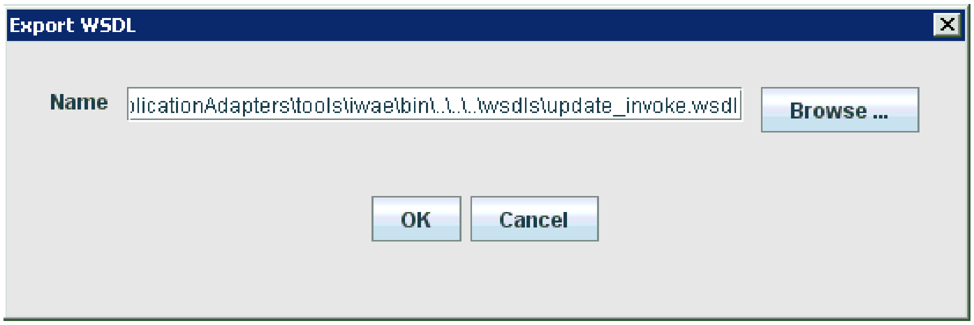
1. Under your connected Siebel target, expand **Business Object**, **Account**, **Account**. Navigate to an object and right-click the object.

   The following menu is displayed.



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

   The Export WSDL dialog is displayed.



Name plicationAdapters\tools\iwae\bin\..\..\..\wsdls\update_invoke.wsdl

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. 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.

2.13 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 2-33 for more information.

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

2.13.1 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 BPEL inbound or Mediator inbound process components, do not start the channel. The channel is managed by the run-time server after the BPEL or Mediator process component is deployed. If you start the channel from Application Explorer for testing and debugging purposes, stop it before run-time (when working with BPEL or Mediator process 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.

2.13.1.1 Creating an HTTP Channel

To create an HTTP channel:

1. Click the **Events** node.

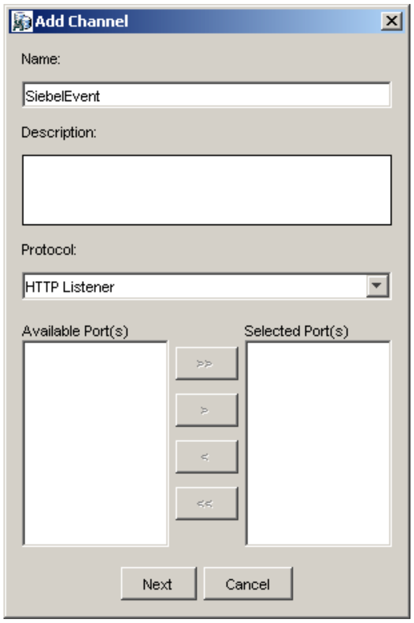
   The Events window is displayed. The adapters that appear in the left pane support events.

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 is displayed.



Name: SiebelEvent

Description:

Protocol: HTTP Listener

   Perform the following steps:

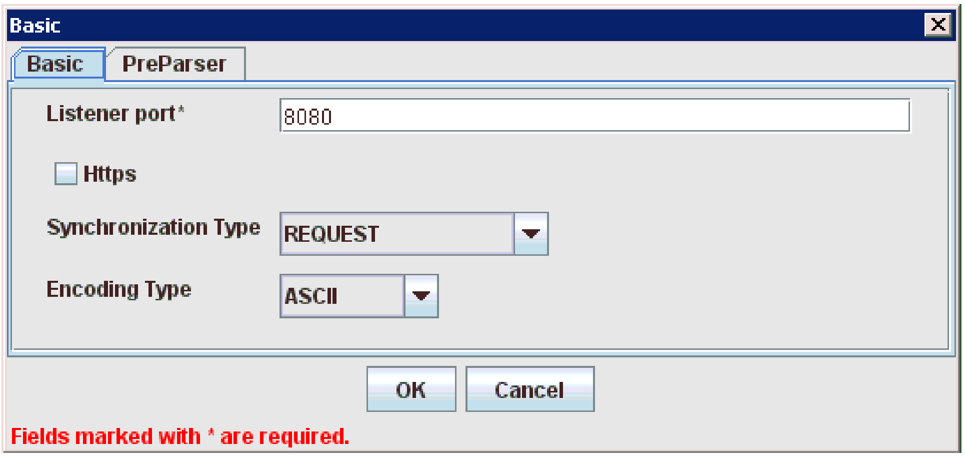
   a. Enter a name for the channel, for example, NewChannel.

   b. Enter a brief description.

   c. From the Protocol list, select **HTTP Listener**.

4. Click **Next**.

   The Basic dialog is displayed.



Listener port* 8080

□ Https

Synchronization Type REQUEST

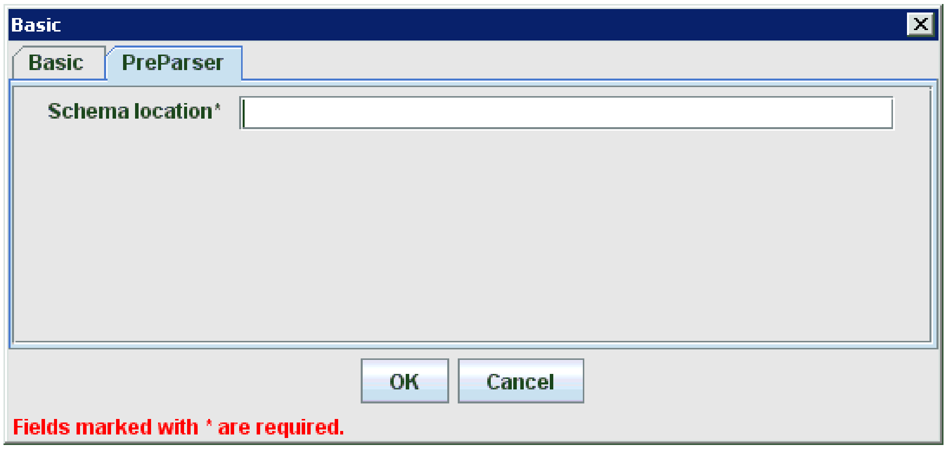
Encoding Type ASCII

Fields marked with * are required.

5. Enter the system information as specified in the following table:

Parameter	Description
Listener port	Port on which to listen for Siebel event data.
Https	For a secure HTTP connection, select the **Https** check box. This option is currently not supported.
Synchronization Type	Select **REQUEST_RESPONSE** from the Synchronization Type list, which is the recommended option.
Encoding Type	Choose an encoding type to be used from the Encoding Type list. By default, ASCII is selected.

6. Click the **PreParser** tab.



Schema location*

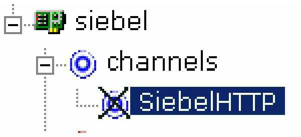
Fields marked with * are required.

7. Specify the location of the schema file that was generated for the Integration Object node using the **Export Schema(s)** option in Application Explorer.

> **Note:** During run time, the Oracle Application Adapter for Siebel adds the namespace to the Siebel published document using the schema that is specified in the PreParser tab. If the Schema location field in the PreParser tab is left blank, BPEL and Mediator processes do not work properly as the Siebel published documents do not contain any namespaces.

8. Click **OK**.

   A summary is displayed, which 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.

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

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

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

2.13.1.2 Creating an MQ Series Channel

To create an MQ Series 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 the **channels** node and select **Add channel**.

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

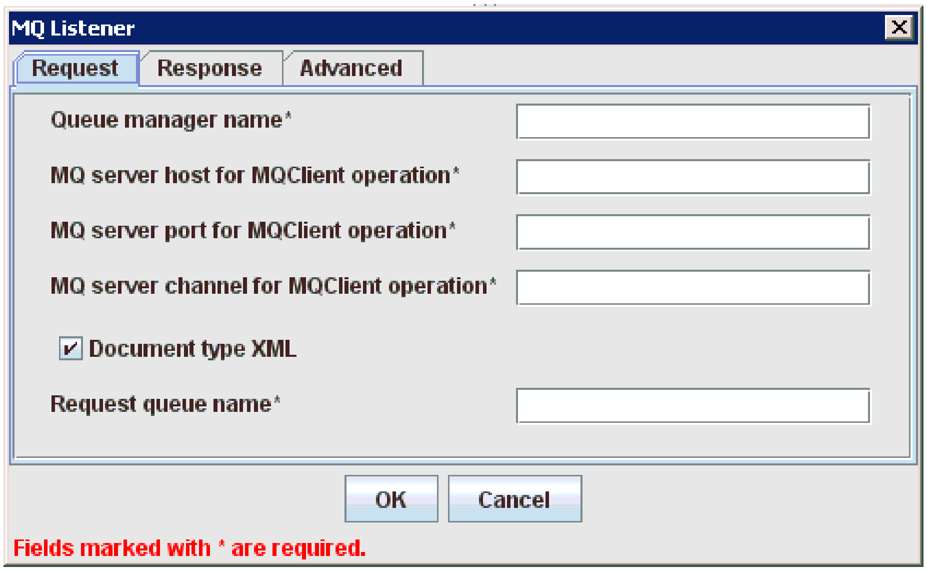
   a. Enter a name for the channel, for example, NewChannel.

   b. Enter a brief description.

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

4. Click **Next**.

   The MQ Listener dialog is displayed.


MQ Listener
Request
Response
Advanced
Queue manager name*
MQ server host for MQClient operation*
MQ server port for MQClient operation*
MQ server channel for MQClient operation*
☑ Document type XML
Request queue name*
OK
Cancel
Fields marked with * are required.

5. Enter the system information as specified in the following steps:

   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 Synchronization Type 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**.

   A summary is displayed, which 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**.

2.13.1.3 Creating a File Channel

To create a File 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 the **channels** node and select **Add Channel**.

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

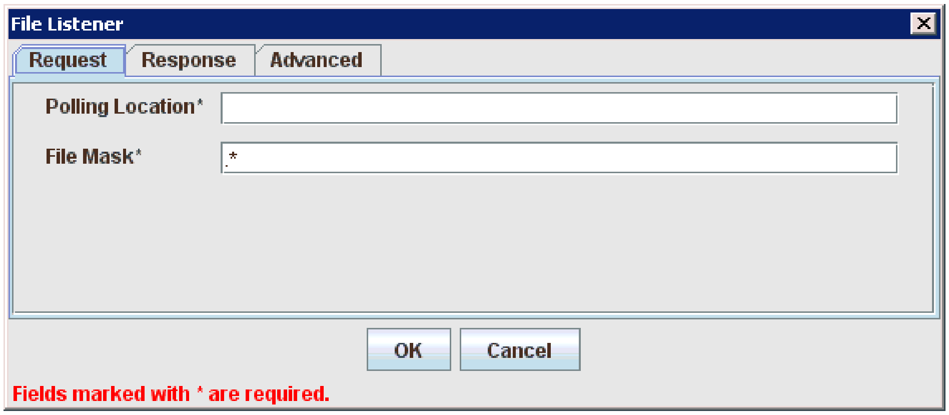
   a. Enter a name for the channel, for example, NewChannel.

   b. Enter a brief description.

   c. From the Protocol list, select **File Listener**.

4. Click **Next**.

   The File Listener dialog is displayed.



File Listener

Polling Location*

File Mask* .*

Fields marked with * are required.

5. Enter the system information as specified in the following steps:

   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 Synchronization Type 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**.

   A summary is displayed, which 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**.

2.13.1.4 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 dialog is displayed.

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

2.13.1.5 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 Oracle WebLogic Server
- Deployment of Adapter
- Updating Adapter Configuration

See Also:

- *Oracle Application Server Adapter Concepts Guide*

3.1 Adapter Integration with Oracle WebLogic Server

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.

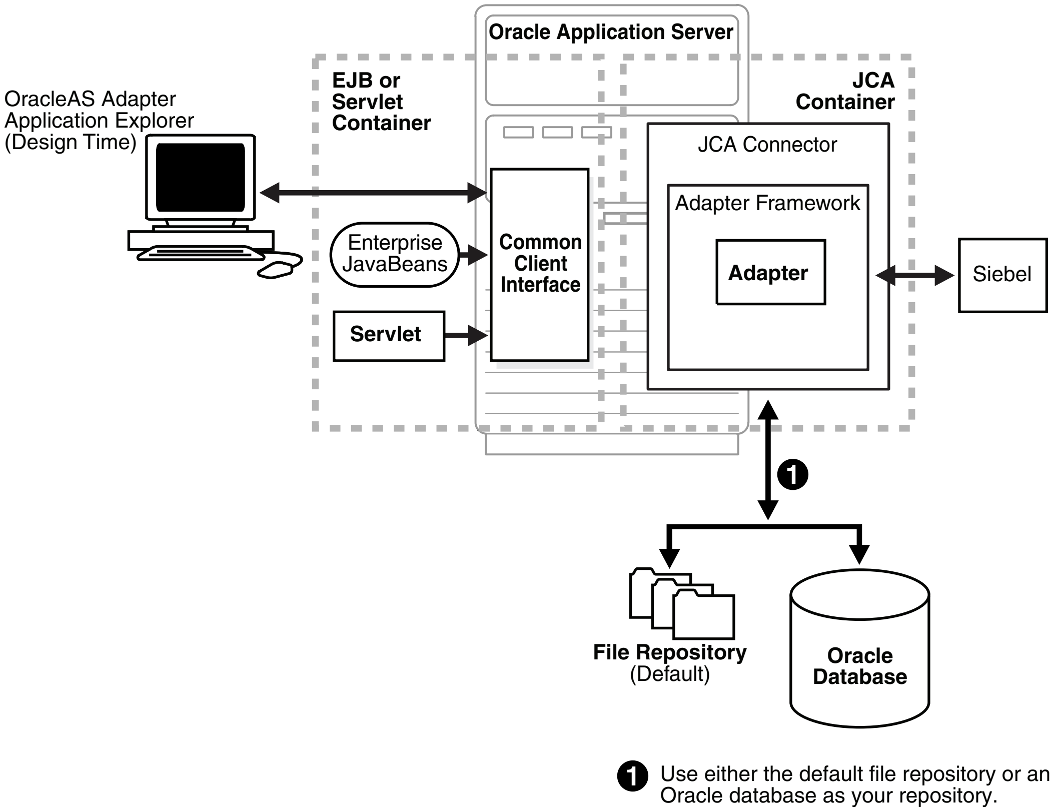
See Also:

- *Oracle Application Server Adapter Concepts Guide*

3.2 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



See Also:

- *Oracle Application Server Adapter Concepts Guide*

3.3 Updating Adapter Configuration

During the J2CA deployment of OracleAS Adapter for Siebel, OracleWLS generates a deployment descriptor called `ra.xml`, located in:

```
C:\oracle\Middleware\Oracle_
SOA1\soa\thirdparty\ApplicationAdapters\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:\oracle\Middleware\Oracle_
SOA1\soa\thirdparty\ApplicationAdapters</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 OracleWLS 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:

```
C:\oracle\Middleware\Oracle_
SOA1\soa\thirdparty\ApplicationAdapters\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:\oracle\Middleware\Oracle_SOA1\soa\thirdparty\ApplicationAdapters</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.
>
> In addition, the `iwafjca.rar` file must be redeployed in the Oracle WebLogic Administration Console to activate these changes.

Modifying WSDL Files for Additional Connection Factory Values

Application Explorer generates the J2CA properties file 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 J2CA properties file. The default J2CA properties file for the Oracle Application Adapter for Siebel with a configuration of `isdsrv2_conn2` is shown in the following example.

Notice that the J2CA properties file 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 Integration With BPEL Service Components in the Oracle SOA Suite

Oracle Application Adapter for Siebel integrates seamlessly with Business Process Execution Language (BPEL) Process Manager to facilitate Web service integration. Oracle BPEL Process Manager 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:

4.1 Overview

To integrate with Oracle BPEL Process Manager, Oracle Application Adapter for Siebel must be deployed in the same WLS container as Oracle BPEL Process Manager. The underlying adapter services must be exposed as WSDL files, which are generated during design time in Oracle Adapter Application Explorer (Application Explorer) for both request-response (outbound) and event notification (inbound) services of the adapter. See "Generating WSDL (J2CA Configurations Only)" on page 2-32 for more information.

The generated WSDL files are used to design the appropriate BPEL processes for inbound or outbound adapter services. A completed BPEL process must be successfully compiled in Oracle JDeveloper and deployed to a BPEL server. Upon deployment to the BPEL server, every newly built process is automatically deployed to the Oracle Enterprise Manager console, where you run, monitor, administer BPEL processes, and listen to adapter events.

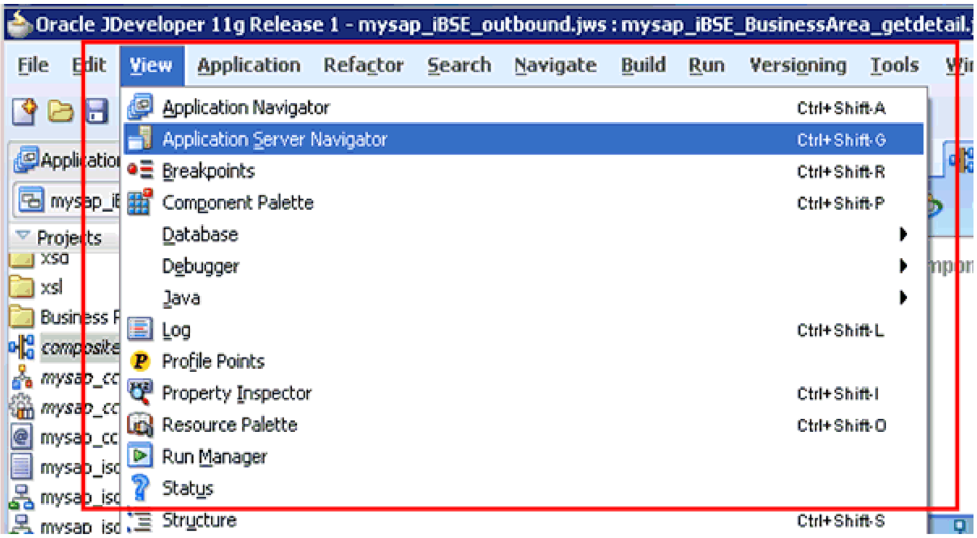
4.2 Deployment of Adapter

During installation, Oracle Application Adapter for Siebel is deployed as a J2CA 1.0 resource adapter within the WLS container. The adapter must be deployed in the same WLS container as Oracle BPEL Process Manager.

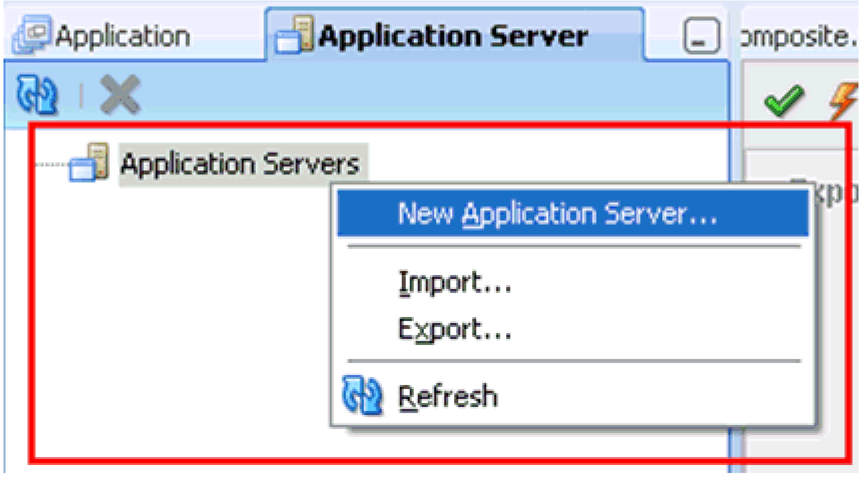
4.3 Configuring a New Application Server Connection

To configure a new Application Server connection in Oracle JDeveloper:

1. Open Oracle JDeveloper on your system.
2. From the menu bar, click **View** and select **Application Server Navigator**.

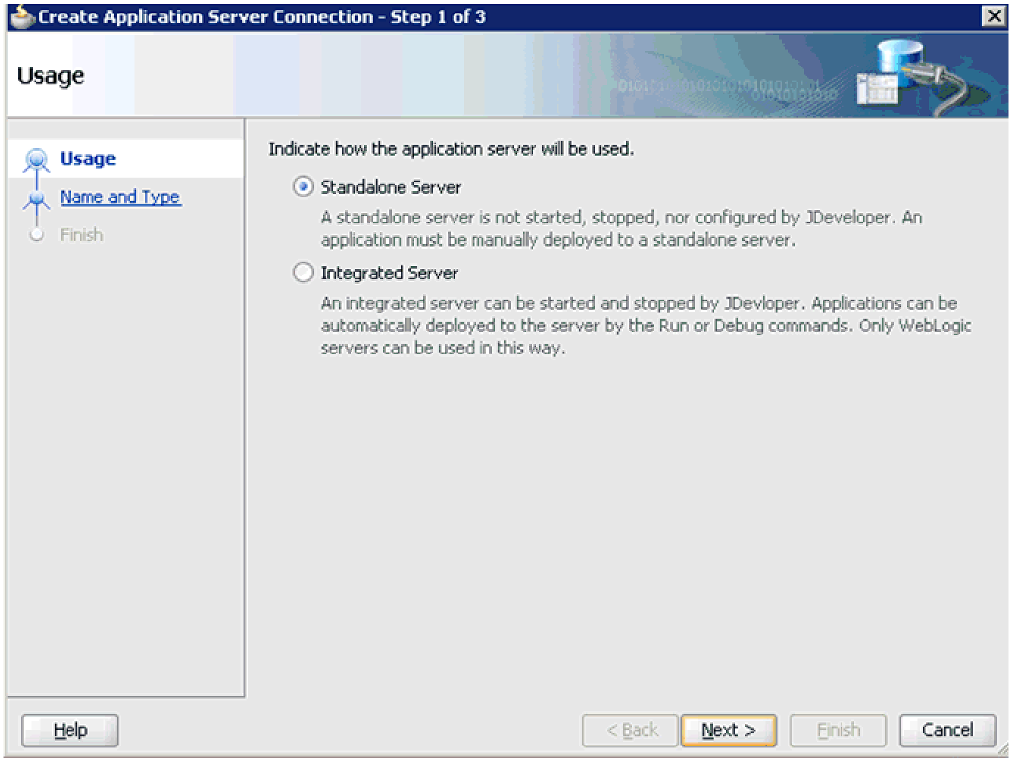

Oracle JDeveloper 11g Release 1 - mysap_iBSE_outbound.jws : mysap_iBSE_BusinessArea_getdetail.j
File
Edit
View
Application
Refactor
Search
Navigate
Build
Run
Versioning
Tools
Wi
Application Navigator Ctrl+Shift-A
Application Server Navigator Ctrl+Shift-G
Breakpoints Ctrl+Shift-R
Component Palette Ctrl+Shift-P
Database
Debugger
Java
Log Ctrl+Shift-L
Profile Points
Property Inspector Ctrl+Shift-I
Resource Palette Ctrl+Shift-O
Run Manager
Status
Structure Ctrl+Shift-S
Projects
xsd
xsl
Business F
composite
mysap_cc
mysap_isc

The Application Server tab is displayed.



3. Right-click **Application Servers**, and then select **New Application Server**.

   The Create Application Server Connection Wizard - Usage page is displayed.


Create Application Server Connection - Step 1 of 3

Usage

Indicate how the application server will be used.

● Standalone Server

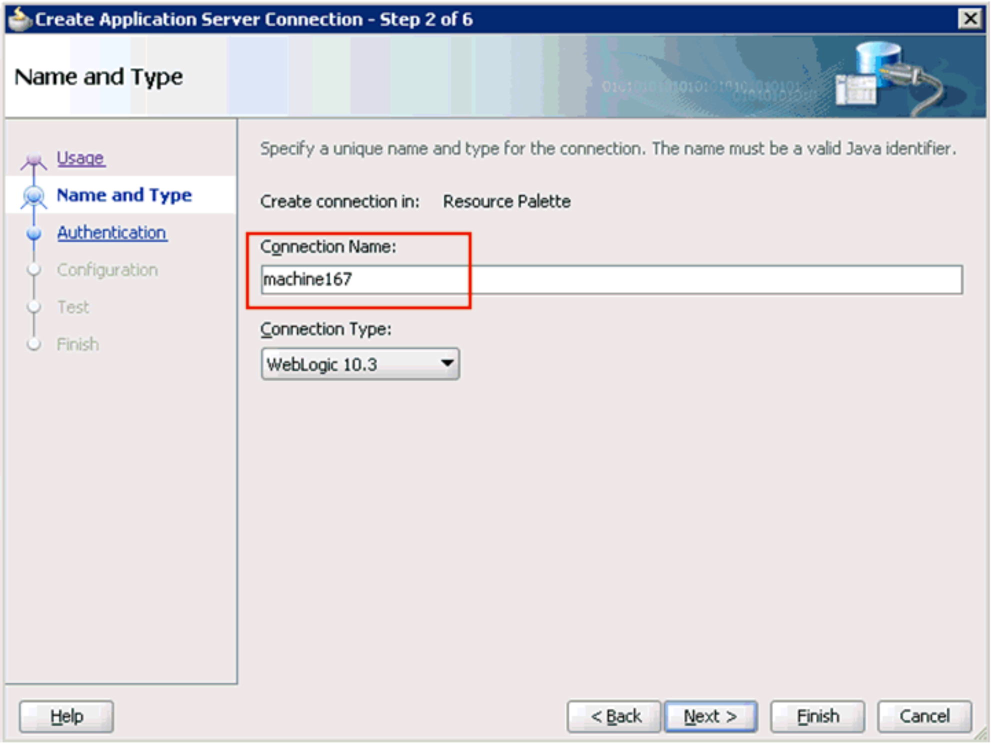
A standalone server is not started, stopped, nor configured by JDeveloper. An application must be manually deployed to a standalone server.

○ Integrated Server

An integrated server can be started and stopped by JDevloper. Applications can be automatically deployed to the server by the Run or Debug commands. Only WebLogic servers can be used in this way.

4. Accept the default selection (Standalone Server) and click **Next**.

   The Name and Type page is displayed.


Create Application Server Connection - Step 2 of 6

Name and Type

Specify a unique name and type for the connection. The name must be a valid Java identifier.

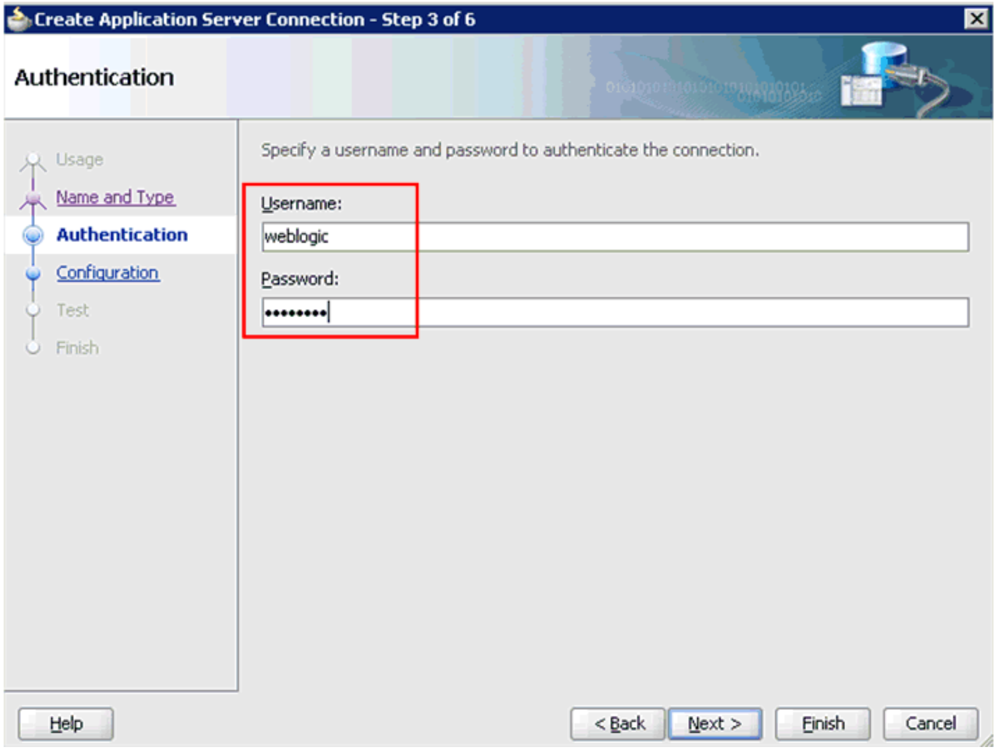
Create connection in: Resource Palette

Connection Name: machine167

Connection Type: WebLogic 10.3

5. Specify a new name for the Application Server connection and click **Next**.

   The Authentication page is displayed.



Create Application Server Connection - Step 3 of 6

Authentication

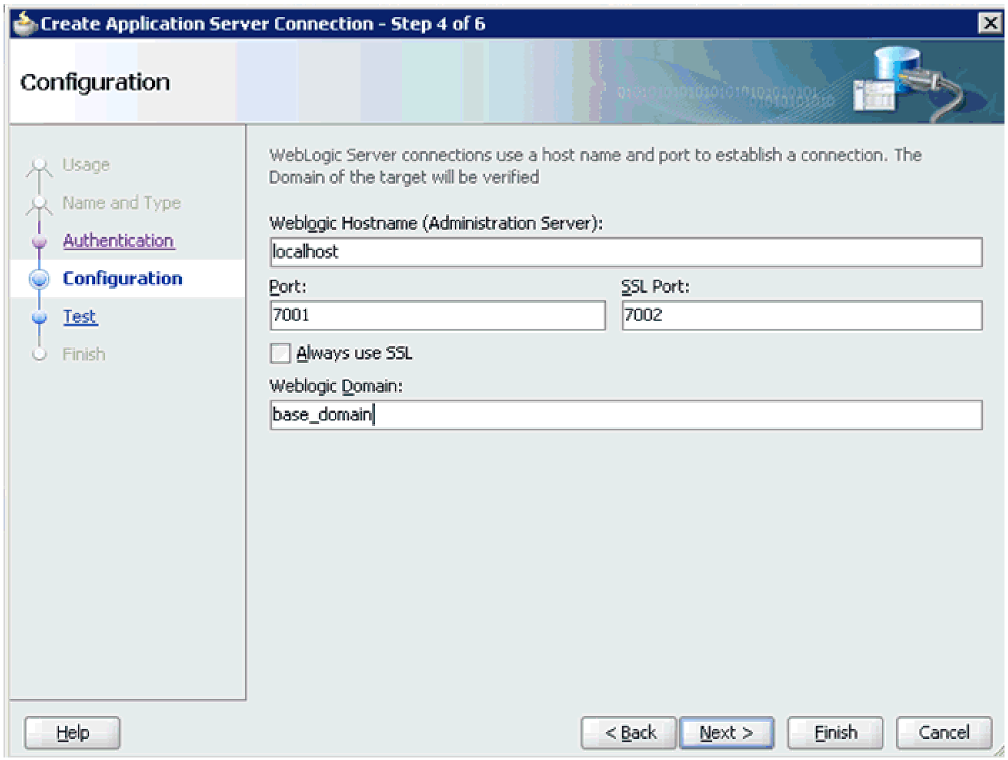
Specify a username and password to authenticate the connection.

Username: weblogic

Password: ••••••••

6. Specify a valid user name (for example, weblogic) and a password (for example, welcome1) for your new connection.
7. Click **Next**.

   The Configuration page is displayed.



Create Application Server Connection - Step 4 of 6

Configuration

WebLogic Server connections use a host name and port to establish a connection. The Domain of the target will be verified

Weblogic Hostname (Administration Server): localhost

Port: 7001

SSL Port: 7002

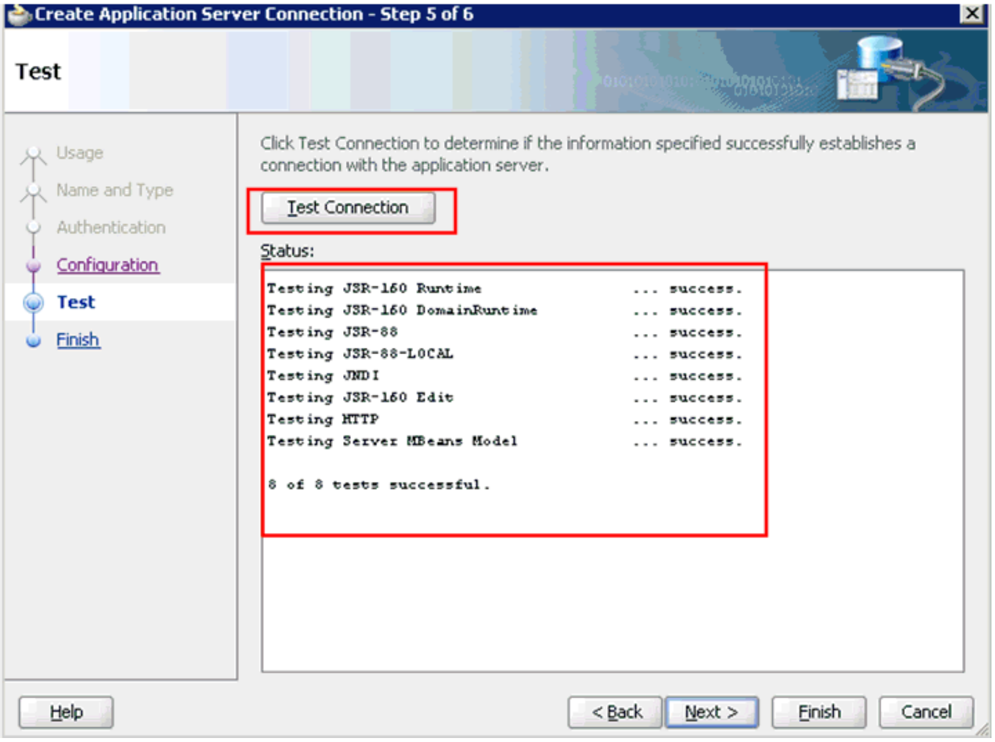
□ Always use SSL

Weblogic Domain: base_domain

8. Specify the Oracle WebLogic host name (for example, localhost), which is the machine IP where the process needs to deploy and Oracle WebLogic domain (for example, base_domain).

9. Click **Next**.

   The Test page is displayed.



Click Test Connection to determine if the information specified successfully establishes a connection with the application server.

Status:

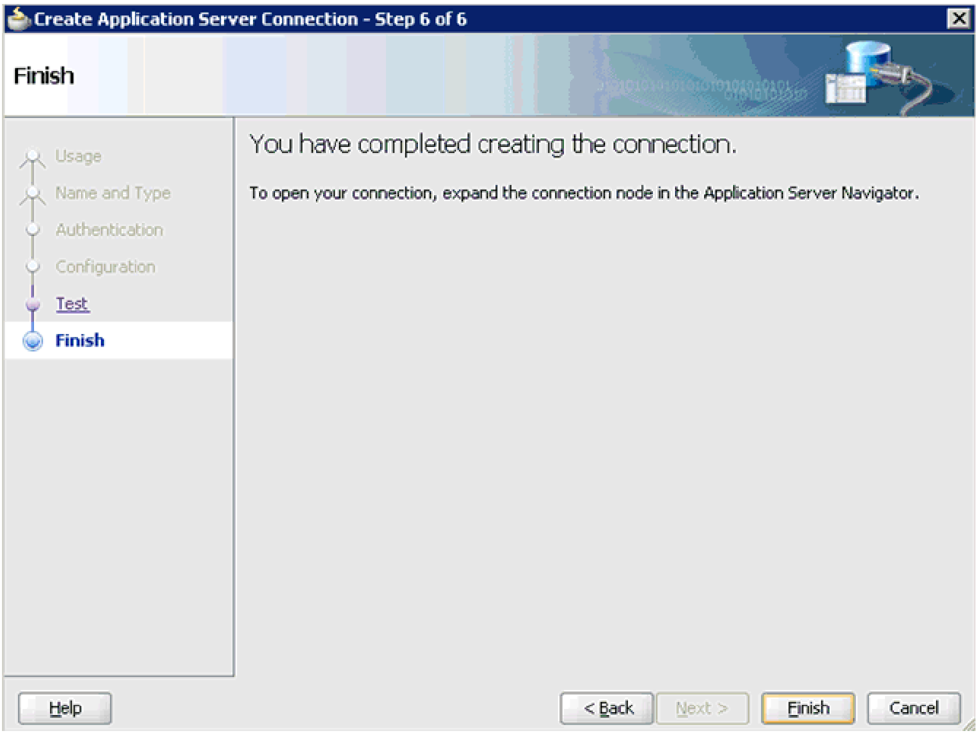
```
Testing JSR-160 Runtime                     ... success.
Testing JSR-160 DomainRuntime               ... success.
Testing JSR-88                              ... success.
Testing JSR-88-LOCAL                        ... success.
Testing JNDI                                ... success.
Testing JSR-160 Edit                        ... success.
Testing HTTP                                ... success.
Testing Server MBeans Model                 ... success.

8 of 8 tests successful.
```

10. Click **Test Connection**.

11. Ensure that the test status is successful.

12. Click **Next**.

    The Finish page is displayed.

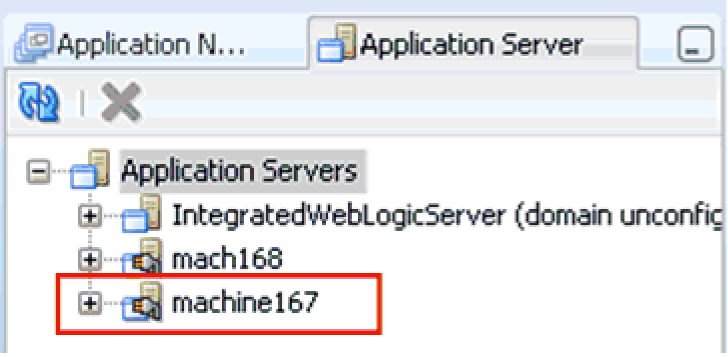


You have completed creating the connection.

To open your connection, expand the connection node in the Application Server Navigator.

13. Click **Finish**.

    The new Application Server connection is listed in the left pane (Application Server tab), as shown in the following image.



4.4 Designing an Outbound BPEL Process for Service Integration

The following tools are required to complete your adapter design-time configuration:

- Oracle Adapter Application Explorer (Application Explorer)
- Oracle JDeveloper BPEL Designer (JDeveloper) or Eclipse

Note: The examples in this chapter demonstrate the use of Oracle JDeveloper.

Before you design a BPEL process, you must create a schema and generate the respective WSDL file using Application Explorer. See "Generating WSDL (J2CA Configurations Only)" on page 2-32 for more information.

4.4.1 Siebel Service Integration

This section describes how to perform service integration with Siebel. The following topcis are included:

- Creating a Request-Response J2CA Service in Application Explorer
- Creating an Integration Object Node

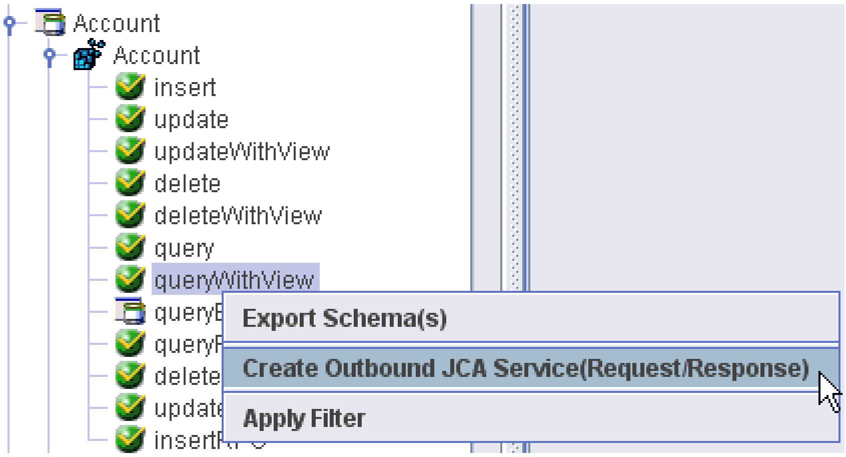
Creating a Request-Response J2CA Service in Application Explorer

To generate WSDL in Application Explorer:

1. Start **Application Explorer** and connect to a defined Siebel target or create a new target.

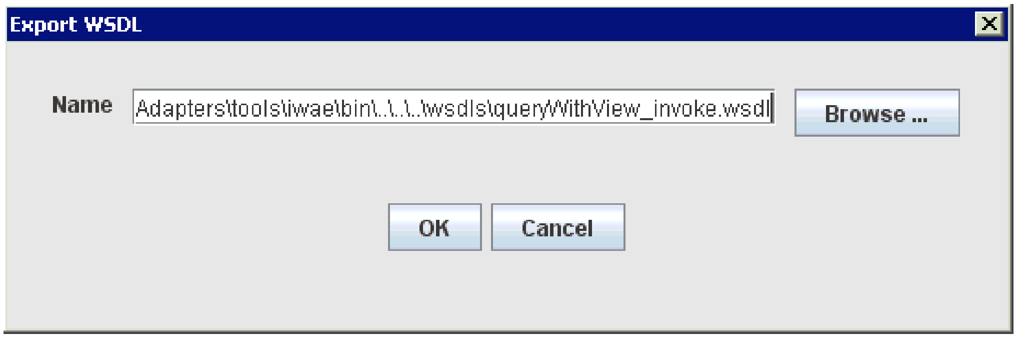
   See Connecting to a Defined Target on page 2-16 for more information.

2. Expand the Siebel target to which you are connected.
3. Expand **Business Object**, **Account**, and then **Account**.



4. Right-click **queryWithView**, and then select **Create Outbound JCA Service (Request/Response)**.

   The Export WSDL dialog is displayed.



Name: Adapters\tools\iwae\bin\..\..\..\wsdls\queryWithView_invoke.wsdl

5. Specify an export location on your file system or accept the default path.

   The .wsdl file extension is added automatically. By default, the names of WSDL files generated for request-response services end with _invoke.

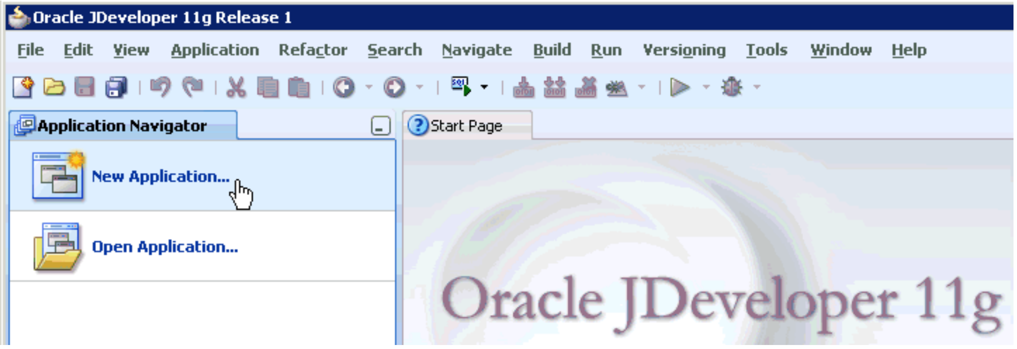
6. Click **OK**.

You can now create an empty composite for SOA, which is the first step that is required to define a BPEL outbound process in Oracle JDeveloper.

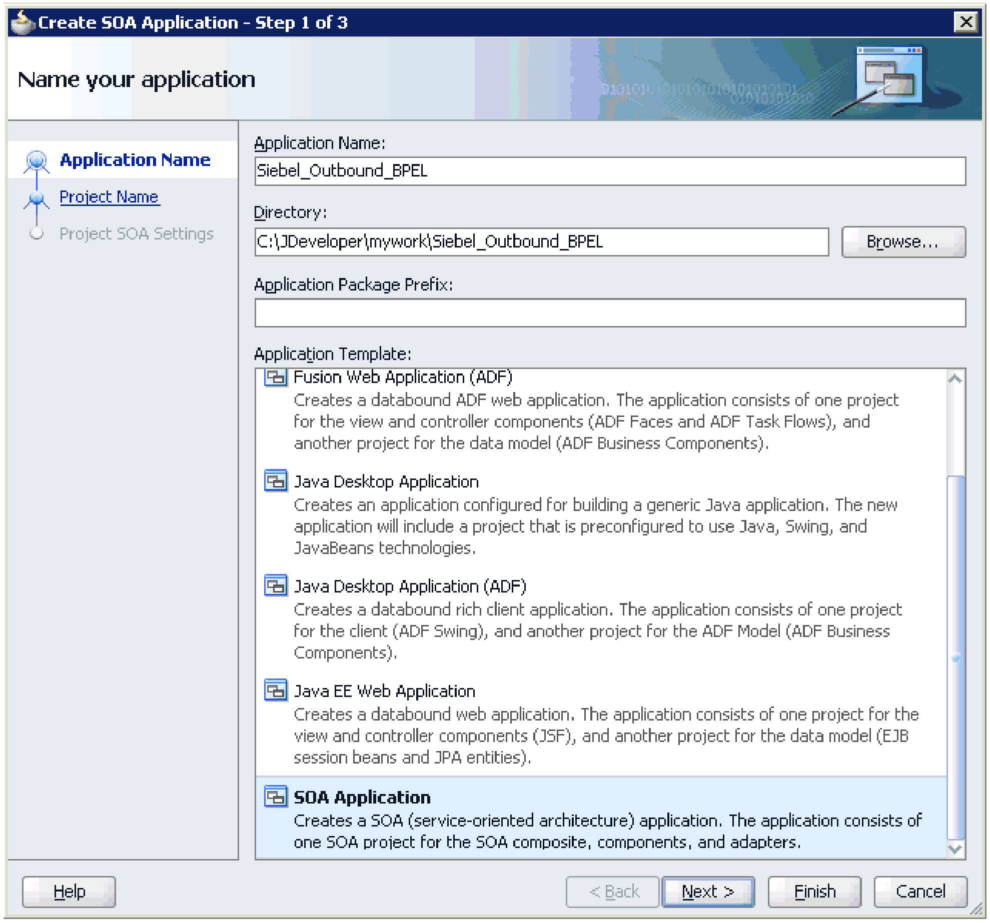
4.4.2 Creating a New SOA Application for the Outbound BPEL Process

Perform the following steps to create a new SOA application for the outbound BPEL process:

1. Open Oracle JDeveloper on your system.
2. In the Application Navigator tab, click **New Application**.



The Create SOA Application wizard is displayed.



Application Name: Siebel_Outbound_BPEL

Directory: C:\JDeveloper\mywork\Siebel_Outbound_BPEL

Application Package Prefix:

Application Template:

Fusion Web Application (ADF)
Creates a databound ADF web application. The application consists of one project for the view and controller components (ADF Faces and ADF Task Flows), and another project for the data model (ADF Business Components).

Java Desktop Application
Creates an application configured for building a generic Java application. The new application will include a project that is preconfigured to use Java, Swing, and JavaBeans technologies.

Java Desktop Application (ADF)
Creates a databound rich client application. The application consists of one project for the client (ADF Swing), and another project for the ADF Model (ADF Business Components).

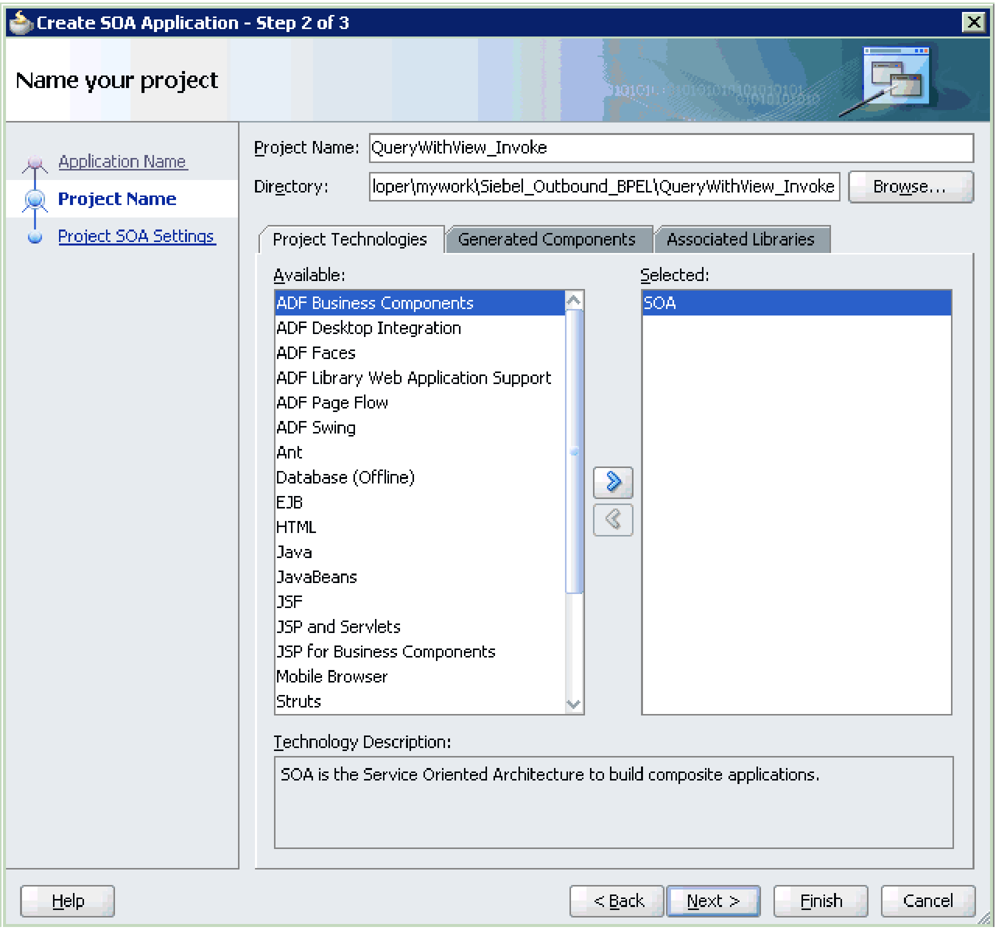
Java EE Web Application
Creates a databound web application. The application consists of one project for the view and controller components (JSF), and another project for the data model (EJB session beans and JPA entities).

SOA Application
Creates a SOA (service-oriented architecture) application. The application consists of one SOA project for the SOA composite, components, and adapters.

3. From the Application Template list, click **SOA Application**.

4. Enter name for the new SOA application (for example, Siebel_Outbound_BPEL) and click **Next**.

   The Name your project page is displayed.



Create SOA Application - Step 2 of 3

Name your project

Project Name: QueryWithView_Invoke

Directory: loper\mywork\Siebel_Outbound_BPEL\QueryWithView_Invoke

Available:

- ADF Business Components
- ADF Desktop Integration
- ADF Faces
- ADF Library Web Application Support
- ADF Page Flow
- ADF Swing
- Ant
- Database (Offline)
- EJB
- HTML
- Java
- JavaBeans
- JSF
- JSP and Servlets
- JSP for Business Components
- Mobile Browser
- Struts

Selected:

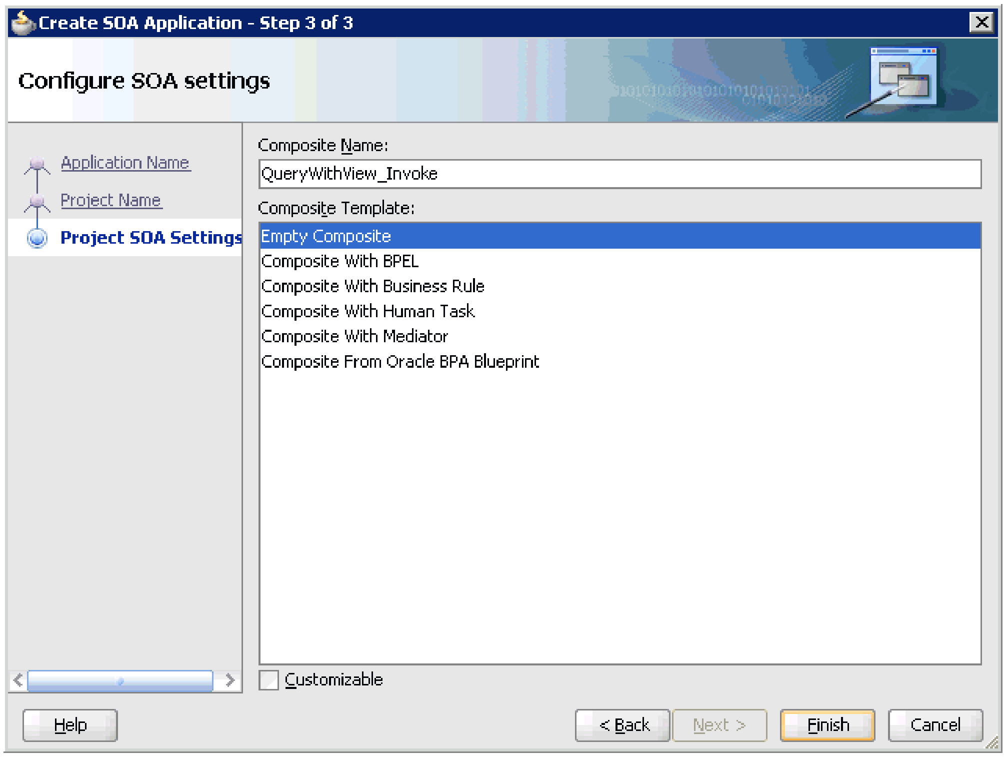
- SOA

Technology Description:

SOA is the Service Oriented Architecture to build composite applications.

5. Enter a project name (for example, QueryWithView_Invoke) and click **Next**.

   The Configure SOA settings page is displayed.



Create SOA Application - Step 3 of 3

Configure SOA settings

Composite Name: QueryWithView_Invoke

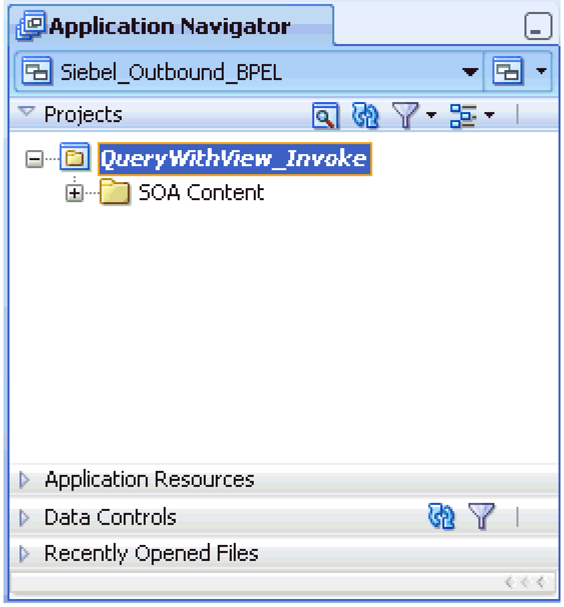
Composite Template:

- Empty Composite
- Composite With BPEL
- Composite With Business Rule
- Composite With Human Task
- Composite With Mediator
- Composite From Oracle BPA Blueprint

☐ Customizable

6. From the Composite Template list, select **Empty Composite** and click **Finish**.

   The new SOA application (Siebel_Outbound_BPEL) and associated project (QueryWithView_Invoke) are added to the Application Navigator tab in the left pane.



4.4.3 Defining a BPEL Outbound Process

This section describes how to define a BPEL outbound process, which consists of the following stages:

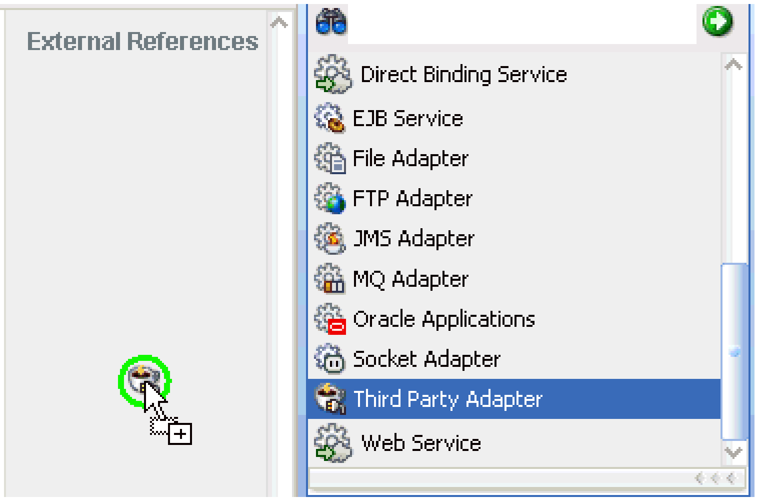
1. Configuring a Third Party Adapter Service Component

2. Configuring an Outbound BPEL Process Component

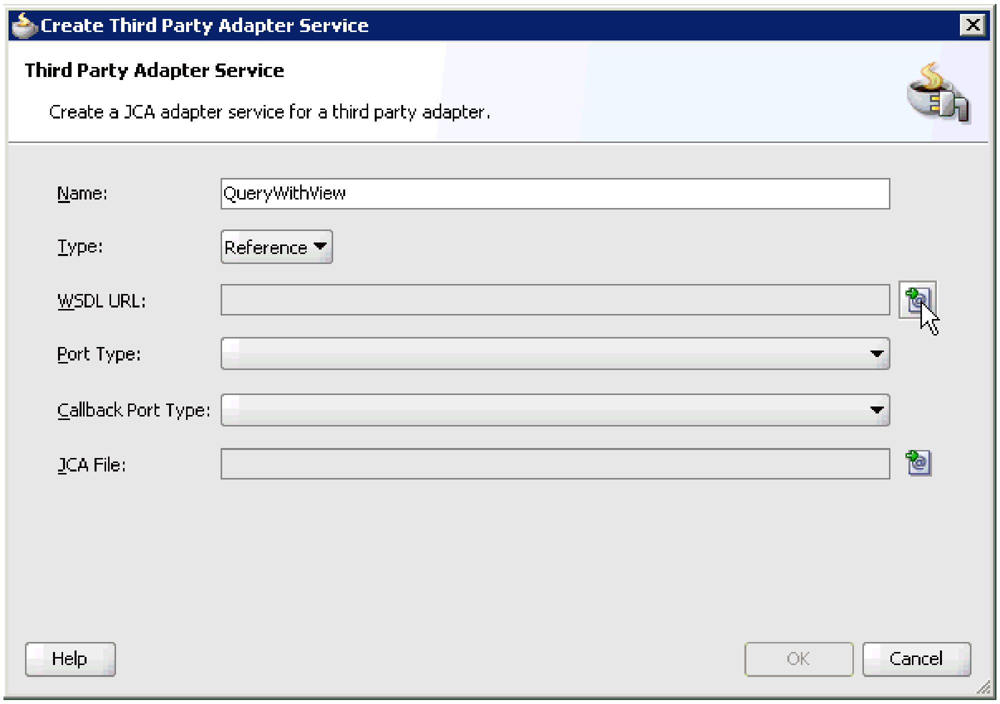
Configuring a Third Party Adapter Service Component

Perform the following steps to create a third party adapter service component:

1. Drag and drop the **Third Party Adapter** component from the Component Palette tab (Service Adapters section) to the External References design pane.



The Create Third Party Adapter Service dialog is displayed.


Create Third Party Adapter Service
Third Party Adapter Service
Create a JCA adapter service for a third party adapter.
Help
OK
Cancel

Name: QueryWithView

Type: Reference

WSDL URL:

Port Type:

Callback Port Type:

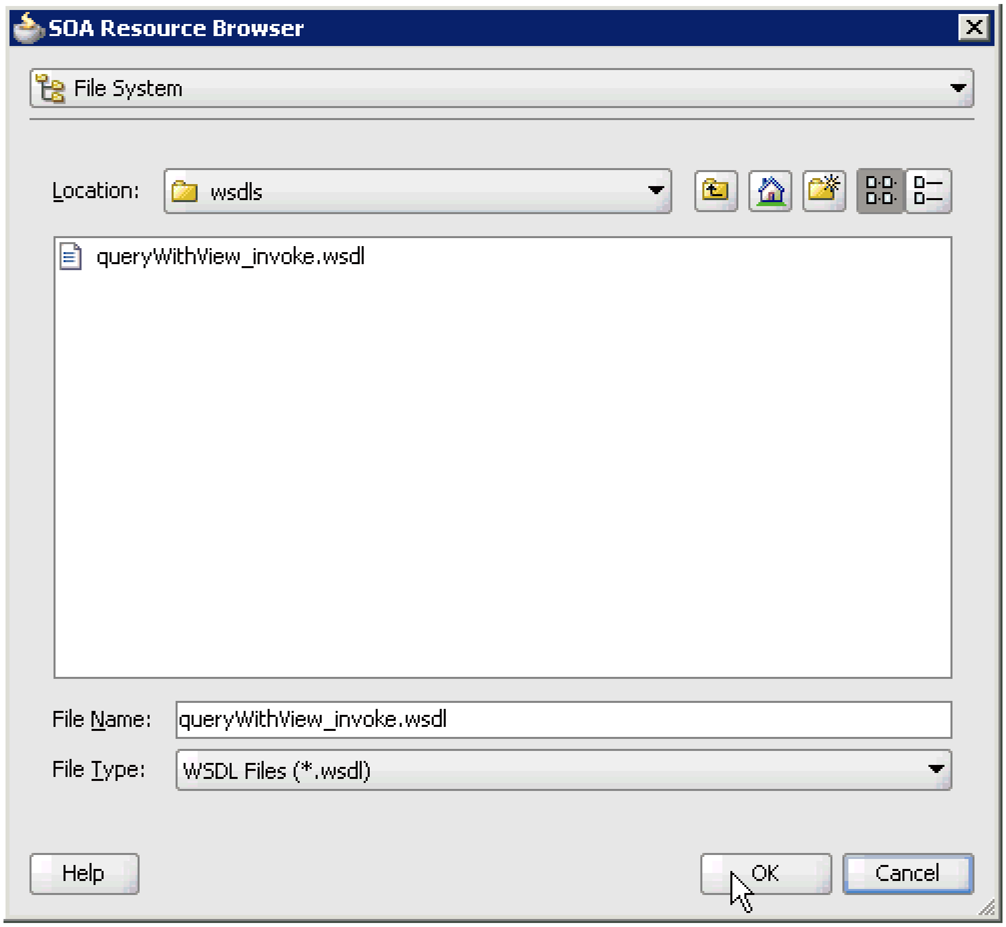
JCA File:

2. Enter a name for the new third party adapter service.

3. Ensure that **Reference** is selected from the Type list (default).

4. Click the **Find existing WSDLs** icon, which is located to the right of the WSDL URL field.

   The SOA Resource Browser dialog is displayed.



File System

Location: wsdls

queryWithView_invoke.wsdl

File Name: queryWithView_invoke.wsdl

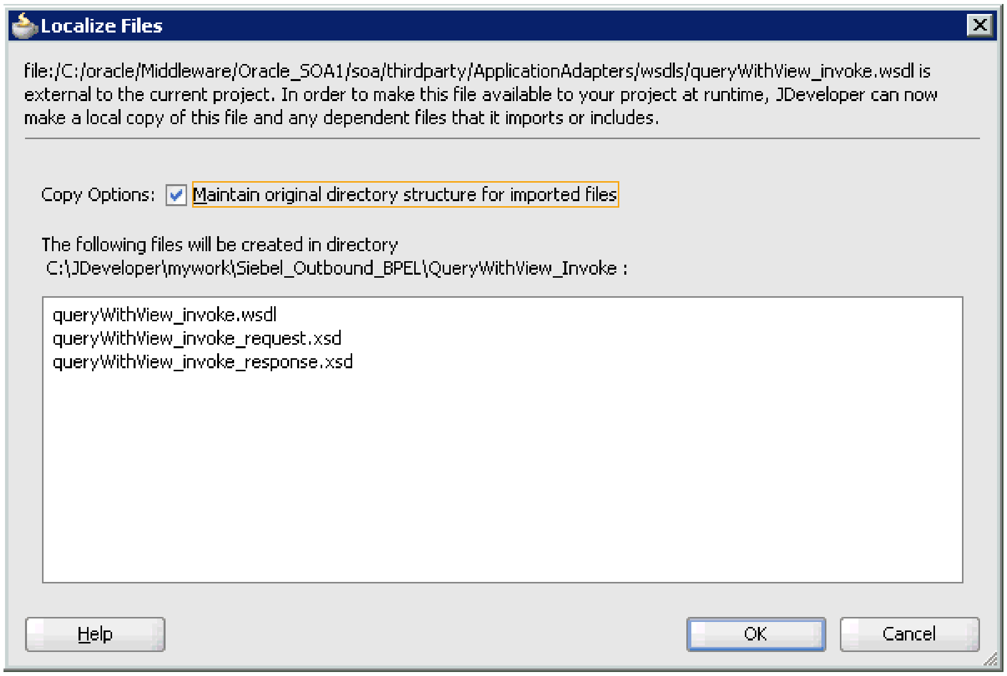
File Type: WSDL Files (*.wsdl)

5. Browse and select an outbound WSDL file from the following directory:

   `C:\oracle\Middleware\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\wsdls`

6. Click **OK**.

   The Localize Files dialog is displayed.



Localize Files

file:/C:/oracle/Middleware/Oracle_SOA1/soa/thirdparty/ApplicationAdapters/wsdls/queryWithView_invoke.wsdl is external to the current project. In order to make this file available to your project at runtime, JDeveloper can now make a local copy of this file and any dependent files that it imports or includes.

Copy Options: ☑ Maintain original directory structure for imported files

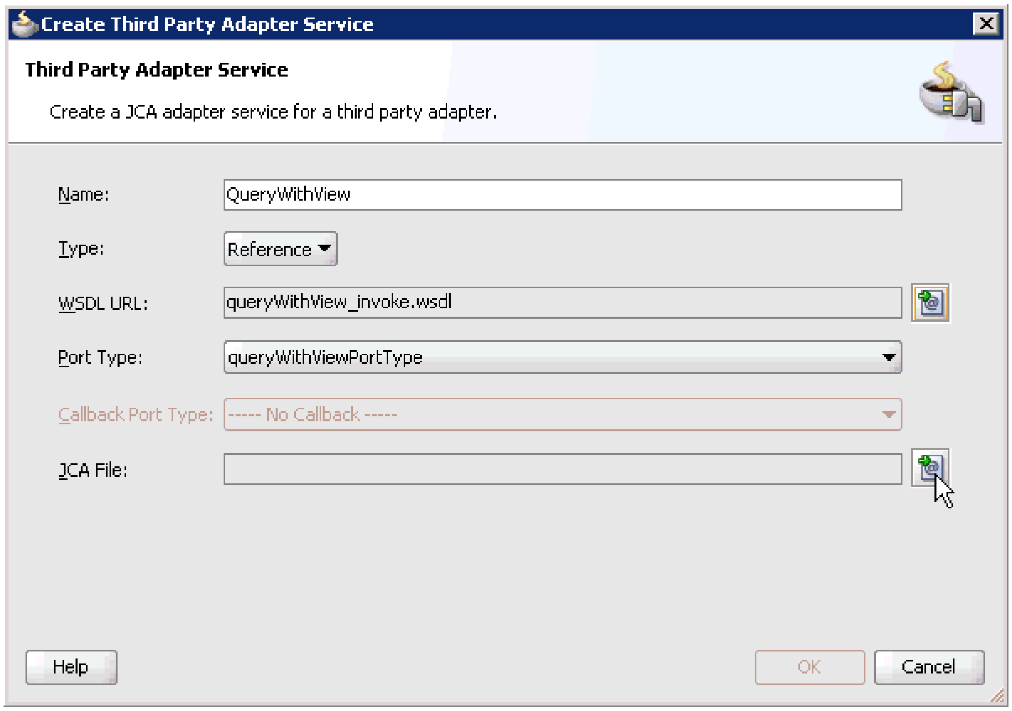
The following files will be created in directory C:\JDeveloper\mywork\Siebel_Outbound_BPEL\QueryWithView_Invoke :

queryWithView_invoke.wsdl
queryWithView_invoke_request.xsd
queryWithView_invoke_response.xsd

7. Click **OK**.

   The outbound WSDL file and associated request and response XML schema files (.xsd) are imported to the project folder that has been created.

   You are returned to the Create Third Party Adapter Service dialog.



Create Third Party Adapter Service

Third Party Adapter Service

Create a JCA adapter service for a third party adapter.

Name: QueryWithView

Type: Reference

WSDL URL: queryWithView_invoke.wsdl

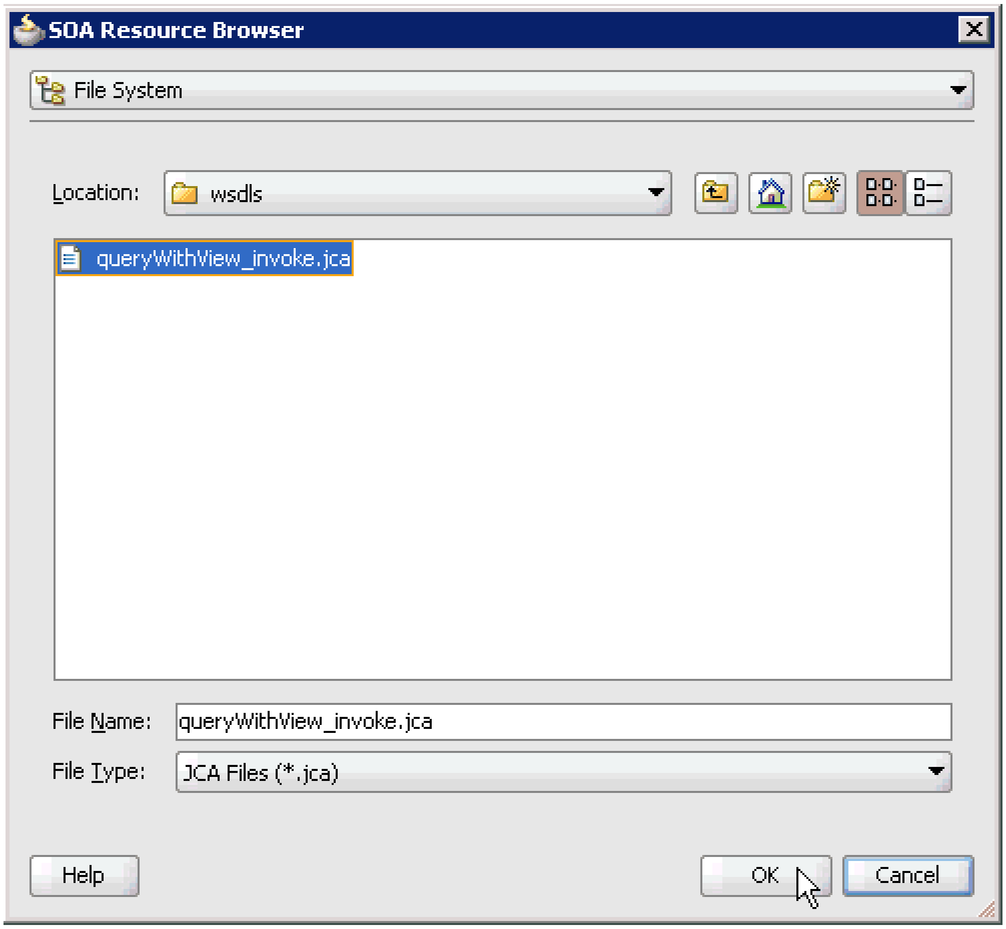
Port Type: queryWithViewPortType

Callback Port Type: ----- No Callback -----

JCA File:

8. Click the **Find JCA Files** icon, which is located to the right of the JCA File field.

   The SOA Resource Browser dialog is displayed.

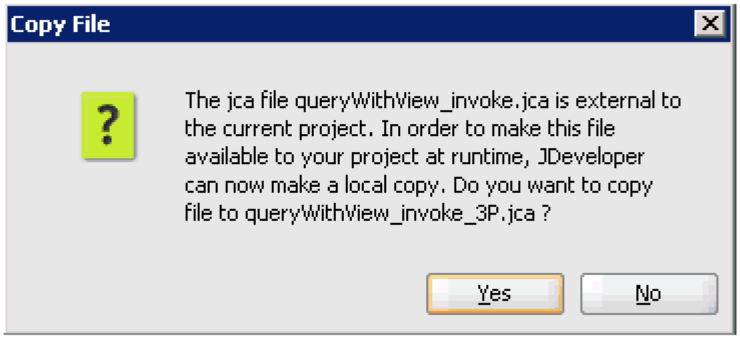


9. Browse and select the JCA properties file from the following directory:

   ```
   C:\oracle\Middleware\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\wsdls
   ```

10. Click **OK**.

    The following message is displayed.

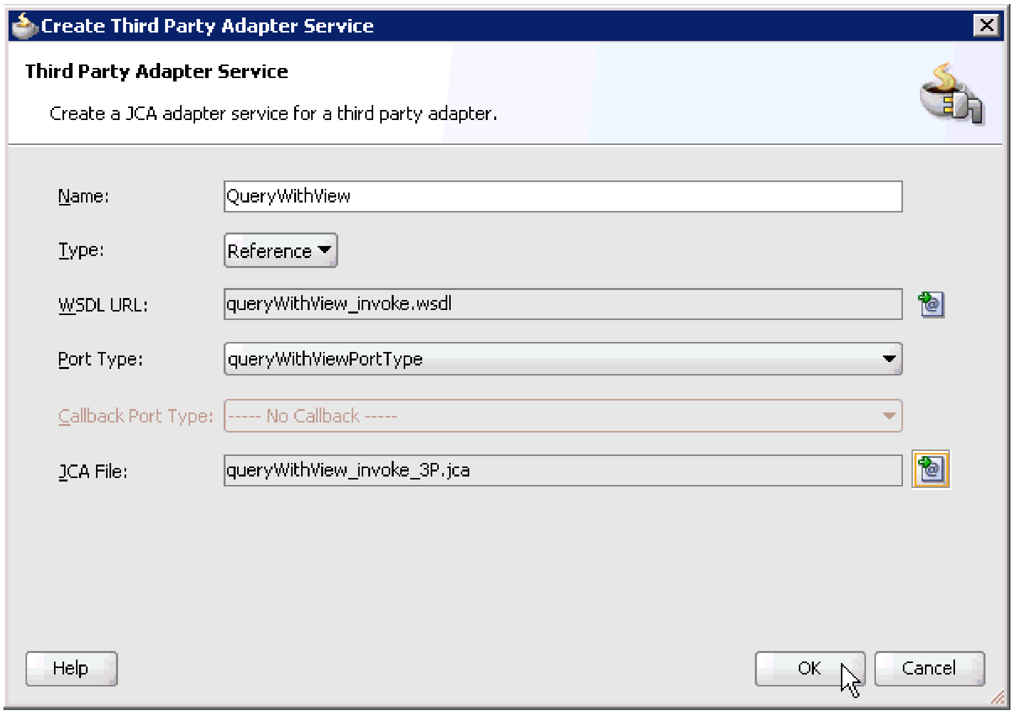


The jca file queryWithView_invoke.jca is external to the current project. In order to make this file available to your project at runtime, JDeveloper can now make a local copy. Do you want to copy file to queryWithView_invoke_3P.jca ?

11. Click **Yes**.

    A copy of the JCA properties file is made in the project folder.

    You are returned to the Create Third Party Adapter Service dialog.



Create Third Party Adapter Service

Third Party Adapter Service

Create a JCA adapter service for a third party adapter.

Name: QueryWithView

Type: Reference

WSDL URL: queryWithView_invoke.wsdl

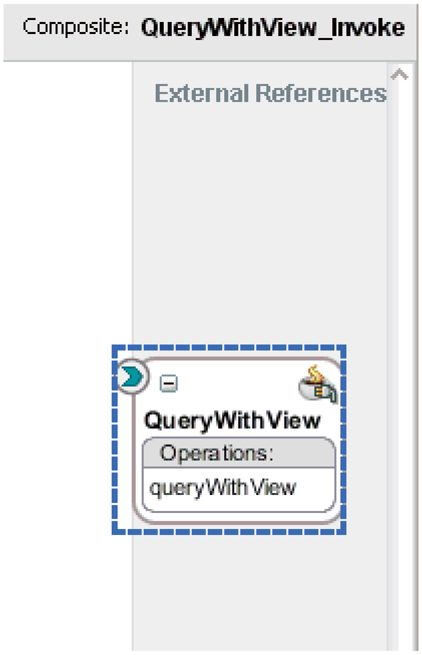
Port Type: queryWithViewPortType

Callback Port Type: ----- No Callback -----

JCA File: queryWithView_invoke_3P.jca

12. Click **OK**.

    The third party adapter service component (GetDetail) is created in the External References pane, as shown in the following image.

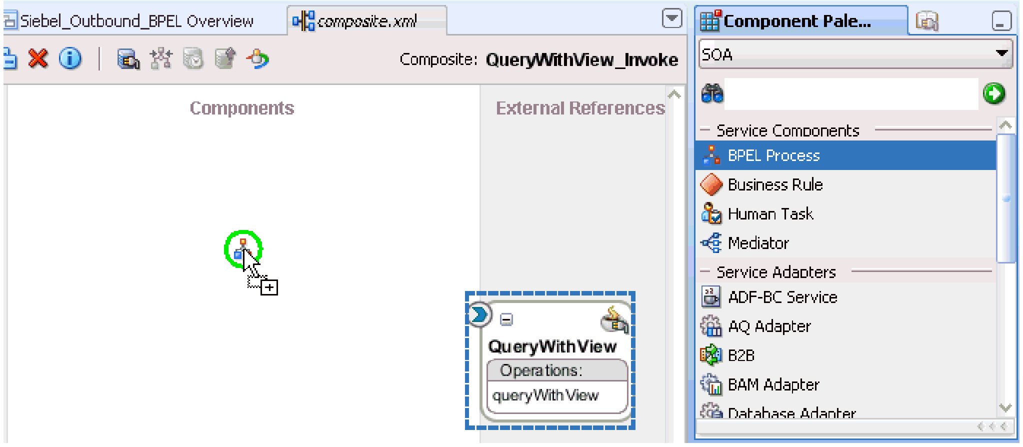


You are now ready to configure an outbound BPEL process component.

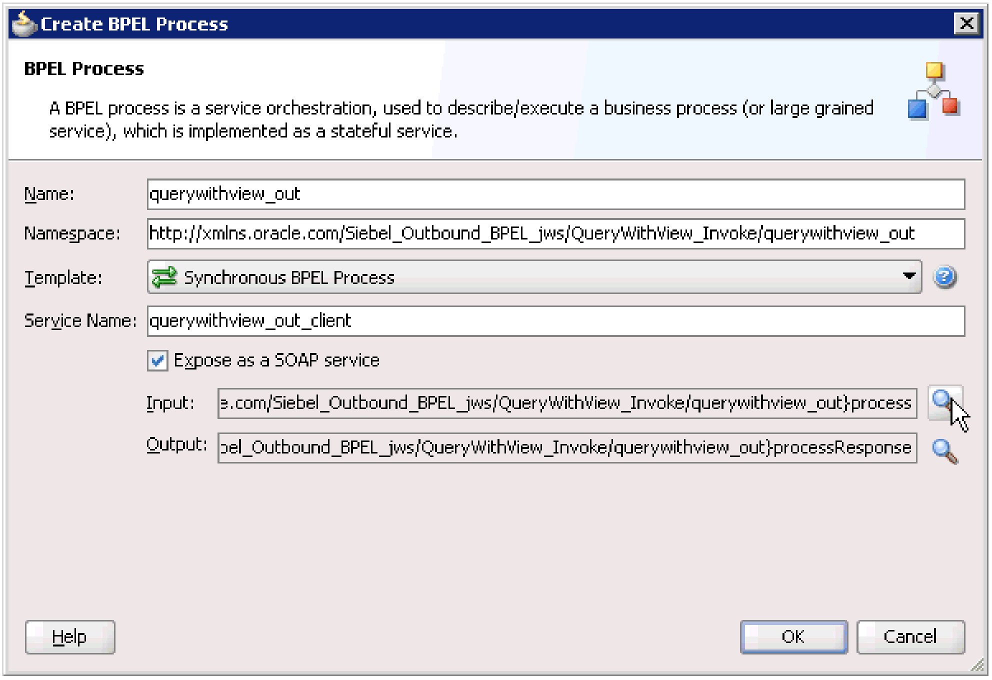
Configuring an Outbound BPEL Process Component

Perform the following steps to configure an outbound BPEL process component:

1. Drag and drop the **BPEL Process** component from the Component Palette tab (Service Components section) to the Components design pane.



The Create BPEL Process dialog is displayed.



A BPEL process is a service orchestration, used to describe/execute a business process (or large grained service), which is implemented as a stateful service.

Name: querywithview_out

Namespace: http://xmlns.oracle.com/Siebel_Outbound_BPEL_jws/QueryWithView_Invoke/querywithview_out

Template: Synchronous BPEL Process

Service Name: querywithview_out_client

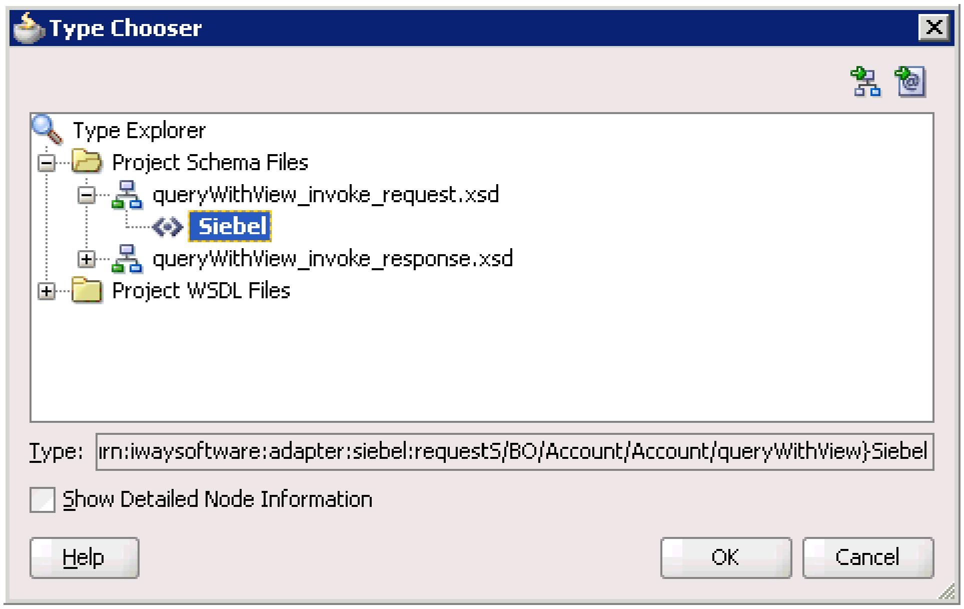
☑ Expose as a SOAP service

Input: e.com/Siebel_Outbound_BPEL_jws/QueryWithView_Invoke/querywithview_out}process

Output: bel_Outbound_BPEL_jws/QueryWithView_Invoke/querywithview_out}processResponse

2. In the Name field, enter a name to identify the new outbound BPEL process component (for example, querywithview_out).
3. From the Template list, select **Synchronous BPEL Process**.
4. Click the **Browse Input Elements** icon, which is located to the right of the Input field to select the associated XML request schema file.

   The Type Chooser dialog is displayed.



Type Chooser

- Type Explorer
  - Project Schema Files
    - queryWithView_invoke_request.xsd
      - Siebel
    - queryWithView_invoke_response.xsd
  - Project WSDL Files

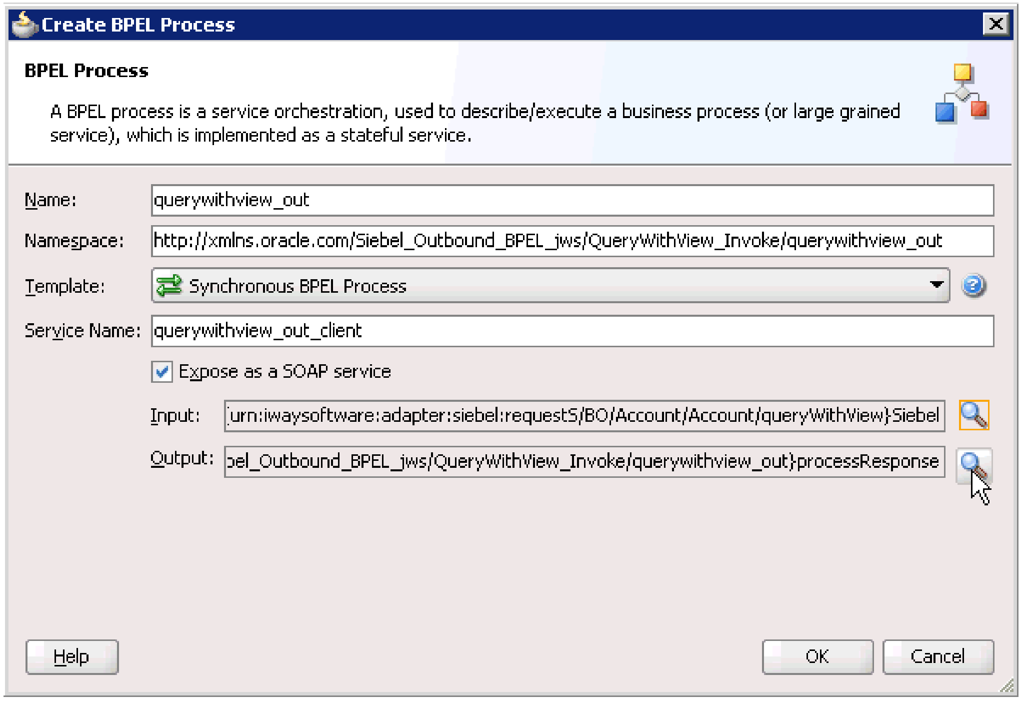
Type: ırn:iwaysoftware:adapter:siebel:requestS/BO/Account/Account/queryWithView}Siebel

□ Show Detailed Node Information

5. Expand **Project Schema Files**, **queryWithView_invoke_request.xsd**, and then select **Siebel**.

6. Click **OK**.

   You are returned to the Create BPEL Process dialog.



Create BPEL Process

BPEL Process

A BPEL process is a service orchestration, used to describe/execute a business process (or large grained service), which is implemented as a stateful service.

Name: querywithview_out

Namespace: http://xmlns.oracle.com/Siebel_Outbound_BPEL_jws/QueryWithView_Invoke/querywithview_out

Template: Synchronous BPEL Process

Service Name: querywithview_out_client

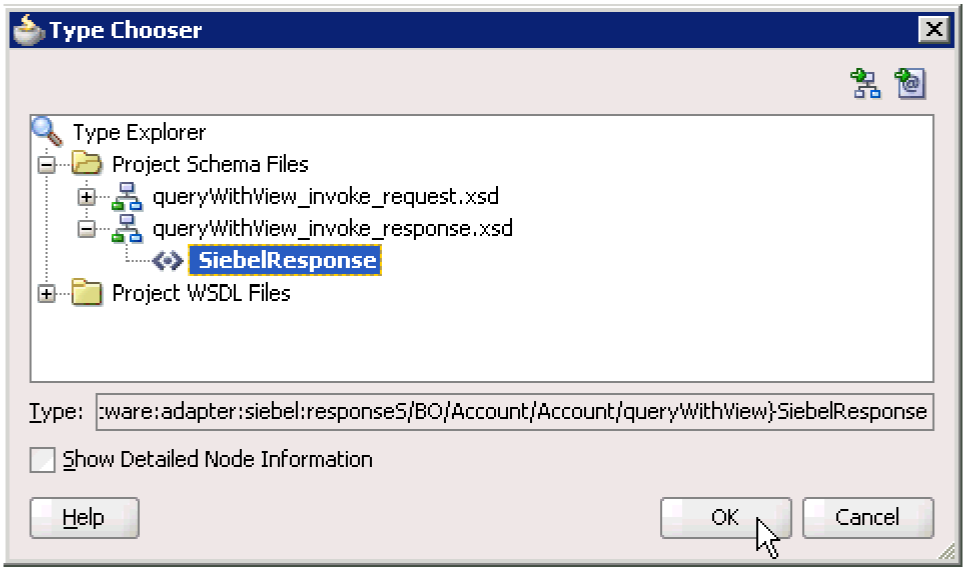
☑ Expose as a SOAP service

Input: urn:iwaysoftware:adapter:siebel:requestS/BO/Account/Account/queryWithView}Siebel

Output: oel_Outbound_BPEL_jws/QueryWithView_Invoke/querywithview_out}processResponse

7. Click the **Browse Output Elements** icon, which is located to the right of the Output field to select the associated XML response schema file.

   The Type Chooser dialog is displayed.



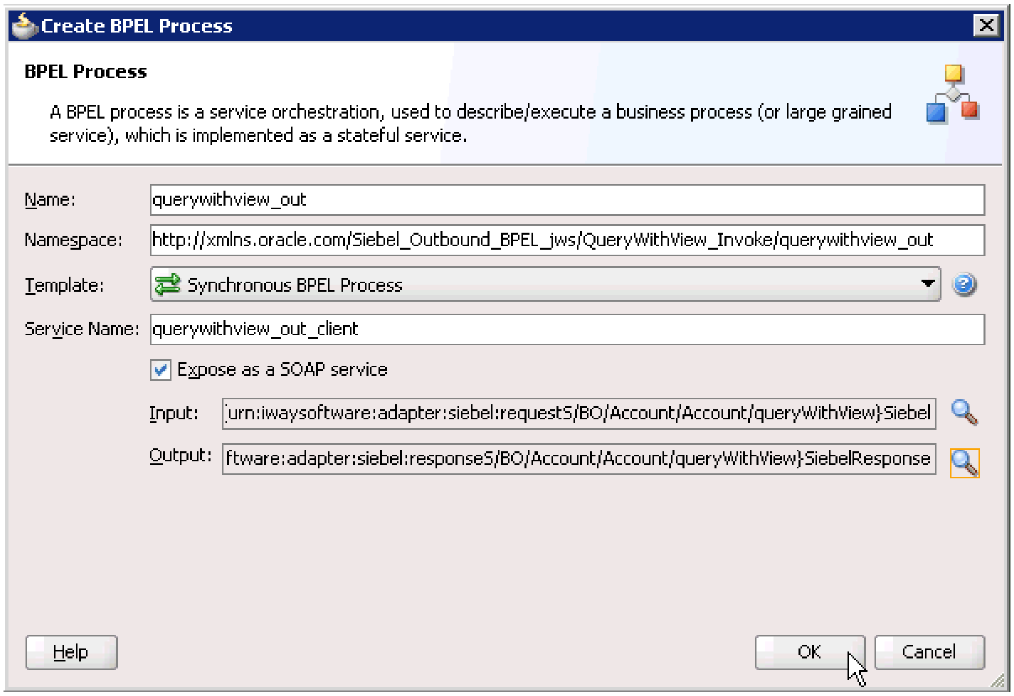
Type: :ware:adapter:siebel:responseS/BO/Account/Account/queryWithView}SiebelResponse

□ Show Detailed Node Information

8. Expand **Project Schema Files**, **queryWithView_invoke_response.xsd**, and then select **SiebelResponse**.

9. Click **OK**.

   You are returned to the Create BPEL Process dialog.



A BPEL process is a service orchestration, used to describe/execute a business process (or large grained service), which is implemented as a stateful service.

Name: querywithview_out

Namespace: http://xmlns.oracle.com/Siebel_Outbound_BPEL_jws/QueryWithView_Invoke/querywithview_out

Template: Synchronous BPEL Process

Service Name: querywithview_out_client

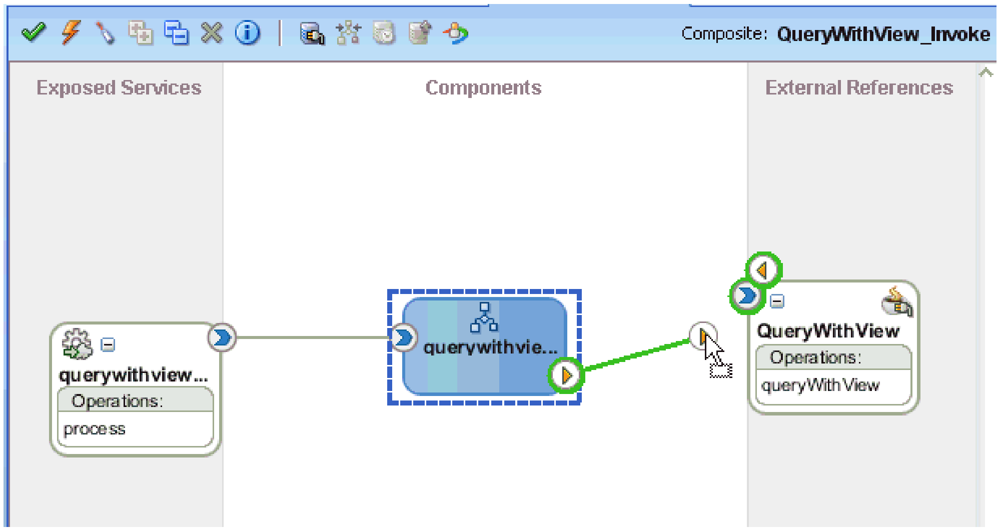
☑ Expose as a SOAP service

Input: urn:iwaysoftware:adapter:siebel:requestS/BO/Account/Account/queryWithView}Siebel

Output: ftware:adapter:siebel:responseS/BO/Account/Account/queryWithView}SiebelResponse

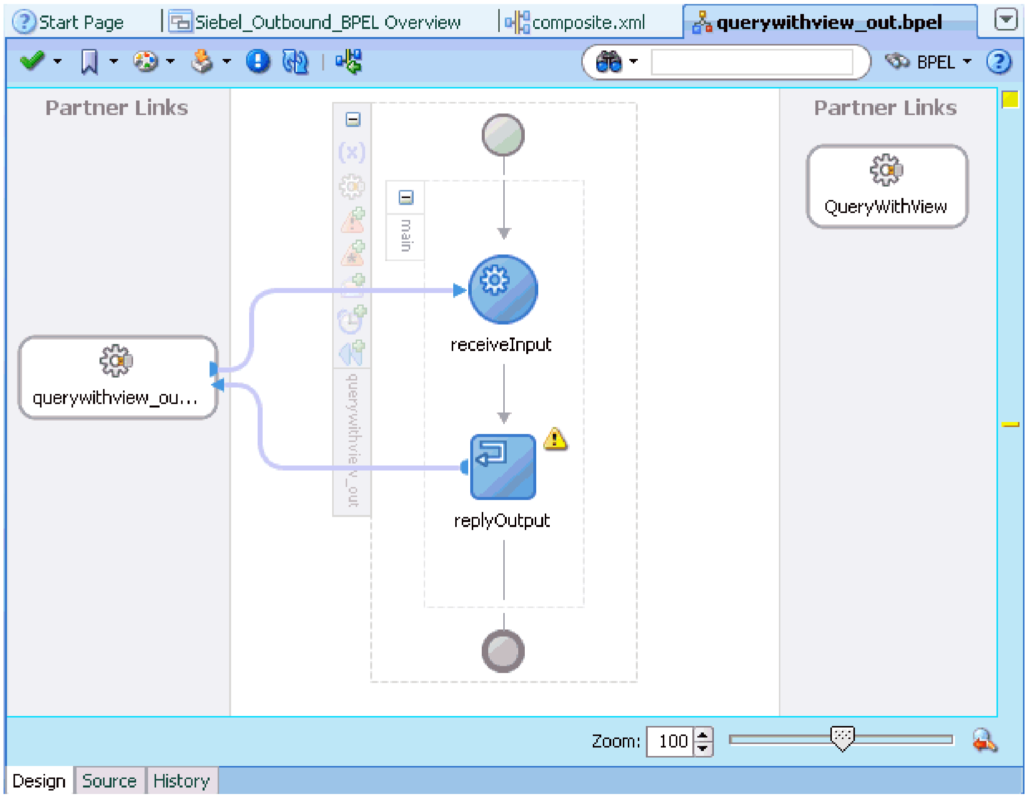
10. Click **OK**.

11. Create a connection between the outbound BPEL process component (querywithview_out) and the third party adapter service component (QueryWithView).

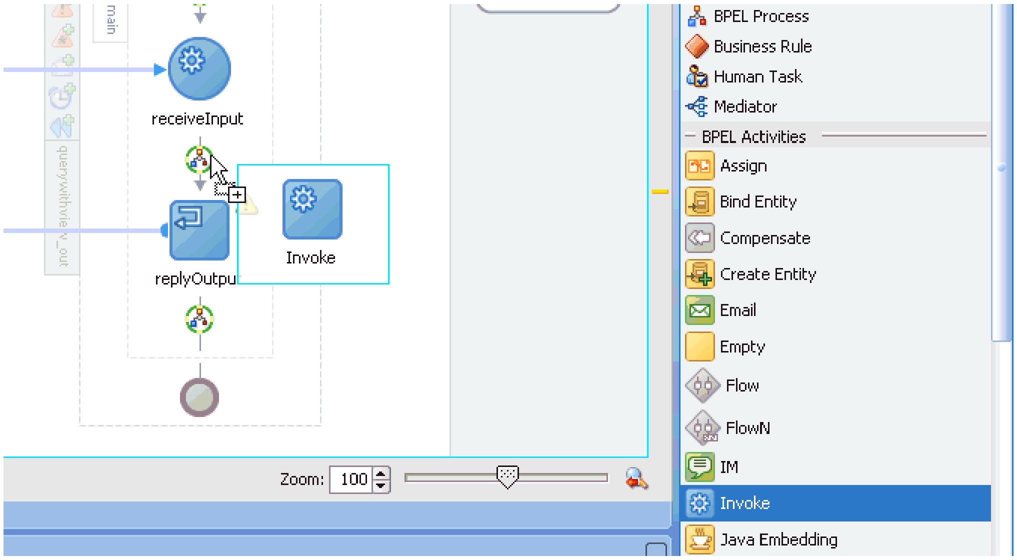


12. Double-click the outbound BPEL process component (querywithview_out) in the Components pane.

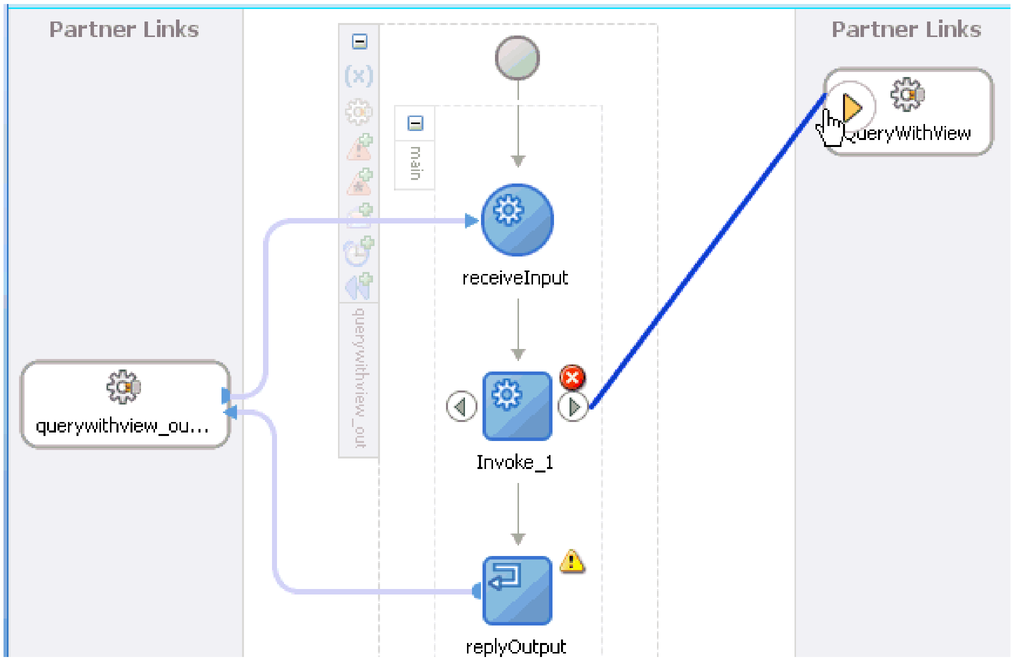
    The following is displayed.



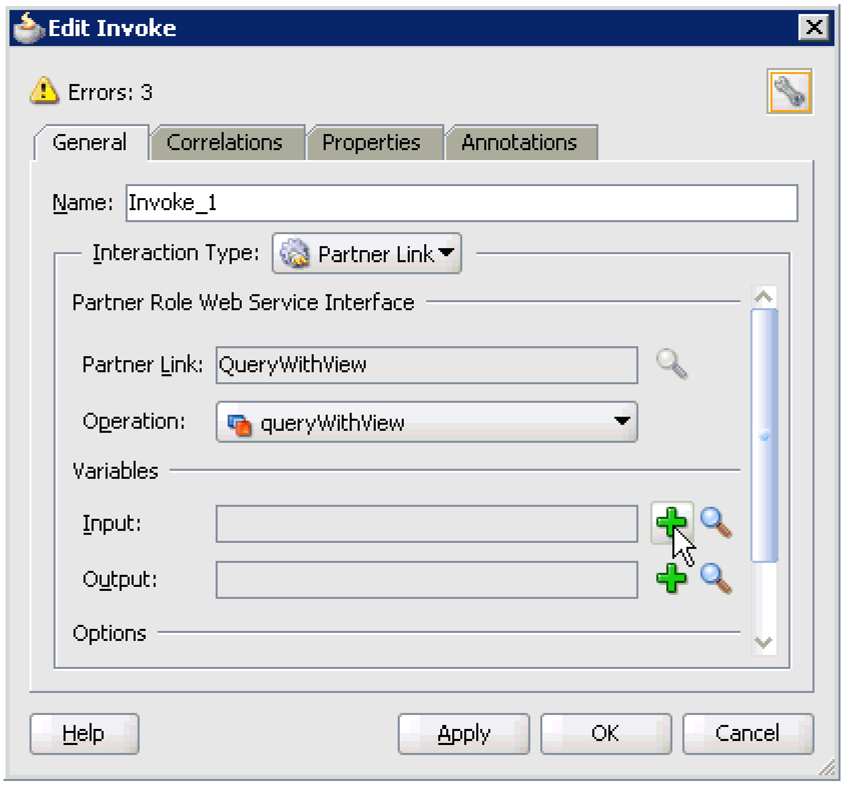
13. Drag and drop the **Invoke** activity component to the Components pane and place it between the **receiveInput** activity component and the **replyOutput** activity component.



14. Create a connection between the new Invoke activity component (Invoke_1) and the third party adapter service component (QueryWithView).



The Edit Invoke dialog is displayed.



Errors: 3

Name: Invoke_1

Interaction Type: Partner Link

Partner Link: QueryWithView

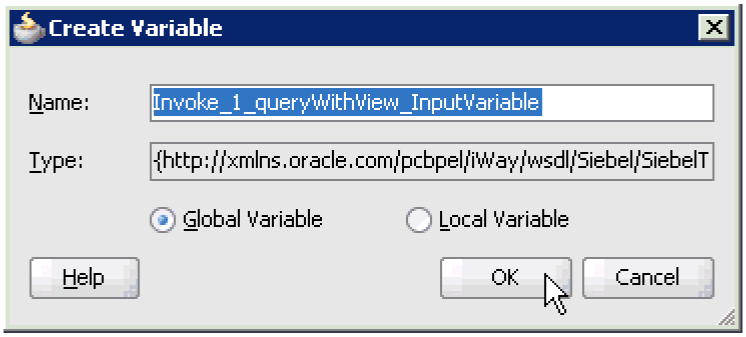
Operation: queryWithView

Input:

Output:

15. Click the **Automatically Create Input Variable** icon, which is located to the right of the Input field to configure a new input variable.

    The Create Variable dialog is displayed.



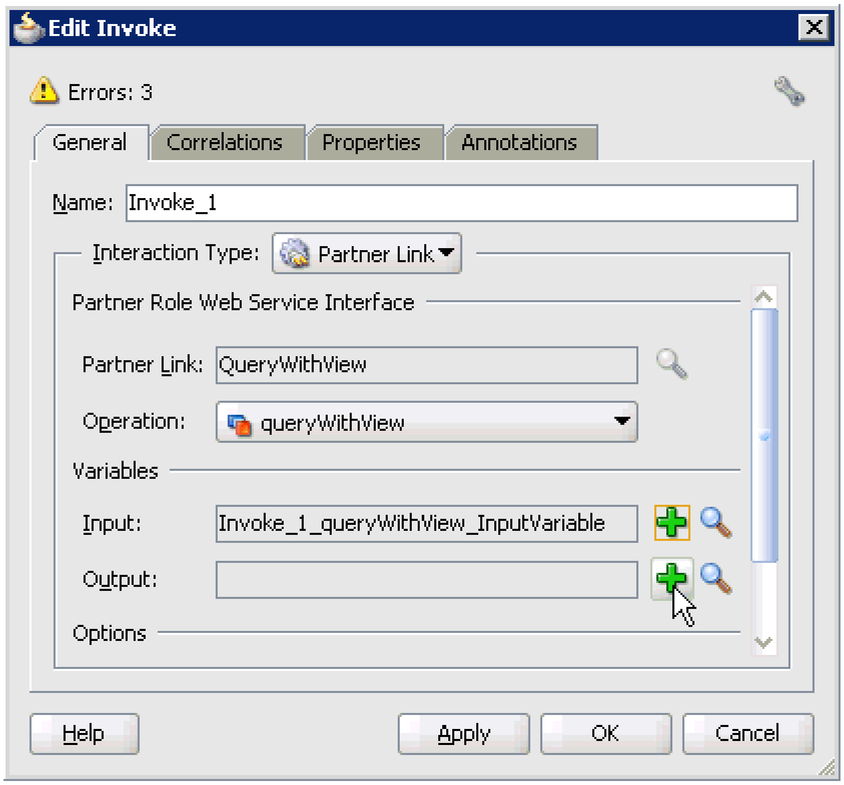
Name: Invoke_1_queryWithView_InputVariable

Type: {http://xmlns.oracle.com/pcbpel/iWay/wsdl/Siebel/SiebelT

● Global Variable ○ Local Variable

16. Accept the default values that are provided for the new input variable and click **OK**.

    You are returned to the Edit Invoke dialog.



Edit Invoke

Errors: 3

Name: Invoke_1

Interaction Type: Partner Link

Partner Role Web Service Interface

Partner Link: QueryWithView

Operation: queryWithView

Variables

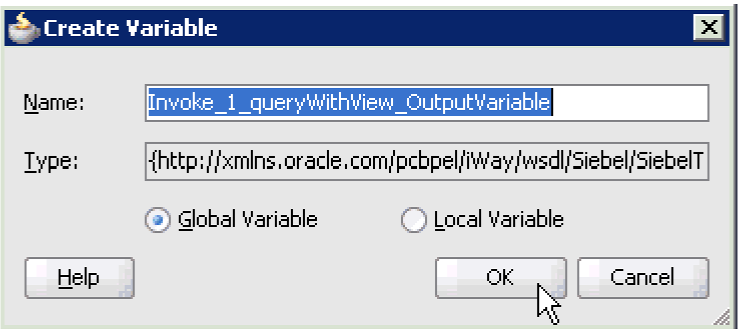
Input: Invoke_1_queryWithView_InputVariable

Output:

Options

17. Click the **Automatically Create Output Variable** icon, which is located to the right of the Output field to configure a new output variable.

    The Create Variable dialog is displayed.



Create Variable

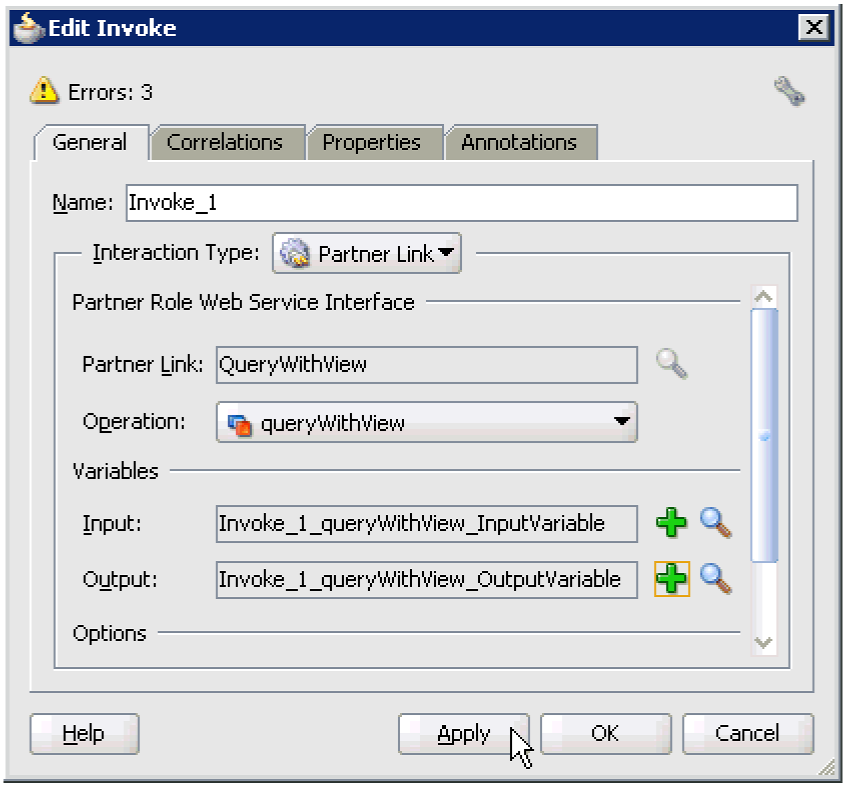
Name: Invoke_1_queryWithView_OutputVariable

Type: {http://xmlns.oracle.com/pcbpel/iWay/wsdl/Siebel/SiebelT

● Global Variable ○ Local Variable

18. Accept the default values that are provided for the new output variable and click **OK**.

    You are returned to the Edit Invoke dialog.



Edit Invoke

Errors: 3

General | Correlations | Properties | Annotations

Name: Invoke_1

Interaction Type: Partner Link

Partner Role Web Service Interface

Partner Link: QueryWithView

Operation: queryWithView

Variables

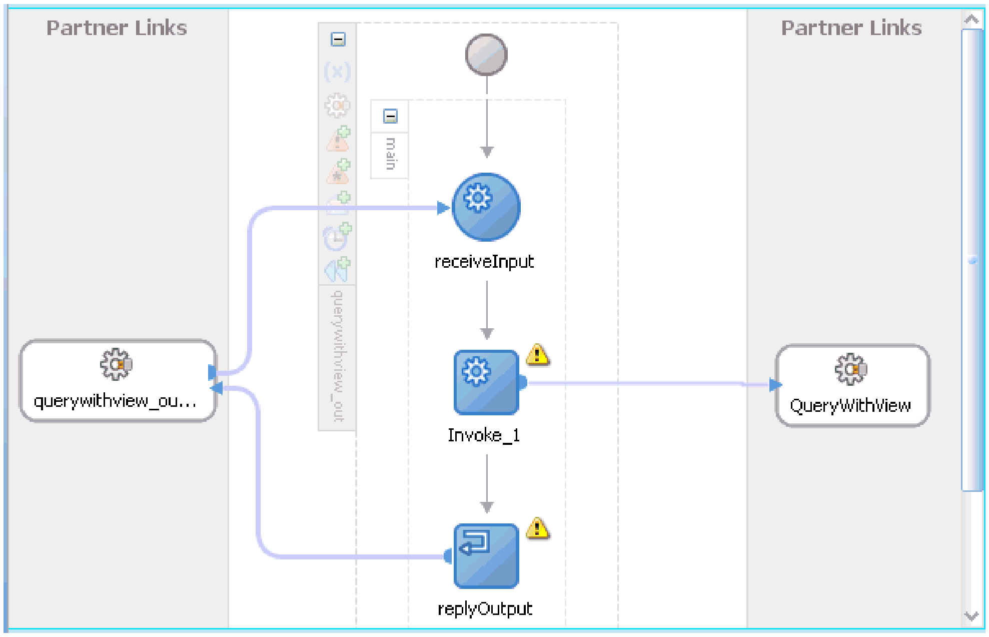
Input: Invoke_1_queryWithView_InputVariable

Output: Invoke_1_queryWithView_OutputVariable

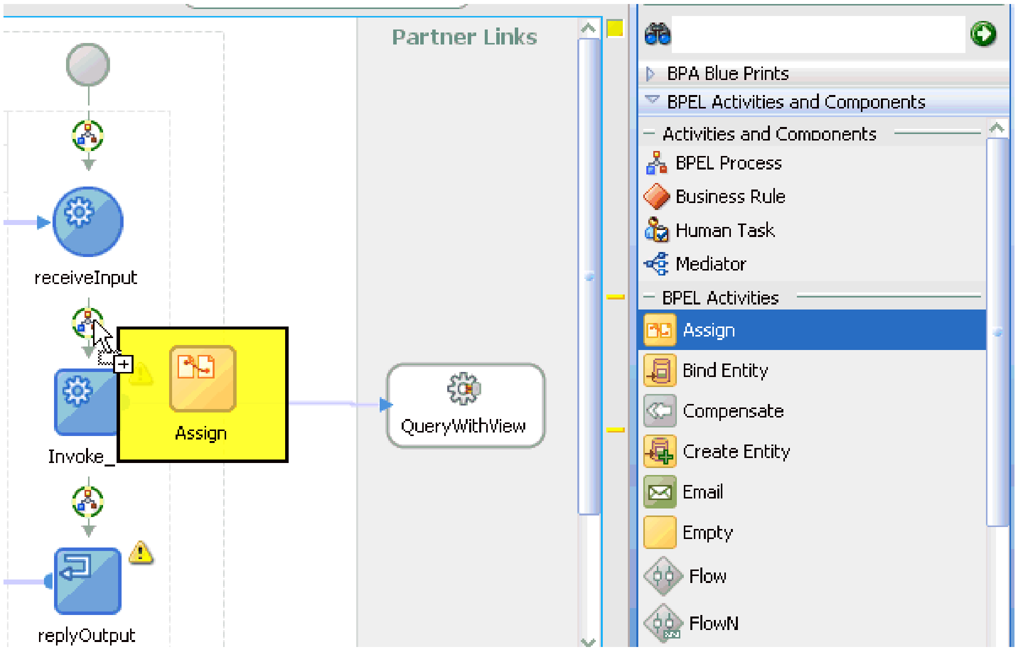
Options

19. Click **Apply** and then **OK**.

    The Invoke activity component (Invoke_1) is updated accordingly.

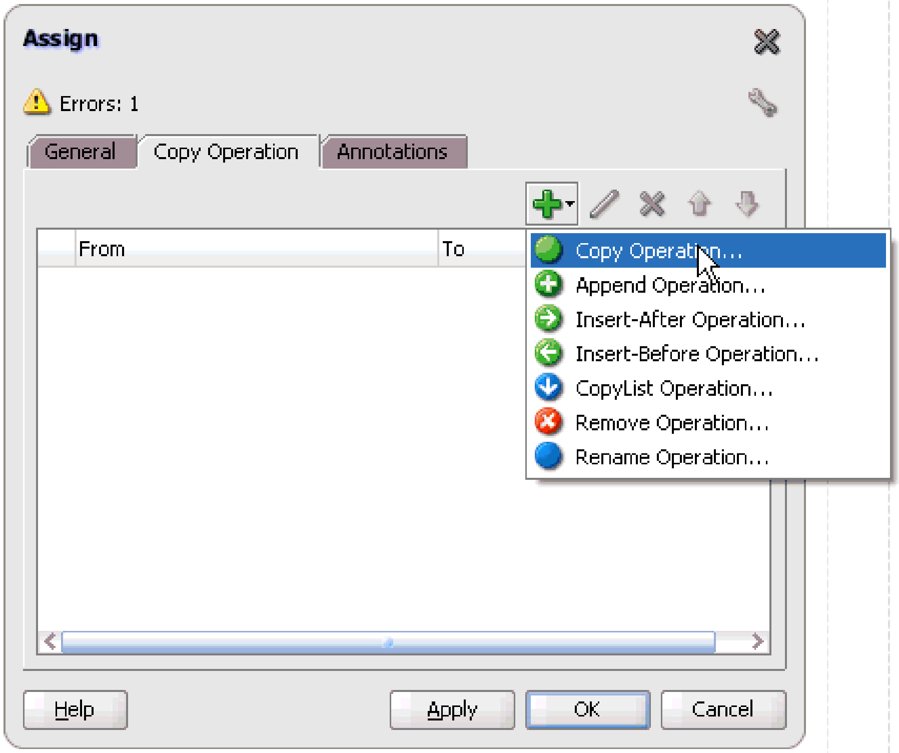


20. Drag and drop the **Assign** activity component to the Components pane and place it between the Receive activity component (receiveInput) and the Invoke activity component (Invoke_1).



21. Double-click the new Assign activity component (**Assign_1**).

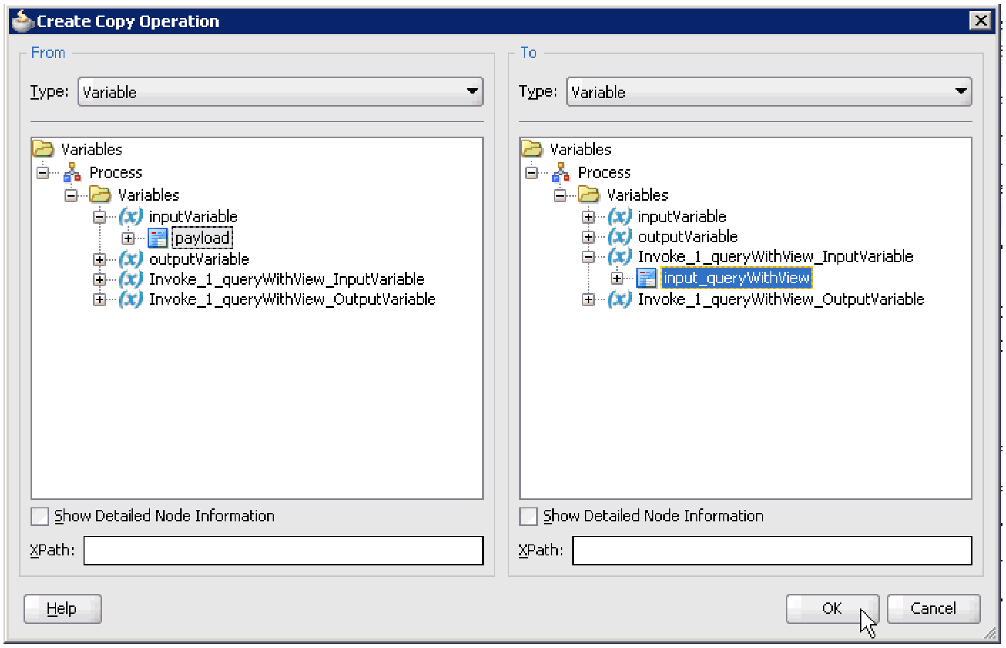
    The Assign dialog is displayed.



22. Click the **Copy Operation** tab.

23. Click the **Plus sign** icon and select **Copy Operation** from the list of available operations.

    The Create Copy Operation dialog is displayed.



From

Type: Variable

```
Variables
  Process
    Variables
      (x) inputVariable
        payload
      (x) outputVariable
      (x) Invoke_1_queryWithView_InputVariable
      (x) Invoke_1_queryWithView_OutputVariable
```

□ Show Detailed Node Information

XPath:

To

Type: Variable

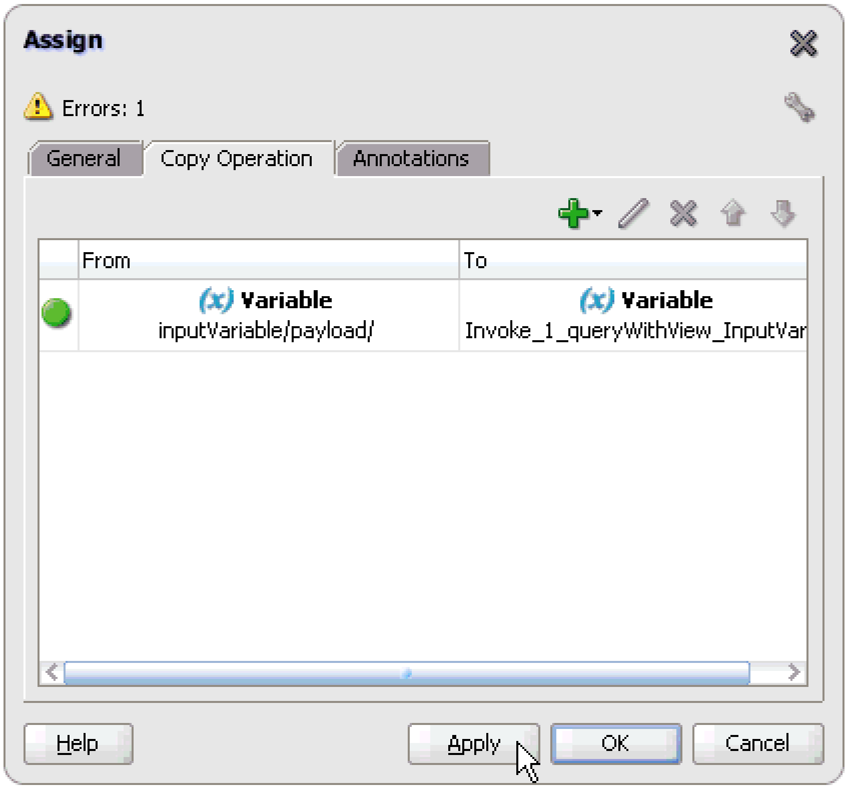
```
Variables
  Process
    Variables
      (x) inputVariable
      (x) outputVariable
      (x) Invoke_1_queryWithView_InputVariable
        input_queryWithView
      (x) Invoke_1_queryWithView_OutputVariable
```

□ Show Detailed Node Information

XPath:

24. In the From pane, expand **Variables**, **InputVariable**, and then select **payload**.
25. In the To pane, expand **Variables**, **Invoke_1_queryWithView_InputVariable**, and then select **input_queryWithView**.
26. Click **OK**.

    You are returned to the Assign dialog.

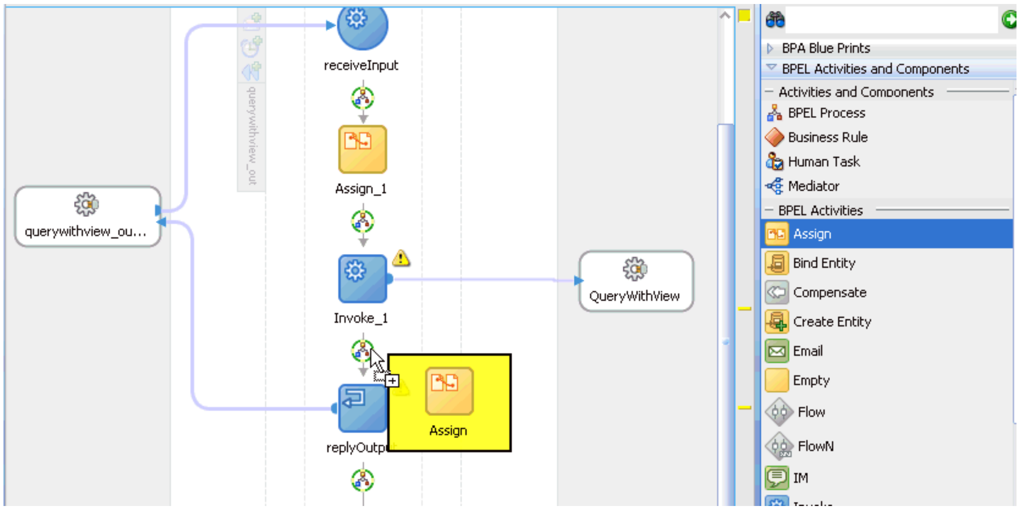


Errors: 1

	From	To
●	(x) Variable inputVariable/payload/	(x) Variable Invoke_1_queryWithView_InputVar

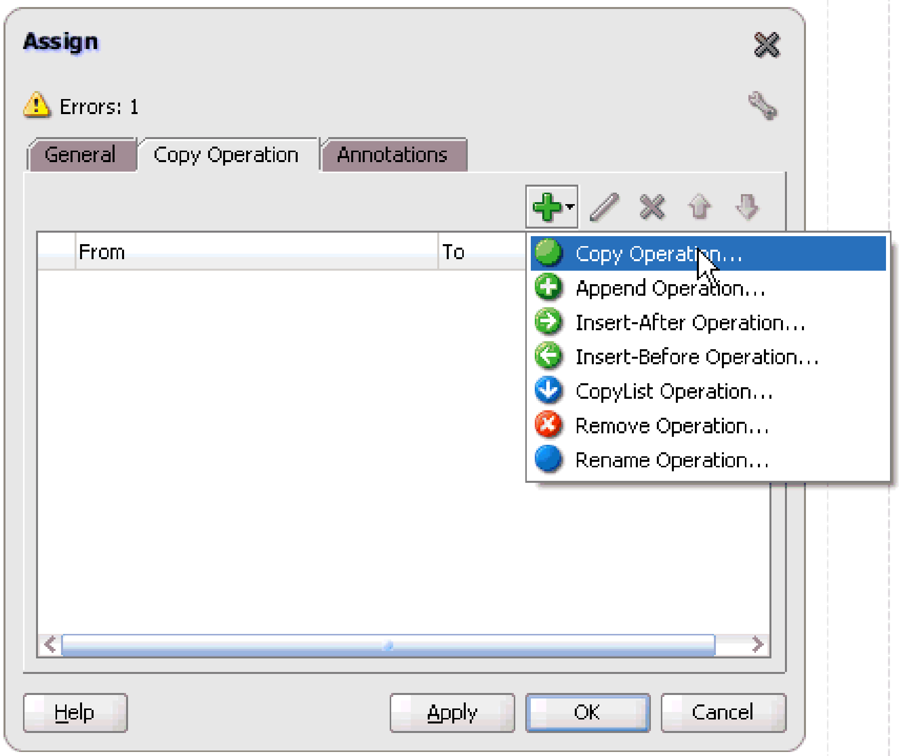
27. Click **Apply** and then **OK**.

28. Drag and drop the **Assign** activity component to the Components pane and place it between the Invoke activity (Invoke_1) and the Reply activity (replyOutput).



29. Double-click the new Assign activity component (**Assign_2**).

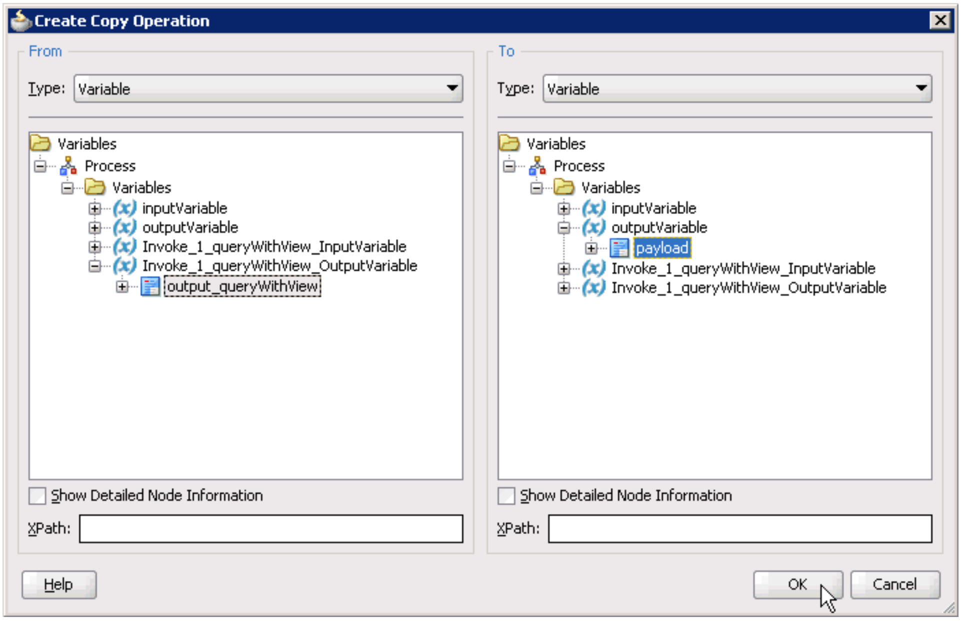
The Assign dialog is displayed.



30. Click the **Copy Operation** tab.

31. Click the **Plus sign** icon and select **Copy Operation** from the list of available operations.

The Create Copy Operation dialog is displayed.


Create Copy Operation
From
To
Show Detailed Node Information
Show Detailed Node Information
XPath:
XPath:
Help
OK
Cancel

From — Type: Variable

- Variables
  - Process
    - Variables
      - inputVariable
      - outputVariable
      - Invoke_1_queryWithView_InputVariable
      - Invoke_1_queryWithView_OutputVariable
        - output_queryWithView

To — Type: Variable

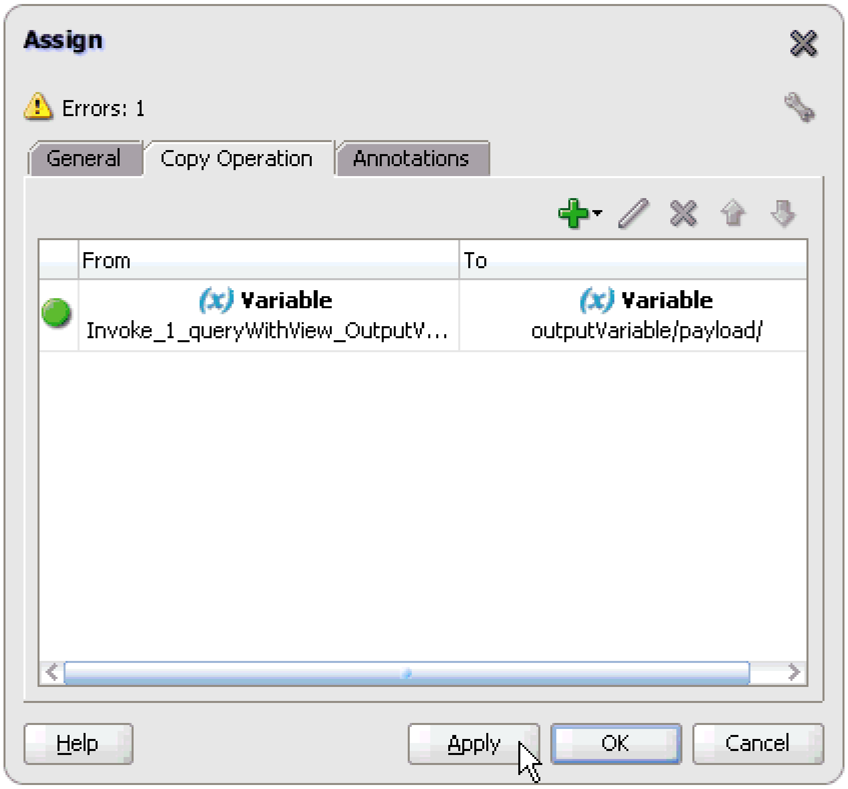
- Variables
  - Process
    - Variables
      - inputVariable
      - outputVariable
        - payload
      - Invoke_1_queryWithView_InputVariable
      - Invoke_1_queryWithView_OutputVariable

32. In the From pane, expand **Variables**, **Invoke_1_queryWithView_OutputVariable**, and then select **output_queryWithView**.

33. In the To pane, expand **Variables**, **outputVariable**, and then select **payload**.

34. Click **OK**.

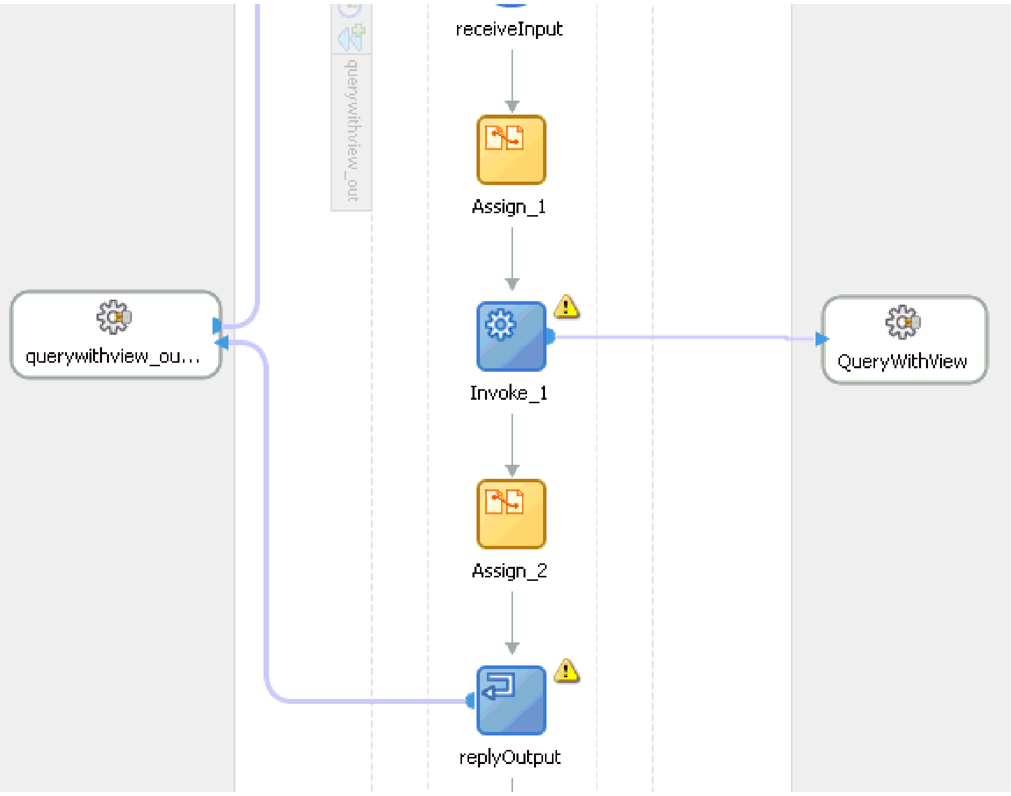
    You are returned to the Assign dialog.



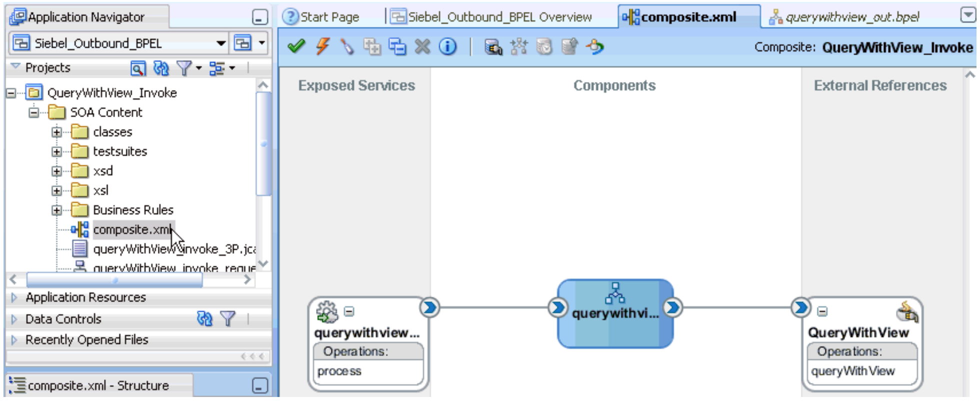
	From	To
●	(x) Variable Invoke_1_queryWithView_OutputV...	(x) Variable outputVariable/payload/

35. Click **Apply** and then **OK**.

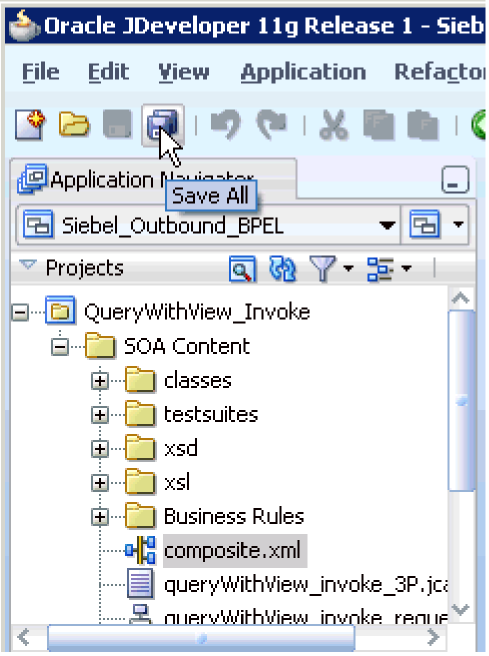
The completed activity flow is now displayed.



36. Double-click **composite.xml** in the left pane.



37. Click the **Save All** icon in the menu bar to save the new outbound BPEL process component that was configured.

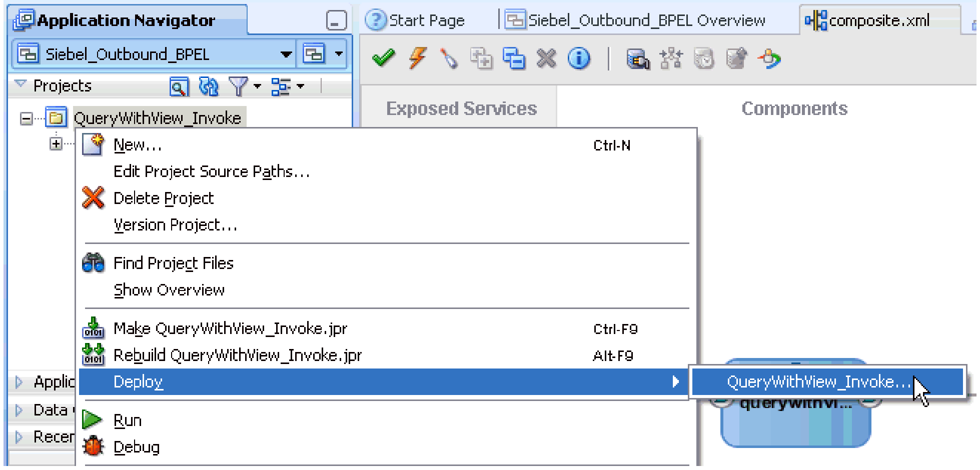


You are now ready to deploy the BPEL outbound process.

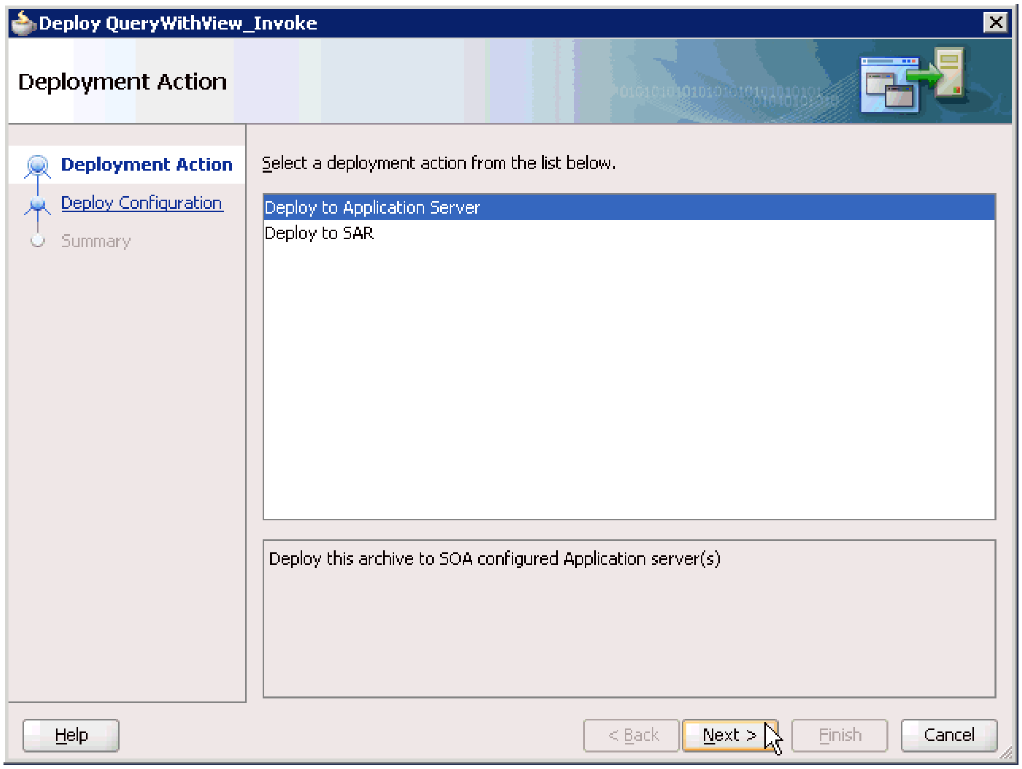
4.4.4 Deploying the BPEL Outbound Process

Perform the following steps to deploy the BPEL outbound process.

1. Right-click the project name in the left pane (for example, **QueryWithView_Invoke**), select **Deploy**, and then click **QueryWithView_Invoke**.



The Deployment Action dialog is displayed.



Select a deployment action from the list below.

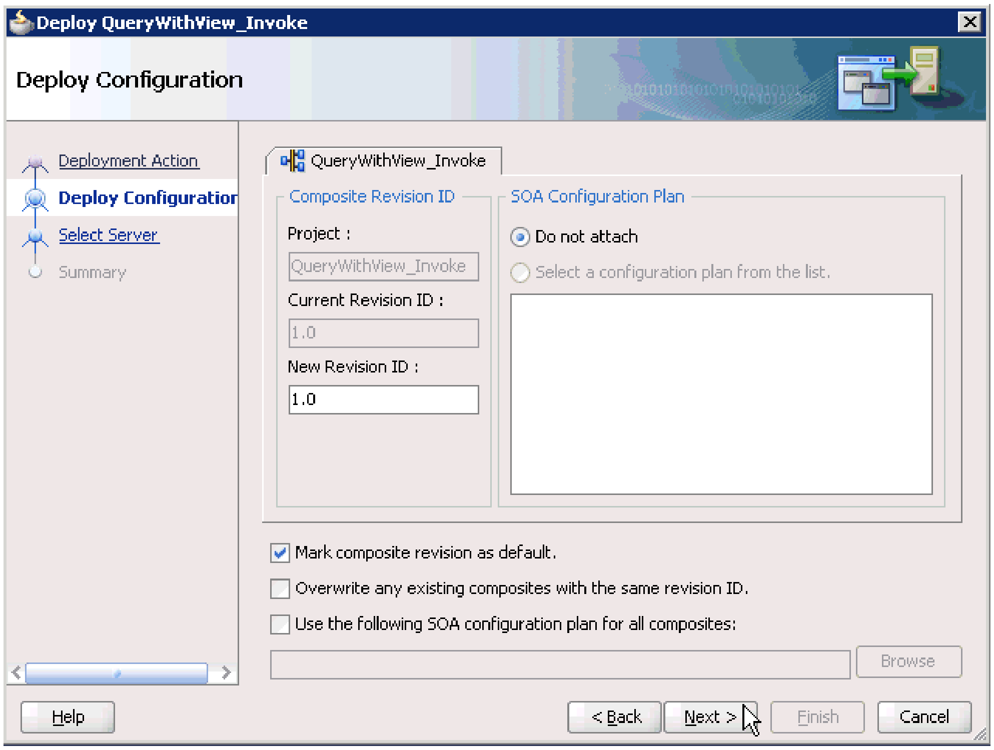
Deploy to Application Server
Deploy to SAR

Deploy this archive to SOA configured Application server(s)

2. Ensure that **Deploy to Application Server** is selected.

3. Click **Next**.

   The Deploy Configuration dialog is displayed.



Project : QueryWithView_Invoke

Current Revision ID : 1.0

New Revision ID : 1.0

● Do not attach

○ Select a configuration plan from the list.

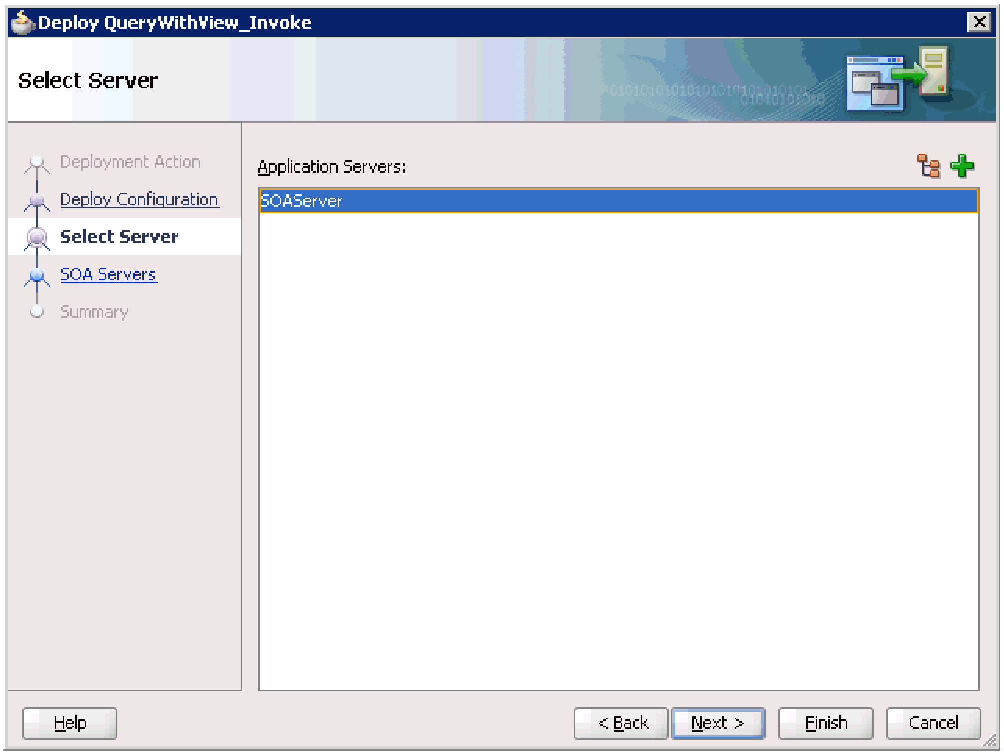
☑ Mark composite revision as default.

☐ Overwrite any existing composites with the same revision ID.

☐ Use the following SOA configuration plan for all composites:

4. Leave the default values selected and click **Next**.

The Select Server dialog is displayed.

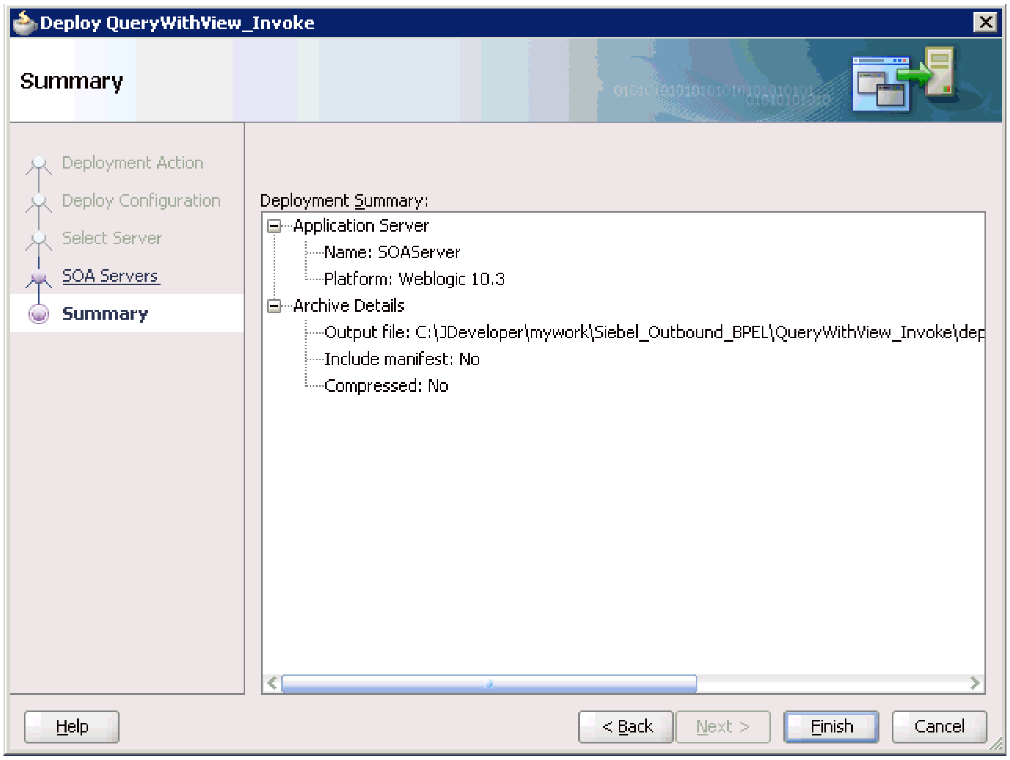


5. Select an available application server that was configured and click **Next**.

   The SOA Servers dialog is displayed.

6. Select a target SOA server and click **Next**.

   The Summary dialog is displayed.

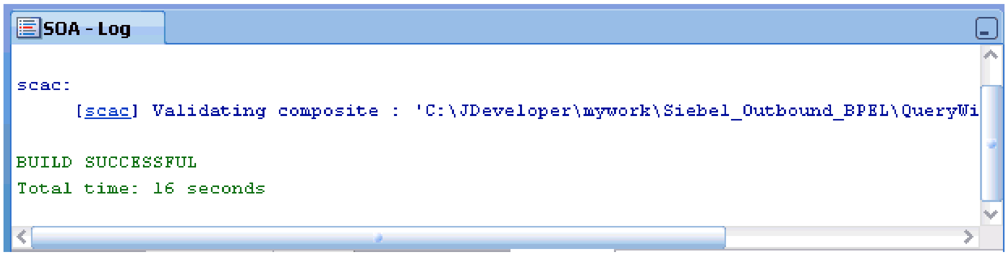


Deployment Summary:

```
⊟ Application Server
    Name: SOAServer
    Platform: Weblogic 10.3
⊟ Archive Details
    Output file: C:\JDeveloper\mywork\Siebel_Outbound_BPEL\QueryWithView_Invoke\dep
    Include manifest: No
    Compressed: No
```

7. Review and verify all the available deployment information for your project and click **Finish**.

   The process is deployed successfully.



```
scac:
     [scac] Validating composite : 'C:\JDeveloper\mywork\Siebel_Outbound_BPEL\QueryWi

BUILD SUCCESSFUL
Total time: 16 seconds
```

   If an Authorization Request dialog is displayed during the deployment process, provide the required user name and password and click **OK**.

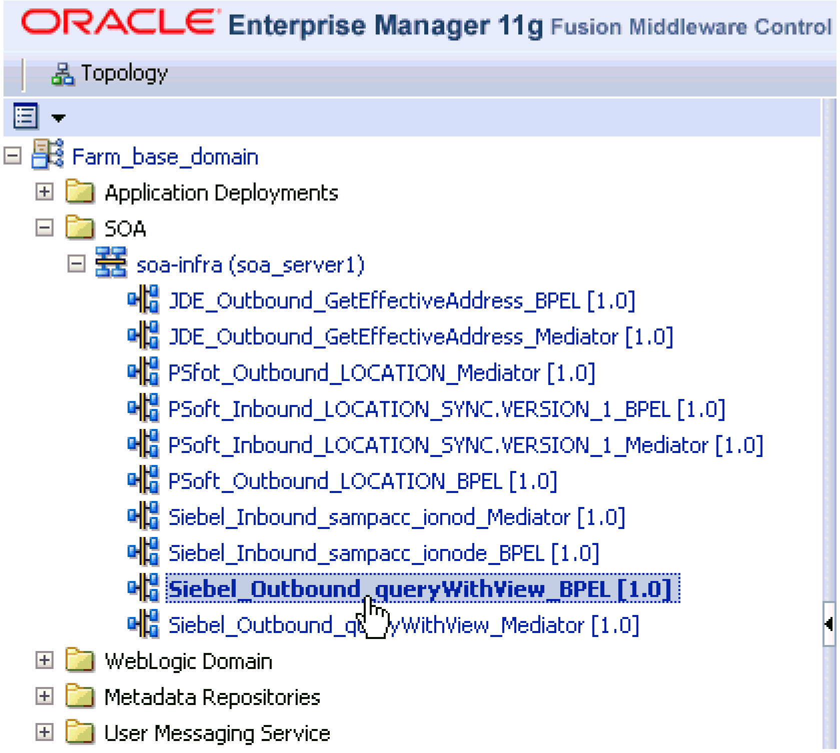
4.4.5 Invoking the Input XML Document in the Oracle Enterprise Manager Console

Perform the following steps to invoke the input XML document in the Oracle Enterprise Manager console.

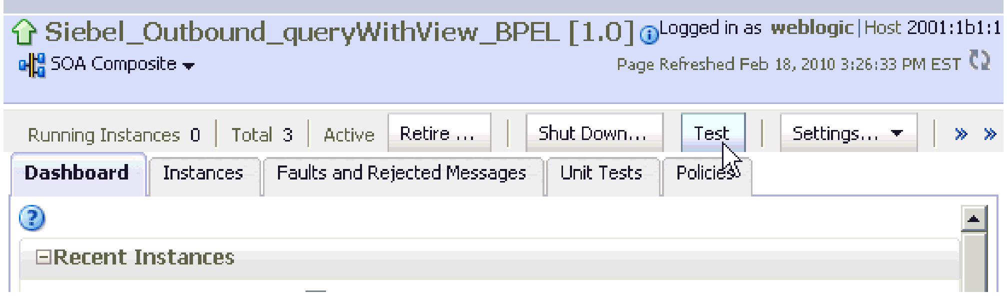
1. Log in to the Oracle Enterprise Manager console by using the following URL:

   ```
   http://localhost:7001/em
   ```

2. Expand your domain in the left pane followed by the **SOA** folder.

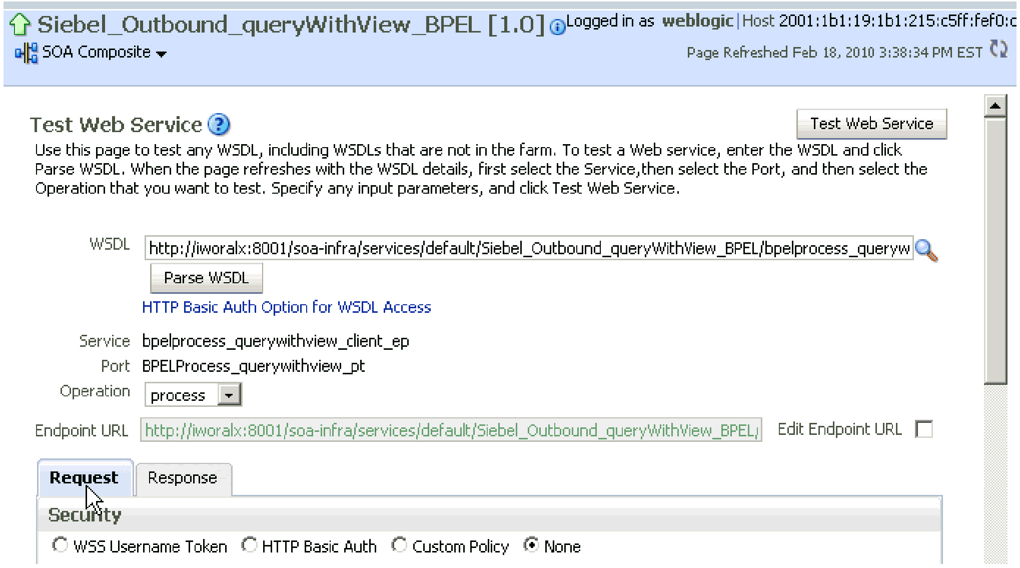

ORACLE Enterprise Manager 11g Fusion Middleware Control
Topology
Farm_base_domain
Application Deployments
SOA
soa-infra (soa_server1)
JDE_Outbound_GetEffectiveAddress_BPEL [1.0]
JDE_Outbound_GetEffectiveAddress_Mediator [1.0]
PSfot_Outbound_LOCATION_Mediator [1.0]
PSoft_Inbound_LOCATION_SYNC.VERSION_1_BPEL [1.0]
PSoft_Inbound_LOCATION_SYNC.VERSION_1_Mediator [1.0]
PSoft_Outbound_LOCATION_BPEL [1.0]
Siebel_Inbound_sampacc_ionod_Mediator [1.0]
Siebel_Inbound_sampacc_ionode_BPEL [1.0]
Siebel_Outbound_queryWithView_BPEL [1.0]
Siebel_Outbound_queryWithView_Mediator [1.0]
WebLogic Domain
Metadata Repositories
User Messaging Service

3. Select an available project (for example, Siebel_Outbound_queryWithView_BPEL).


Siebel_Outbound_queryWithView_BPEL [1.0]
Logged in as weblogic | Host 2001:1b1:1
SOA Composite
Page Refreshed Feb 18, 2010 3:26:33 PM EST
Running Instances 0
Total 3
Active
Retire ...
Shut Down...
Test
Settings...
Dashboard
Instances
Faults and Rejected Messages
Unit Tests
Policies
Recent Instances

4. Click **Test** in the right pane.

   The Test Web Service page is displayed.



Siebel_Outbound_queryWithView_BPEL [1.0] Logged in as **weblogic** | Host 2001:1b1:19:1b1:215:c5ff:fef0:c

SOA Composite ▾ Page Refreshed Feb 18, 2010 3:38:34 PM EST

Test Web Service

Use this page to test any WSDL, including WSDLs that are not in the farm. To test a Web service, enter the WSDL and click Parse WSDL. When the page refreshes with the WSDL details, first select the Service,then select the Port, and then select the Operation that you want to test. Specify any input parameters, and click Test Web Service.

WSDL http://iworalx:8001/soa-infra/services/default/Siebel_Outbound_queryWithView_BPEL/bpelprocess_queryw

Parse WSDL

HTTP Basic Auth Option for WSDL Access

Service bpelprocess_querywithview_client_ep

Port BPELProcess_querywithview_pt

Operation process

Endpoint URL http://iworalx:8001/soa-infra/services/default/Siebel_Outbound_queryWithView_BPEL/ Edit Endpoint URL □

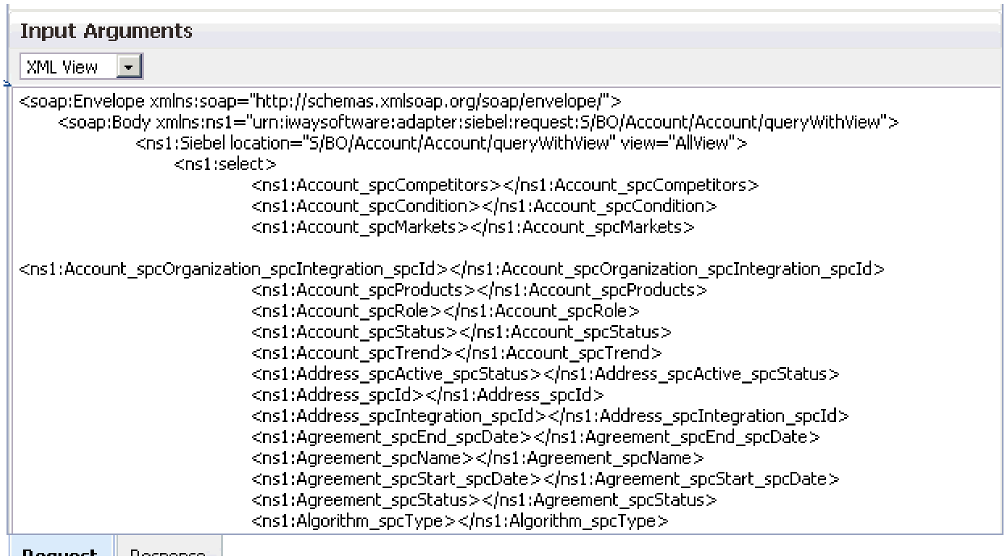
Request | Response

Security

○ WSS Username Token ○ HTTP Basic Auth ○ Custom Policy ● None

5. Click the **Request** tab.

6. Scroll down to the Input Arguments section.



Input Arguments

XML View

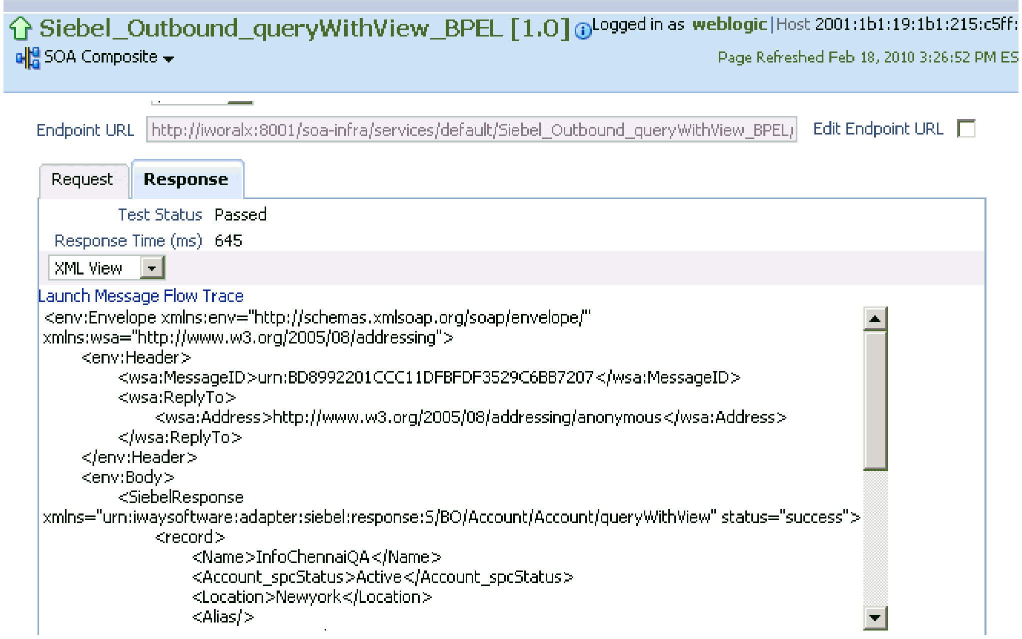
```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
      <soap:Body xmlns:ns1="urn:iwaysoftware:adapter:siebel:request:S/BO/Account/Account/queryWithView">
                  <ns1:Siebel location="S/BO/Account/Account/queryWithView" view="AllView">
                        <ns1:select>
                                    <ns1:Account_spcCompetitors></ns1:Account_spcCompetitors>
                                    <ns1:Account_spcCondition></ns1:Account_spcCondition>
                                    <ns1:Account_spcMarkets></ns1:Account_spcMarkets>

<ns1:Account_spcOrganization_spcIntegration_spcId></ns1:Account_spcOrganization_spcIntegration_spcId>
                                    <ns1:Account_spcProducts></ns1:Account_spcProducts>
                                    <ns1:Account_spcRole></ns1:Account_spcRole>
                                    <ns1:Account_spcStatus></ns1:Account_spcStatus>
                                    <ns1:Account_spcTrend></ns1:Account_spcTrend>
                                    <ns1:Address_spcActive_spcStatus></ns1:Address_spcActive_spcStatus>
                                    <ns1:Address_spcId></ns1:Address_spcId>
                                    <ns1:Address_spcIntegration_spcId></ns1:Address_spcIntegration_spcId>
                                    <ns1:Agreement_spcEnd_spcDate></ns1:Agreement_spcEnd_spcDate>
                                    <ns1:Agreement_spcName></ns1:Agreement_spcName>
                                    <ns1:Agreement_spcStart_spcDate></ns1:Agreement_spcStart_spcDate>
                                    <ns1:Agreement_spcStatus></ns1:Agreement_spcStatus>
                                    <ns1:Algorithm_spcType></ns1:Algorithm_spcType>
```

7. Select **XML View** from the list in the upper-left corner.

8. Provide an appropriate input XML document in the Input Arguments area.

9. Click **Test Web Service**.

   The output response is received in the Response tab of the Oracle Enterprise Manager console.



Siebel_Outbound_queryWithView_BPEL [1.0]
Logged in as weblogic | Host 2001:1b1:19:1b1:215:c5ff:
SOA Composite
Page Refreshed Feb 18, 2010 3:26:52 PM ES
Request
Response
XML View
Launch Message Flow Trace

Endpoint URL http://iworalx:8001/soa-infra/services/default/Siebel_Outbound_queryWithView_BPEL/ Edit Endpoint URL □

Test Status Passed

Response Time (ms) 645

```
<env:Envelope xmlns:env="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:wsa="http://www.w3.org/2005/08/addressing">
     <env:Header>
          <wsa:MessageID>urn:BD8992201CCC11DFBFDF3529C6BB7207</wsa:MessageID>
          <wsa:ReplyTo>
               <wsa:Address>http://www.w3.org/2005/08/addressing/anonymous</wsa:Address>
          </wsa:ReplyTo>
     </env:Header>
     <env:Body>
          <SiebelResponse
xmlns="urn:iwaysoftware:adapter:siebel:response:S/BO/Account/Account/queryWithView" status="success">
               <record>
                    <Name>InfoChennaiQA</Name>
                    <Account_spcStatus>Active</Account_spcStatus>
                    <Location>Newyork</Location>
                    <Alias/>
```

4.4.6 Testing Outbound BPEL and Mediator Processes

When testing an outbound BPEL process from the Oracle Enterprise Manager console or an outbound Mediator process from the Enterprise Manager console, do not use the XML envelopes that are generated by these consoles. Instead, remove them and use the XML payloads that are generated from the schemas, which conform to the WSDLs for namespace qualifications.

The Mediator data flows can be tested using the Enterprise Manager console. When creating a Mediator data flow and interactions, the Web services are created and registered with the Oracle Application Server. For more information on creating a Mediator outbound process, see Chapter 5, "Integration With Mediator Service Components in the Oracle SOA Suite".

4.5 Designing an Inbound BPEL Process for Event Integration

This topic illustrates Siebel event integration. It describes design-time and run-time configuration. The following tools are required to complete your adapter design-time configuration:

- Oracle Adapter Application Explorer (Application Explorer)
- Oracle JDeveloper BPEL Designer (JDeveloper) or Eclipse

Note: The examples in this chapter demonstrate the use of Oracle JDeveloper.

Before you design a BPEL process, you must generate the respective WSDL file using Application Explorer. See "Generating WSDL for Event Integration" on page 4-36 for more information.

4.5.1 Generating WSDL for Event Integration

You must create a separate channel for every inbound J2CA service and select that channel when you generate WSDL for inbound interaction using Application Explorer.

> **Note:** If two or more events share the same channel, event messages may not be delivered to the right BPEL process.

Creating a Channel

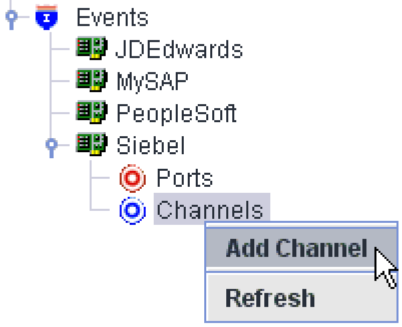
You must create a separate channel for every inbound J2CA service and select that channel when you generate WSDL for inbound interaction using Application Explorer.

> **Note:** If two or more events share the same channel, event messages may not be delivered to the right BPEL process.

To create a channel:

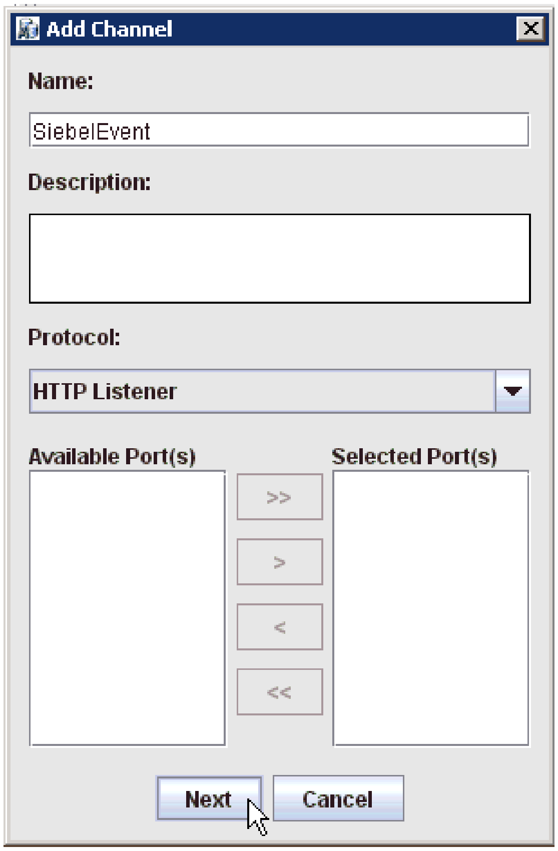
1. In the left pane, click **Events**.
2. Expand the **Siebel** node.

   The ports and channels nodes appear in the left pane.



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

   The Add Channel dialog is displayed.



Add Channel

Name: SiebelEvent

Description:

Protocol: HTTP Listener

Perform the following steps:

a. Enter a name for the channel, for example, `SiebelEvent`.

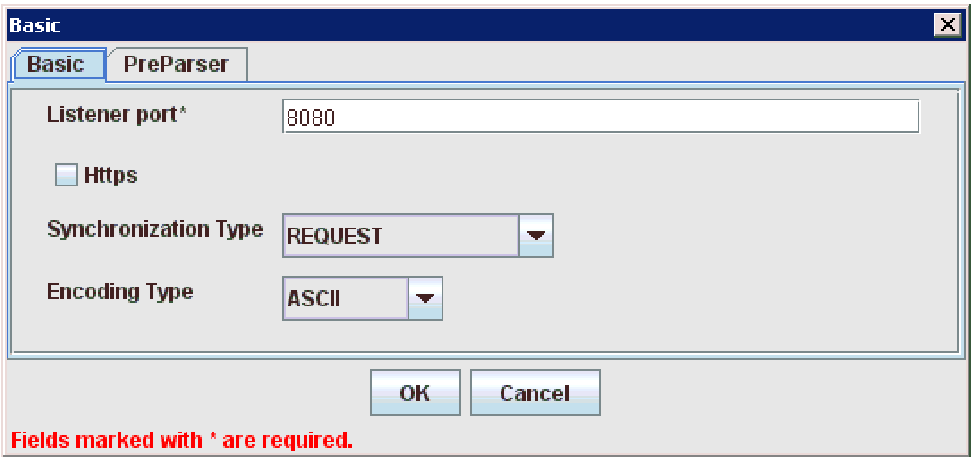
b. Enter a brief description.

c. From the **Protocol** list, select **HTTP Listener**, **MQ Series Listener**, or **File Listener**.

For demonstration purposes, this procedure uses the HTTP Listener as an example.

4. Click **Next**.

The Basic dialog is displayed.



Basic

Listener port* 8080

□ Https

Synchronization Type REQUEST

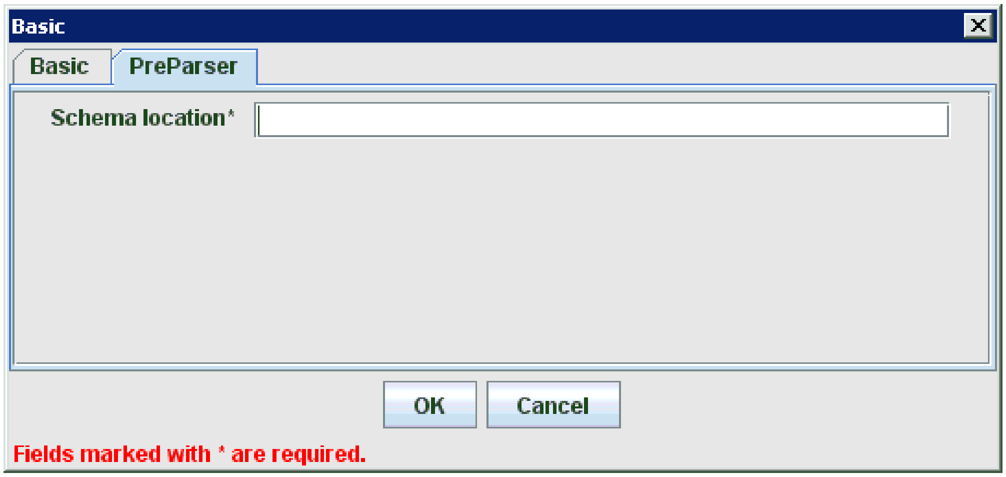
Encoding Type ASCII

Fields marked with * are required.

5. Enter the system information as specified in the following table:

Parameter	Description
Listener port	Port on which to listen for Siebel event data.
Https	For a secure HTTP connection, select the **Https** check box. This option is currently not supported.
Synchronization Type	Select **REQUEST_RESPONSE** from the list, which is the recommended option.
Encoding Type	Choose an encoding type to be used from the list. By default, ASCII is selected.

6. Click the **PreParser** tab.



Basic

Schema location*

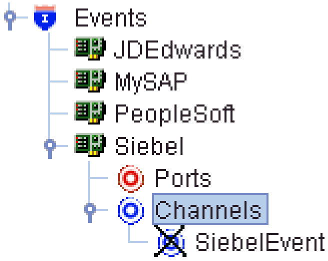
Fields marked with * are required.

7. Specify the location of the schema file that was generated for the Integration Object node using the **Export Schema(s)** option in Application Explorer.

> **Note:** During run time, the Oracle Application Adapter for Siebel adds the namespace to the Siebel published document using the schema that is specified in the PreParser tab. If the Schema location field in the PreParser tab is left blank, BPEL and Mediator processes do not work properly as the Siebel published documents do not contain any namespaces.

8. Click **OK**.

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

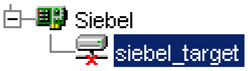


Note: Do not start the channel, as it is managed by BPEL PM Server. If you start the channel for testing and debugging purposes, stop it before run-time.

You must now create an Integration Object node.

Creating an Integration Object Node

1. Start Application Explorer.
2. Expand the **Adapters** node.



Perform the following steps:

a. Expand the **Siebel** node.

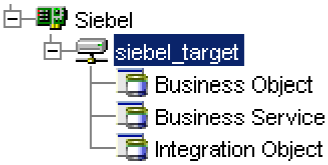
The defined Siebel targets are displayed under the adapter node.

b. Click the target name, for example, siebel, under the **Siebel** node.

The Connection dialog displays the values you entered.

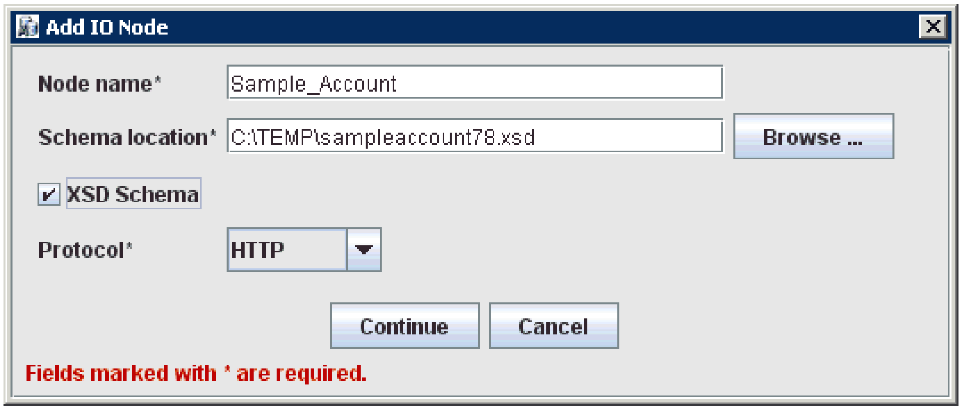
3. Verify your connection parameters. Provide the required password.
4. Right-click the target name and select **Connect**.

The x icon disappears, indicating that the node is connected.



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

The Add IO Node dialog is displayed.



Node name* Sample_Account

Schema location* C:\TEMP\sampleaccount78.xsd

☑ XSD Schema

Protocol* HTTP

Fields marked with * are required.

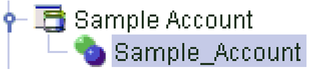
7. Enter a node name (for example, Sample_Account) in the **Node name** field and a path to the Sample Account XSD file in the **Schema location** field.

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.

8. 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.
9. Select a protocol (HTTP, FILE, or MQ Series) from the **Protocol** list.
10. Click **Continue**.

    The new Integration Object node is added, as shown in the following image.



Note: You must restart the Oracle WebLogic Server after the Integration Object node and channel are created.

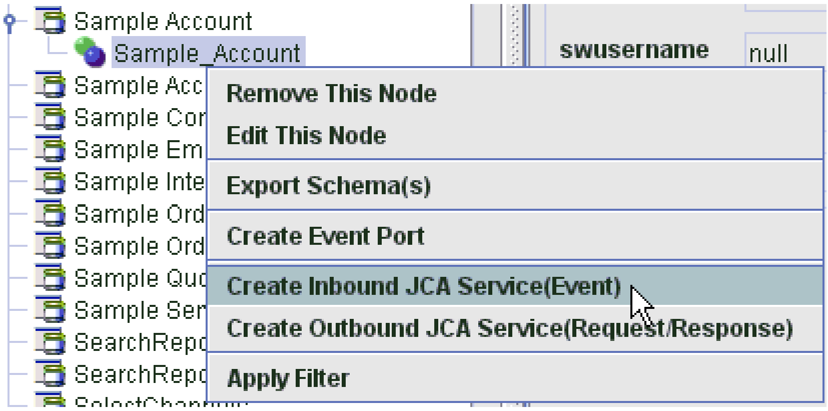
Generating WSDL for Event Notification

After you create a channel and an associated Integration Object node, you must generate WSDL for the event using Application Explorer.

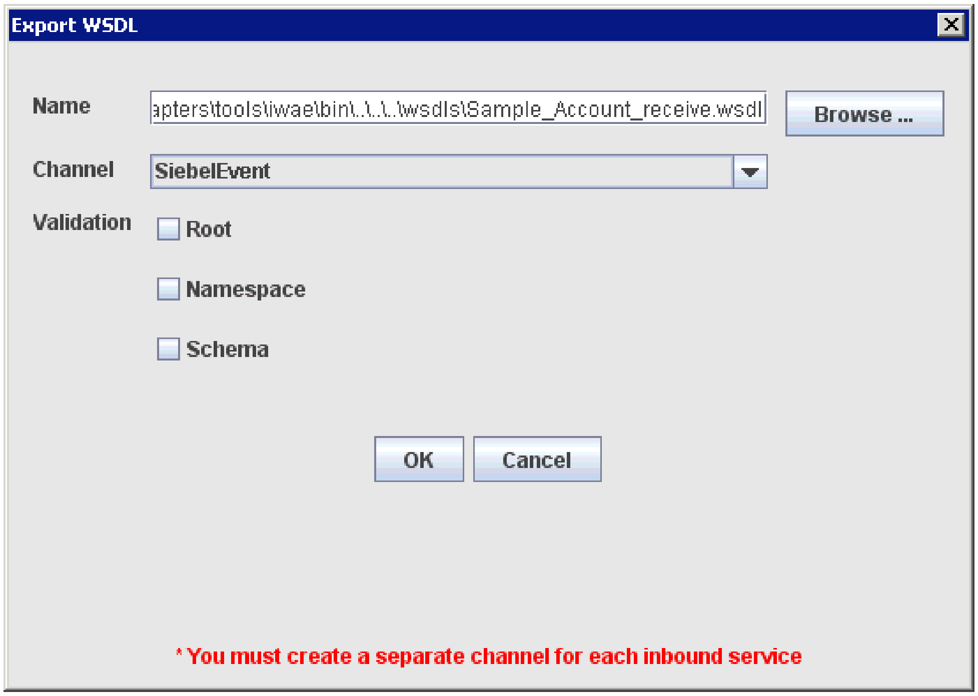
You must be connected to a Siebel target under the Adapters node in Application Explorer. See "Establishing a Connection (Target) for Siebel" on page 2-12 for detailed information on how to define and connect to a target.

After you connect to a Siebel target, generate WSDL for the event as follows:

1. Right-click the Integration Object node (for example, Sample_Account), and then select **Create Inbound JCA Service (Event)**.



The Export WSDL dialog is displayed.


Export WSDL

Name apters\tools\iwae\bin\..\..\..\wsdls\Sample_Account_receive.wsdl

Channel SiebelEvent

Validation
□ Root
□ Namespace
□ Schema

* You must create a separate channel for each inbound service

---

Note: The schema validation options (Root, Namespace, Schema) are not applicable for the Oracle Application Adapter for Siebel.

Perform the following steps:

a. In the **Name** field, specify a name for the WSDL file.

The .wsdl file extension is added automatically. By default, the names of WSDL files generated for events end with _receive.

b. From the Channel list, select the channel you created for this inbound service (for example, SiebelEvent).

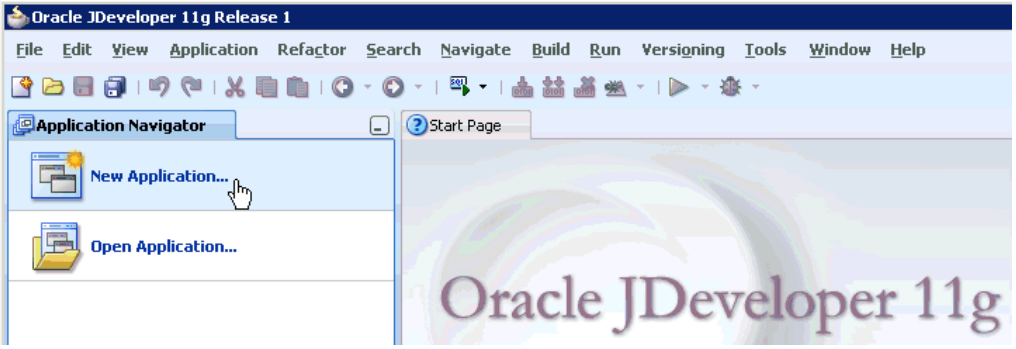
Important: You must create a separate channel for every inbound service. Verify that the channel is stopped before run-time.

2. Click **OK**.

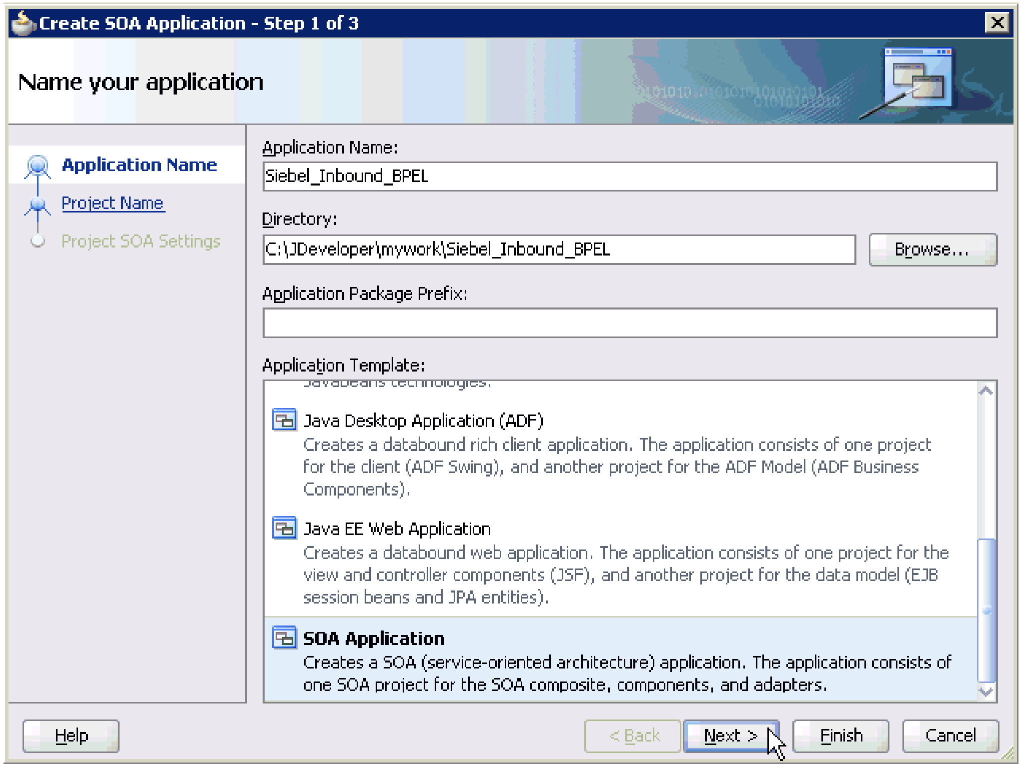
4.5.2 Creating a New SOA Application for the Inbound BPEL Process

Perform the following steps to create a new SOA application for the inbound BPEL process:

1. Open Oracle JDeveloper on your system.
2. In the Application Navigator tab, click **New Application**.


Oracle JDeveloper 11g Release 1
File Edit View Application Refactor Search Navigate Build Run Versioning Tools Window Help
Application Navigator
New Application...
Open Application...
Start Page
Oracle JDeveloper 11g

The Create SOA Application wizard - Name your application page is displayed.



Name your application

Application Name: Siebel_Inbound_BPEL

Directory: C:\JDeveloper\mywork\Siebel_Inbound_BPEL

Application Package Prefix:

Application Template:

Java Desktop Application (ADF)
Creates a databound rich client application. The application consists of one project for the client (ADF Swing), and another project for the ADF Model (ADF Business Components).

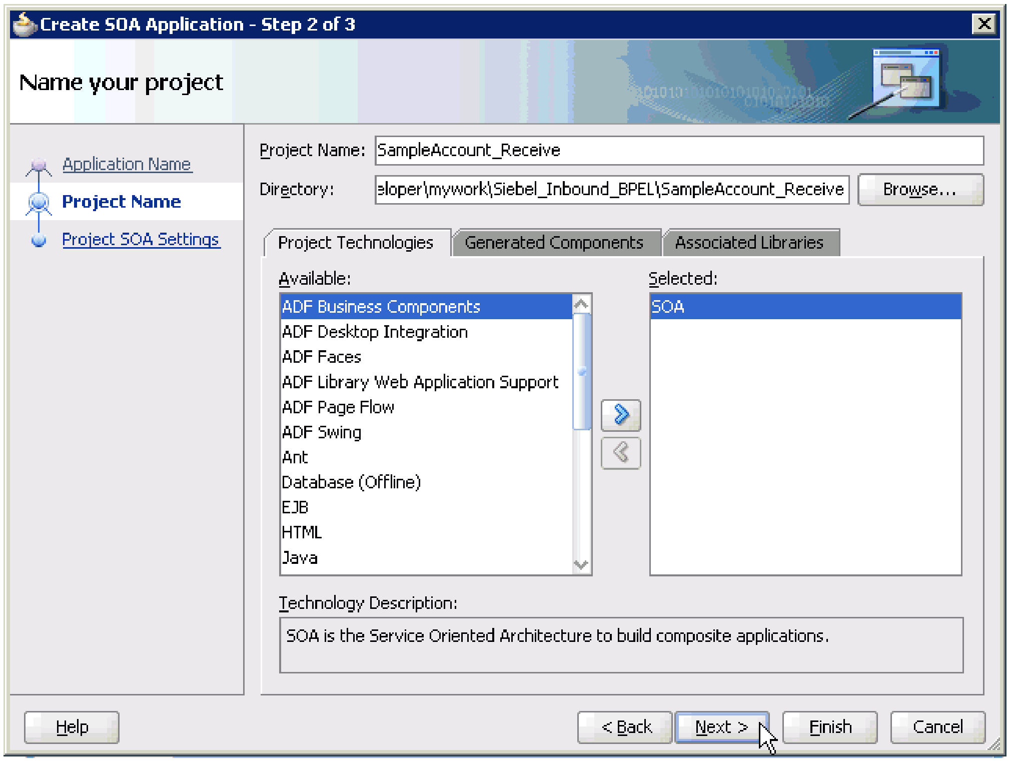
Java EE Web Application
Creates a databound web application. The application consists of one project for the view and controller components (JSF), and another project for the data model (EJB session beans and JPA entities).

SOA Application
Creates a SOA (service-oriented architecture) application. The application consists of one SOA project for the SOA composite, components, and adapters.

3. From the Application Template list, click **SOA Application**.

4. Enter name for the new SOA application (for example, Siebel_Inbound_BPEL) and click **Next**.

   The Name your project page is displayed.



Create SOA Application - Step 2 of 3

Name your project

Project Name: SampleAccount_Receive

Directory: eloper\mywork\Siebel_Inbound_BPEL\SampleAccount_Receive

Available:

- ADF Business Components
- ADF Desktop Integration
- ADF Faces
- ADF Library Web Application Support
- ADF Page Flow
- ADF Swing
- Ant
- Database (Offline)
- EJB
- HTML
- Java

Selected:

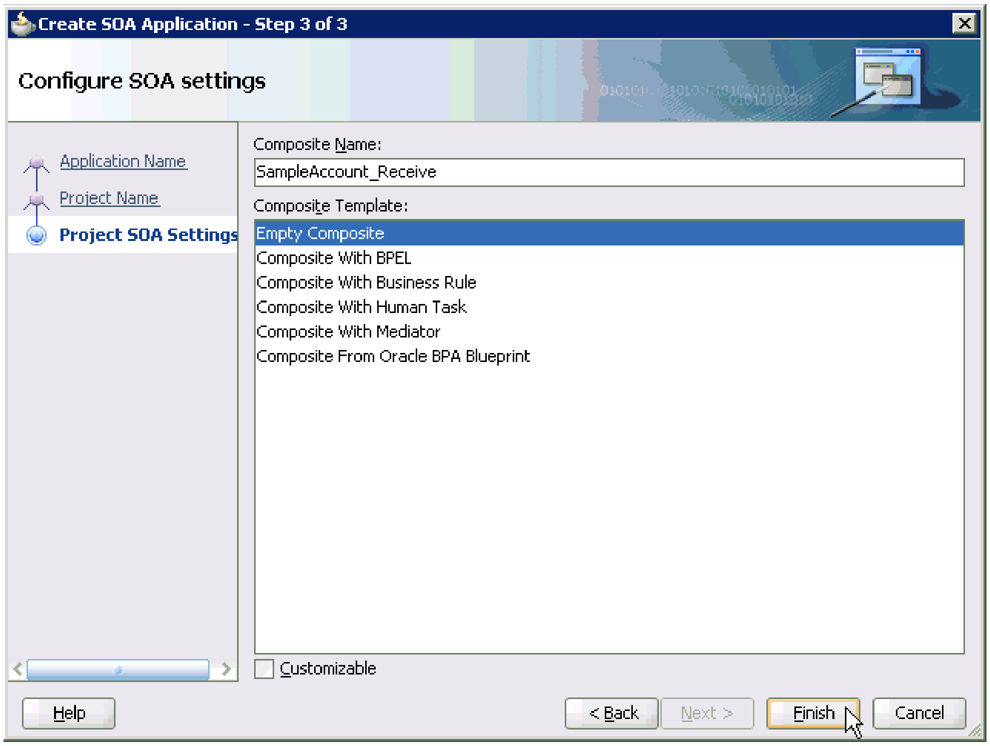
- SOA

Technology Description:

SOA is the Service Oriented Architecture to build composite applications.

5. Enter a project name (for example, SampleAccount_Receive) and click **Next**.

   The Configure SOA settings page is displayed.



Create SOA Application - Step 3 of 3

Configure SOA settings

Composite Name:

SampleAccount_Receive

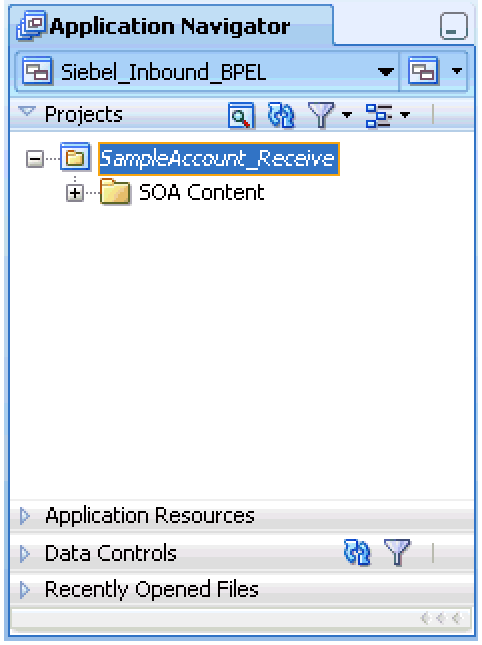
Composite Template:

- Empty Composite
- Composite With BPEL
- Composite With Business Rule
- Composite With Human Task
- Composite With Mediator
- Composite From Oracle BPA Blueprint

□ Customizable

6. From the Composite Template list, select **Empty Composite** and click **Finish**.

The new SOA application (Siebel_Inbound_BPEL) and associated project (SampleAccount_Receive) are added to the Application Navigator tab in the left pane.



4.5.3 Defining a BPEL Inbound Process

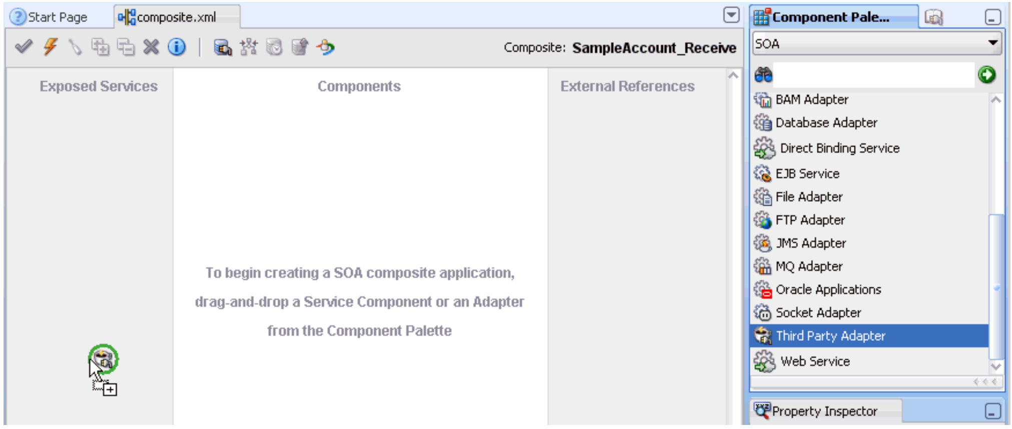
This section describes how to define a BPEL inbound process, which consists of the following stages:

1. Configuring a Third Party Adapter Service Component
2. Configuring an Inbound BPEL Process Component

Creating a Third Party Adapter Service Component

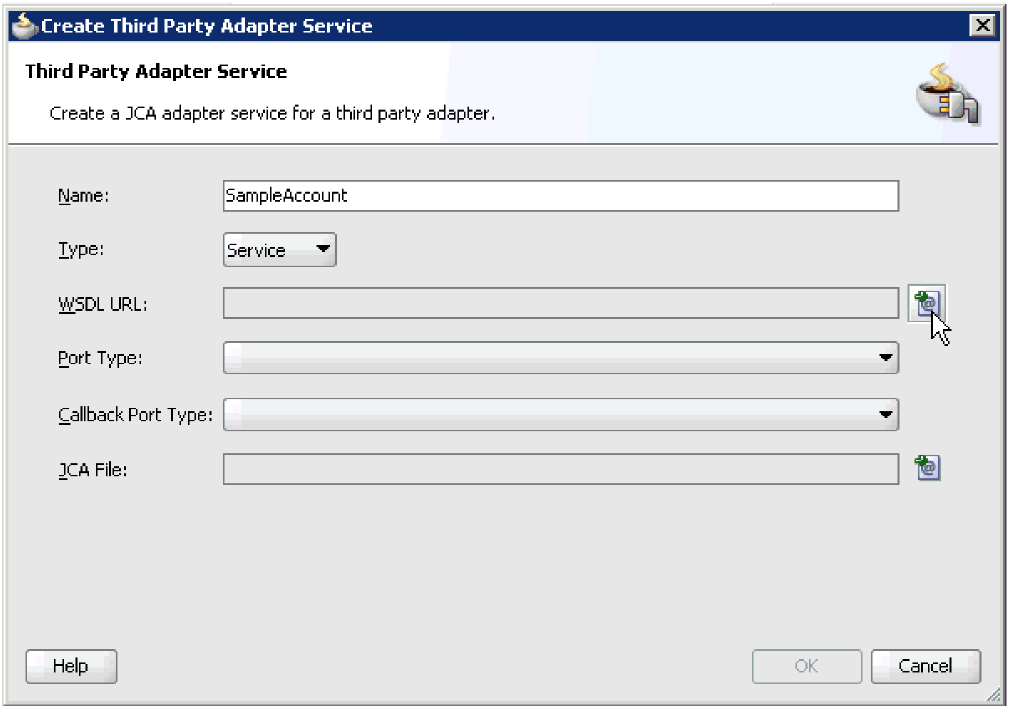
Perform the following steps to create a third party adapter service component:

1. Drag and drop the **Third Party Adapter** component from the Component Palette tab (Service Adapters section) to the Exposed Services pane.



To begin creating a SOA composite application, drag-and-drop a Service Component or an Adapter from the Component Palette

The Create Third Party Adapter Service dialog is displayed.



Create Third Party Adapter Service

Third Party Adapter Service

Create a JCA adapter service for a third party adapter.

Name: SampleAccount

Type: Service

WSDL URL:

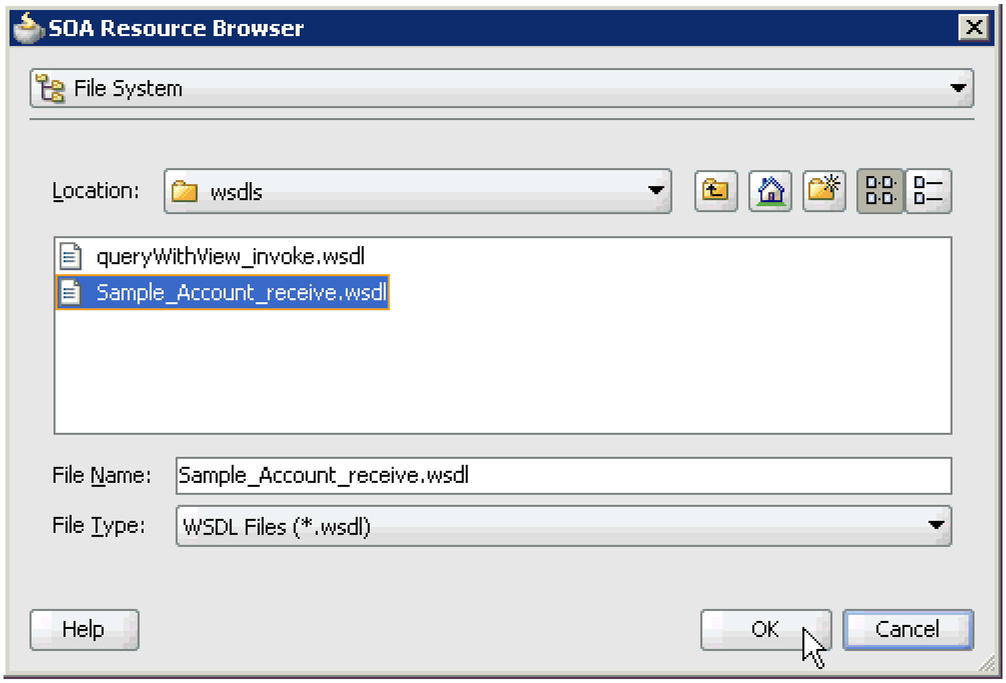
Port Type:

Callback Port Type:

JCA File:

2. Enter a name for the third party adapter service.
3. Ensure that **Service** is selected from the Type list (default).
4. Click the **Find existing WSDLs** icon, which is located to the right of the WSDL URL field.

   The SOA Resource Browser dialog is displayed.



SOA Resource Browser

File System

Location: wsdls

queryWithView_invoke.wsdl

Sample_Account_receive.wsdl

File Name: Sample_Account_receive.wsdl

File Type: WSDL Files (*.wsdl)

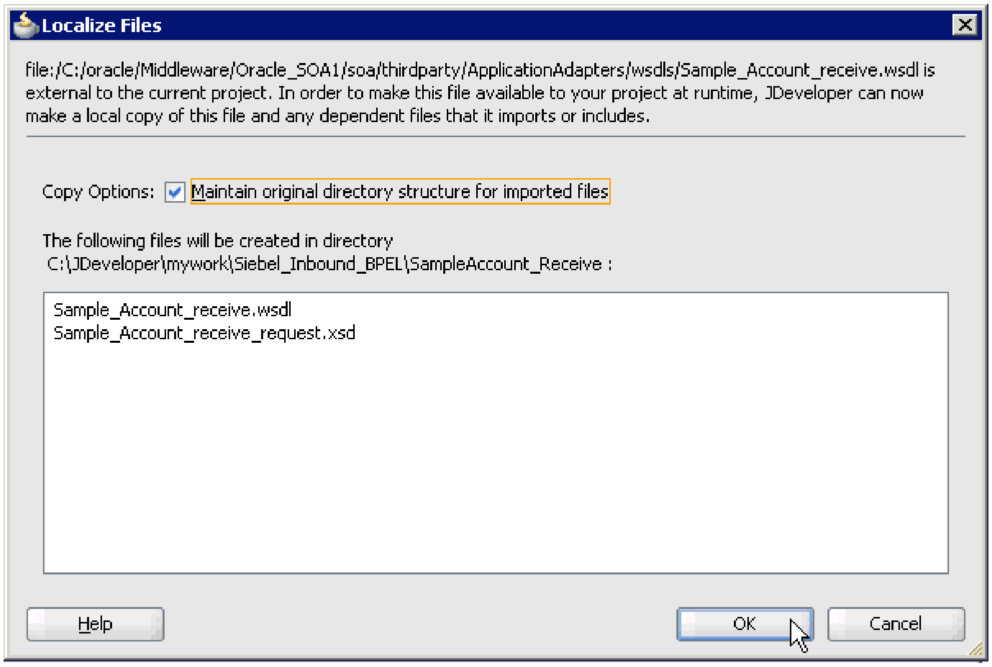
5. Browse and select an inbound WSDL file from the following directory:

   ```
   C:\oracle\Middleware\home_GA\Oracle_
   ```

```
SOA1\soa\thirdparty\ApplicationAdapters\wsdls
```

6. Click **OK**.

   The Localize Files dialog is displayed.



file:/C:/oracle/Middleware/Oracle_SOA1/soa/thirdparty/ApplicationAdapters/wsdls/Sample_Account_receive.wsdl is external to the current project. In order to make this file available to your project at runtime, JDeveloper can now make a local copy of this file and any dependent files that it imports or includes.

Copy Options: ☑ Maintain original directory structure for imported files

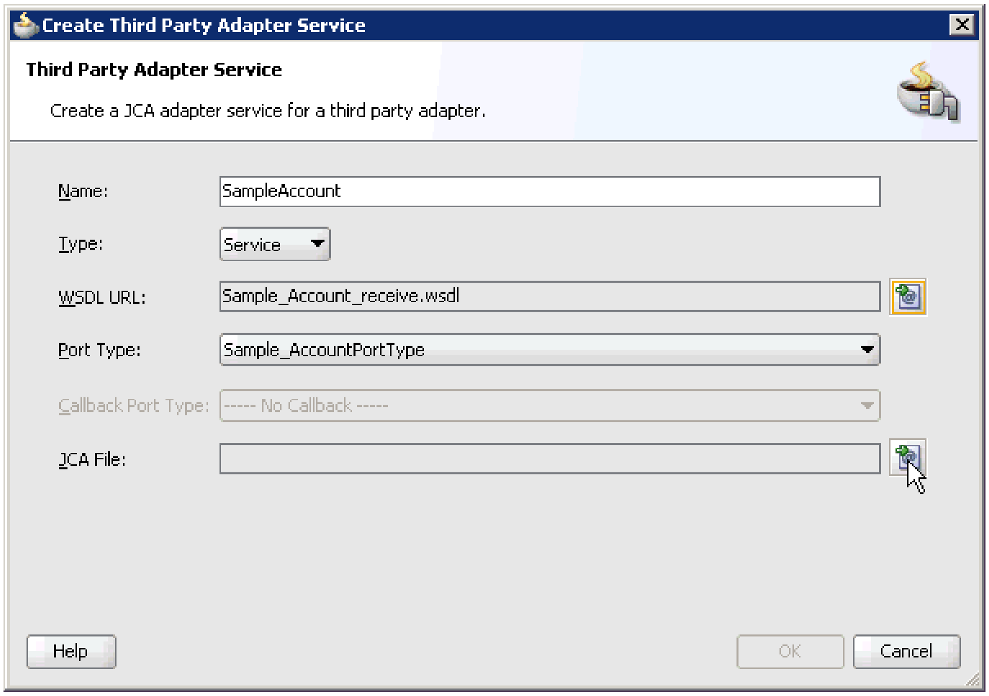
The following files will be created in directory C:\JDeveloper\mywork\Siebel_Inbound_BPEL\SampleAccount_Receive :

Sample_Account_receive.wsdl
Sample_Account_receive_request.xsd

7. Click **OK**.

   The inbound WSDL file and associated receive/request XML schema file (.xsd) are imported to the project folder that has been created.

   You are returned to the Create Third Party Adapter Service dialog.



Third Party Adapter Service

Create a JCA adapter service for a third party adapter.

Name: SampleAccount

Type: Service

WSDL URL: Sample_Account_receive.wsdl

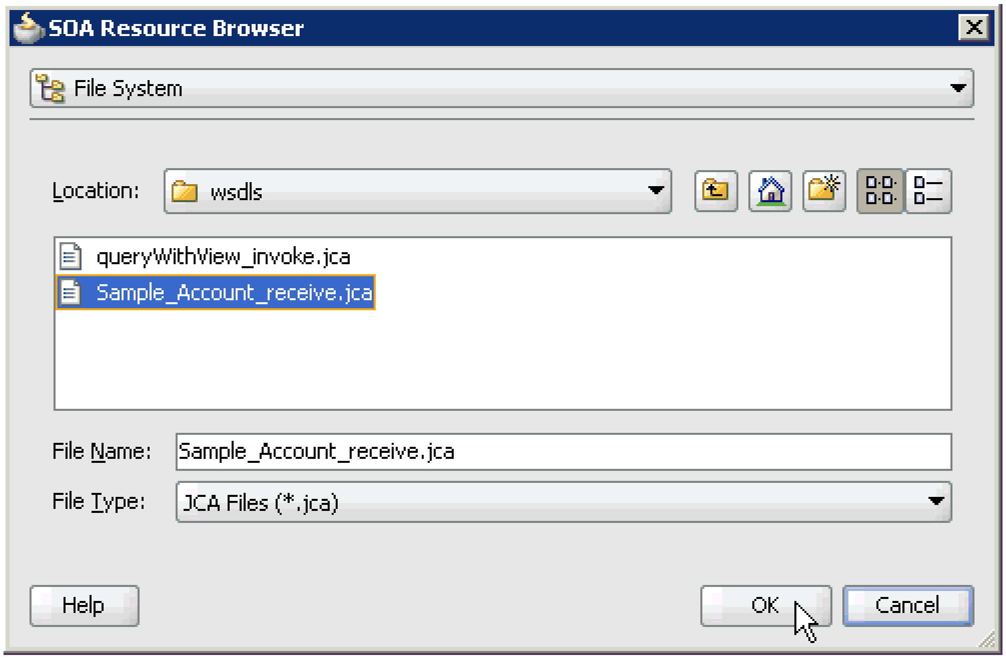
Port Type: Sample_AccountPortType

Callback Port Type: ----- No Callback -----

JCA File:

8. Click the **Find JCA Files** icon, which is located to the right of the JCA File field.

   The SOA Resource Browser dialog is displayed.



SOA Resource Browser

File System

Location: wsdls

queryWithView_invoke.jca
Sample_Account_receive.jca

File Name: Sample_Account_receive.jca

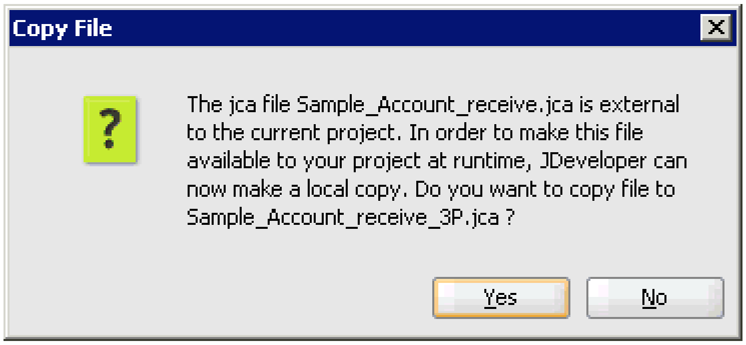
File Type: JCA Files (*.jca)

9. Browse and select the JCA properties file from the following directory:

```
C:\oracle\Middleware\home_GA\Oracle_
SOA1\soa\thirdparty\ApplicationAdapters\wsdls
```

10. Click **OK**.

    The following message is displayed.



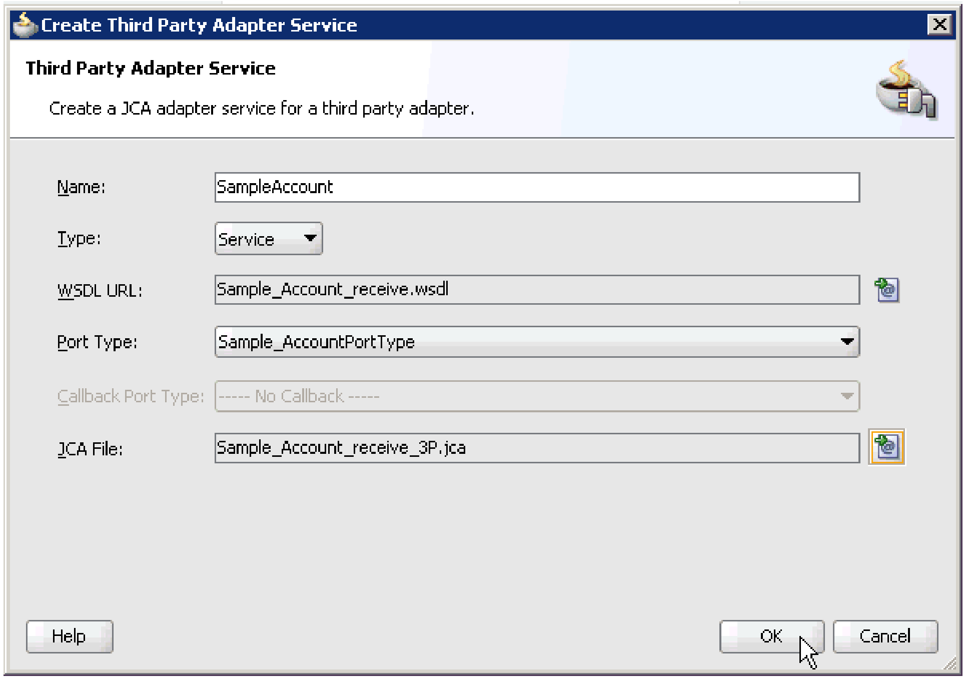
Copy File

The jca file Sample_Account_receive.jca is external to the current project. In order to make this file available to your project at runtime, JDeveloper can now make a local copy. Do you want to copy file to Sample_Account_receive_3P.jca ?

11. Click **Yes**.

    A copy of the JCA properties file is made in the project folder.

    You are returned to the Create Third Party Adapter Service dialog.



Create Third Party Adapter Service

Third Party Adapter Service

Create a JCA adapter service for a third party adapter.

Name: SampleAccount

Type: Service

WSDL URL: Sample_Account_receive.wsdl

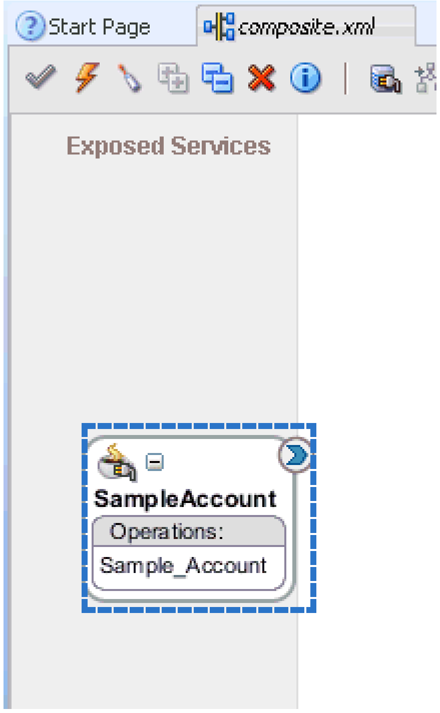
Port Type: Sample_AccountPortType

Callback Port Type: ----- No Callback -----

JCA File: Sample_Account_receive_3P.jca

12. Click **OK**.

    The third party adapter service component (SampleAccount) is created in the Exposed Services pane, as shown in the following image.

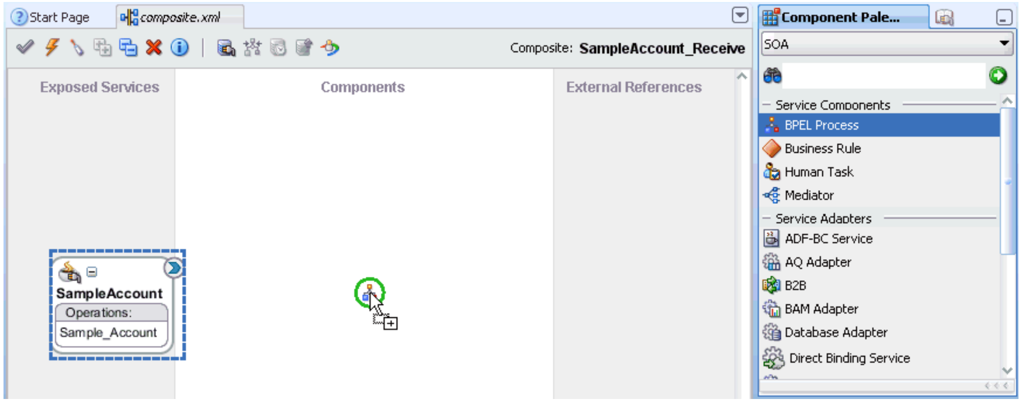


You are now ready to configure an inbound BPEL process component.

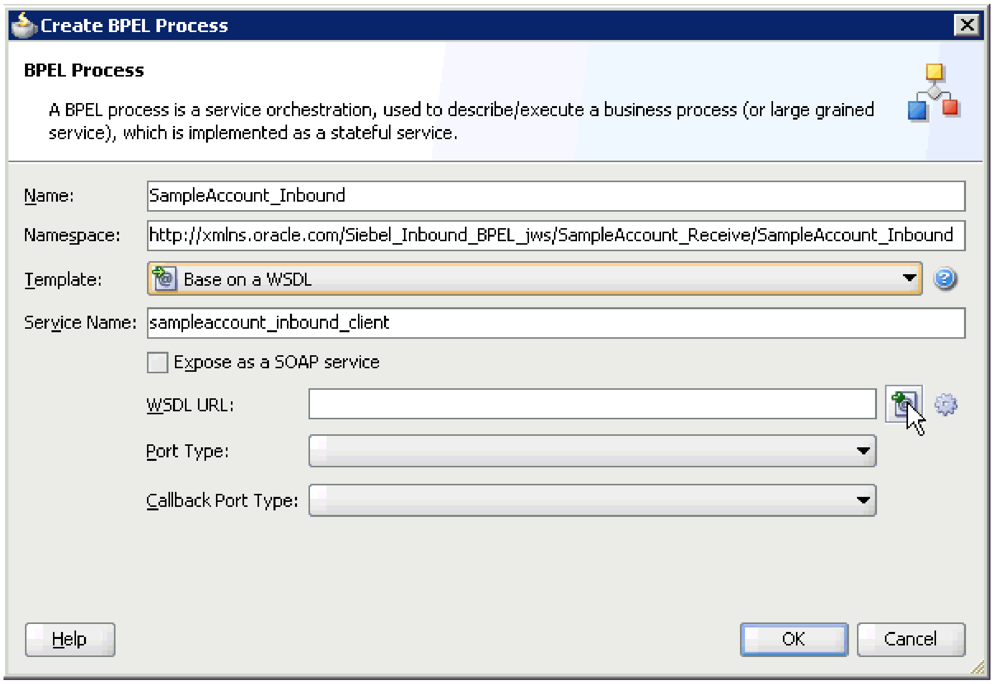
Creating an Inbound BPEL Process Component

Perform the following steps to create an inbound BPEL process component:

1. Drag and drop the **BPEL Process** component from the Component Palette tab (Service Components section) to the Components pane.



The Create BPEL Process dialog is displayed.



Create BPEL Process

BPEL Process

A BPEL process is a service orchestration, used to describe/execute a business process (or large grained service), which is implemented as a stateful service.

Name: SampleAccount_Inbound

Namespace: http://xmlns.oracle.com/Siebel_Inbound_BPEL_jws/SampleAccount_Receive/SampleAccount_Inbound

Template: Base on a WSDL

Service Name: sampleaccount_inbound_client

□ Expose as a SOAP service

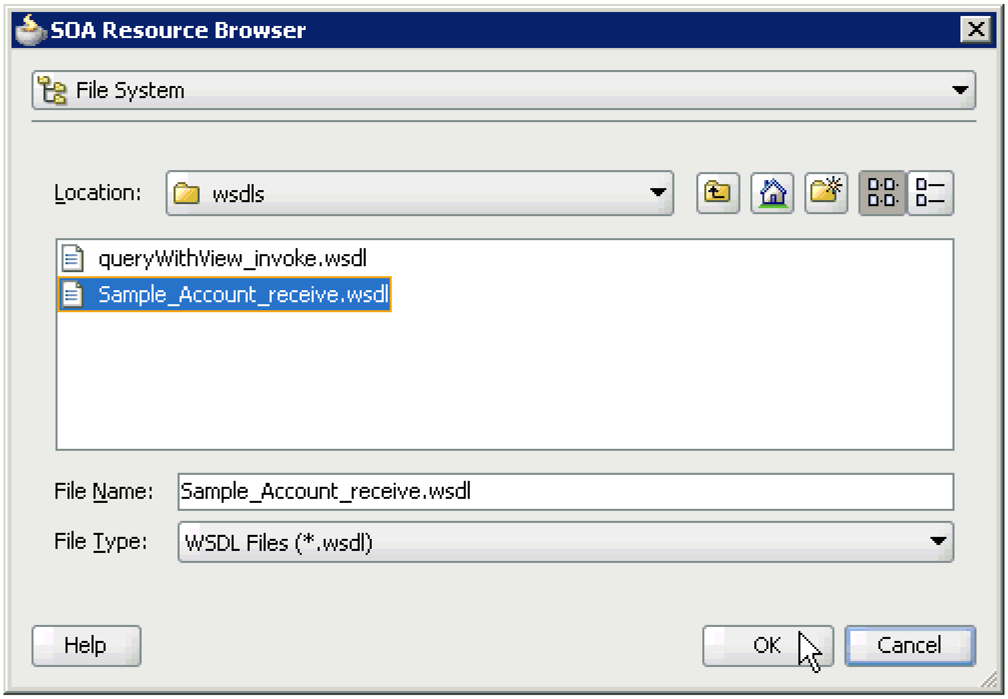
WSDL URL:

Port Type:

Callback Port Type:

2. In the Name field, enter a name to identify the new inbound BPEL process component (for example, SampleAccount_Inbound).
3. From the Template list, select **Base on a WSDL**.
4. Uncheck the **Expose as a SOAP service** check box.
5. Click the **Find existing WSDLs** icon, which is located to the right of the WSDL URL field.

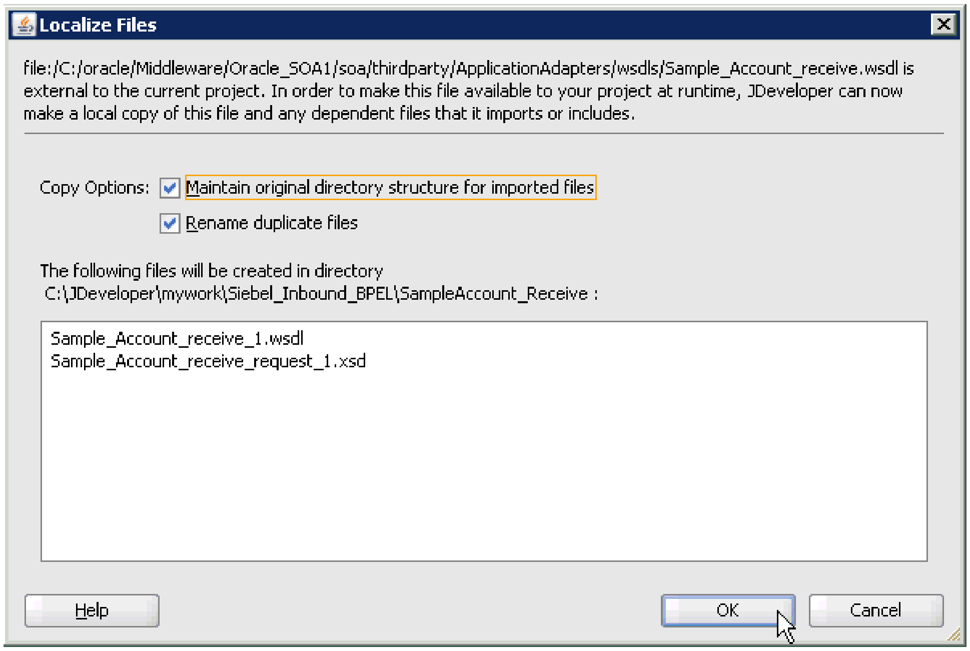
   The SOA Resource Browser dialog is displayed.



6. Browse and select an inbound WSDL file from the project folder (for example, Sample_Account_receive.wsdl).

7. Click **OK**.

   The Localize Files dialog is displayed.


Localize Files

file:/C:/oracle/Middleware/Oracle_SOA1/soa/thirdparty/ApplicationAdapters/wsdls/Sample_Account_receive.wsdl is external to the current project. In order to make this file available to your project at runtime, JDeveloper can now make a local copy of this file and any dependent files that it imports or includes.

Copy Options: ☑ Maintain original directory structure for imported files

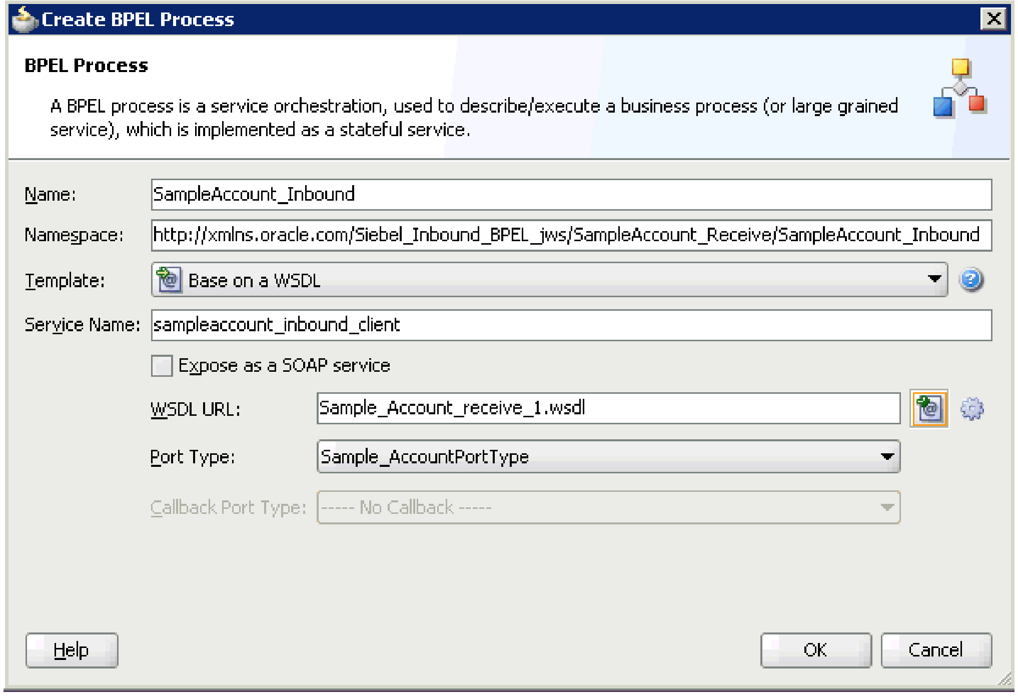
☑ Rename duplicate files

The following files will be created in directory
C:\JDeveloper\mywork\Siebel_Inbound_BPEL\SampleAccount_Receive :

Sample_Account_receive_1.wsdl
Sample_Account_receive_request_1.xsd

8. Click **OK**.

   You are returned to the Create BPEL Process dialog.



Create BPEL Process

BPEL Process

A BPEL process is a service orchestration, used to describe/execute a business process (or large grained service), which is implemented as a stateful service.

Name: SampleAccount_Inbound

Namespace: http://xmlns.oracle.com/Siebel_Inbound_BPEL_jws/SampleAccount_Receive/SampleAccount_Inbound

Template: Base on a WSDL

Service Name: sampleaccount_inbound_client

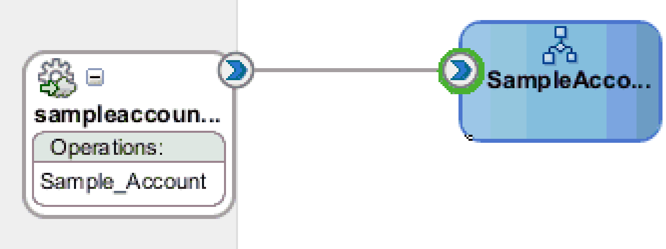
□ Expose as a SOAP service

WSDL URL: Sample_Account_receive_1.wsdl

Port Type: Sample_AccountPortType

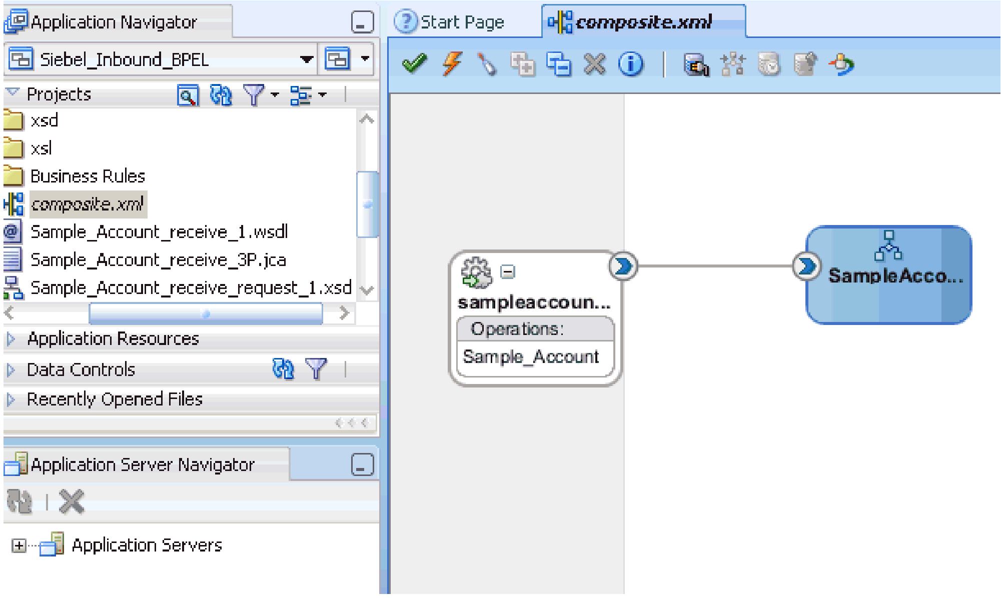
Callback Port Type: ----- No Callback -----

9. Click **OK**.

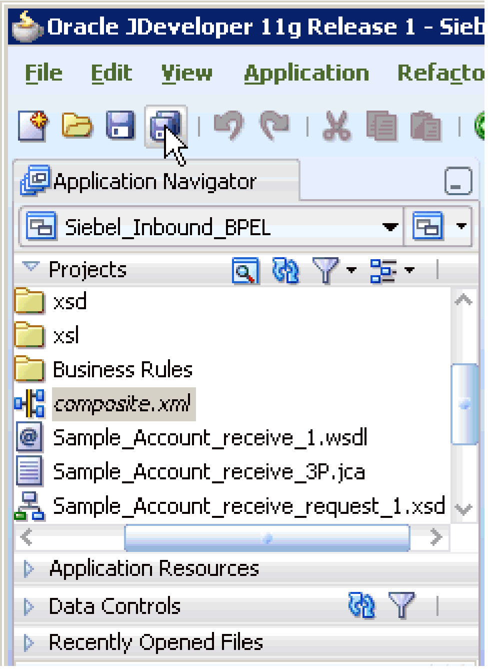


10. Create a connection between the third party adapter service component (SampleAccount) and the inbound BPEL process component (SampleAccount_Inbound).

11. Double-click **composite.xml** in the left pane.



12. Click the **Save All** icon in the menu bar to save the new inbound BPEL process component that was configured.

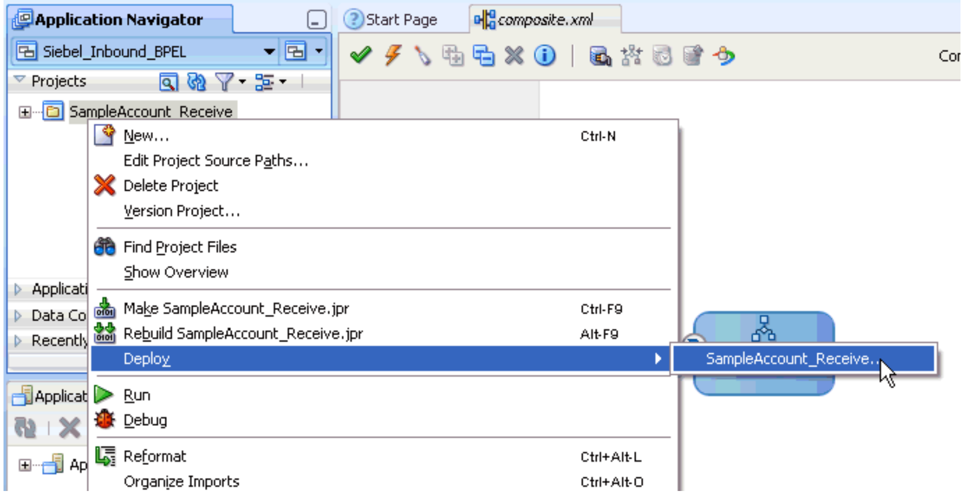


You are now ready to deploy the BPEL inbound process.

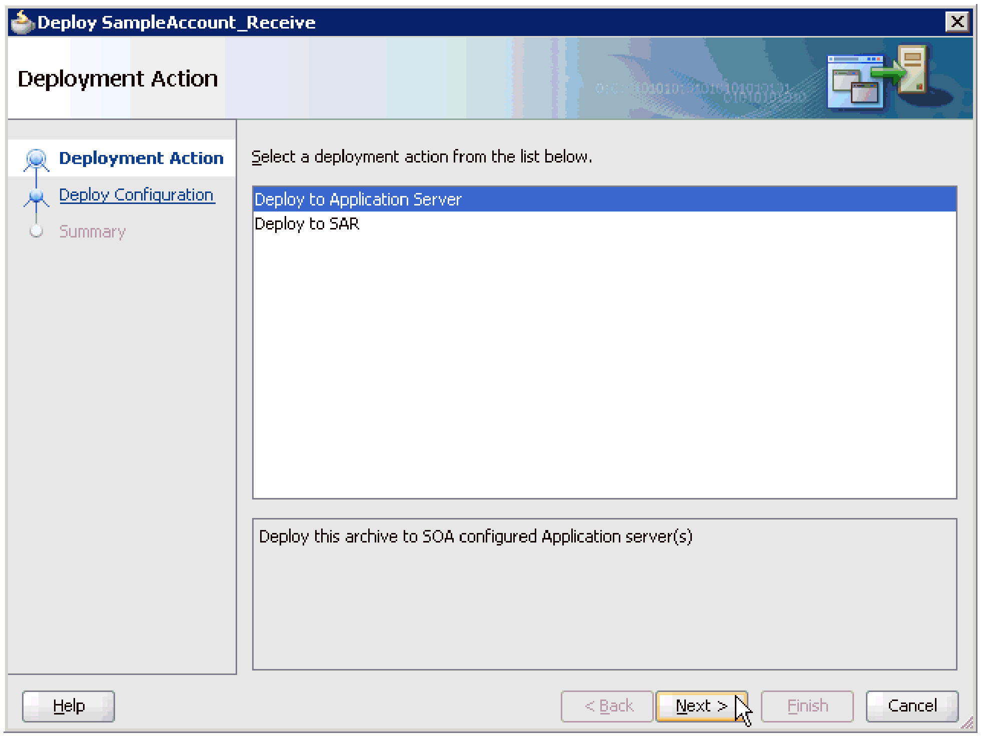
4.5.4 Deploying the BPEL Inbound Process

Perform the following steps to deploy the BPEL inbound process.

1. Right-click the project name in the left pane (for example, **SampleAccount_Receive**), select **Deploy** and then click **SampleAccount_Receive**.



The Deployment Action dialog is displayed.



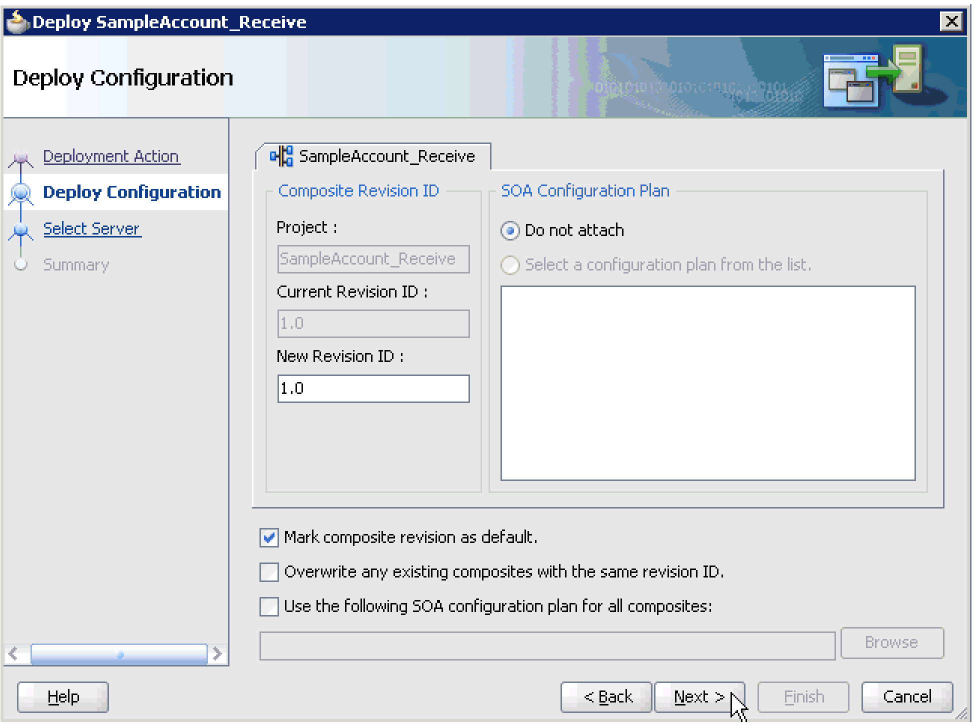
Select a deployment action from the list below.

Deploy to Application Server
Deploy to SAR

Deploy this archive to SOA configured Application server(s)

2. Ensure that **Deploy to Application Server** is selected.
3. Click **Next**.

   The Deploy Configuration dialog is displayed.



Deploy SampleAccount_Receive

Deploy Configuration

SampleAccount_Receive

Composite Revision ID

Project : SampleAccount_Receive

Current Revision ID : 1.0

New Revision ID : 1.0

SOA Configuration Plan

● Do not attach

○ Select a configuration plan from the list.

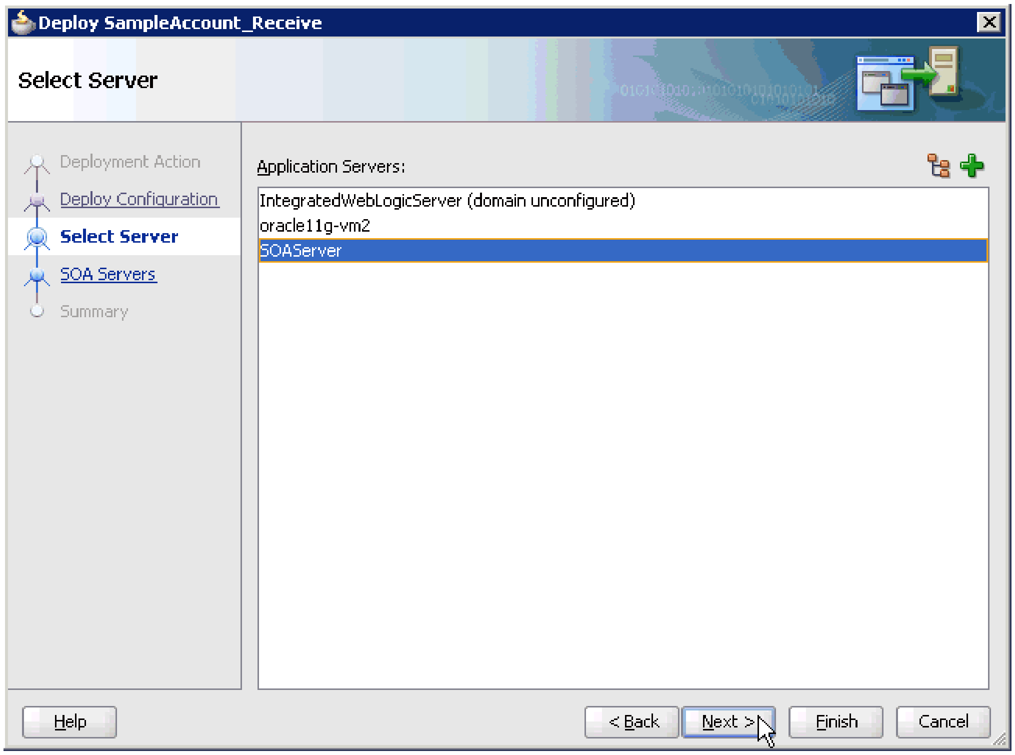
☑ Mark composite revision as default.

☐ Overwrite any existing composites with the same revision ID.

☐ Use the following SOA configuration plan for all composites:

4. Leave the default values selected and click **Next**.

   The Select Server dialog is displayed.



Deploy SampleAccount_Receive

Select Server

Application Servers:

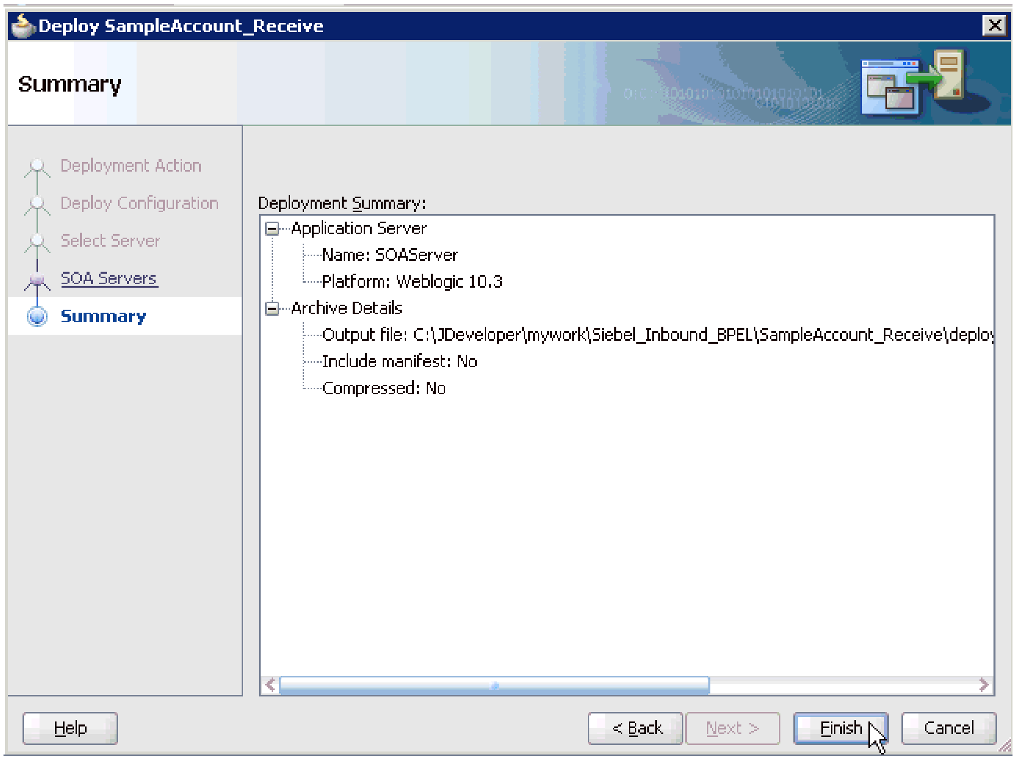
IntegratedWebLogicServer (domain unconfigured)
oracle11g-vm2
SOAServer

5. Select an available application server that was configured and click **Next**.

   The SOA Servers dialog is displayed.

6. Select a target SOA server and click **Next**.

The Summary dialog is displayed.

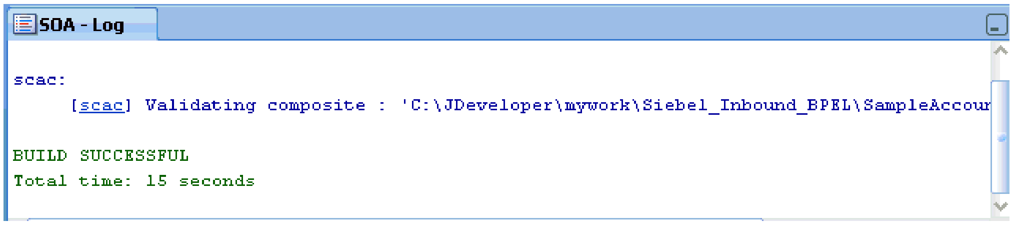


Deployment Summary:

```
Application Server
    Name: SOAServer
    Platform: Weblogic 10.3
Archive Details
    Output file: C:\JDeveloper\mywork\Siebel_Inbound_BPEL\SampleAccount_Receive\deplo
    Include manifest: No
    Compressed: No
```

7. Review and verify all the available deployment information for your project and click **Finish**.

   The process is deployed successfully.



```
scac:
     [scac] Validating composite : 'C:\JDeveloper\mywork\Siebel_Inbound_BPEL\SampleAccou

BUILD SUCCESSFUL
Total time: 15 seconds
```

   If an Authorization Request dialog is displayed during the deployment process, provide the required user name and password and click **OK**.

   Once event messages are triggered through Siebel, successful instances are received in the Oracle Enterprise Manager console.

4.5.5 Triggering an Event in Siebel

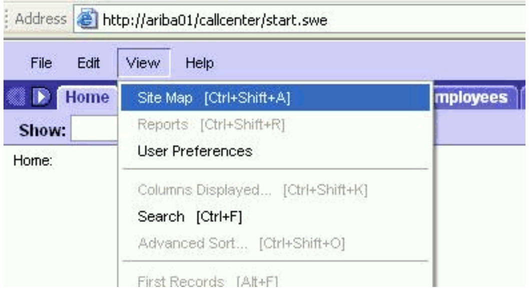
The following topic describes how to trigger an event in Siebel and verify event integration using Oracle Application Adapter for Siebel.

Triggering a Siebel Event to Test Event Runtime Integration

To trigger an event in Siebel:

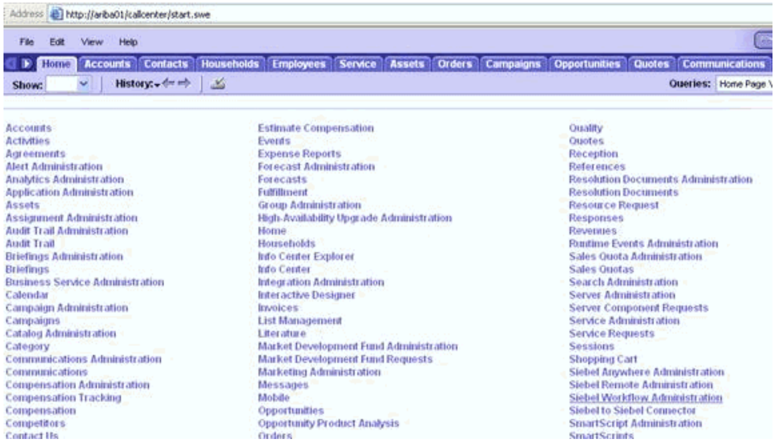
1. Start the Siebel Call Center by entering the following URL in a browser:

   http://*host name*/callcenter/start.swe



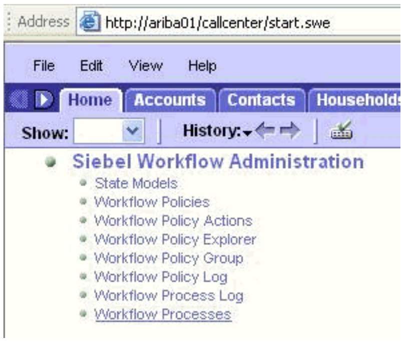
2. Click **View** and select **Site Map** from the list.

   The Site Map view is displayed.



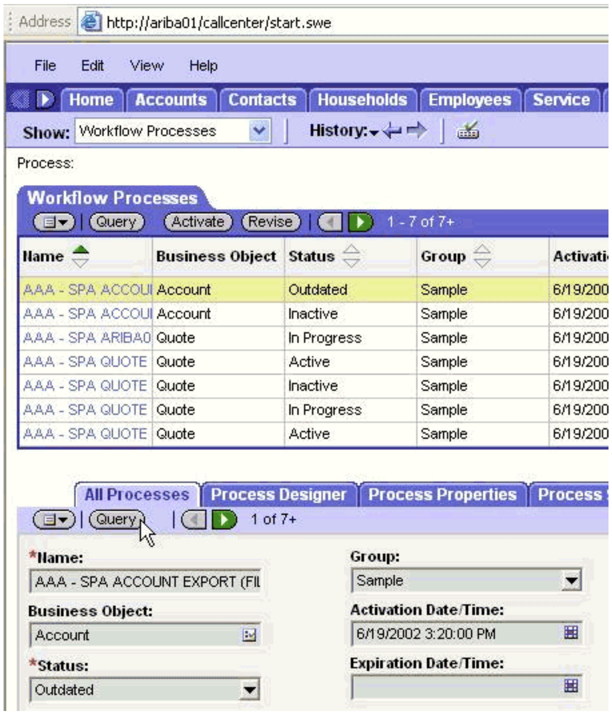
3. Click **Siebel Workflow Administration**.

   The Siebel Workflow Administration page is displayed.



4. Click **Workflow Processes**.

   The Workflow Processes page is displayed.



Address http://ariba01/callcenter/start.swe

Show: Workflow Processes

Process:

Name	Business Object	Status	Group	Activati
AAA - SPA ACCOU	Account	Outdated	Sample	6/19/200
AAA - SPA ACCOU	Account	Inactive	Sample	6/19/200
AAA - SPA ARIBA0	Quote	In Progress	Sample	6/19/200
AAA - SPA QUOTE	Quote	Active	Sample	6/19/200
AAA - SPA QUOTE	Quote	Inactive	Sample	6/19/200
AAA - SPA QUOTE	Quote	In Progress	Sample	6/19/200
AAA - SPA QUOTE	Quote	Active	Sample	6/19/200

*Name: AAA - SPA ACCOUNT EXPORT (FIL

Group: Sample

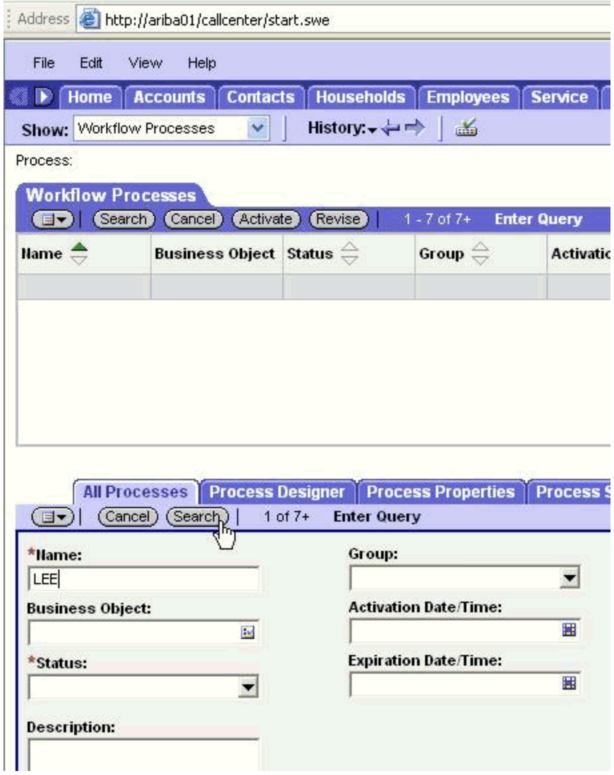
Business Object: Account

Activation Date/Time: 6/19/2002 3:20:00 PM

*Status: Outdated

Expiration Date/Time:

5. Click **Query** to search for the Workflow needed to trigger a Siebel event.



Address http://ariba01/callcenter/start.swe

Show: Workflow Processes

Process:

Name	Business Object	Status	Group	Activatio

*Name: LEE

Group:

Business Object:

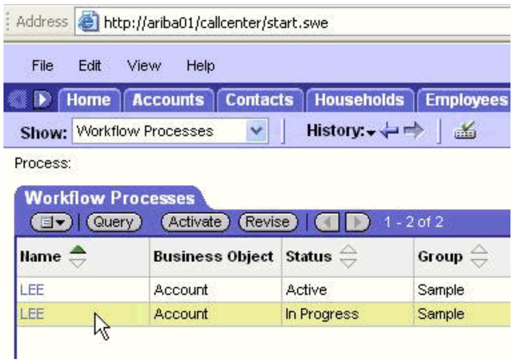
Activation Date/Time:

*Status:

Expiration Date/Time:

Description:

6. Enter a Siebel workflow name and click **Search**.



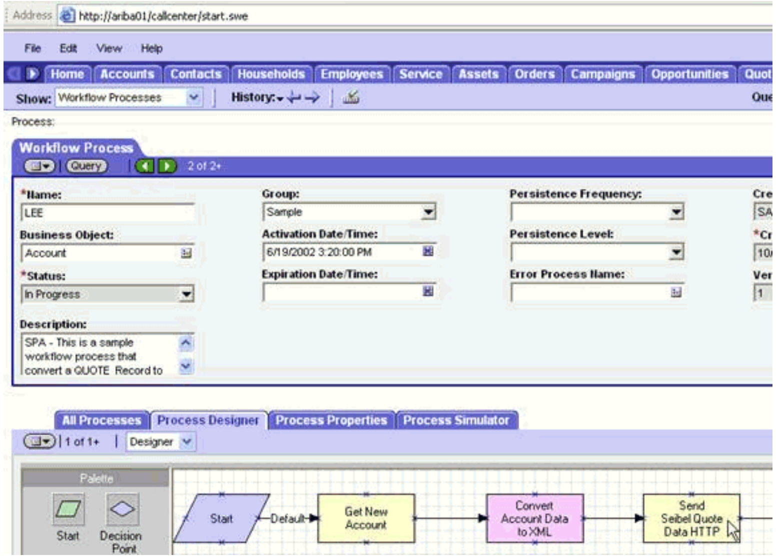
Address: http://ariba01/callcenter/start.swe

Show: Workflow Processes

Process:

Name	Business Object	Status	Group
LEE	Account	Active	Sample
LEE	Account	In Progress	Sample

7. Select the workflow.



Address: http://ariba01/callcenter/start.swe

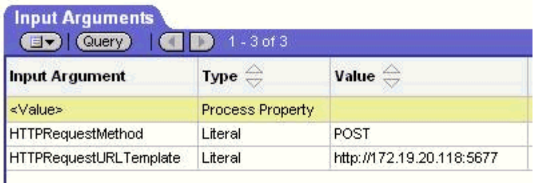
Show: Workflow Processes

Process:

*Name: LEE	Group: Sample	Persistence Frequency:
Business Object: Account	Activation Date/Time: 6/19/2002 3:20:00 PM	Persistence Level:
*Status: In Progress	Expiration Date/Time:	Error Process Name:
Description: SPA - This is a sample workflow process that convert a QUOTE Record to		

8. Click the **Process Designer** tab and double-click the **Send Siebel Quote Data HTTP** workflow element.

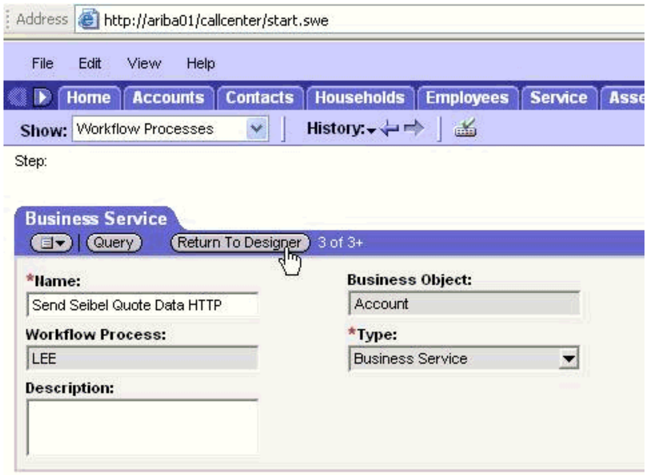
   The Input Arguments tab is displayed.



Input Argument	Type	Value
<Value>	Process Property	
HTTPRequestMethod	Literal	POST
HTTPRequestURLTemplate	Literal	http://172.19.20.118:5677

9. Enter the IP address and port for the HTTPRequestURLTemplate input argument.

10. Click **Return To Designer**.



Address http://ariba01/callcenter/start.swe

*Name: Send Seibel Quote Data HTTP

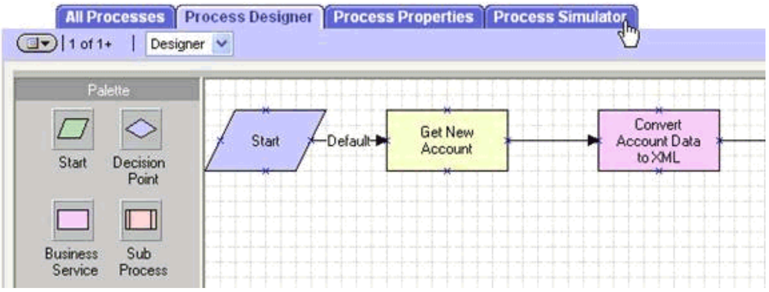
Workflow Process: LEE

Description:

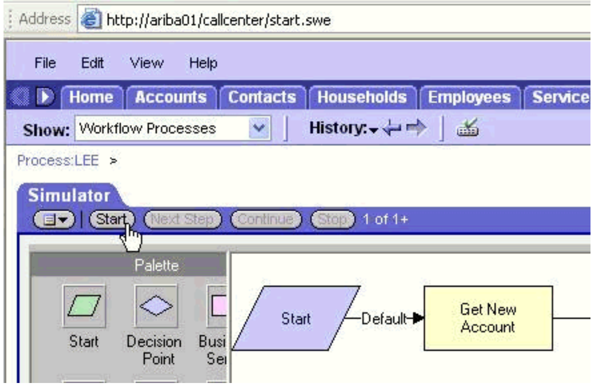
Business Object: Account

*Type: Business Service

11. Click the Process Simulator tab.



The Simulator tab is displayed.



Address http://ariba01/callcenter/start.swe

12. Click **Start** then **Continue** to complete the Siebel event triggering process.

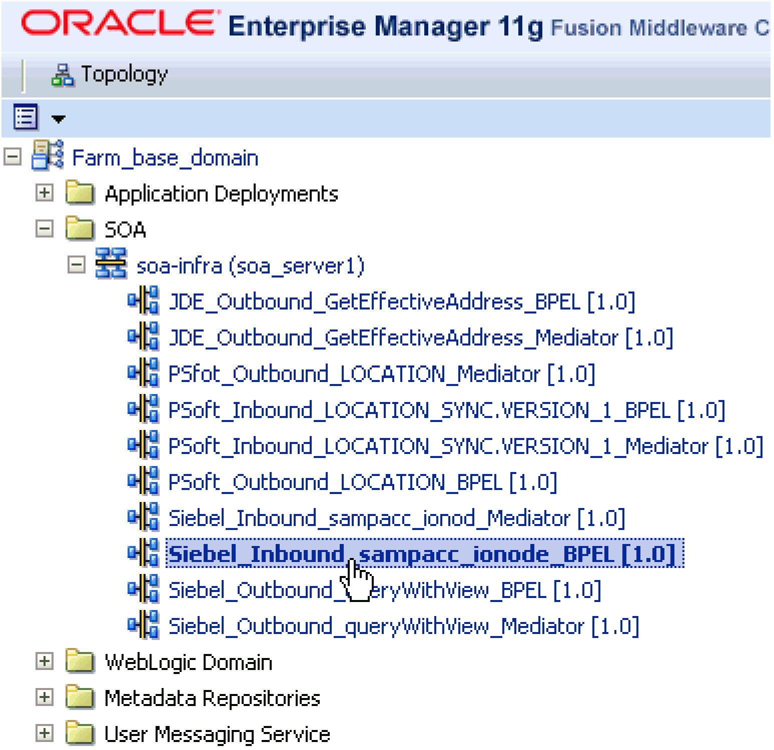
Verifying the Results

To verify your results:

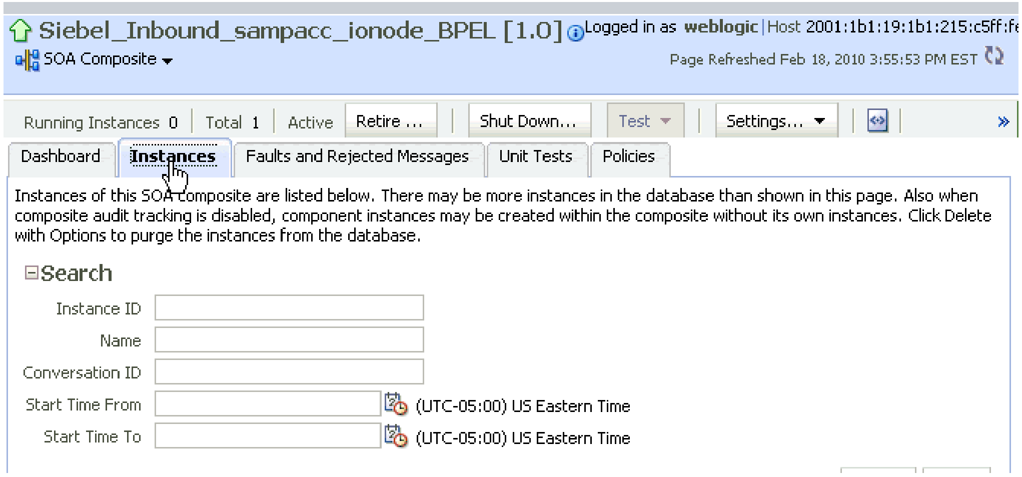
1. Log in to the Oracle Enterprise Manager console by using the following URL:

   `http://localhost:7001/em`

2. Expand your domain in the left pane followed by the **SOA** folder.


ORACLE Enterprise Manager 11g Fusion Middleware C
Topology
Farm_base_domain
Application Deployments
SOA
soa-infra (soa_server1)
JDE_Outbound_GetEffectiveAddress_BPEL [1.0]
JDE_Outbound_GetEffectiveAddress_Mediator [1.0]
PSfot_Outbound_LOCATION_Mediator [1.0]
PSoft_Inbound_LOCATION_SYNC.VERSION_1_BPEL [1.0]
PSoft_Inbound_LOCATION_SYNC.VERSION_1_Mediator [1.0]
PSoft_Outbound_LOCATION_BPEL [1.0]
Siebel_Inbound_sampacc_ionod_Mediator [1.0]
Siebel_Inbound_sampacc_ionode_BPEL [1.0]
Siebel_Outbound_queryWithView_BPEL [1.0]
Siebel_Outbound_queryWithView_Mediator [1.0]
WebLogic Domain
Metadata Repositories
User Messaging Service

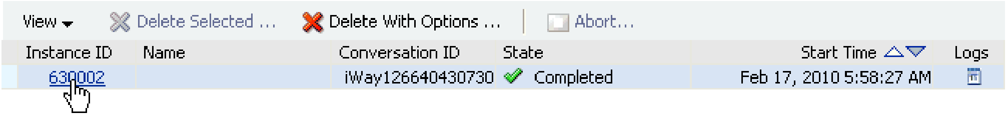
3. Select an available project (for example, Siebel_Inbound_sampacc_ionode_BPEL).


Siebel_Inbound_sampacc_ionode_BPEL [1.0]
Logged in as weblogic | Host 2001:1b1:19:1b1:215:c5ff:fe
SOA Composite
Page Refreshed Feb 18, 2010 3:55:53 PM EST
Running Instances 0
Total 1
Active
Retire ...
Shut Down...
Test
Settings...
Dashboard
Instances
Faults and Rejected Messages
Unit Tests
Policies
Search
Instance ID
Name
Conversation ID
Start Time From
Start Time To
(UTC-05:00) US Eastern Time
(UTC-05:00) US Eastern Time

Instances of this SOA composite are listed below. There may be more instances in the database than shown in this page. Also when composite audit tracking is disabled, component instances may be created within the composite without its own instances. Click Delete with Options to purge the instances from the database.

4. Click the **Instances** tab in the right pane.

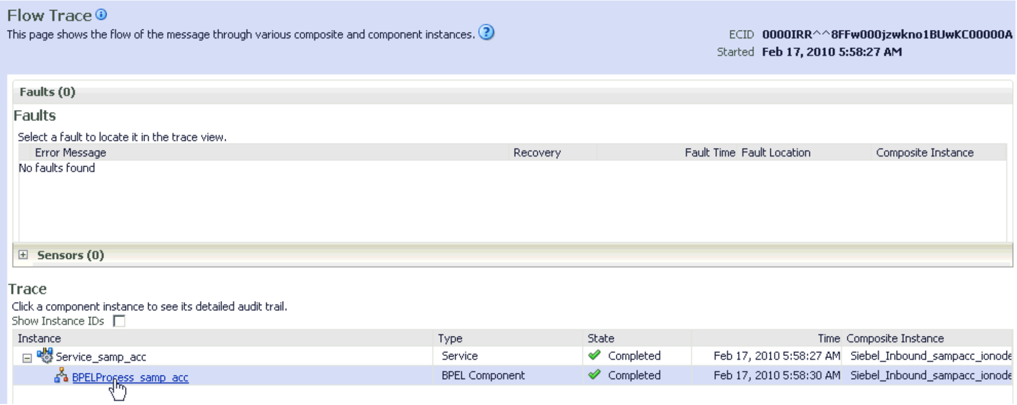
   Recently received run-time events are displayed in the Instances tab.



Instance ID	Name	Conversation ID	State	Start Time	Logs
630002		iWay126640430730	✓ Completed	Feb 17, 2010 5:58:27 AM	

5. Select a Siebel instance ID.

   The Flow Trace page is displayed.



Flow Trace

This page shows the flow of the message through various composite and component instances.

ECID 0000IRR^^8FFw000jzwkno1BUwKC00000A

Started Feb 17, 2010 5:58:27 AM

Faults (0)

Faults

Select a fault to locate it in the trace view.

Error Message	Recovery	Fault Time	Fault Location	Composite Instance
No faults found				

⊞ Sensors (0)

Trace

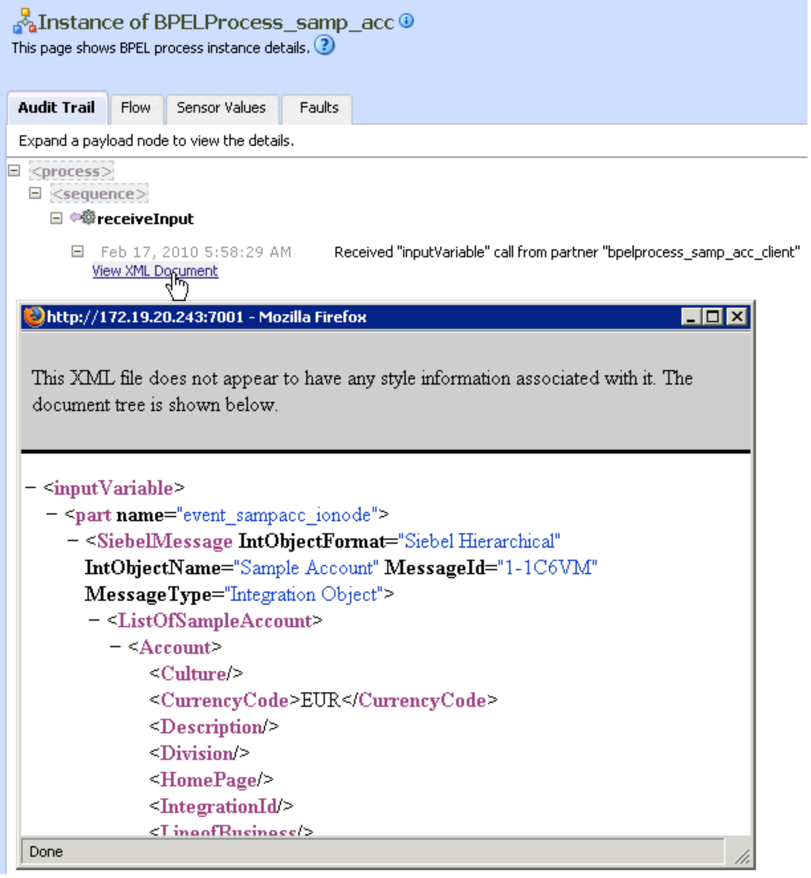
Click a component instance to see its detailed audit trail.

Show Instance IDs □

Instance	Type	State	Time	Composite Instance
⊟ Service_samp_acc	Service	✓ Completed	Feb 17, 2010 5:58:27 AM	Siebel_Inbound_sampacc_ionode
BPELProcess_samp_acc	BPEL Component	✓ Completed	Feb 17, 2010 5:58:30 AM	Siebel_Inbound_sampacc_ionode

6. Select a component instance to view its detailed audit trail.

   The Instance page for the selected component is displayed.



Instance of BPELProcess_samp_acc

This page shows BPEL process instance details.

Expand a payload node to view the details.

```
⊟ <process>
  ⊟ <sequence>
    ⊟ receiveInput
      ⊟ Feb 17, 2010 5:58:29 AM     Received "inputVariable" call from partner "bpelprocess_samp_acc_client"
        View XML Document
```

http://172.19.20.243:7001 - Mozilla Firefox

This XML file does not appear to have any style information associated with it. The document tree is shown below.

```
– <inputVariable>
  – <part name="event_sampacc_ionode">
    – <SiebelMessage IntObjectFormat="Siebel Hierarchical"
      IntObjectName="Sample Account" MessageId="1-1C6VM"
      MessageType="Integration Object">
      – <ListOfSampleAccount>
        – <Account>
            <Culture/>
            <CurrencyCode>EUR</CurrencyCode>
            <Description/>
            <Division/>
            <HomePage/>
            <IntegrationId/>
            <LineofBusiness/>
```

Done

7. Click the **Audit Trail** tab to view the event message.

   The message received from the Siebel system is displayed in the Audit Trail tab.

5

Integration With Mediator Service Components in the Oracle SOA Suite

This chapter contains the following examples:

- Configuring a New Application Server Connection
- Configuring a Mediator Outbound Process
- Configuring a Mediator Inbound Process

The scenarios shown in this chapter require the following prerequisites.

Prerequisites

The following are installation and configuration requirements:

- Oracle Application Adapter for Siebel must be installed on Oracle WebLogic Server.
- Siebel must be configured for inbound and outbound processing.
- OracleAS Technology adapters must be deployed and properly configured.

The examples in this chapter present the configuration steps necessary for demonstrating service and event integration with Siebel. Prior to using this material, you must be familiar with the following:

- How to configure Oracle Application Adapter for Siebel for services and events. See Chapter 2, "Configuring Oracle Application Server Adapter for Siebel".
- How to configure Oracle JDeveloper. For more information, see Chapter 4, "Integration With BPEL Service Components in the Oracle SOA Suite".
- How to use Siebel workflows. See Appendix A, "Using Siebel Workflows" for information on Siebel design requirements.

Overview of Mediator Integration

Mediator provides a comprehensive application integration framework. Oracle Application Adapter for Siebel used with Mediator enables you to seamlessly integrate enterprise software, eliminating the need to write custom code. Functional modeling, as opposed to custom coding solutions, allows for software reuse and reduces the complexity and management challenges that arise over the software lifecycle. This integration model consists of two components--high-level integration logic and low-level platform services.

Adapter integration with Oracle WebLogic Server, Mediator is a two-step process:

1. **Design Time:** Oracle Application Adapter for Siebel is configured in Application Explorer for services and events, as described in Chapter 2, "Configuring Oracle

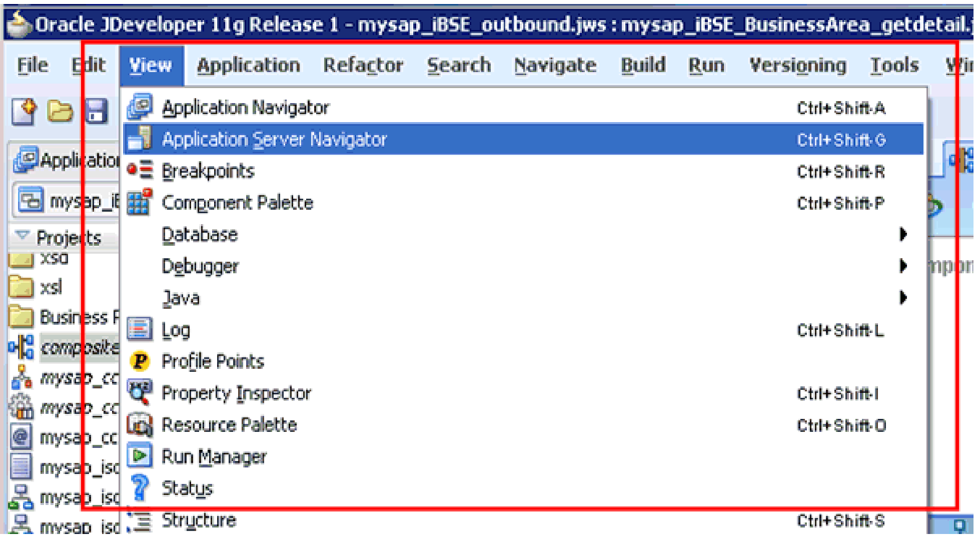
Application Server Adapter for Siebel". Integration logic is modeled in iStudio. Metadata are stored in repositories.

2. **Runtime:** The underlying platform treats this metadata as run-time instructions to enable the communication between participating applications.

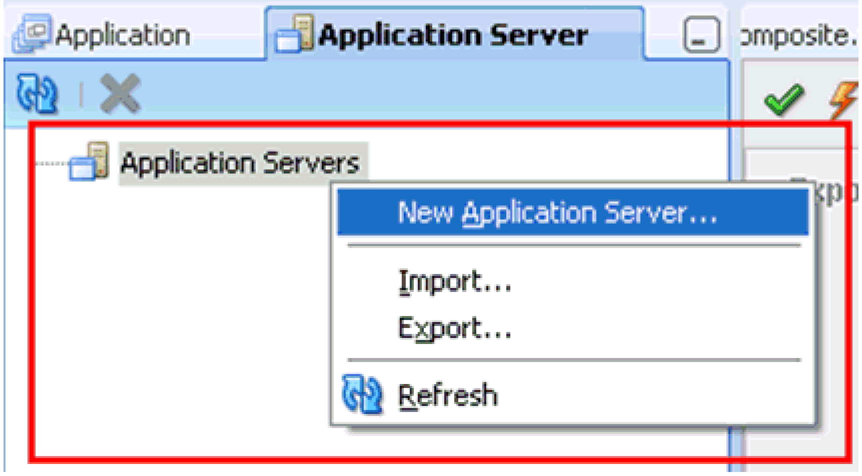
5.1 Configuring a New Application Server Connection

To configure a new Application Server connection in Oracle JDeveloper:

1. Open Oracle JDeveloper on your system.
2. From the menu bar, click **View** and select **Application Server Navigator**.

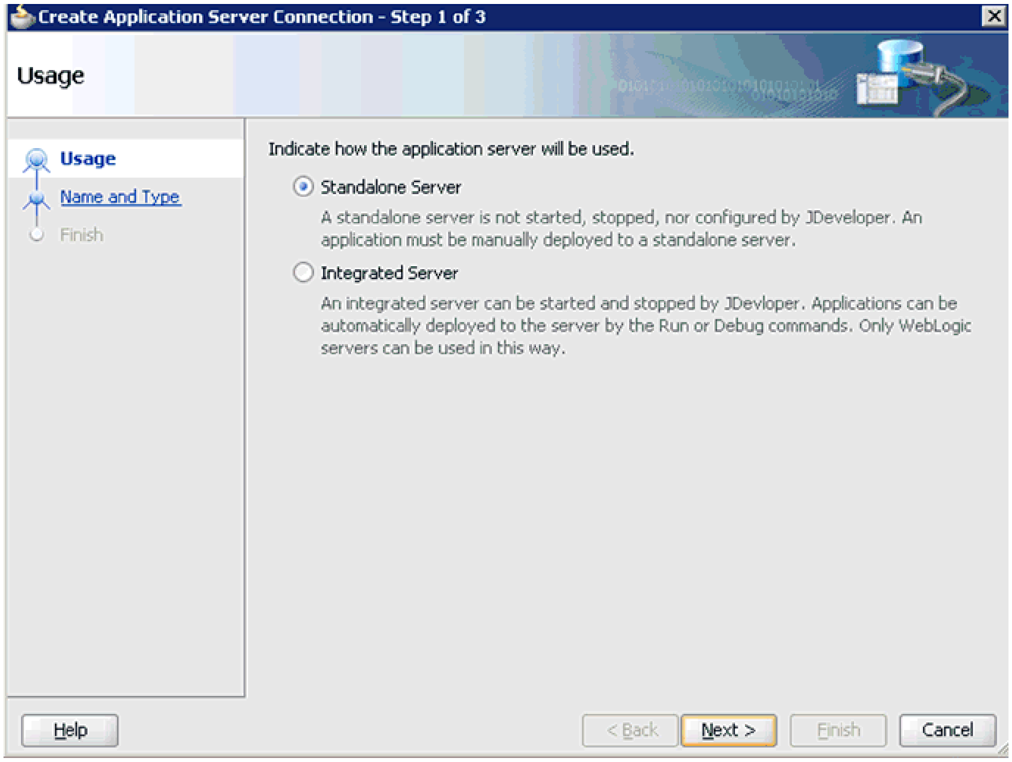

Oracle JDeveloper 11g Release 1 - mysap_iBSE_outbound.jws : mysap_iBSE_BusinessArea_getdetail.
File
Edit
View
Application
Refactor
Search
Navigate
Build
Run
Versioning
Tools
Application Navigator Ctrl+Shift-A
Application Server Navigator Ctrl+Shift-G
Breakpoints Ctrl+Shift-R
Component Palette Ctrl+Shift-P
Database
Debugger
Java
Log Ctrl+Shift-L
Profile Points
Property Inspector Ctrl+Shift-I
Resource Palette Ctrl+Shift-O
Run Manager
Status
Structure Ctrl+Shift-S

The Application Server tab is displayed.



3. Right-click **Application Servers**, and then select **New Application Server**.

   The Create Application Server Connection Wizard - Usage page is displayed.



Indicate how the application server will be used.

● Standalone Server

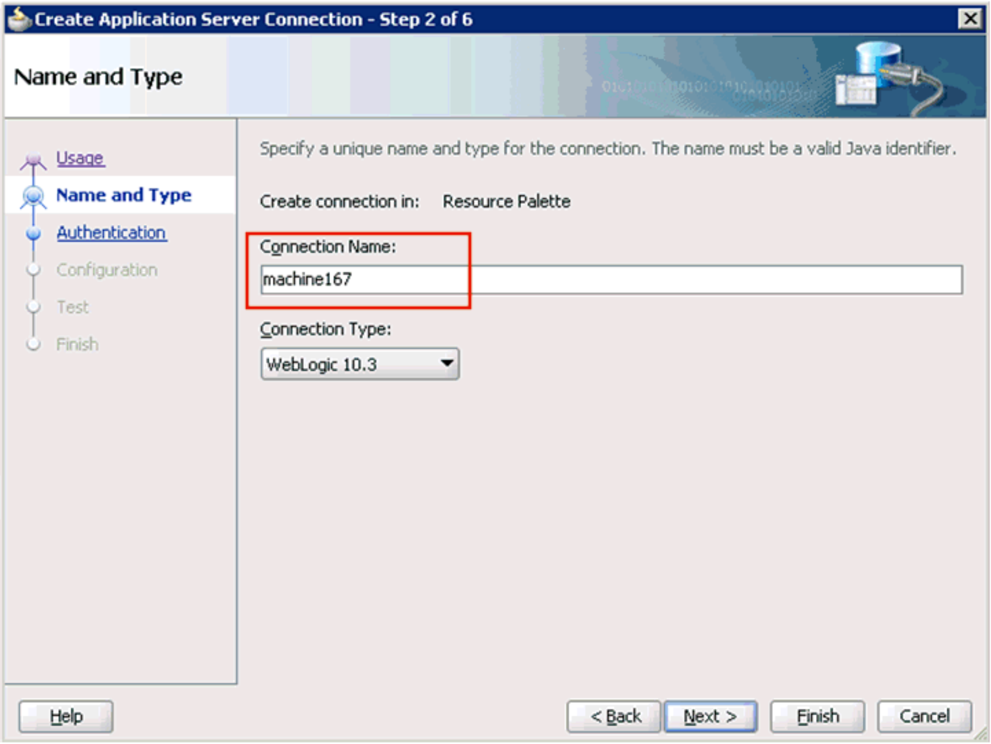
A standalone server is not started, stopped, nor configured by JDeveloper. An application must be manually deployed to a standalone server.

○ Integrated Server

An integrated server can be started and stopped by JDevloper. Applications can be automatically deployed to the server by the Run or Debug commands. Only WebLogic servers can be used in this way.

4. Accept the default selection (Standalone Server) and click **Next**.

   The Name and Type page is displayed.



Specify a unique name and type for the connection. The name must be a valid Java identifier.

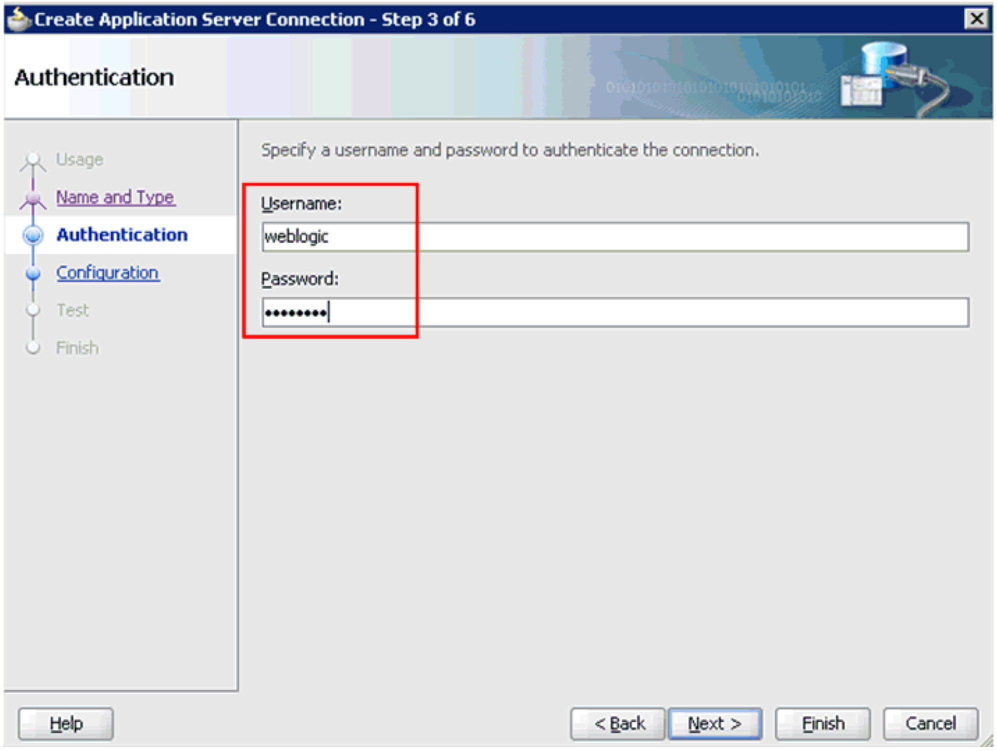
Create connection in: Resource Palette

Connection Name: machine167

Connection Type: WebLogic 10.3

5. Specify a new name for the Application Server connection and click **Next**.

   The Authentication page is displayed.



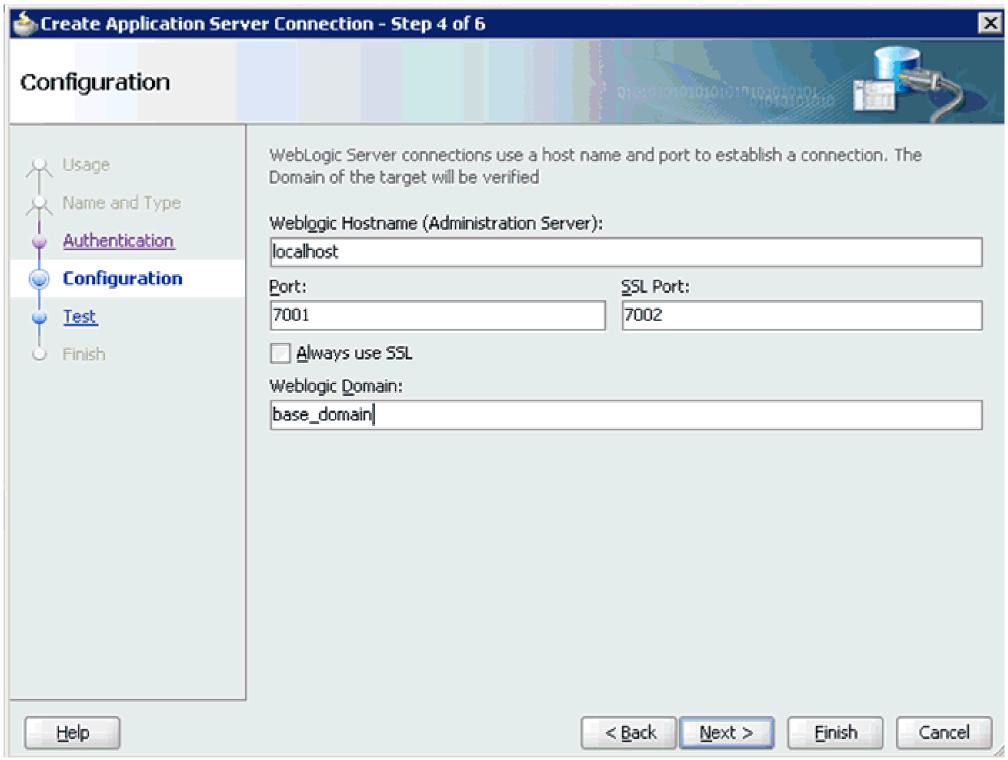
Specify a username and password to authenticate the connection.

Username: weblogic

Password: ••••••••

6. Specify a valid user name (for example, weblogic) and a password (for example, welcome1) for your new connection.
7. Click **Next**.

   The Configuration page is displayed.



WebLogic Server connections use a host name and port to establish a connection. The Domain of the target will be verified

Weblogic Hostname (Administration Server): localhost

Port: 7001

SSL Port: 7002

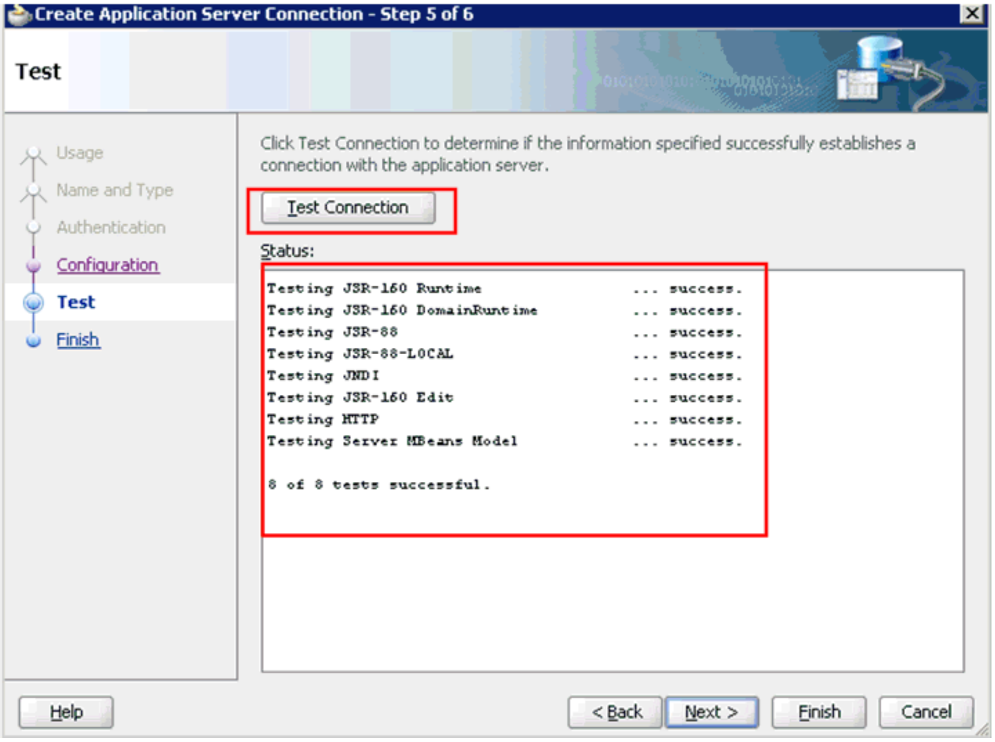
☐ Always use SSL

Weblogic Domain: base_domain

8. Specify the Oracle WebLogic host name (for example, localhost), which is the machine IP where the process needs to deploy and Oracle WebLogic domain (for example, base_domain).

9. Click **Next**.

   The Test page is displayed.



Click Test Connection to determine if the information specified successfully establishes a connection with the application server.

Status:

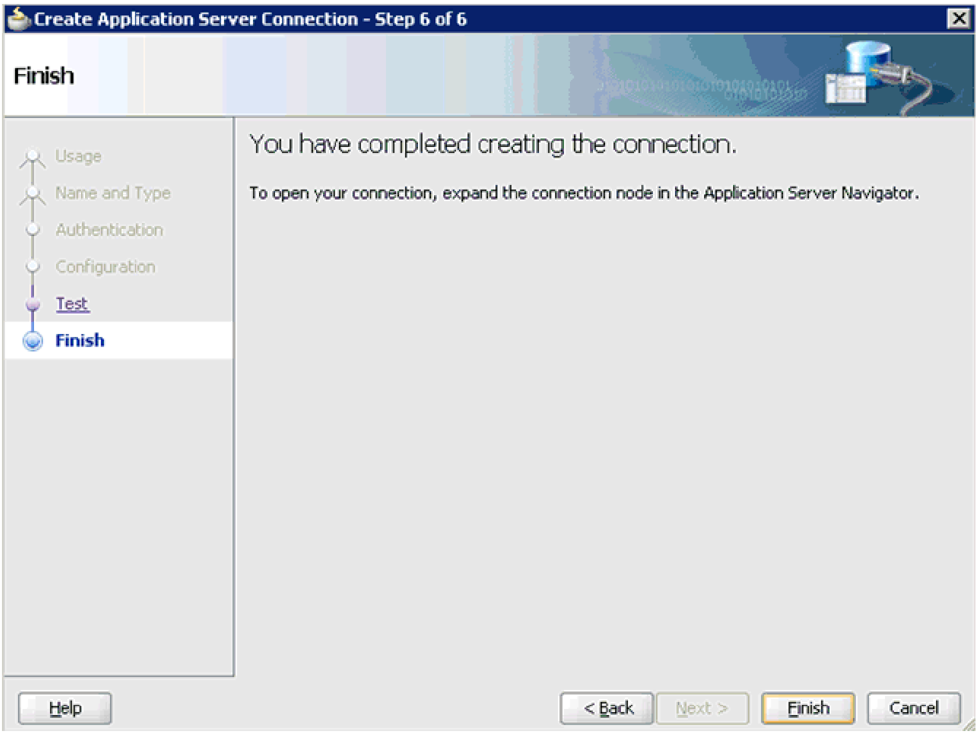
```
Testing JSR-160 Runtime                     ... success.
Testing JSR-160 DomainRuntime               ... success.
Testing JSR-88                              ... success.
Testing JSR-88-LOCAL                        ... success.
Testing JNDI                                ... success.
Testing JSR-160 Edit                        ... success.
Testing HTTP                                ... success.
Testing Server MBeans Model                 ... success.

8 of 8 tests successful.
```

10. Click **Test Connection**.

11. Ensure that the test status is successful.

12. Click **Next**.

    The Finish page is displayed.

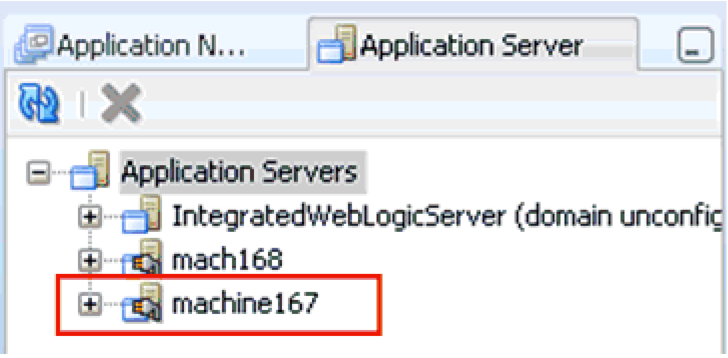


You have completed creating the connection.

To open your connection, expand the connection node in the Application Server Navigator.

13. Click **Finish**.

    The new Application Server connection is listed in the left pane (Application Server tab), as shown in the following image.



5.2 Configuring a Mediator Outbound Process

The following example describes how to configure a Mediator outbound process to your Siebel system, using a Mediator project in Oracle JDeveloper.

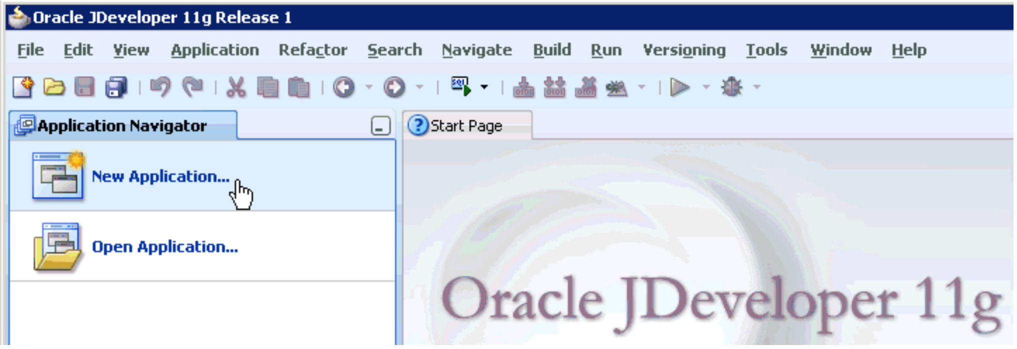
Prerequisites

Before you design a Mediator outbound process, you must generate the respective WSDL file using Application Explorer. See "Siebel Service Integration" on page 4-7 for more information.

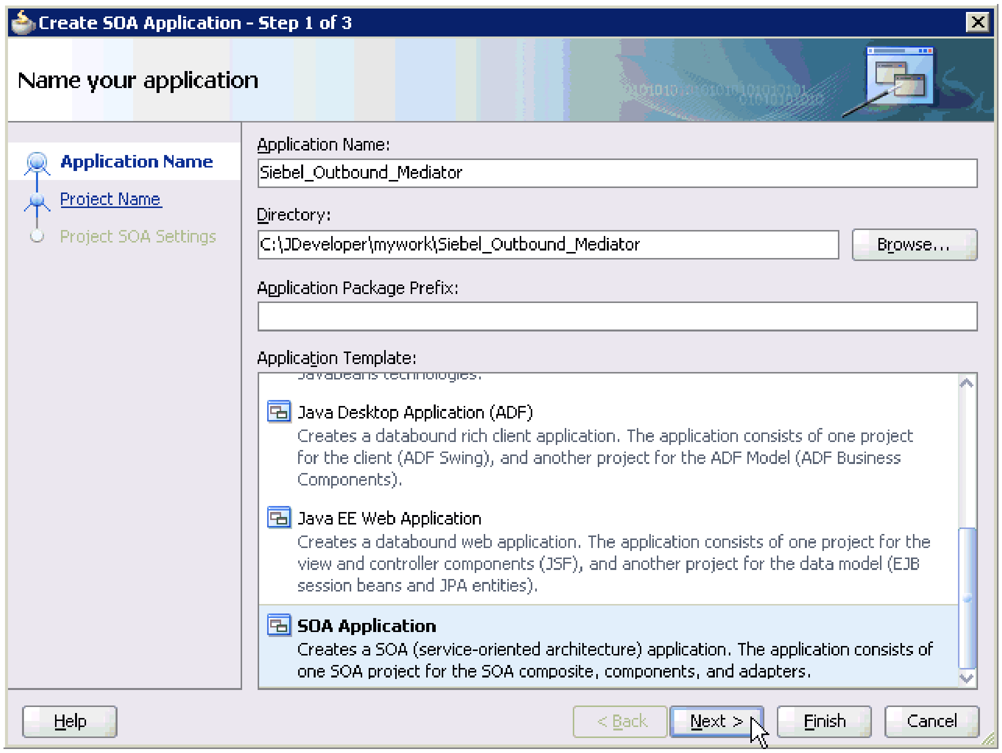
5.2.1 Creating a New SOA Application for the Outbound Mediator Process

Perform the following steps to create a new SOA application for the outbound Mediator process:

1. Open Oracle JDeveloper on your system.
2. In the Application Navigator tab, click **New Application**.


Oracle JDeveloper 11g Release 1
File Edit View Application Refactor Search Navigate Build Run Versioning Tools Window Help
Application Navigator
Start Page
New Application...
Open Application...
Oracle JDeveloper 11g

The Create SOA Application wizard - Name your application page is displayed.



Application Name: Siebel_Outbound_Mediator

Directory: C:\JDeveloper\mywork\Siebel_Outbound_Mediator

Application Package Prefix:

Application Template:

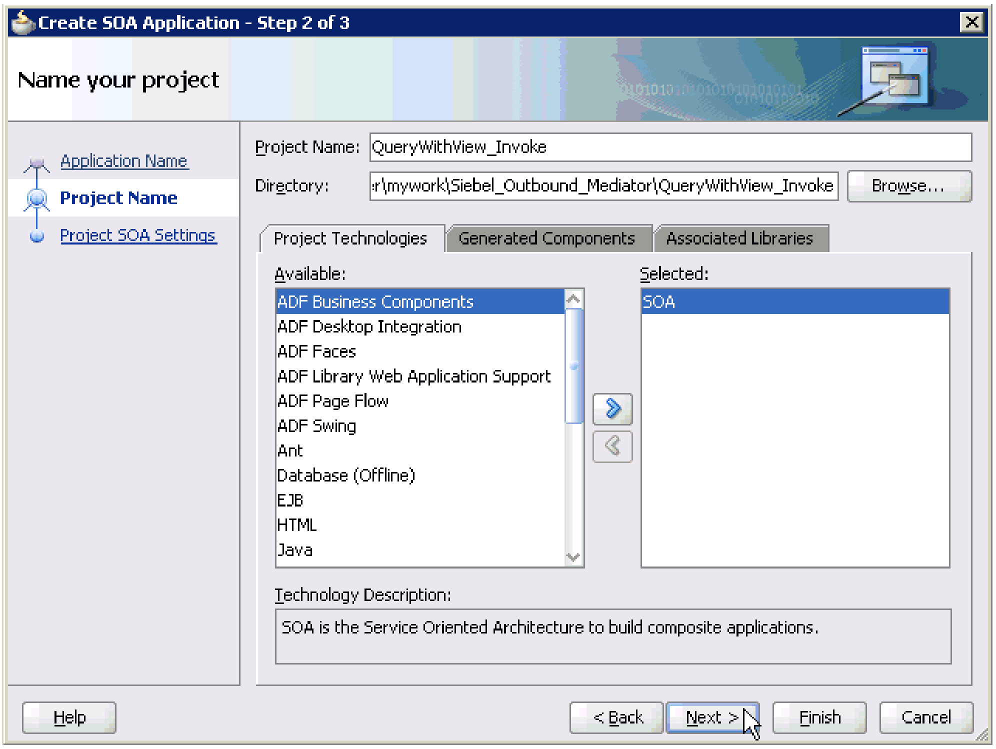
Java Desktop Application (ADF)
Creates a databound rich client application. The application consists of one project for the client (ADF Swing), and another project for the ADF Model (ADF Business Components).

Java EE Web Application
Creates a databound web application. The application consists of one project for the view and controller components (JSF), and another project for the data model (EJB session beans and JPA entities).

SOA Application
Creates a SOA (service-oriented architecture) application. The application consists of one SOA project for the SOA composite, components, and adapters.

3. From the Application Template list, click **SOA Application**.
4. Enter name for the new SOA application (for example, Siebel_Outbound_Mediator) and click **Next**.

   The Name your project page is displayed.



Project Name: QueryWithView_Invoke

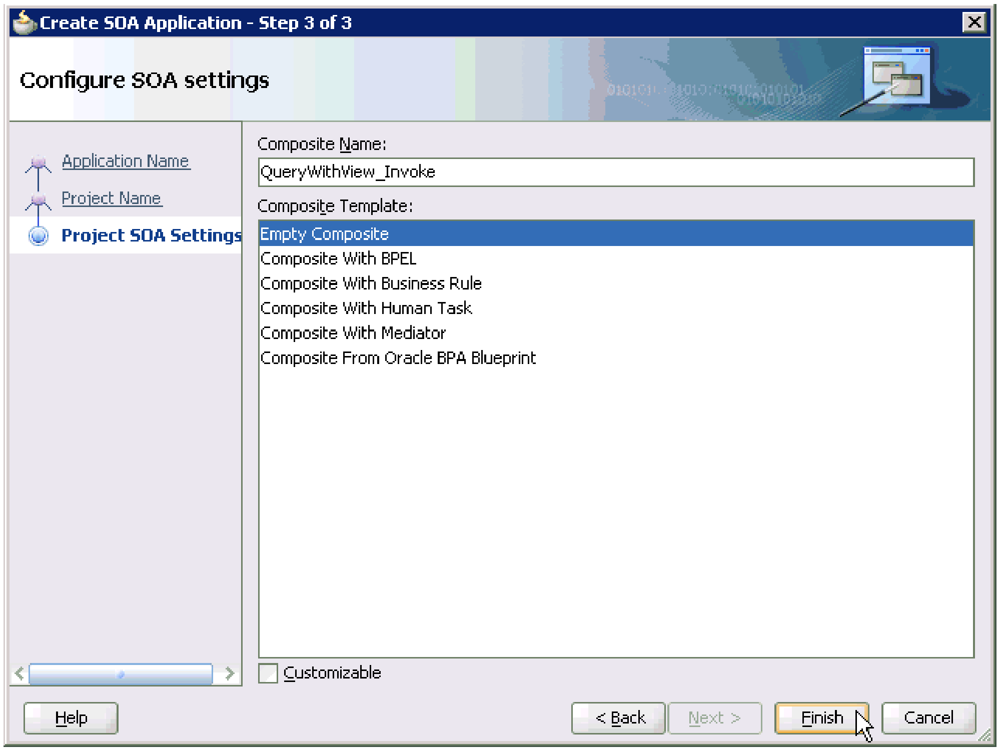
Directory: r\mywork\Siebel_Outbound_Mediator\QueryWithView_Invoke

Selected: SOA

Technology Description: SOA is the Service Oriented Architecture to build composite applications.

5. Enter a project name (for example, QueryWithView_Invoke) and click **Next**.

   The Configure SOA settings page is displayed.



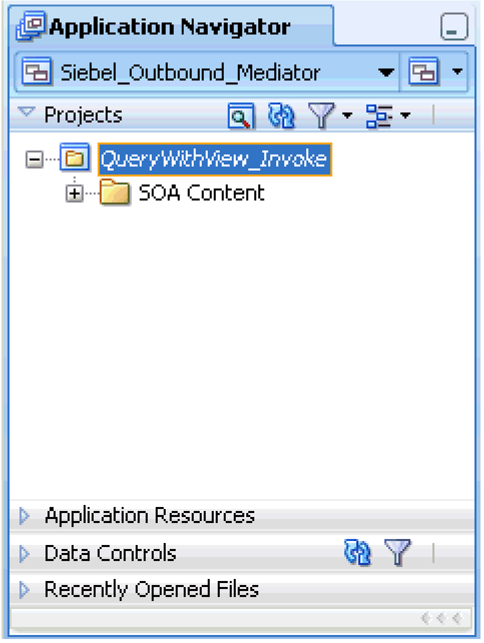
Composite Name: QueryWithView_Invoke

Composite Template: Empty Composite

□ Customizable

6. From the Composite Template list, select **Empty Composite** and click **Finish**.

The new SOA application (Siebel_Outbound_Mediator) and associated project (QueryWithView_Invoke) are added to the Application Navigator tab in the left pane.



5.2.2 Defining a Mediator Outbound Process

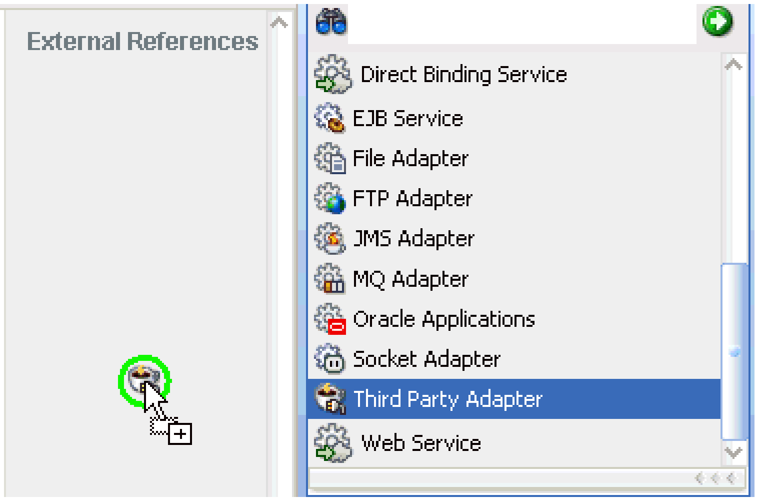
This section describes how to define a Mediator outbound process, which consists of the following stages:

1. Configuring a Third Party Adapter Service Component
2. Configuring an Outbound Mediator Process Component
3. Configuring the Routing Rules

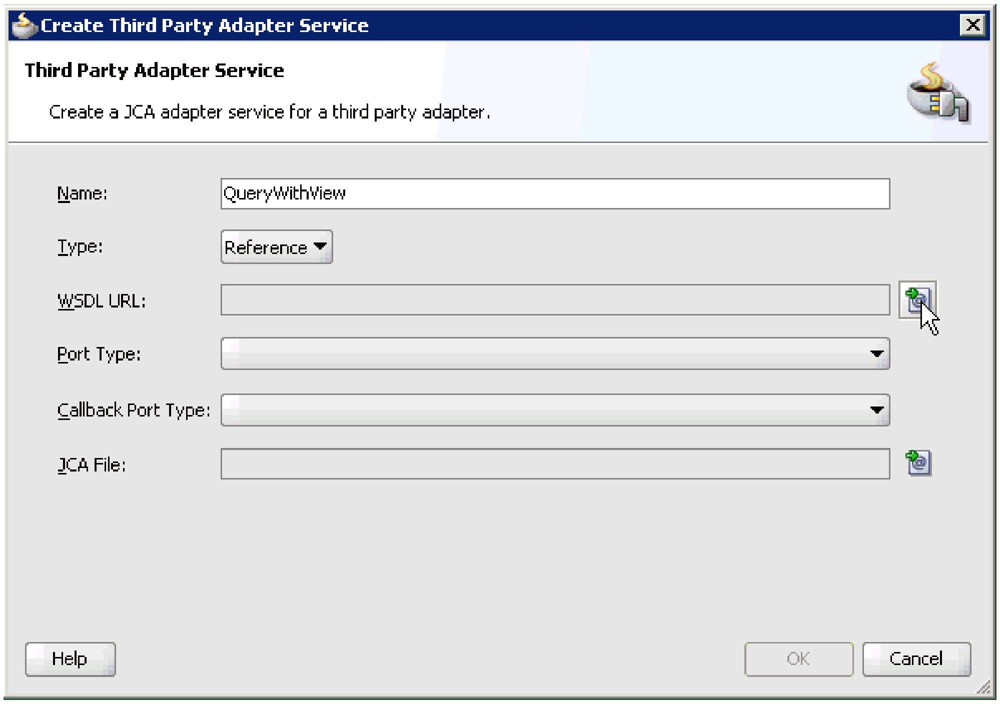
Configuring a Third Party Adapter Service Component

Perform the following steps to create a third party adapter service component:

1. Drag and drop the **Third Party Adapter** component from the Component Palette tab (Service Adapters section) to the External References pane.



The Create Third Party Adapter Service dialog is displayed.



Create Third Party Adapter Service

Third Party Adapter Service

Create a JCA adapter service for a third party adapter.

Name: QueryWithView

Type: Reference

WSDL URL:

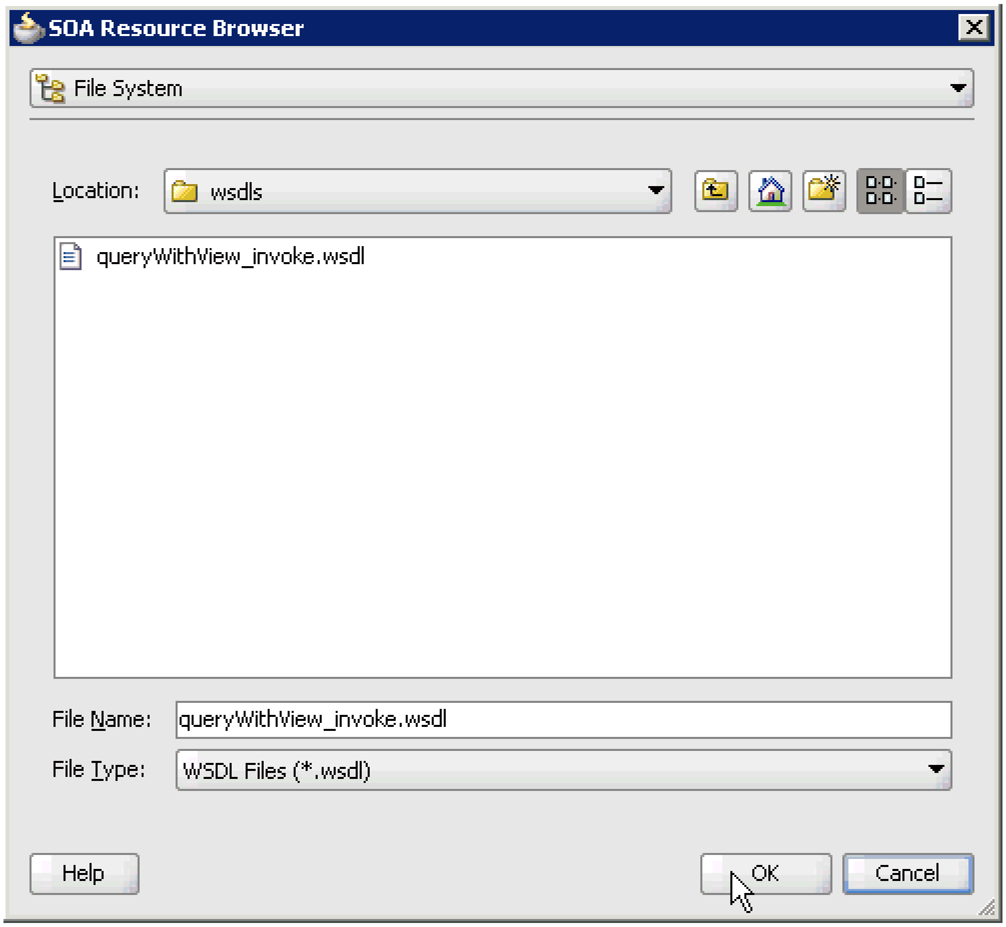
Port Type:

Callback Port Type:

JCA File:

2. Enter a name for the new third party adapter service.
3. Ensure that **Reference** is selected from the Type list (default).
4. Click the **Find existing WSDLs** icon, which is located to the right of the WSDL URL field.

   The SOA Resource Browser dialog is displayed.



SOA Resource Browser

File System

Location: wsdls

queryWithView_invoke.wsdl

File Name: queryWithView_invoke.wsdl

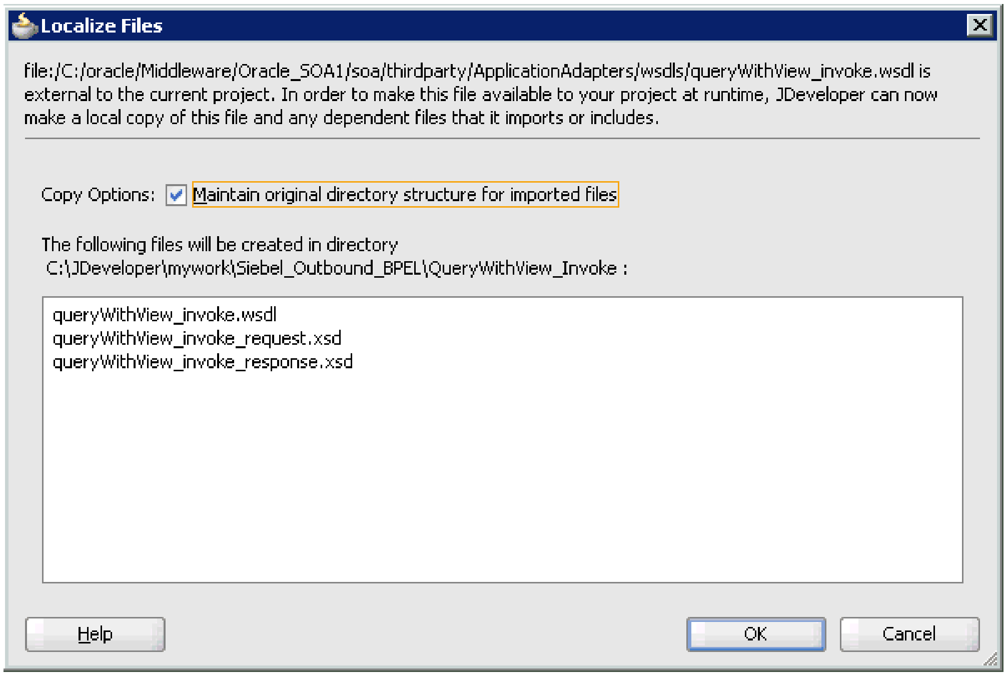
File Type: WSDL Files (*.wsdl)

5. Browse and select an outbound WSDL file from the following directory:

   `C:\oracle\Middleware\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\wsdls`

6. Click **OK**.

   The Localize Files dialog is displayed.



Localize Files

file:/C:/oracle/Middleware/Oracle_SOA1/soa/thirdparty/ApplicationAdapters/wsdls/queryWithView_invoke.wsdl is external to the current project. In order to make this file available to your project at runtime, JDeveloper can now make a local copy of this file and any dependent files that it imports or includes.

Copy Options: ☑ Maintain original directory structure for imported files

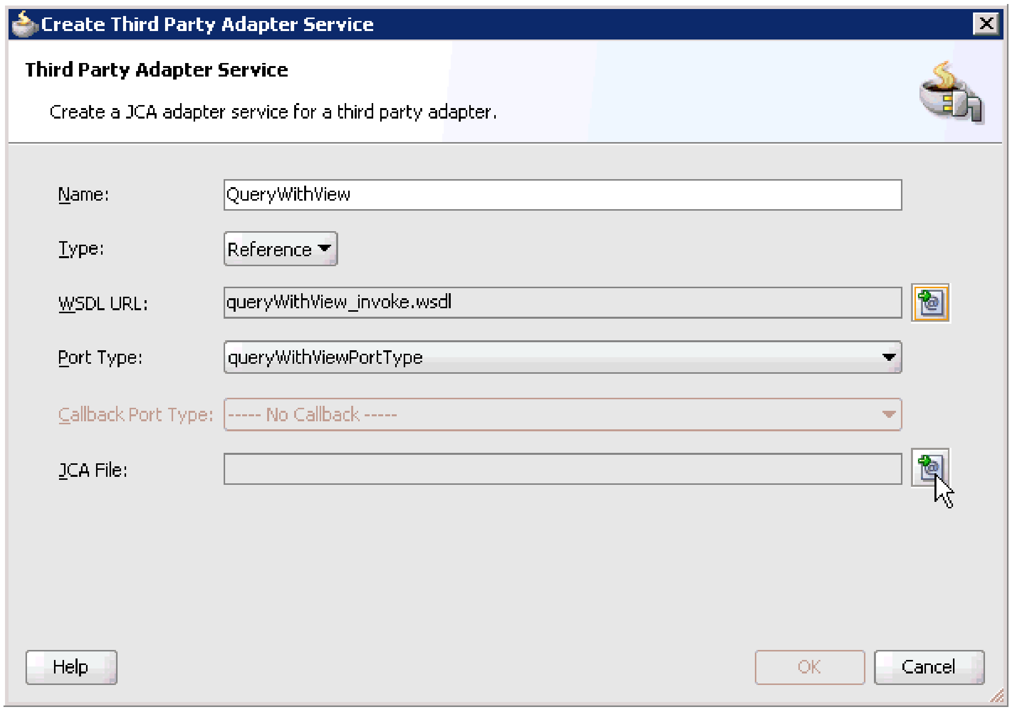
The following files will be created in directory
C:\JDeveloper\mywork\Siebel_Outbound_BPEL\QueryWithView_Invoke :

queryWithView_invoke.wsdl
queryWithView_invoke_request.xsd
queryWithView_invoke_response.xsd

7. Click **OK**.

   The outbound WSDL file and associated request and response XML schema files (.xsd) are imported to the project folder that has been created.

   You are returned to the Create Third Party Adapter Service dialog.



Create Third Party Adapter Service

Third Party Adapter Service

Create a JCA adapter service for a third party adapter.

Name: QueryWithView

Type: Reference

WSDL URL: queryWithView_invoke.wsdl

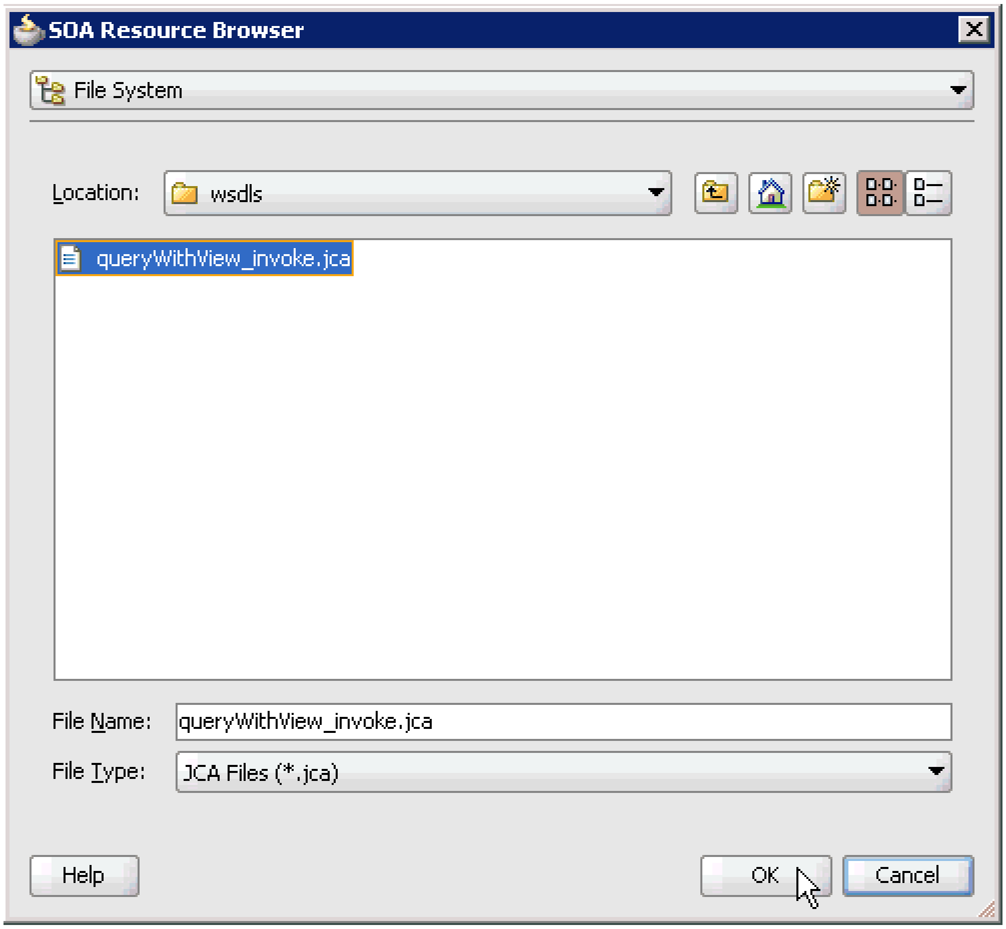
Port Type: queryWithViewPortType

Callback Port Type: ----- No Callback -----

JCA File:

8. Click the **Find JCA Files** icon, which is located to the right of the JCA File field.

   The SOA Resource Browser dialog is displayed.

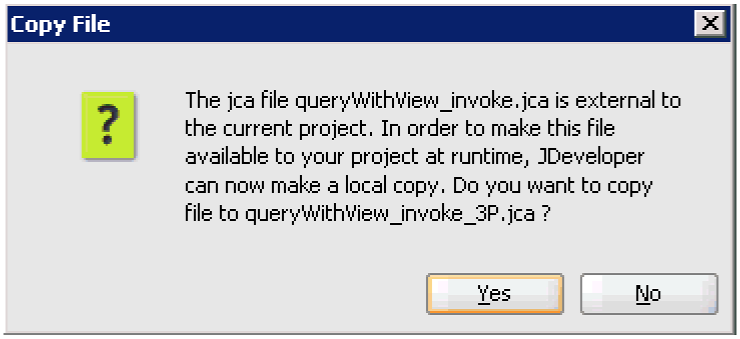


9. Browse and select the JCA properties file from the following directory:

   `C:\oracle\Middleware\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\wsdls`

10. Click **OK**.

    The following message is displayed.

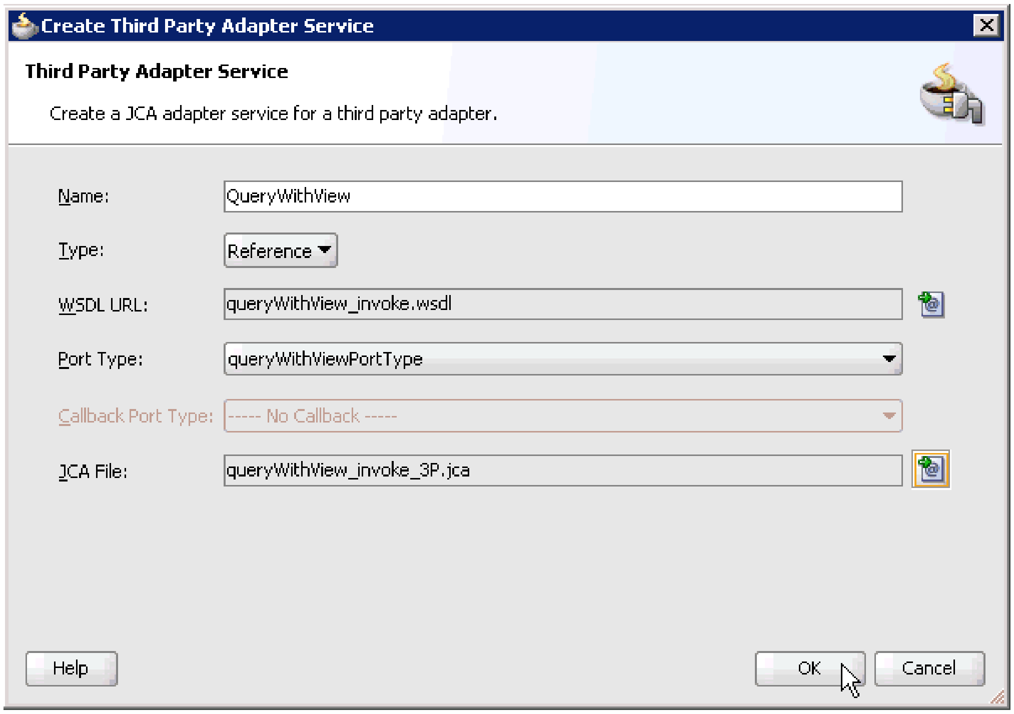


The jca file queryWithView_invoke.jca is external to the current project. In order to make this file available to your project at runtime, JDeveloper can now make a local copy. Do you want to copy file to queryWithView_invoke_3P.jca ?

11. Click **Yes**.

    A copy of the JCA properties file is made in the project folder.

    You are returned to the Create Third Party Adapter Service dialog.



Create Third Party Adapter Service

Third Party Adapter Service

Create a JCA adapter service for a third party adapter.

Name: QueryWithView

Type: Reference

WSDL URL: queryWithView_invoke.wsdl

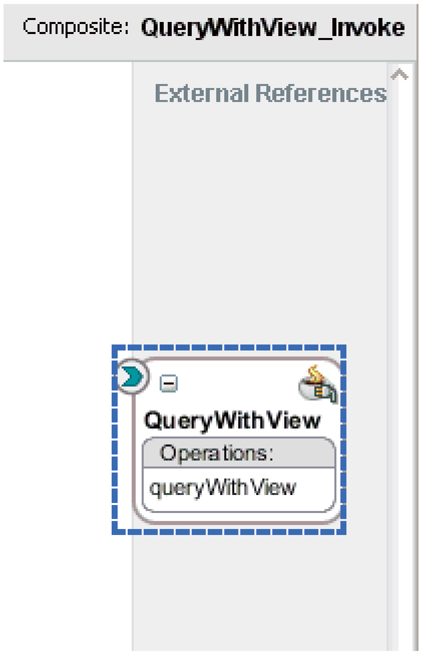
Port Type: queryWithViewPortType

Callback Port Type: ----- No Callback -----

JCA File: queryWithView_invoke_3P.jca

12. Click **OK**.

    The third party adapter service component (GetDetail) is created in the External References pane, as shown in the following image.

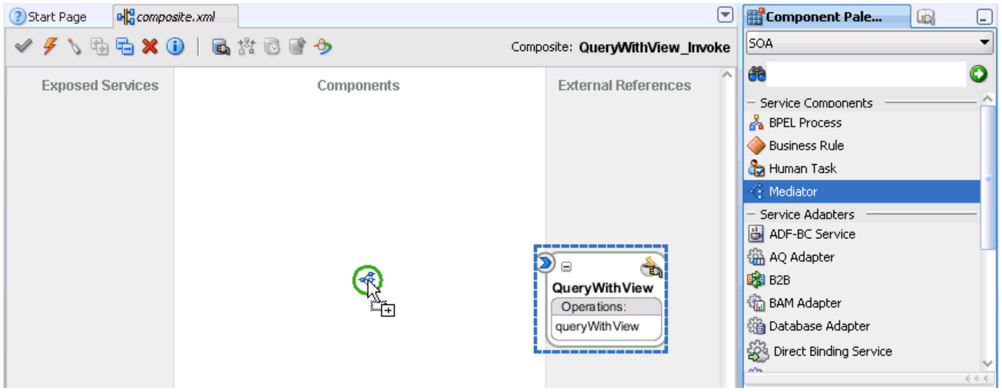


You are now ready to configure an outbound Mediator process component.

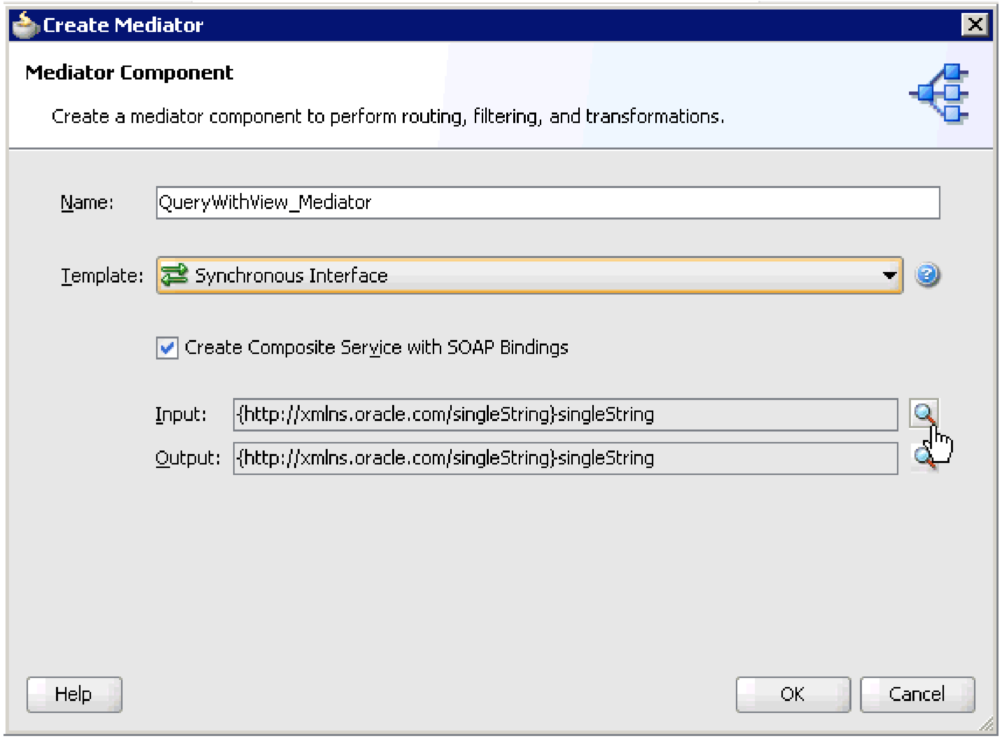
Configuring an Outbound Mediator Process Component

Perform the following steps to configure an outbound Mediator process component:

1. Drag and drop the **Mediator** component from the Component Palette tab (Service Components section) to the Components pane.



The Create Mediator dialog is displayed.


Create Mediator

Mediator Component

Create a mediator component to perform routing, filtering, and transformations.

Name: QueryWithView_Mediator

Template: Synchronous Interface

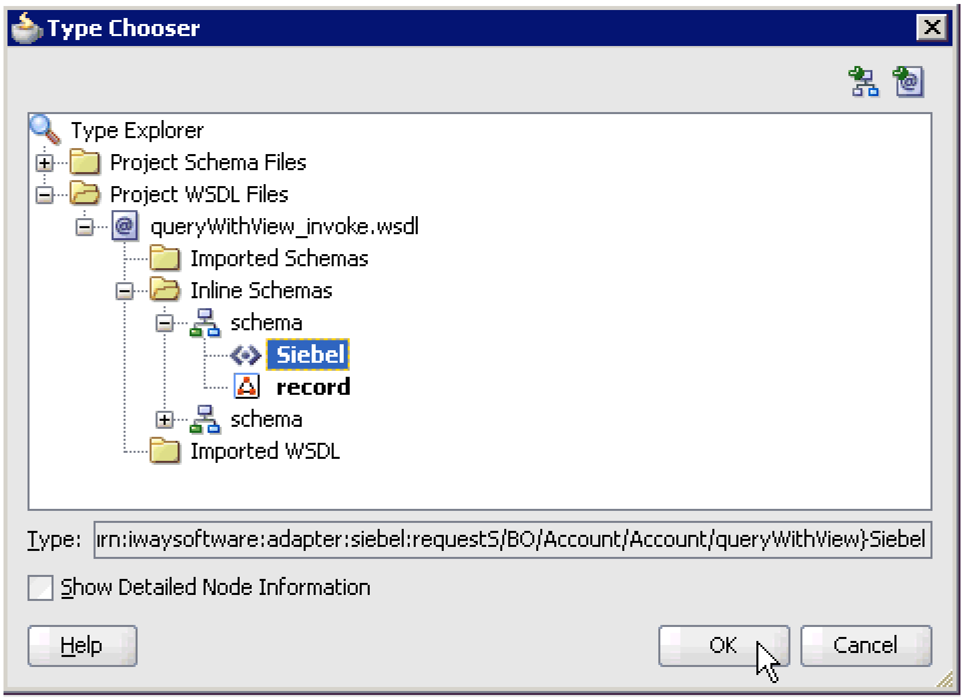
☑ Create Composite Service with SOAP Bindings

Input: {http://xmlns.oracle.com/singleString}singleString

Output: {http://xmlns.oracle.com/singleString}singleString

2. In the Name field, enter a name to identify the new outbound Mediator process component (for example, QueryWithView_Mediator).
3. From the Template list, select **Synchronous Interface**.
4. Click the **Browse Input Elements** icon, which is located to the right of the Input field to select the associated XML request schema file.

   The Type Chooser dialog is displayed.



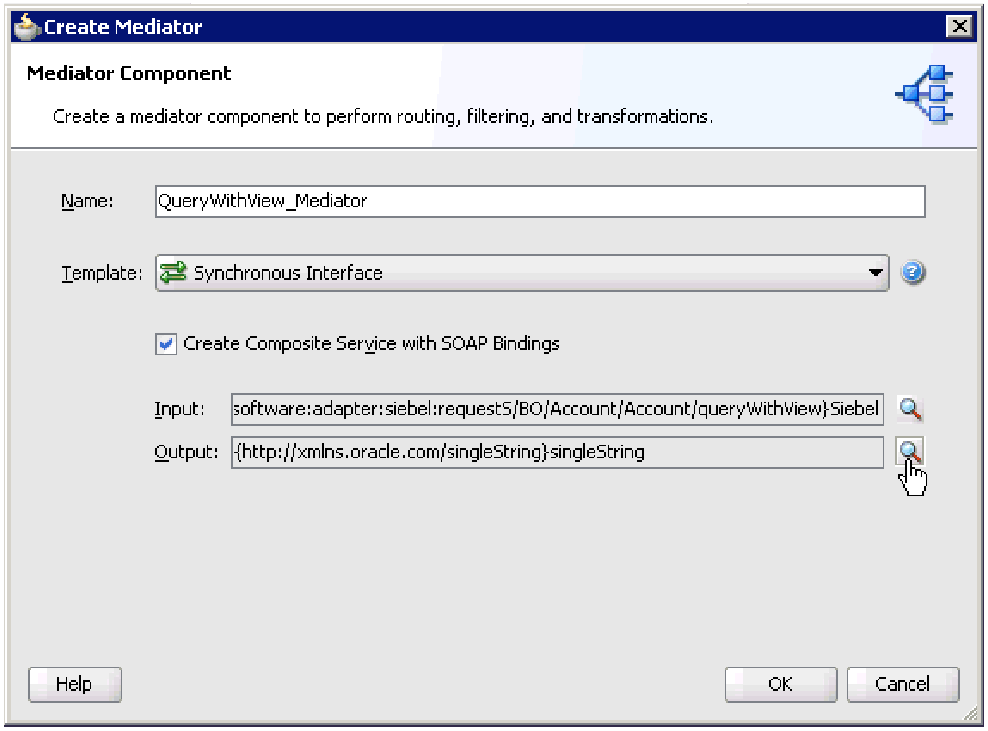
Type: ırn:iwaysoftware:adapter:siebel:requestS/BO/Account/Account/queryWithView}Siebel

□ Show Detailed Node Information

5. Expand **Project WSDL Files**, **queryWithView_invoke.wsdl**, **Inline Schemas**, **schema**, and select **Siebel**.

6. Click **OK**.

   You are returned to the Create Mediator dialog.


Create Mediator
Mediator Component
Create a mediator component to perform routing, filtering, and transformations.
Help
OK
Cancel

Name: QueryWithView_Mediator

Template: Synchronous Interface

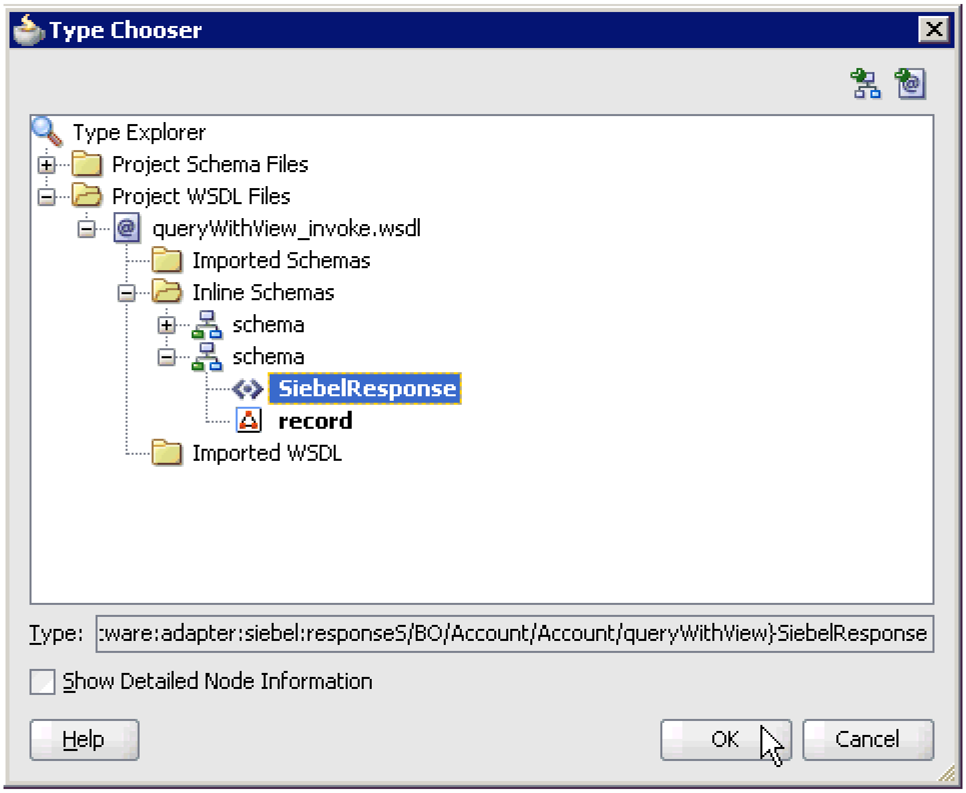
☑ Create Composite Service with SOAP Bindings

Input: software:adapter:siebel:requestS/BO/Account/Account/queryWithView}Siebel

Output: {http://xmlns.oracle.com/singleString}singleString

7. Click the **Browse Output Elements** icon, which is located to the right of the Output field to select the associated XML response schema file.

The Type Chooser dialog is displayed.



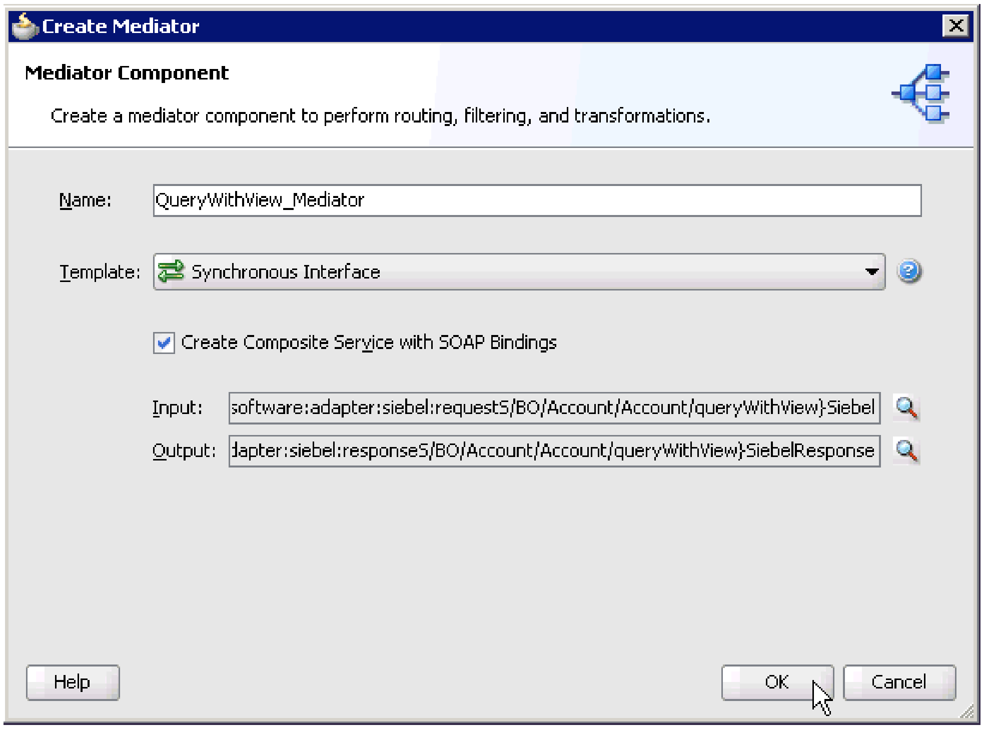
Type: :ware:adapter:siebel:responseS/BO/Account/Account/queryWithView}SiebelResponse

□ Show Detailed Node Information

8. Expand **Project WSDL Files**, **queryWithView_invoke.wsdl**, **Inline Schemas**, **schema**, and select **SiebelResponse**.

9. Click **OK**.

   You are returned to the Create Mediator dialog.



Create Mediator

Mediator Component

Create a mediator component to perform routing, filtering, and transformations.

Name: QueryWithView_Mediator

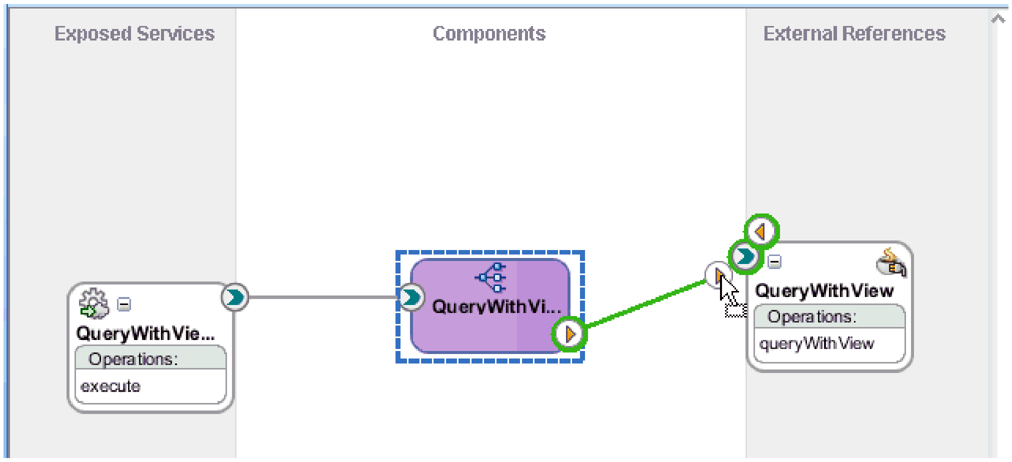
Template: Synchronous Interface

☑ Create Composite Service with SOAP Bindings

Input: software:adapter:siebel:requestS/BO/Account/Account/queryWithView}Siebel

Output: dapter:siebel:responseS/BO/Account/Account/queryWithView}SiebelResponse

10. Click **OK**.
11. Create a connection between the outbound Mediator process component (QueryWithView_ Mediator) and the third party adapter service component (QueryWithView).

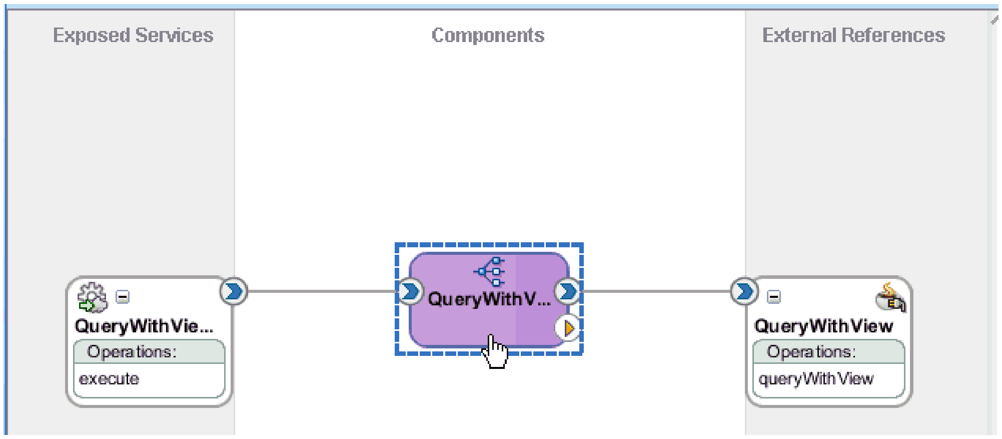


You are now ready to configure the routing rules.

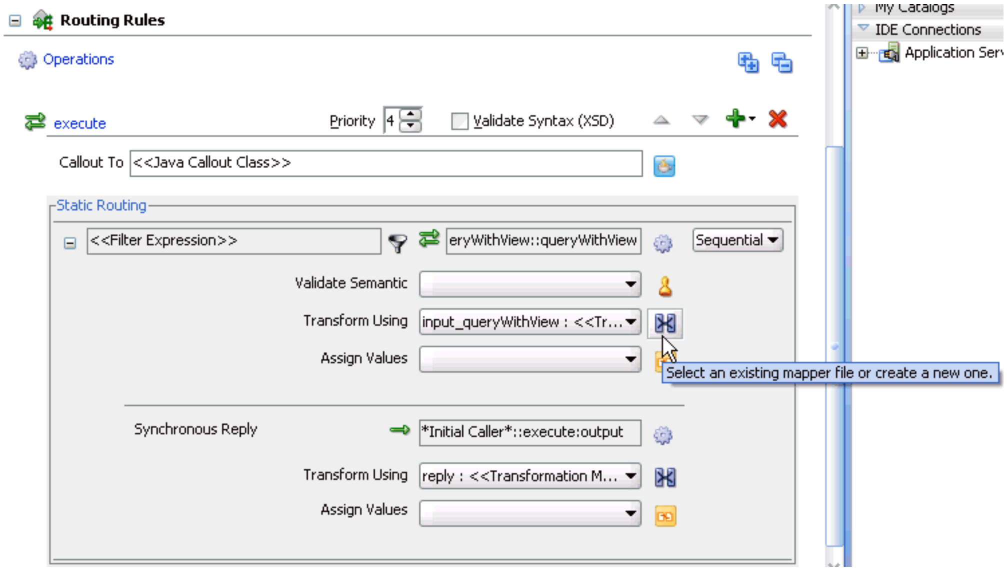
Configuring the Routing Rules

Perform the following steps to configure routing rules for the Mediator outbound process component:

1. Double-click the outbound Mediator process component (QueryWithView_ Mediator) in the Components pane.



The Routing Rules dialog is displayed.



Routing Rules

Operations

execute   Priority 4   □ Validate Syntax (XSD)

Callout To <<Java Callout Class>>

Static Routing

<<Filter Expression>>   eryWithView::queryWithView   Sequential

Validate Semantic

Transform Using input_queryWithView : <<Tr...

Assign Values

Select an existing mapper file or create a new one.

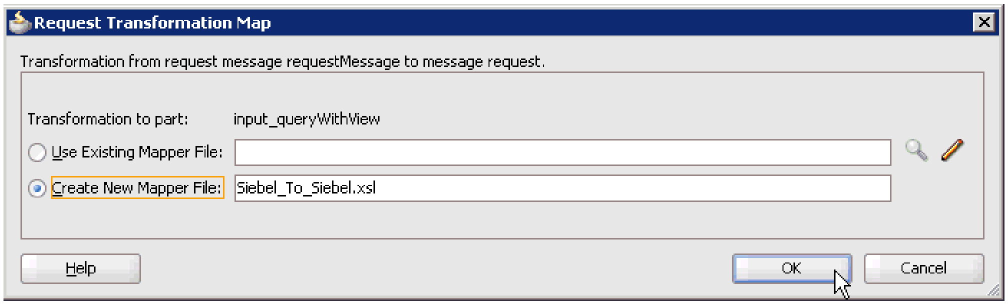
Synchronous Reply   *Initial Caller*::execute:output

Transform Using reply : <<Transformation M...

Assign Values

2. In the <<Filter Expression>> area, click the **Select an existing mapper file or create a new one** icon to the right of the Transform Using field.

   The Request Transformation Map dialog is displayed.



Request Transformation Map

Transformation from request message requestMessage to message request.

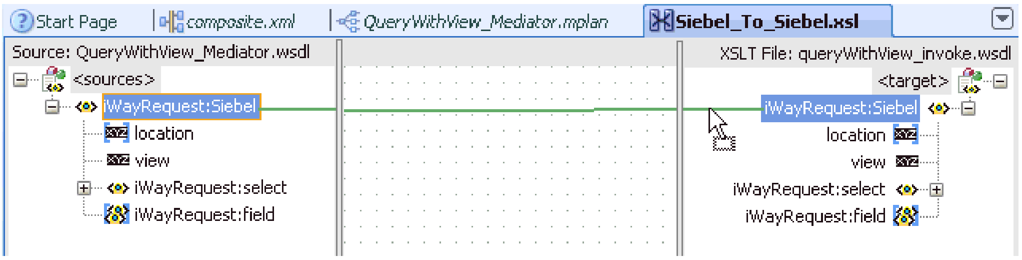
Transformation to part: input_queryWithView

○ Use Existing Mapper File:

● Create New Mapper File: Siebel_To_Siebel.xsl

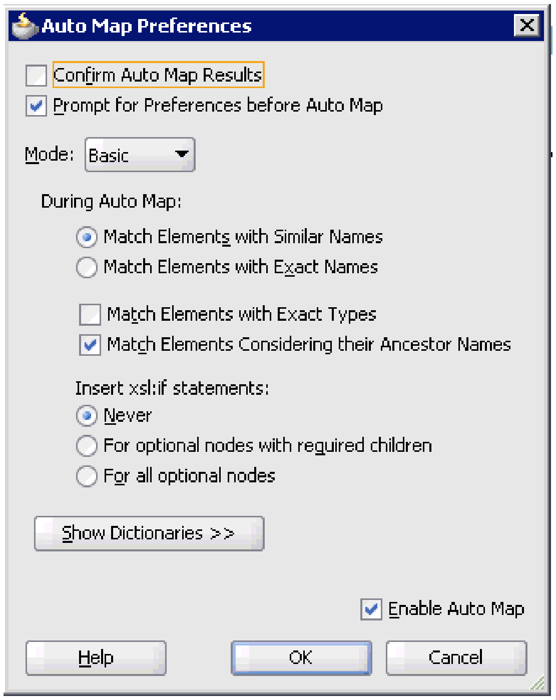
3. Select the **Create New Mapper File** option and click **OK**.

   The Siebel_To_Siebel.xsl tab is displayed.



4. Map the **iWayRequest:Siebel** source element to the **iWayRequest:Siebel** target element.

   The Auto Map Preferences dialog is displayed.



Auto Map Preferences

□ Confirm Auto Map Results

☑ Prompt for Preferences before Auto Map

Mode: Basic

During Auto Map:

● Match Elements with Similar Names

○ Match Elements with Exact Names

□ Match Elements with Exact Types

☑ Match Elements Considering their Ancestor Names

Insert xsl:if statements:

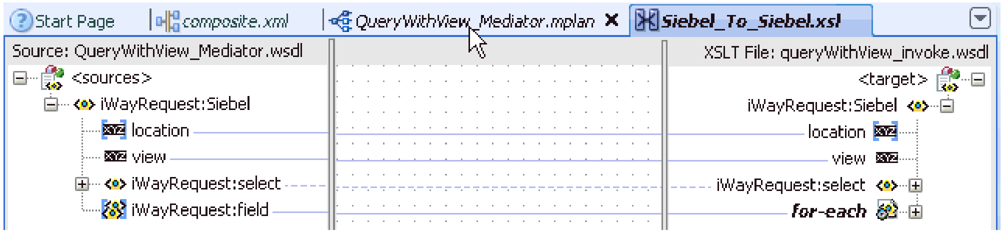
● Never

○ For optional nodes with required children

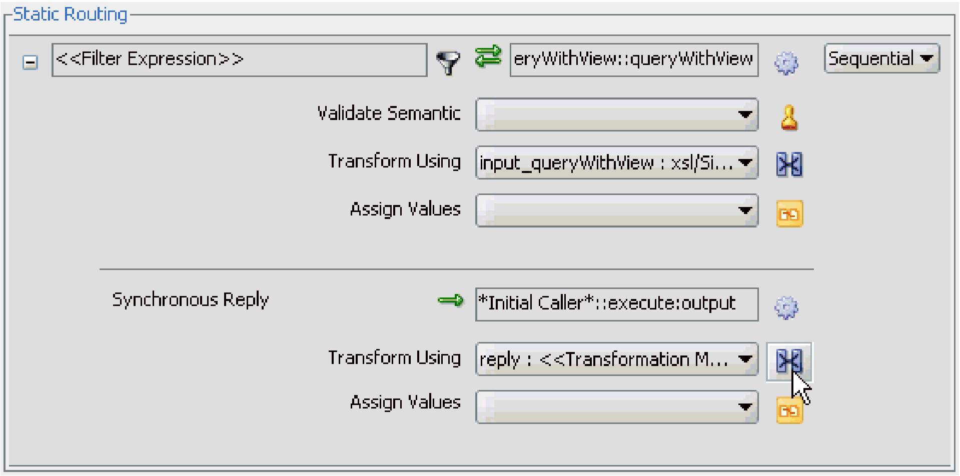
○ For all optional nodes

☑ Enable Auto Map

5. Retain the default values and click **OK**.
6. Click the **QueryWithView_Mediator.mplan** tab.



   You are returned to the Routing Rules dialog.


Static Routing

<<Filter Expression>> eryWithView::queryWithView Sequential

Validate Semantic:

Transform Using: input_queryWithView : xsl/Si...

Assign Values:

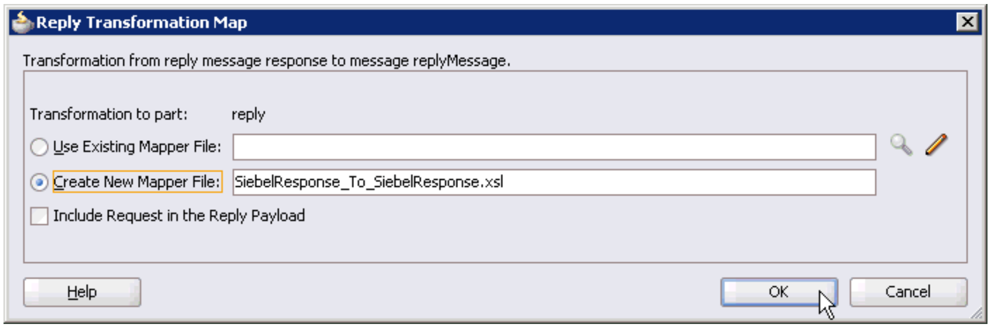
Synchronous Reply: *Initial Caller*::execute:output

Transform Using: reply : <<Transformation M...

Assign Values:

7. In the Synchronous Reply area, click the **Select an existing mapper file or create a new one** icon to the right of the Transform Using field.

   The Reply Transformation Map dialog is displayed.


Reply Transformation Map

Transformation from reply message response to message replyMessage.

Transformation to part: reply

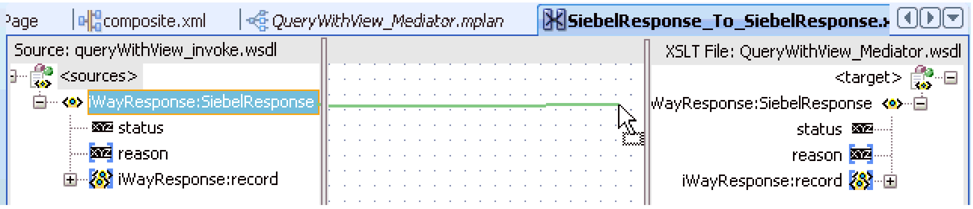
○ Use Existing Mapper File:

● Create New Mapper File: SiebelResponse_To_SiebelResponse.xsl

□ Include Request in the Reply Payload

8. Select the **Create New Mapper File** option and click **OK**.

   The SiebelResponse_To_SiebelResponse.xsl tab is displayed.


Page
composite.xml
QueryWithView_Mediator.mplan
SiebelResponse_To_SiebelResponse.x

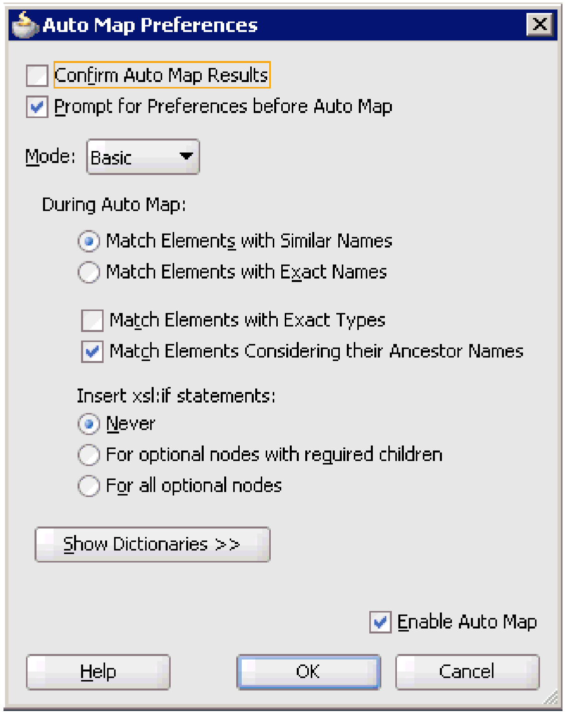
Source: queryWithView_invoke.wsdl

XSLT File: QueryWithView_Mediator.wsdl

<sources>
iWayResponse:SiebelResponse
status
reason
iWayResponse:record
<target>
iWayResponse:SiebelResponse
status
reason
iWayResponse:record

9. Map the **iWayResponse:SiebelResponse** source element to the **iWayResponse:SiebelResponse** target element.

   The Auto Map Preferences dialog is displayed.



Auto Map Preferences

□ Confirm Auto Map Results

☑ Prompt for Preferences before Auto Map

Mode: Basic

During Auto Map:

● Match Elements with Similar Names

○ Match Elements with Exact Names

□ Match Elements with Exact Types

☑ Match Elements Considering their Ancestor Names

Insert xsl:if statements:

● Never

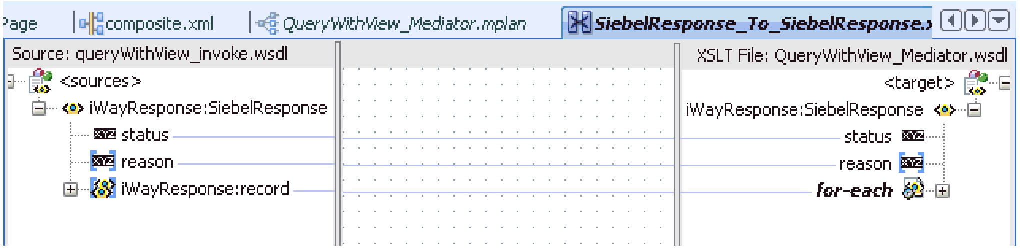
○ For optional nodes with required children

○ For all optional nodes

☑ Enable Auto Map

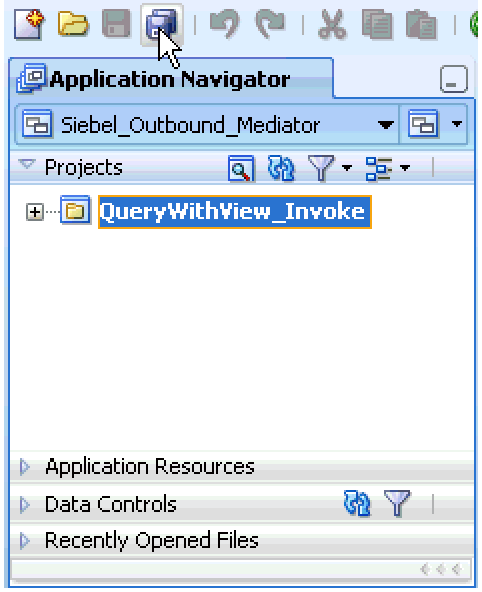
10. Retain the default values and click **OK**.

    The mapping is complete, as shown in the following image.



Page
composite.xml
QueryWithView_Mediator.mplan
SiebelResponse_To_SiebelResponse.x
Source: queryWithView_invoke.wsdl
<sources>
iWayResponse:SiebelResponse
status
reason
iWayResponse:record
XSLT File: QueryWithView_Mediator.wsdl
<target>
iWayResponse:SiebelResponse
status
reason
for-each

11. Click the **Save All** icon in the menu bar to save the new outbound Mediator process component that was configured.

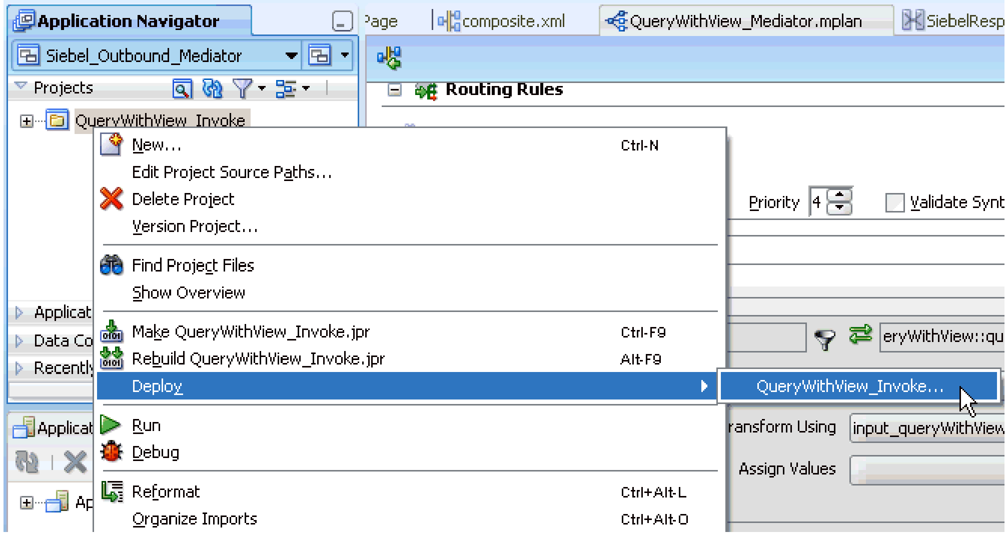


You are now ready to deploy the Mediator outbound process.

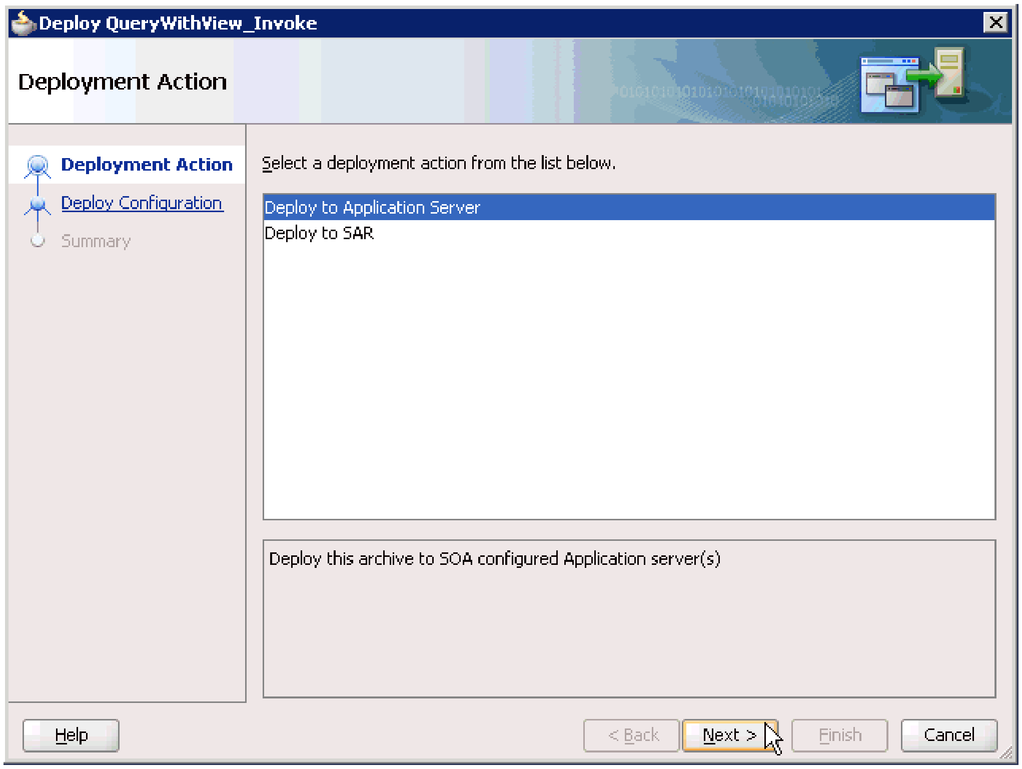
5.2.3 Deploying the Mediator Outbound Process

Perform the following steps to deploy the Mediator outbound process.

1. Right-click the project name in the left pane (for example, **QueryWithView_Invoke**), select **Deploy**, and then click **QueryWithView_Invoke**.



The Deployment Action dialog is displayed.



Deploy QueryWithView_Invoke

Deployment Action

Select a deployment action from the list below.

Deploy to Application Server

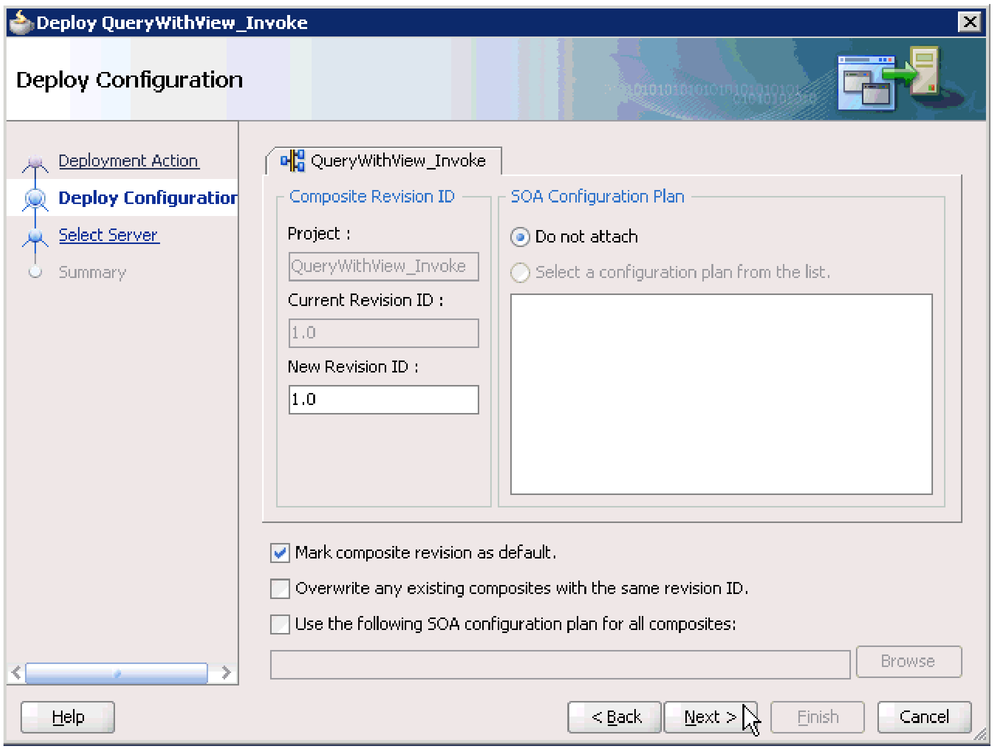
Deploy to SAR

Deploy this archive to SOA configured Application server(s)

2. Ensure that **Deploy to Application Server** is selected.

3. Click **Next**.

   The Deploy Configuration dialog is displayed.



Deploy QueryWithView_Invoke

Deploy Configuration

QueryWithView_Invoke

Composite Revision ID

Project : QueryWithView_Invoke

Current Revision ID : 1.0

New Revision ID : 1.0

SOA Configuration Plan

● Do not attach

○ Select a configuration plan from the list.

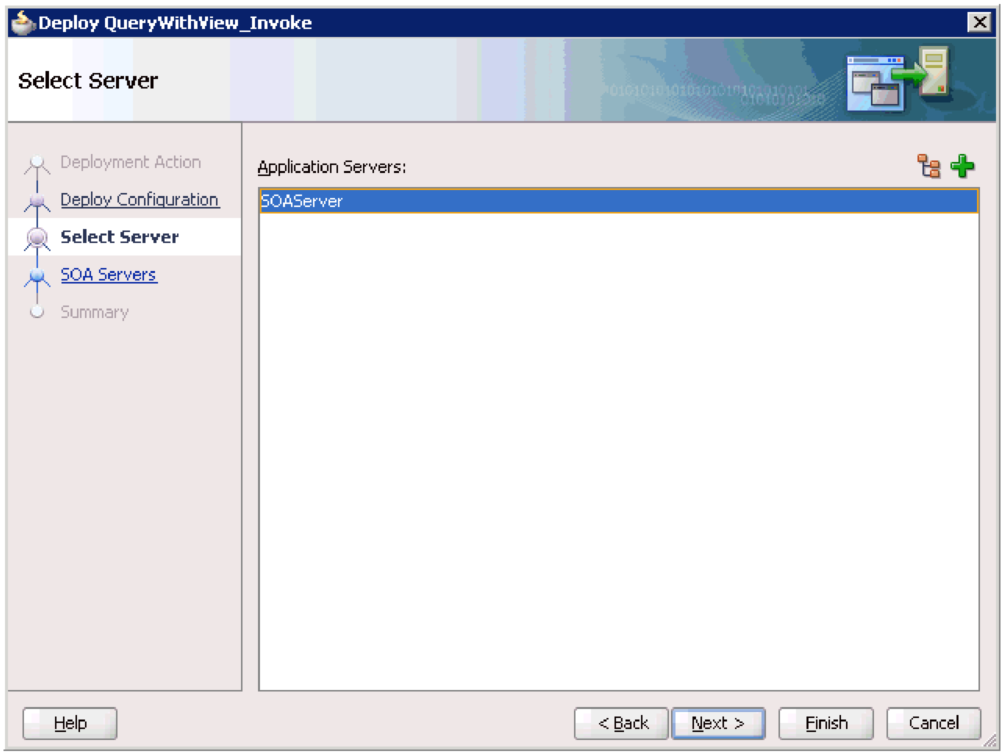
☑ Mark composite revision as default.

□ Overwrite any existing composites with the same revision ID.

□ Use the following SOA configuration plan for all composites:

4. Leave the default values selected and click **Next**.

The Select Server dialog is displayed.

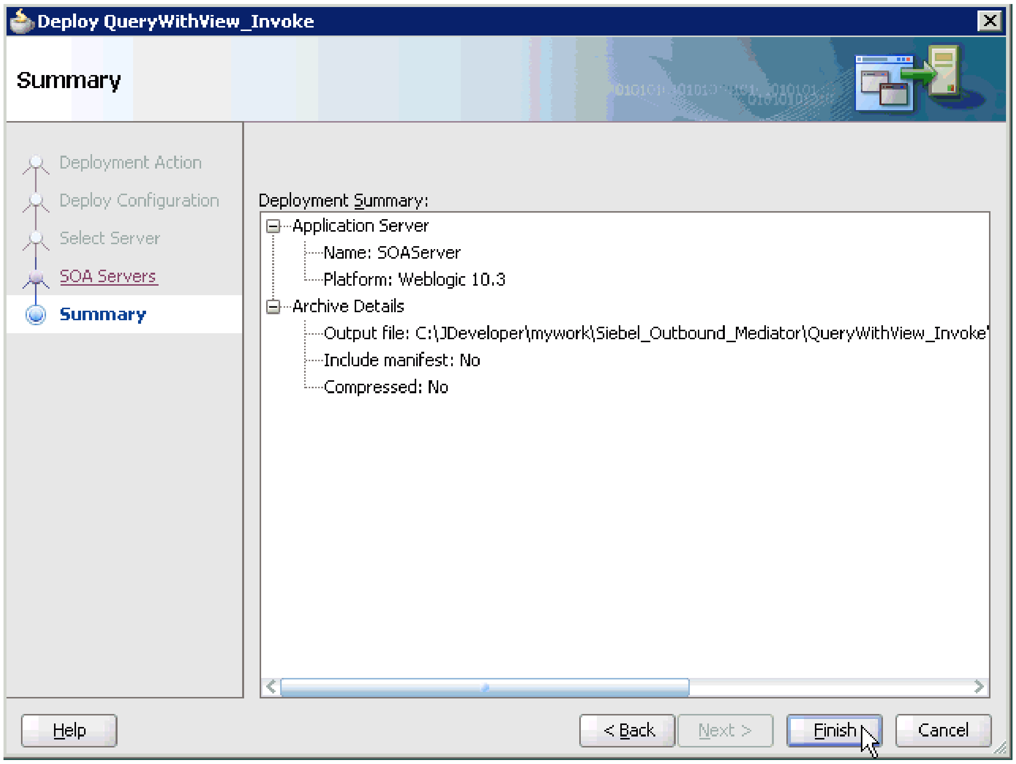


5. Select an available application server that was configured and click **Next**.

   The SOA Servers dialog is displayed.

6. Select a target SOA server and click **Next**.

   The Summary dialog is displayed.

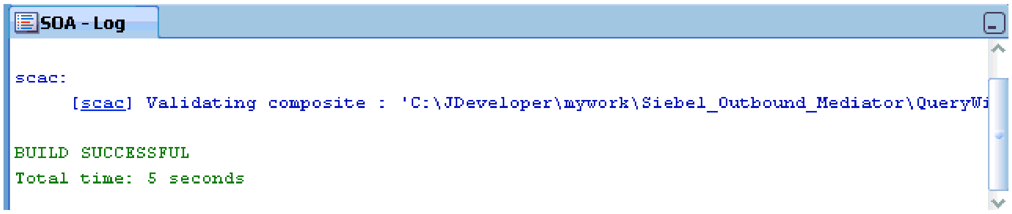


Deployment Summary:

```
Application Server
    Name: SOAServer
    Platform: Weblogic 10.3
Archive Details
    Output file: C:\JDeveloper\mywork\Siebel_Outbound_Mediator\QueryWithView_Invoke'
    Include manifest: No
    Compressed: No
```

7. Review and verify all the available deployment information for your project and click **Finish**.

   The process is deployed successfully.



```
scac:
    [scac] Validating composite : 'C:\JDeveloper\mywork\Siebel_Outbound_Mediator\QueryWi

BUILD SUCCESSFUL
Total time: 5 seconds
```

   If an Authorization Request dialog is displayed during the deployment process, provide the required user name and password and click **OK**.

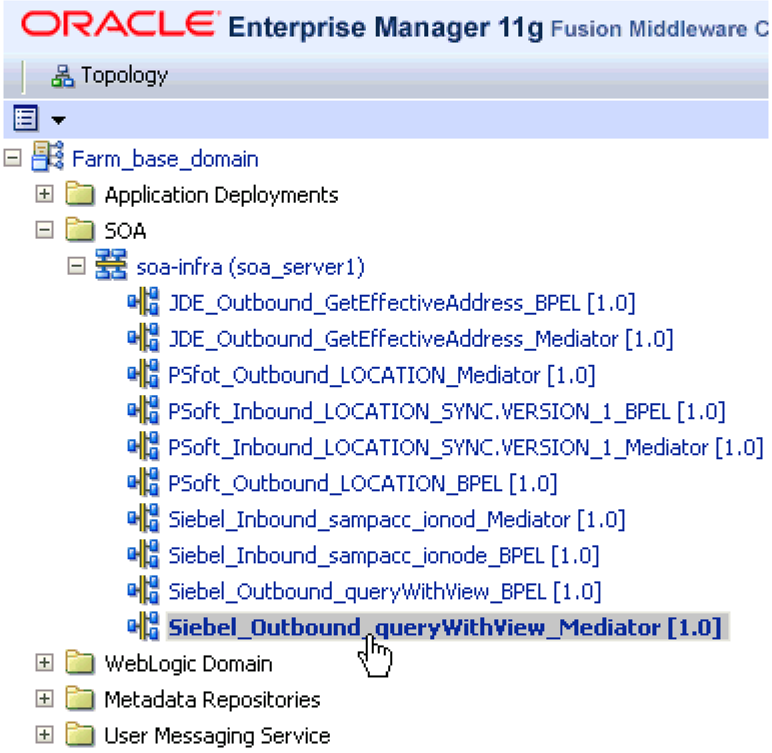
5.2.4 Invoking the Input XML Document in the Oracle Enterprise Manager Console

Perform the following steps to invoke the input XML document in the Oracle Enterprise Manager console.

1. Log in to the Oracle Enterprise Manager console by using the following URL:

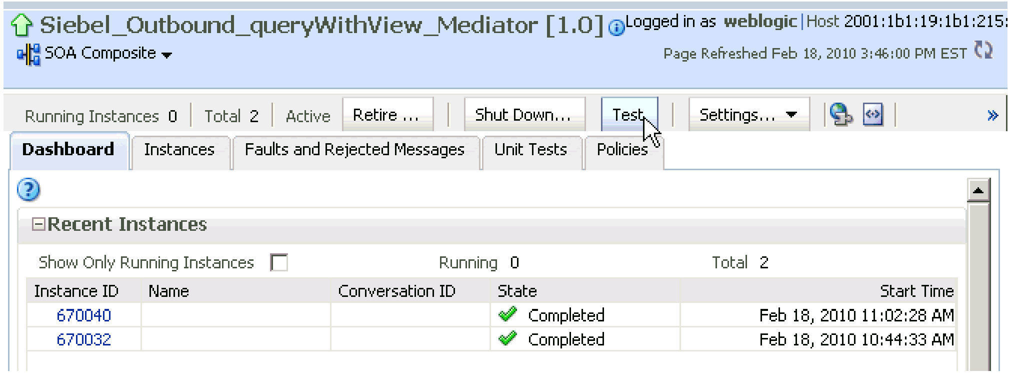
   ```
   http://localhost:7001/em
   ```

2. Expand your domain in the left pane followed by the **SOA** folder.



- Farm_base_domain
  - Application Deployments
  - SOA
    - soa-infra (soa_server1)
      - JDE_Outbound_GetEffectiveAddress_BPEL [1.0]
      - JDE_Outbound_GetEffectiveAddress_Mediator [1.0]
      - PSfot_Outbound_LOCATION_Mediator [1.0]
      - PSoft_Inbound_LOCATION_SYNC.VERSION_1_BPEL [1.0]
      - PSoft_Inbound_LOCATION_SYNC.VERSION_1_Mediator [1.0]
      - PSoft_Outbound_LOCATION_BPEL [1.0]
      - Siebel_Inbound_sampacc_ionod_Mediator [1.0]
      - Siebel_Inbound_sampacc_ionode_BPEL [1.0]
      - Siebel_Outbound_queryWithView_BPEL [1.0]
      - **Siebel_Outbound_queryWithView_Mediator [1.0]**
  - WebLogic Domain
  - Metadata Repositories
  - User Messaging Service

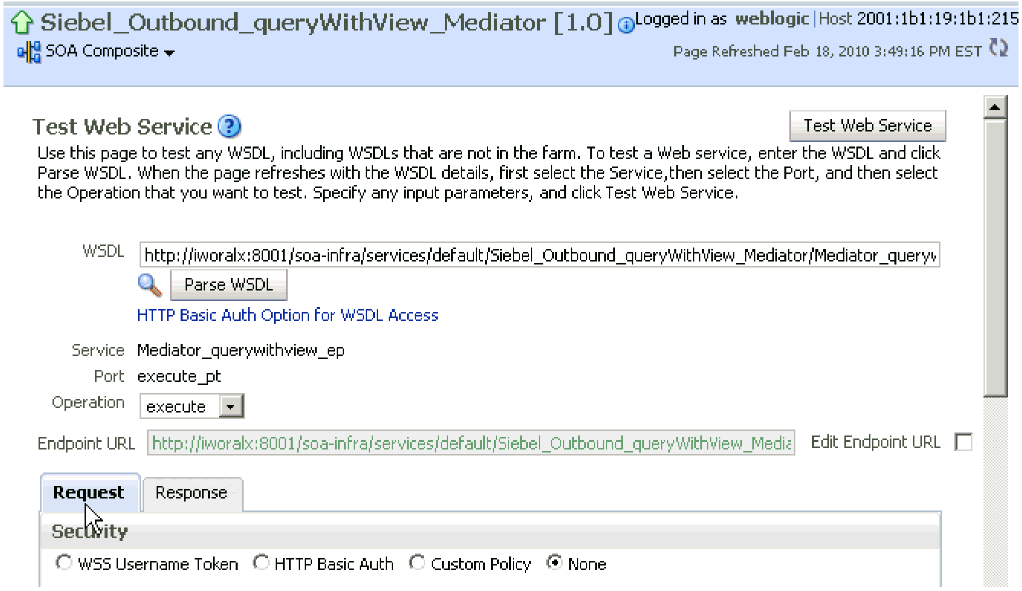
3. Select an available project (for example, Siebel_Outbound_queryWithView_Mediator).


Siebel_Outbound_queryWithView_Mediator [1.0]
Logged in as weblogic | Host 2001:1b1:19:1b1:215:
SOA Composite
Page Refreshed Feb 18, 2010 3:46:00 PM EST
Running Instances 0
Total 2
Active
Retire ...
Shut Down...
Test
Settings...
Dashboard
Instances
Faults and Rejected Messages
Unit Tests
Policies
Recent Instances
Show Only Running Instances □
Running 0
Total 2

Instance ID	Name	Conversation ID	State	Start Time
670040			✓ Completed	Feb 18, 2010 11:02:28 AM
670032			✓ Completed	Feb 18, 2010 10:44:33 AM

4. Click **Test** in the right pane.

   The Test Web Service page is displayed.


Siebel_Outbound_queryWithView_Mediator [1.0]
Logged in as weblogic | Host 2001:1b1:19:1b1:215
SOA Composite
Page Refreshed Feb 18, 2010 3:49:16 PM EST
Test Web Service
Parse WSDL
HTTP Basic Auth Option for WSDL Access
Request
Response
Security

Test Web Service

Use this page to test any WSDL, including WSDLs that are not in the farm. To test a Web service, enter the WSDL and click Parse WSDL. When the page refreshes with the WSDL details, first select the Service,then select the Port, and then select the Operation that you want to test. Specify any input parameters, and click Test Web Service.

WSDL http://iworalx:8001/soa-infra/services/default/Siebel_Outbound_queryWithView_Mediator/Mediator_queryw

Service Mediator_querywithview_ep

Port execute_pt

Operation execute

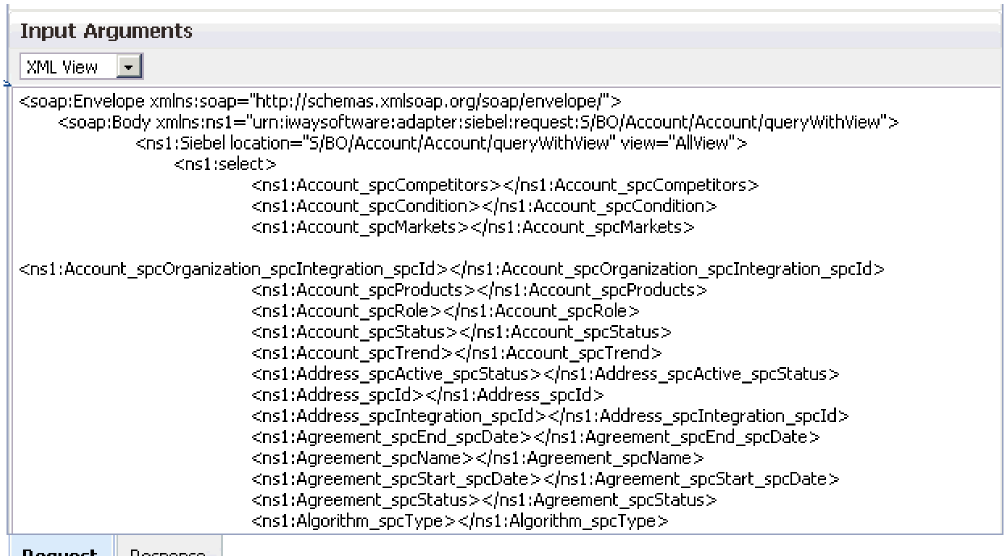
Endpoint URL http://iworalx:8001/soa-infra/services/default/Siebel_Outbound_queryWithView_Medi

Edit Endpoint URL □

○ WSS Username Token ○ HTTP Basic Auth ○ Custom Policy ● None

5. Click the **Request** tab.

6. Scroll down to the Input Arguments section.



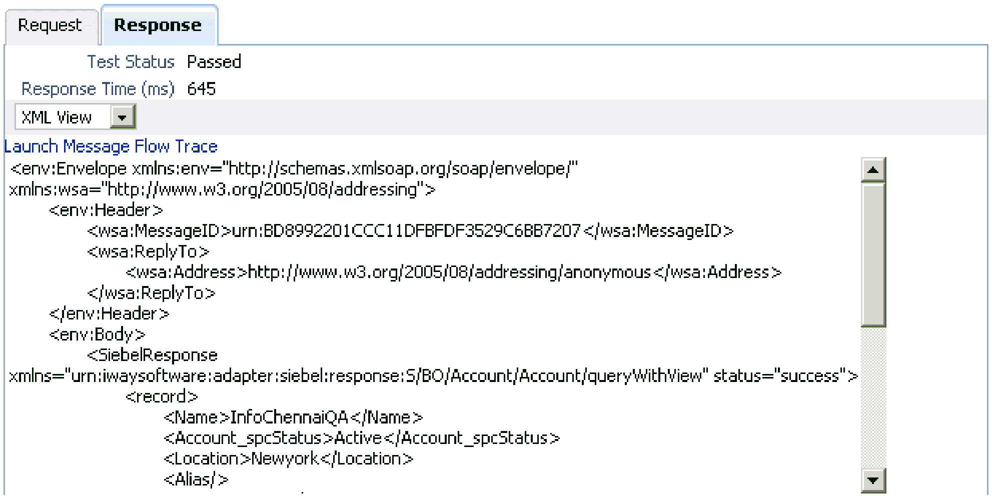
```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
    <soap:Body xmlns:ns1="urn:iwaysoftware:adapter:siebel:request:S/BO/Account/Account/queryWithView">
            <ns1:Siebel location="S/BO/Account/Account/queryWithView" view="AllView">
                <ns1:select>
                        <ns1:Account_spcCompetitors></ns1:Account_spcCompetitors>
                        <ns1:Account_spcCondition></ns1:Account_spcCondition>
                        <ns1:Account_spcMarkets></ns1:Account_spcMarkets>

<ns1:Account_spcOrganization_spcIntegration_spcId></ns1:Account_spcOrganization_spcIntegration_spcId>
                        <ns1:Account_spcProducts></ns1:Account_spcProducts>
                        <ns1:Account_spcRole></ns1:Account_spcRole>
                        <ns1:Account_spcStatus></ns1:Account_spcStatus>
                        <ns1:Account_spcTrend></ns1:Account_spcTrend>
                        <ns1:Address_spcActive_spcStatus></ns1:Address_spcActive_spcStatus>
                        <ns1:Address_spcId></ns1:Address_spcId>
                        <ns1:Address_spcIntegration_spcId></ns1:Address_spcIntegration_spcId>
                        <ns1:Agreement_spcEnd_spcDate></ns1:Agreement_spcEnd_spcDate>
                        <ns1:Agreement_spcName></ns1:Agreement_spcName>
                        <ns1:Agreement_spcStart_spcDate></ns1:Agreement_spcStart_spcDate>
                        <ns1:Agreement_spcStatus></ns1:Agreement_spcStatus>
                        <ns1:Algorithm_spcType></ns1:Algorithm_spcType>
```

7. Select **XML View** from the list in the upper-left corner.

8. Provide an appropriate input XML document in the Input Arguments area.

9. Click **Test Web Service**.

   The output response is received in the Response tab of the Oracle Enterprise Manager console.



Test Status Passed

Response Time (ms) 645

```
<env:Envelope xmlns:env="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:wsa="http://www.w3.org/2005/08/addressing">
    <env:Header>
        <wsa:MessageID>urn:BD8992201CCC11DFBFDF3529C6BB7207</wsa:MessageID>
        <wsa:ReplyTo>
            <wsa:Address>http://www.w3.org/2005/08/addressing/anonymous</wsa:Address>
        </wsa:ReplyTo>
    </env:Header>
    <env:Body>
        <SiebelResponse
xmlns="urn:iwaysoftware:adapter:siebel:response:S/BO/Account/Account/queryWithView" status="success">
            <record>
                <Name>InfoChennaiQA</Name>
                <Account_spcStatus>Active</Account_spcStatus>
                <Location>Newyork</Location>
                <Alias/>
```

5.3 Configuring a Mediator Inbound Process

The following example describes how to configure a Mediator inbound process to your Siebel system, using a Mediator project in Oracle JDeveloper.

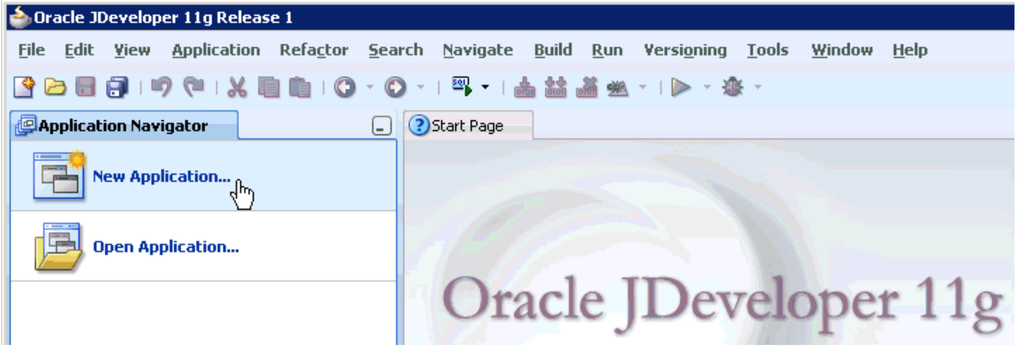
Prerequisites

Before you design a Mediator inbound process, you must generate the respective WSDL file using Application Explorer. See "Generating WSDL for Event Integration" on page 4-36 for more information.

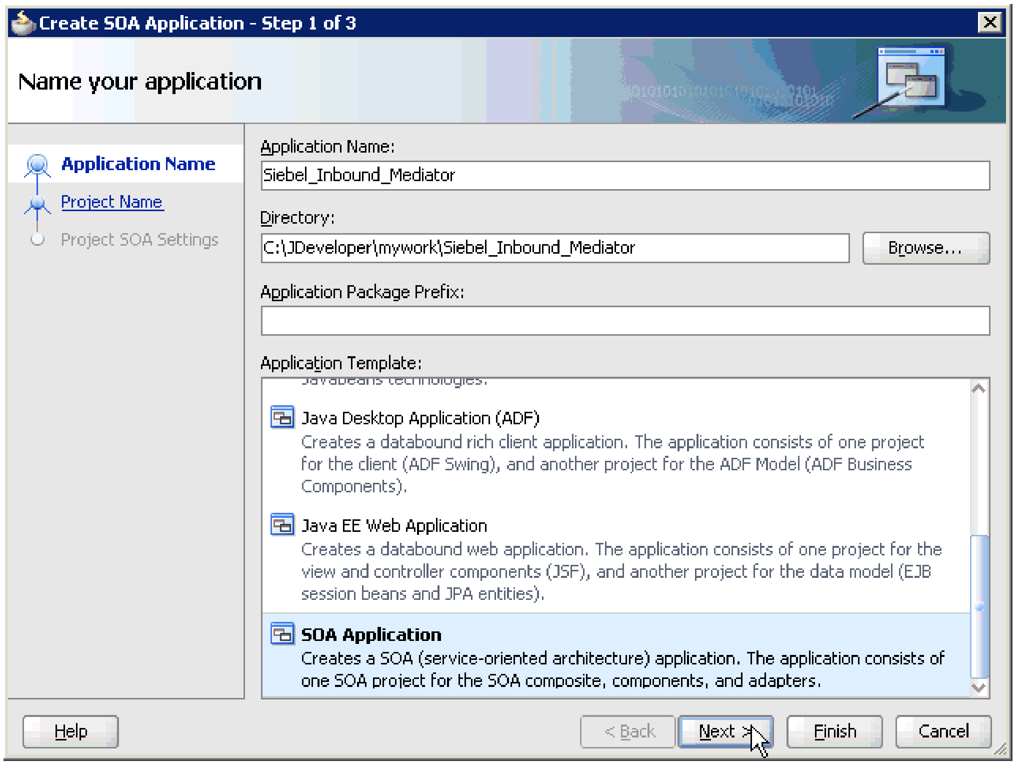
5.3.1 Creating a New SOA Application for the Inbound Mediator Process

Perform the following steps to create a new SOA application for the inbound Mediator process:

1. Open Oracle JDeveloper on your system.
2. In the Application Navigator tab, click **New Application**.



The Create SOA Application wizard is displayed.


Create SOA Application - Step 1 of 3

Name your application

Application Name: Siebel_Inbound_Mediator

Directory: C:\JDeveloper\mywork\Siebel_Inbound_Mediator

Application Package Prefix:

Application Template:

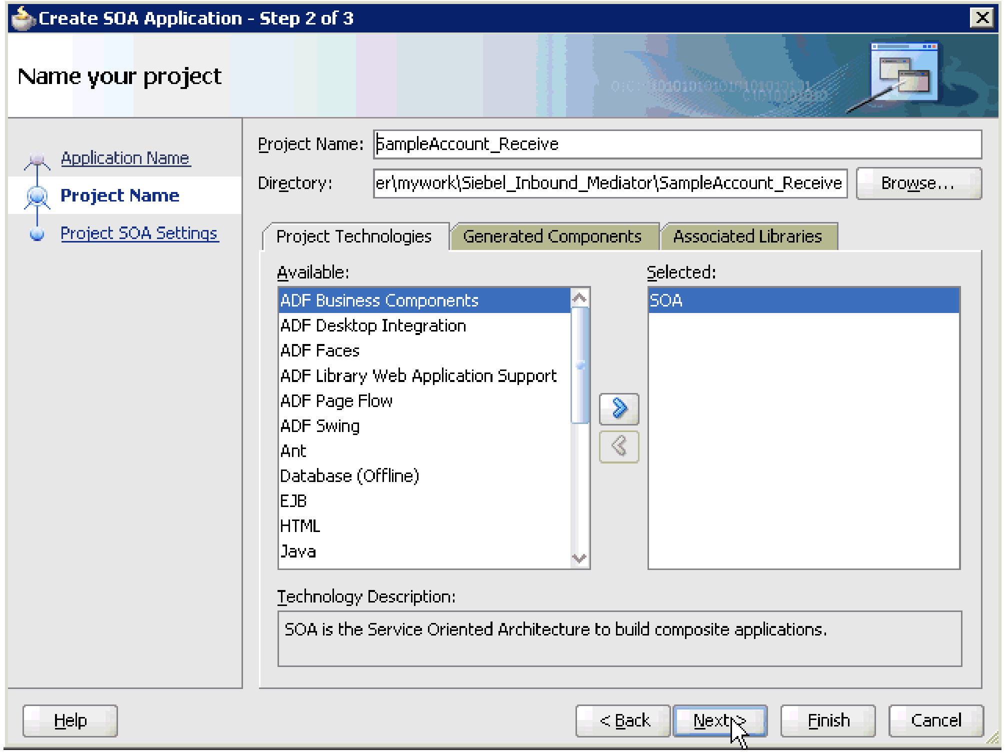
Java Desktop Application (ADF)
Creates a databound rich client application. The application consists of one project for the client (ADF Swing), and another project for the ADF Model (ADF Business Components).

Java EE Web Application
Creates a databound web application. The application consists of one project for the view and controller components (JSF), and another project for the data model (EJB session beans and JPA entities).

SOA Application
Creates a SOA (service-oriented architecture) application. The application consists of one SOA project for the SOA composite, components, and adapters.

3. From the Application Template list, click **SOA Application**.
4. Enter name for the new SOA application (for example, Siebel_Inbound_Mediator) and click **Next**.

   The Name your project page is displayed.


Create SOA Application - Step 2 of 3

Name your project

Project Name: SampleAccount_Receive

Directory: er\mywork\Siebel_Inbound_Mediator\SampleAccount_Receive

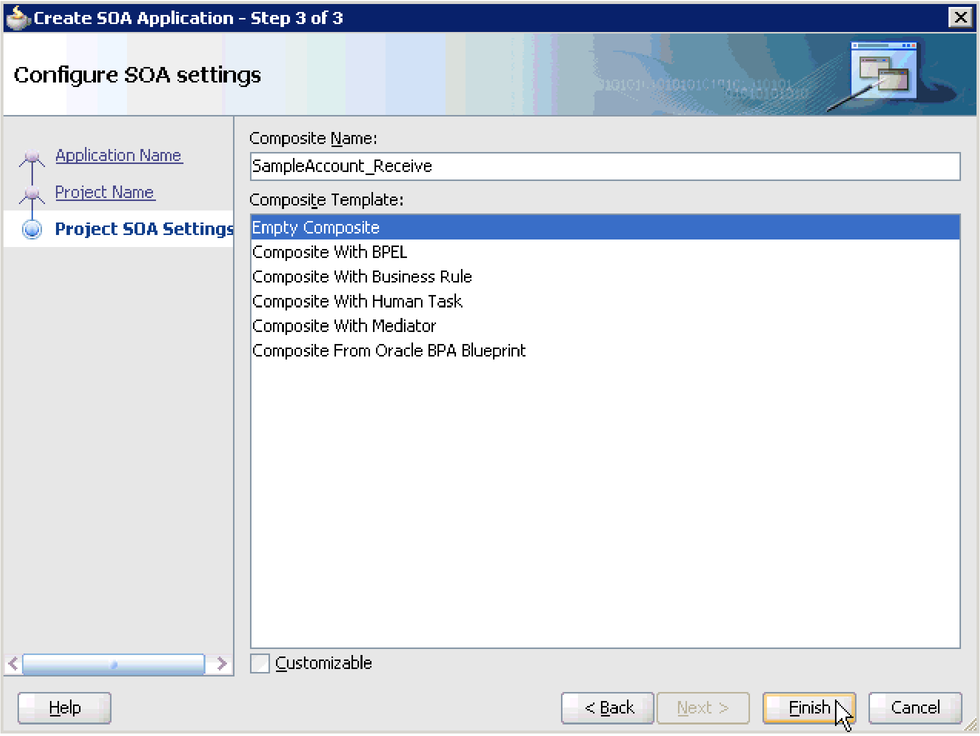
Available:
ADF Business Components
ADF Desktop Integration
ADF Faces
ADF Library Web Application Support
ADF Page Flow
ADF Swing
Ant
Database (Offline)
EJB
HTML
Java

Selected:
SOA

Technology Description:
SOA is the Service Oriented Architecture to build composite applications.

5. Enter a project name (for example, SampleAccount_Receive) and click **Next**.

   The Configure SOA settings page is displayed.



Create SOA Application - Step 3 of 3

Configure SOA settings

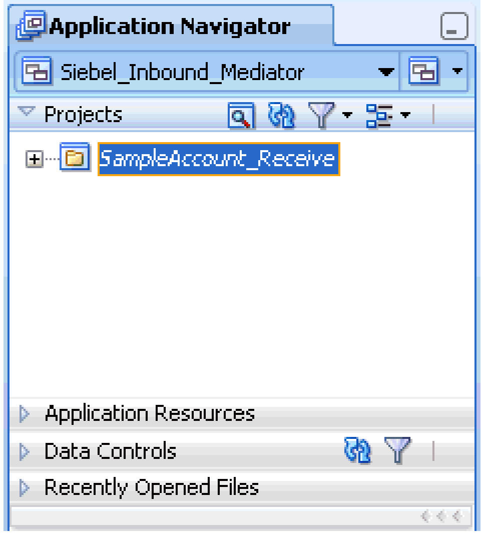
Composite Name: SampleAccount_Receive

Composite Template:

- Empty Composite
- Composite With BPEL
- Composite With Business Rule
- Composite With Human Task
- Composite With Mediator
- Composite From Oracle BPA Blueprint

□ Customizable

6. From the Composite Template list, select **Empty Composite** and click **Finish**.



The new SOA application (Siebel_Inbound_Mediator) and associated project (SampleAccount_Receive) are added to the Application Navigator tab in the left pane.

5.3.2 Defining a Mediator Inbound Process

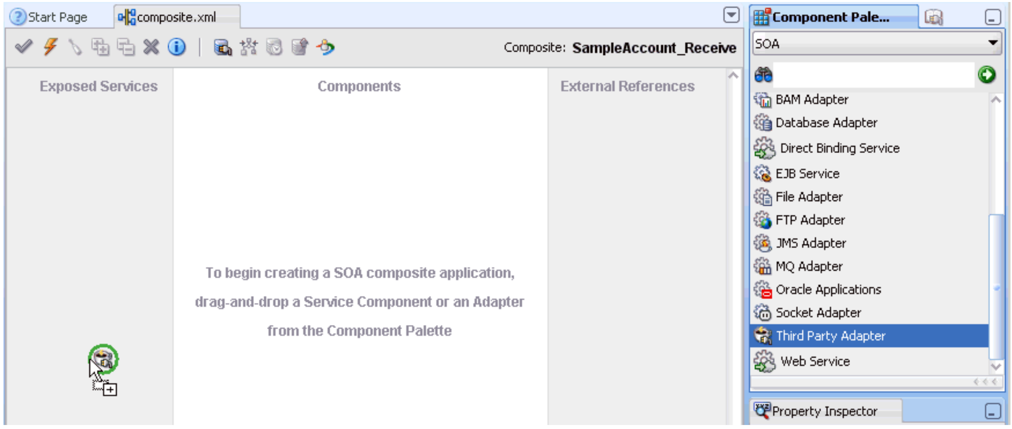
This section describes how to define a Mediator inbound process, which consists of the following stages:

1. Configuring a Third Party Adapter Service Component
2. Configuring an Inbound Mediator Process Component With a File Adapter
3. Configuring the Routing Rules

Configuring a Third Party Adapter Service Component

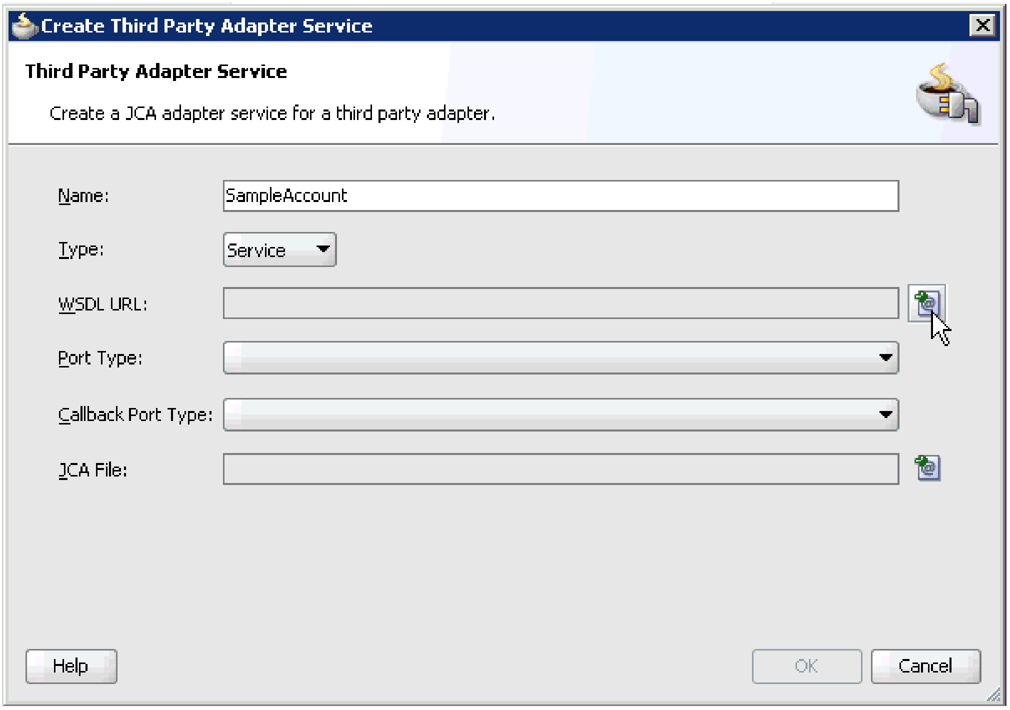
Perform the following steps to create a third party adapter service component:

1. Drag and drop the **Third Party Adapter** component from the Component Palette tab (Service Adapters section) to the Exposed Services pane.



To begin creating a SOA composite application, drag-and-drop a Service Component or an Adapter from the Component Palette

The Create Third Party Adapter Service dialog is displayed.



Third Party Adapter Service

Create a JCA adapter service for a third party adapter.

Name: SampleAccount

Type: Service

WSDL URL:

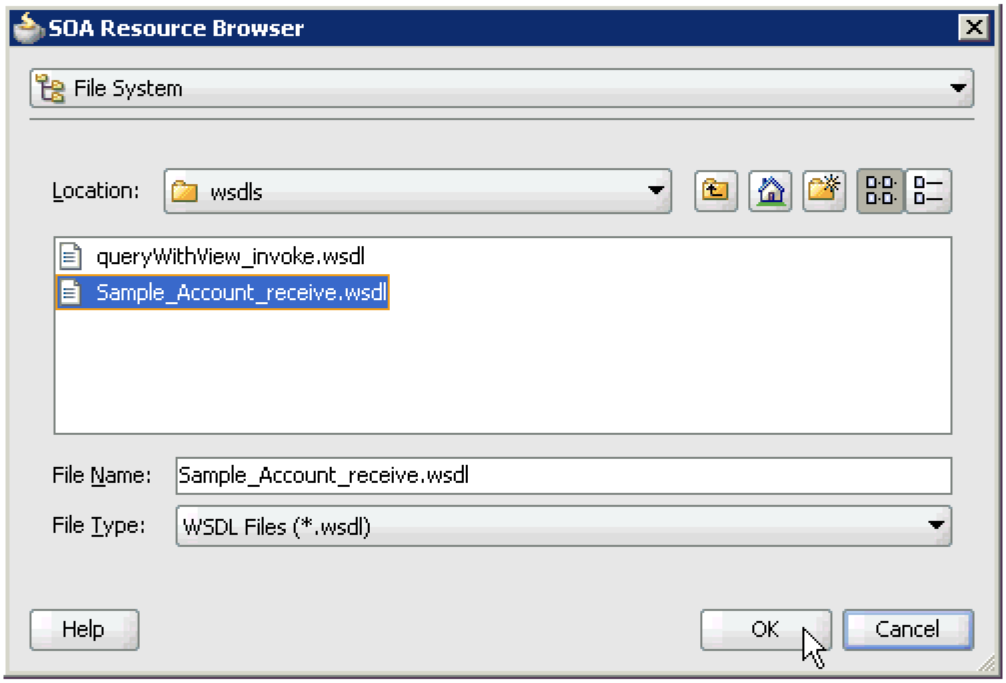
Port Type:

Callback Port Type:

JCA File:

2. Enter a name for the third party adapter service.
3. Ensure that **Service** is selected from the Type list (default).
4. Click the **Find existing WSDLs** icon, which is located to the right of the WSDL URL field.

The SOA Resource Browser dialog is displayed.



SOA Resource Browser

File System

Location: wsdls

queryWithView_invoke.wsdl
Sample_Account_receive.wsdl

File Name: Sample_Account_receive.wsdl

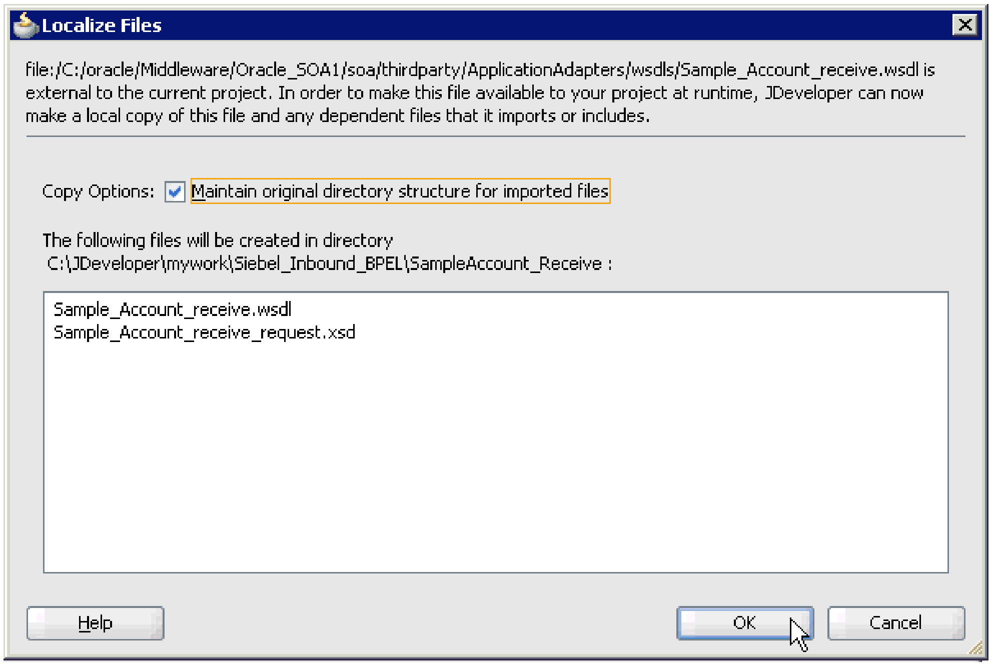
File Type: WSDL Files (*.wsdl)

5. Browse and select an inbound WSDL file from the following directory:

```
C:\oracle\Middleware\home_GA\Oracle_
SOA1\soa\thirdparty\ApplicationAdapters\wsdls
```

6. Click **OK**.

   The Localize Files dialog is displayed.



Localize Files

file:/C:/oracle/Middleware/Oracle_SOA1/soa/thirdparty/ApplicationAdapters/wsdls/Sample_Account_receive.wsdl is external to the current project. In order to make this file available to your project at runtime, JDeveloper can now make a local copy of this file and any dependent files that it imports or includes.

Copy Options: ☑ Maintain original directory structure for imported files

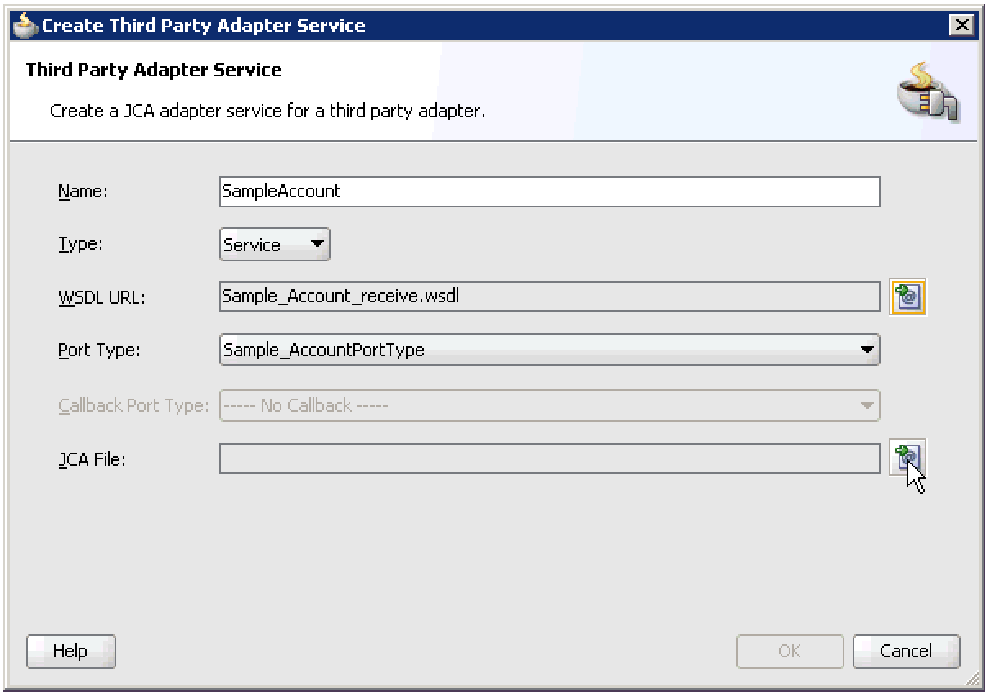
The following files will be created in directory
C:\JDeveloper\mywork\Siebel_Inbound_BPEL\SampleAccount_Receive :

Sample_Account_receive.wsdl
Sample_Account_receive_request.xsd

7. Click **OK**.

The inbound WSDL file and associated receive/request XML schema file (.xsd) are imported to the project folder that has been created.

You are returned to the Create Third Party Adapter Service dialog.



Create Third Party Adapter Service

Third Party Adapter Service

Create a JCA adapter service for a third party adapter.

Name: SampleAccount

Type: Service

WSDL URL: Sample_Account_receive.wsdl

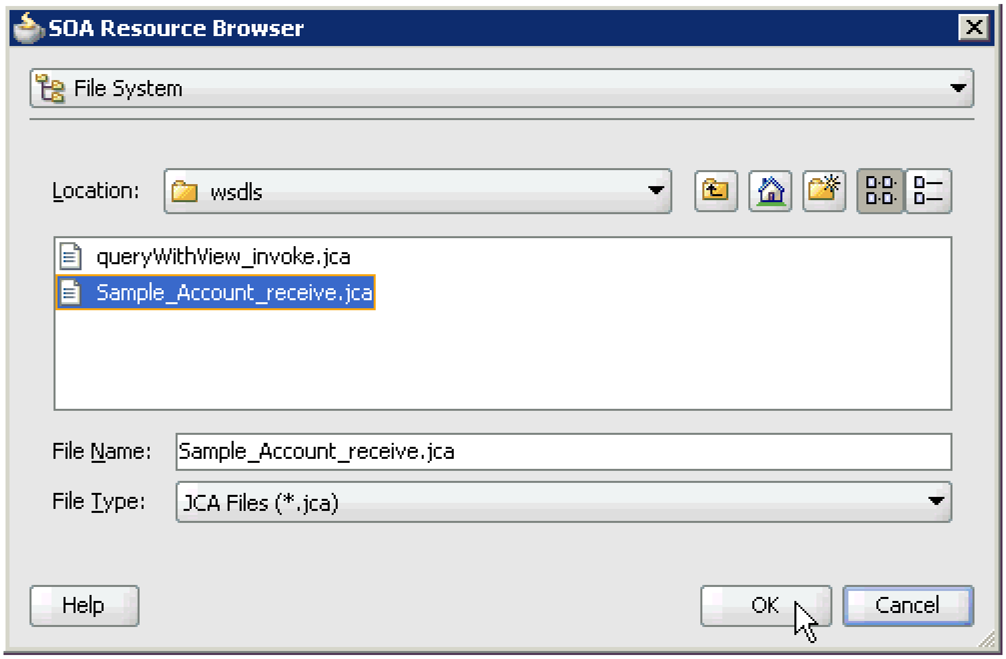
Port Type: Sample_AccountPortType

Callback Port Type: ----- No Callback -----

JCA File:

8. Click the **Find JCA Files** icon, which is located to the right of the JCA File field.

   The SOA Resource Browser dialog is displayed.



SOA Resource Browser

File System

Location: wsdls

queryWithView_invoke.jca

Sample_Account_receive.jca

File Name: Sample_Account_receive.jca

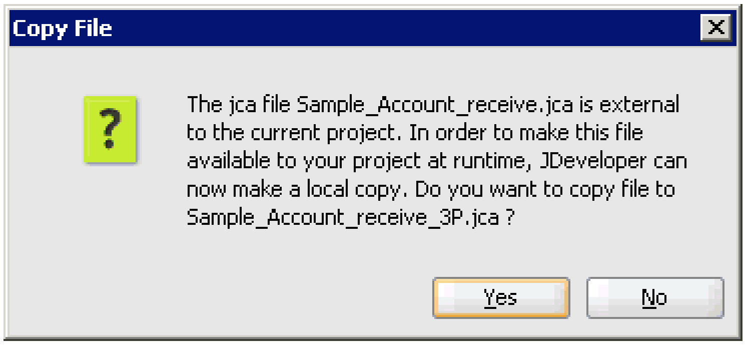
File Type: JCA Files (*.jca)

9. Browse and select the JCA properties file from the following directory:

```
C:\oracle\Middleware\home_GA\Oracle_
SOA1\soa\thirdparty\ApplicationAdapters\wsdls
```

10. Click **OK**.

    The following message is displayed.



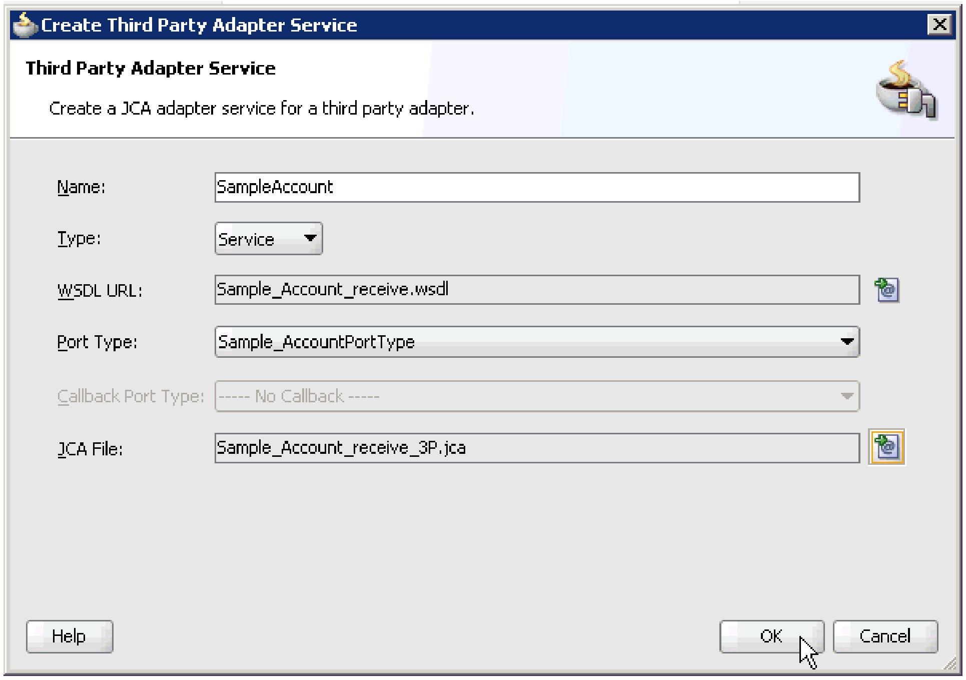
Copy File

The jca file Sample_Account_receive.jca is external to the current project. In order to make this file available to your project at runtime, JDeveloper can now make a local copy. Do you want to copy file to Sample_Account_receive_3P.jca ?

11. Click **Yes**.

    A copy of the JCA properties file is made in the project folder.

    You are returned to the Create Third Party Adapter Service dialog.



Create Third Party Adapter Service

Third Party Adapter Service

Create a JCA adapter service for a third party adapter.

Name: SampleAccount

Type: Service

WSDL URL: Sample_Account_receive.wsdl

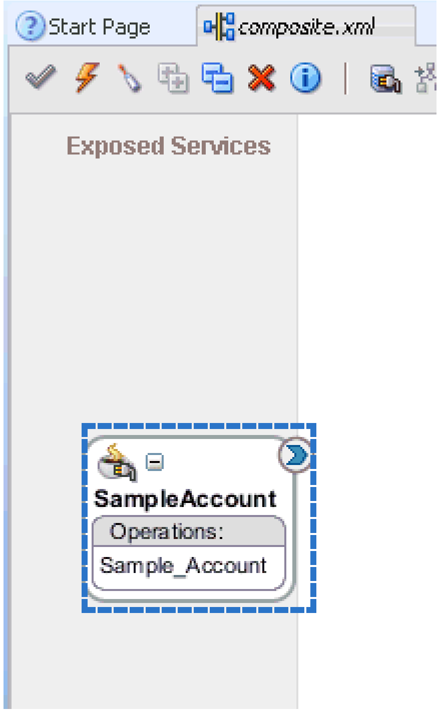
Port Type: Sample_AccountPortType

Callback Port Type: ----- No Callback -----

JCA File: Sample_Account_receive_3P.jca

12. Click **OK**.

    The third party adapter service component (SampleAccount) is created in the Exposed Services pane, as shown in the following image.

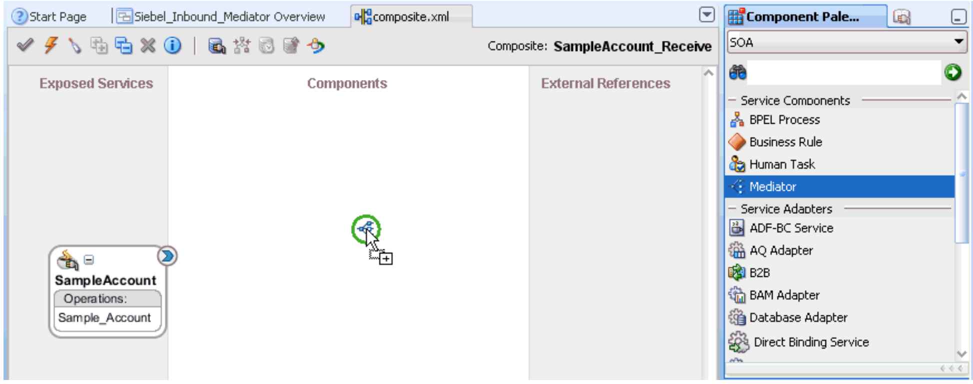


You are now ready to configure an inbound BPEL process component.

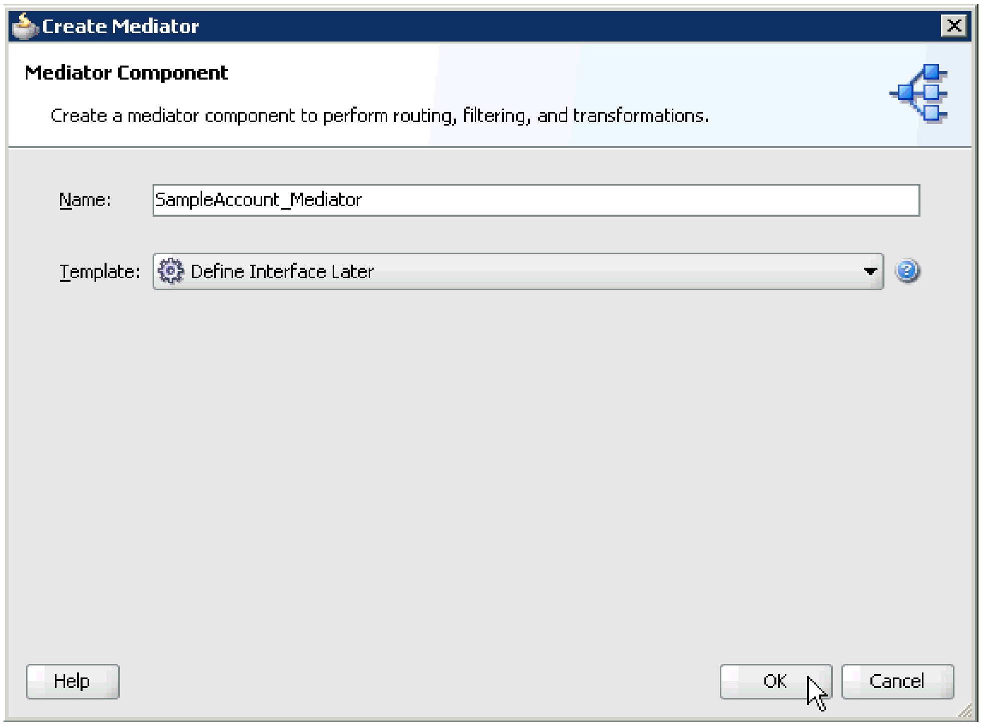
Configuring an Inbound Mediator Process Component With a File Adapter

Perform the following steps to configure an inbound Mediator process component with a File adapter.

1. Drag and drop the **Mediator** component from the Component Palette tab (Service Components section) to the Components pane.



The Create Mediator dialog is displayed.



Create Mediator

Mediator Component

Create a mediator component to perform routing, filtering, and transformations.

Name: SampleAccount_Mediator

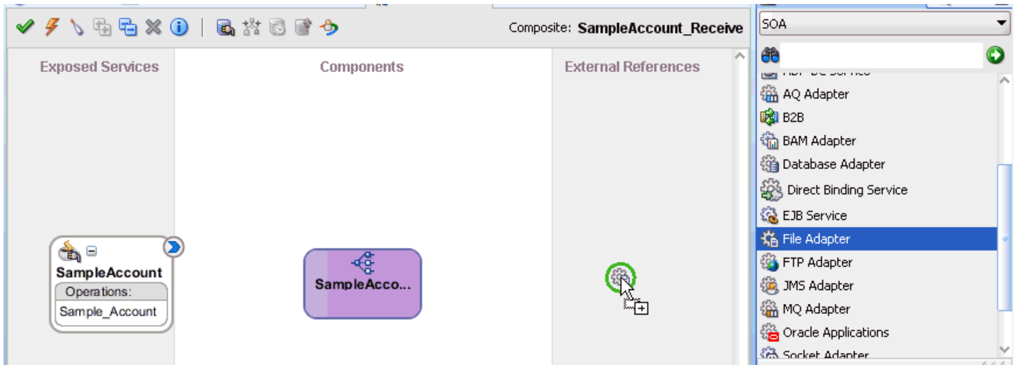
Template: Define Interface Later

2. In the Name field, enter a name to identify the new inbound Mediator process component (for example, SampleAccount_Mediator).

3. From the Template list, select **Define Interface Later**.

4. Click the **OK**.

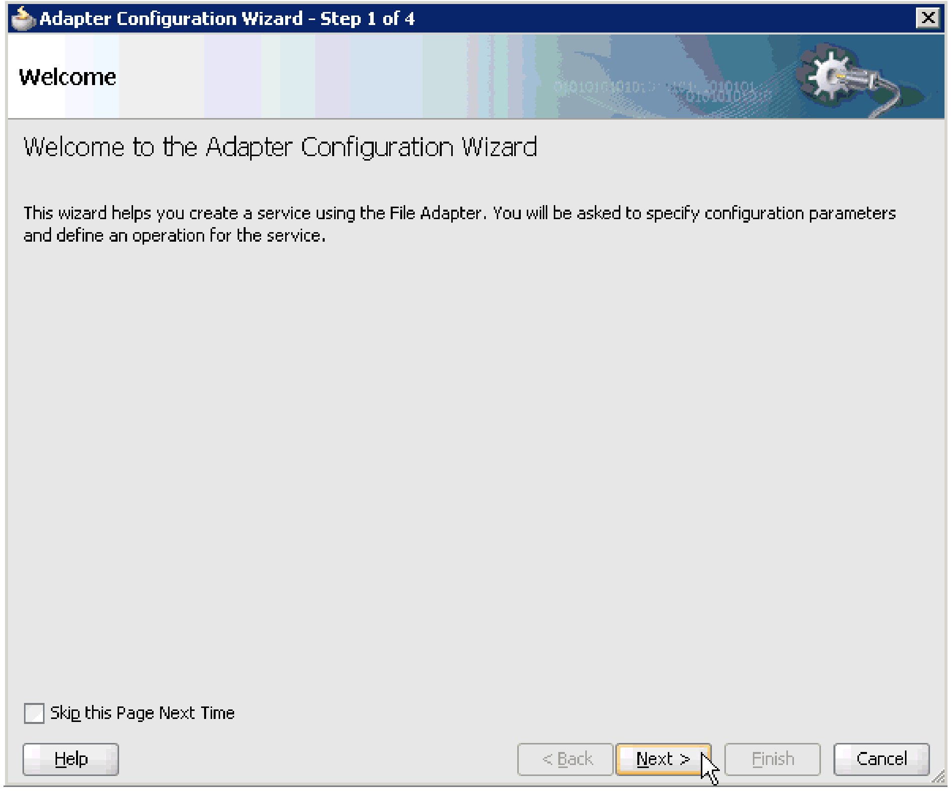
   The new Mediator process component is added to the Components pane, as shown in the following image.



Composite: SampleAccount_Receive

5. Drag and drop the **File Adapter** component from the Service Adapters pane to the External References pane.

   The Adapter Configuration Wizard - Welcome page is displayed, showing the Welcome page.



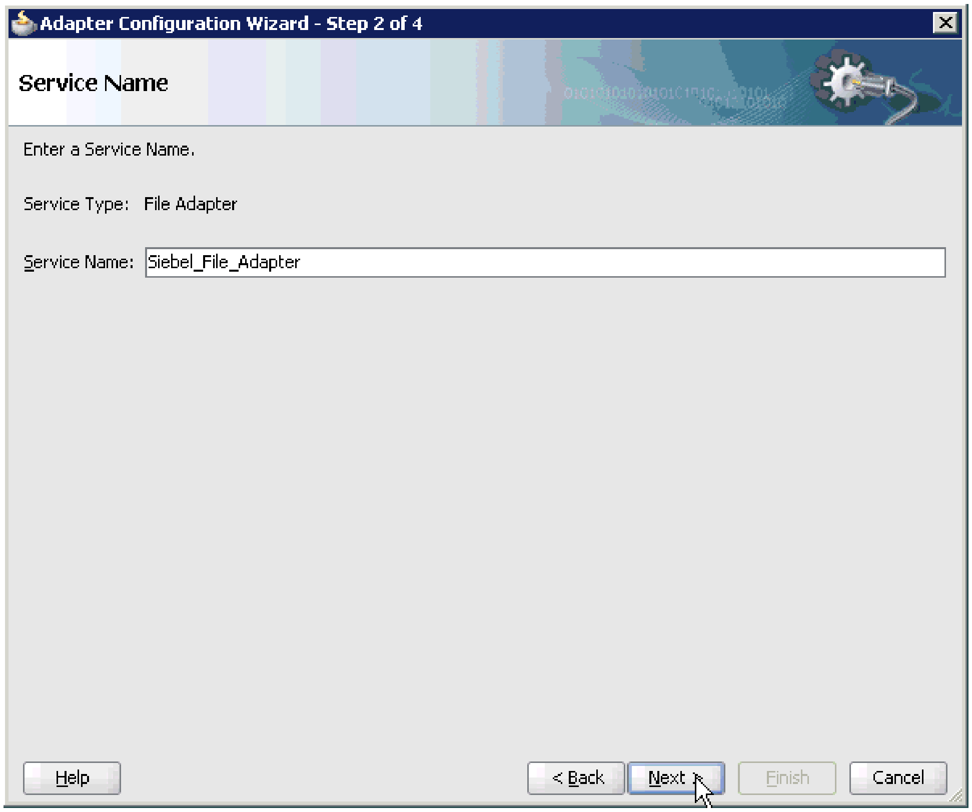
Welcome to the Adapter Configuration Wizard

This wizard helps you create a service using the File Adapter. You will be asked to specify configuration parameters and define an operation for the service.

□ Skip this Page Next Time

6. Click **Next**.

   The Service Name page is displayed.



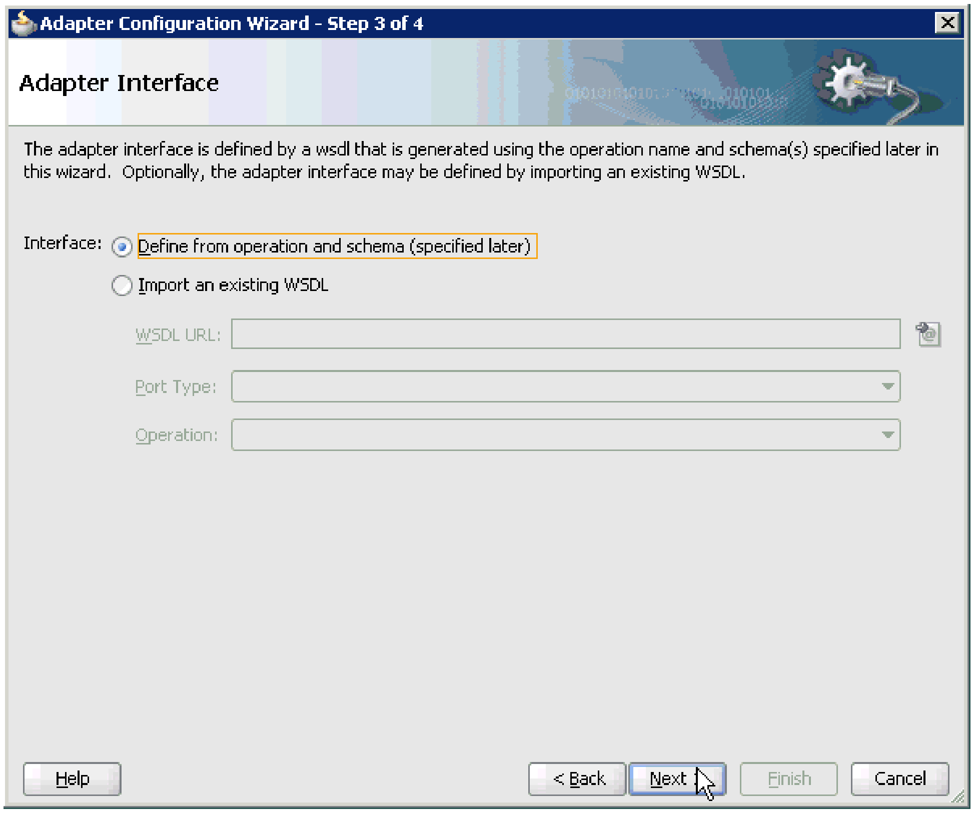
Enter a Service Name.

Service Type: File Adapter

Service Name: Siebel_File_Adapter

7. Type a name for the new File adapter in the Service Name field and click **Next**.

   The Adapter Interface page is displayed.



Adapter Configuration Wizard - Step 3 of 4

Adapter Interface

The adapter interface is defined by a wsdl that is generated using the operation name and schema(s) specified later in this wizard. Optionally, the adapter interface may be defined by importing an existing WSDL.

Interface: ● Define from operation and schema (specified later)

○ Import an existing WSDL

WSDL URL:

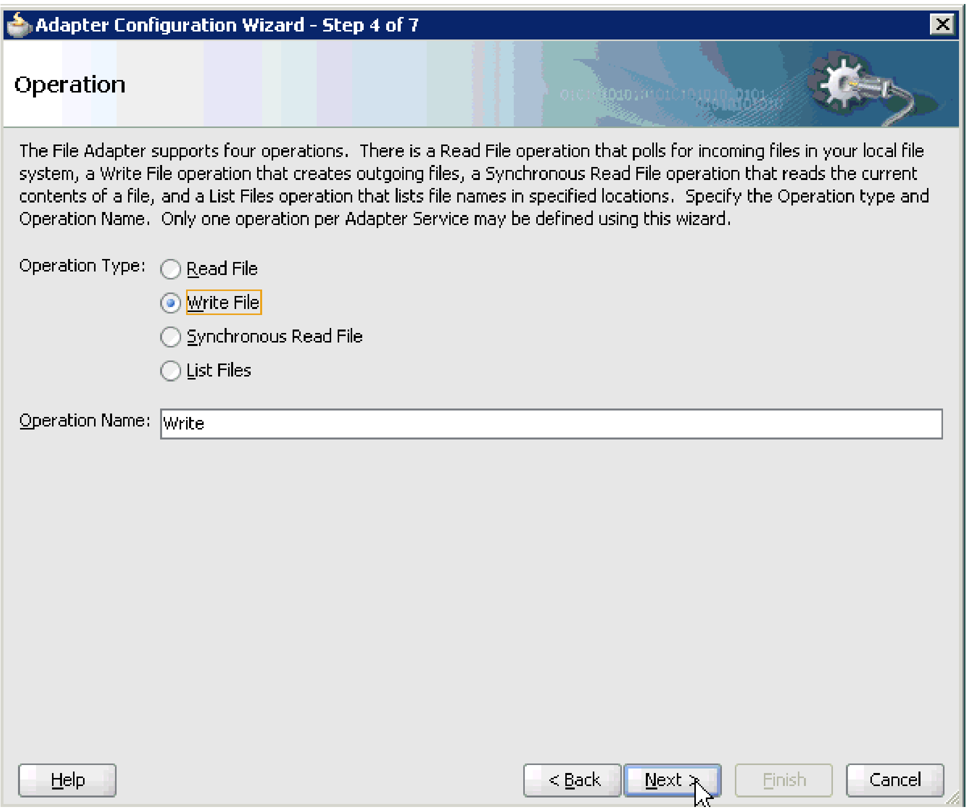
Port Type:

Operation:

8. Ensure that the **Define from operation and schema (specified later)** option is selected.

9. Click **Next**.

   The Operation page is displayed.



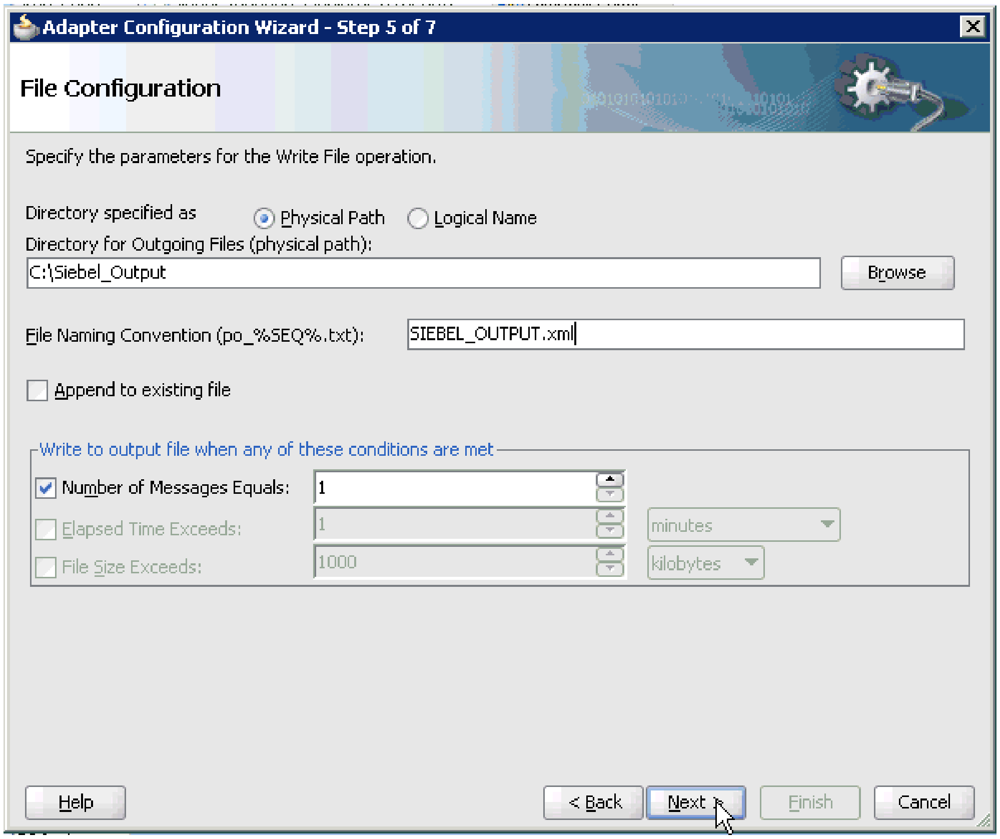
The File Adapter supports four operations. There is a Read File operation that polls for incoming files in your local file system, a Write File operation that creates outgoing files, a Synchronous Read File operation that reads the current contents of a file, and a List Files operation that lists file names in specified locations. Specify the Operation type and Operation Name. Only one operation per Adapter Service may be defined using this wizard.

Operation Type: ○ Read File
● Write File
○ Synchronous Read File
○ List Files

Operation Name: Write

10. Select **Write File** from the list of Operation Type options and specify an Operation Name (for example, Write).
11. Click **Next**.

    The File Configuration page is displayed.



Adapter Configuration Wizard - Step 5 of 7

File Configuration

Specify the parameters for the Write File operation.

Directory specified as ● Physical Path ○ Logical Name

Directory for Outgoing Files (physical path): C:\Siebel_Output

File Naming Convention (po_%SEQ%.txt): SIEBEL_OUTPUT.xml

□ Append to existing file

Write to output file when any of these conditions are met

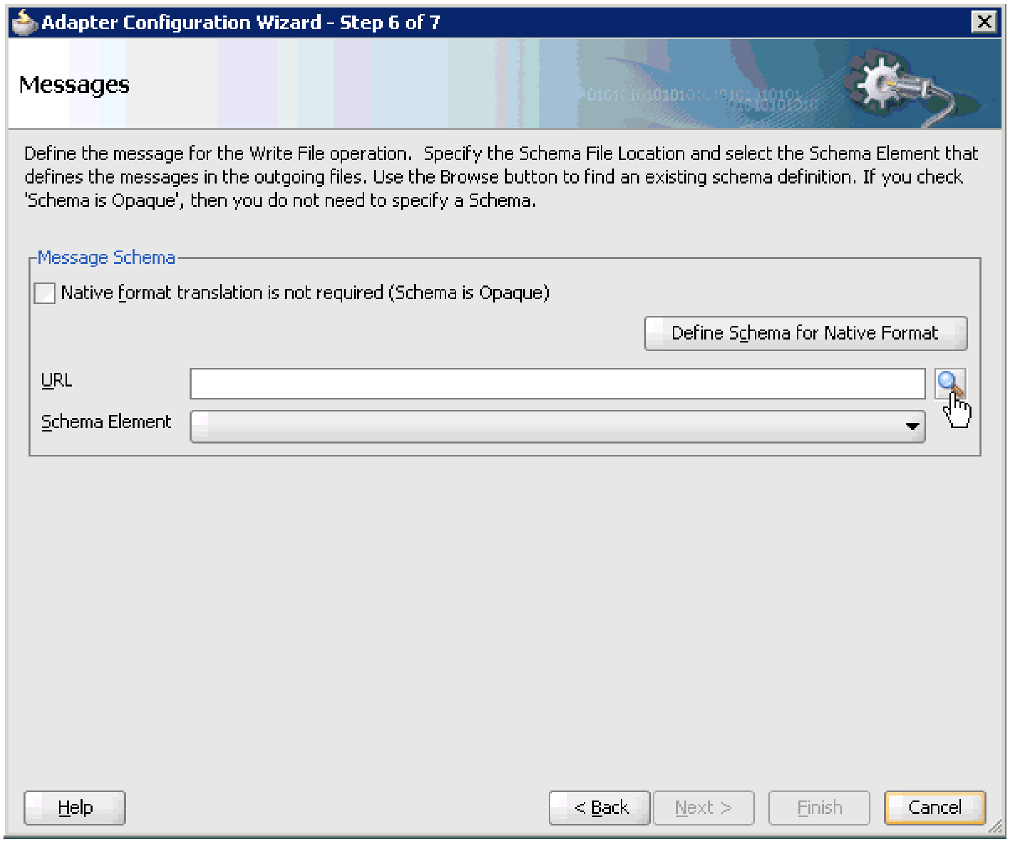
☑ Number of Messages Equals: 1

□ Elapsed Time Exceeds: 1 minutes

□ File Size Exceeds: 1000 kilobytes

12. Specify a location on your file system for the output file.
13. In the File Naming Convention field, specify a name for the output file.
14. Click **Next**.

    The Messages page is displayed.



Adapter Configuration Wizard - Step 6 of 7

Messages

Define the message for the Write File operation. Specify the Schema File Location and select the Schema Element that defines the messages in the outgoing files. Use the Browse button to find an existing schema definition. If you check 'Schema is Opaque', then you do not need to specify a Schema.

Message Schema

□ Native format translation is not required (Schema is Opaque)

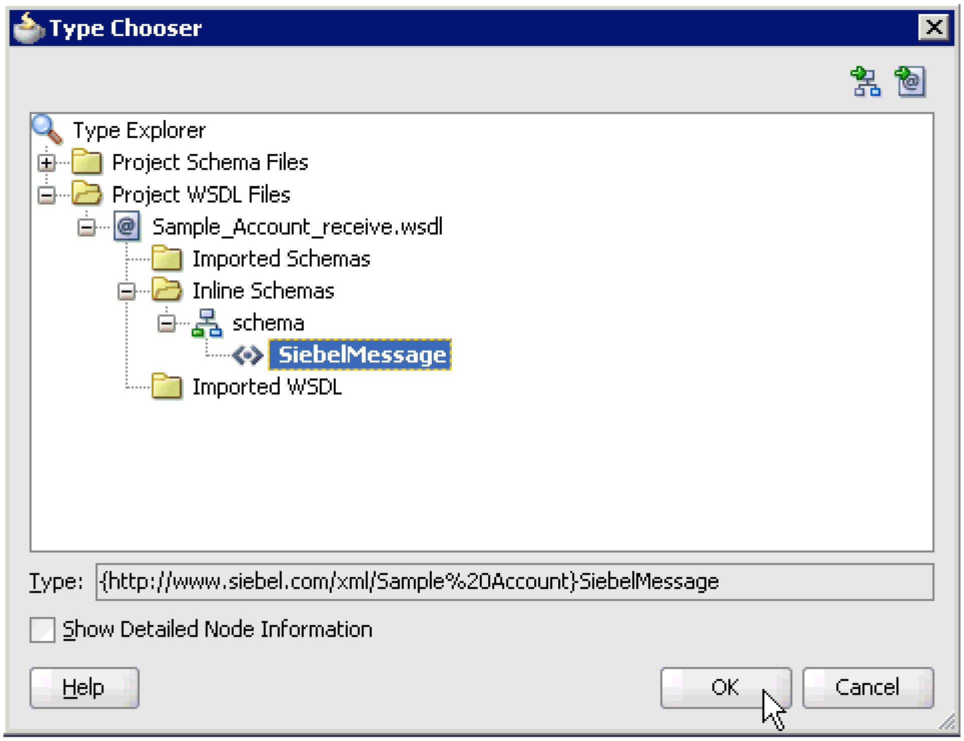
Define Schema for Native Format

URL

Schema Element

15. Click **browse for schema file**, which is located to the right of the URL field.

    The Type Chooser dialog is displayed.



Type Chooser

- Type Explorer
  - Project Schema Files
  - Project WSDL Files
    - Sample_Account_receive.wsdl
      - Imported Schemas
      - Inline Schemas
        - schema
          - SiebelMessage
      - Imported WSDL

Type: {http://www.siebel.com/xml/Sample%20Account}SiebelMessage

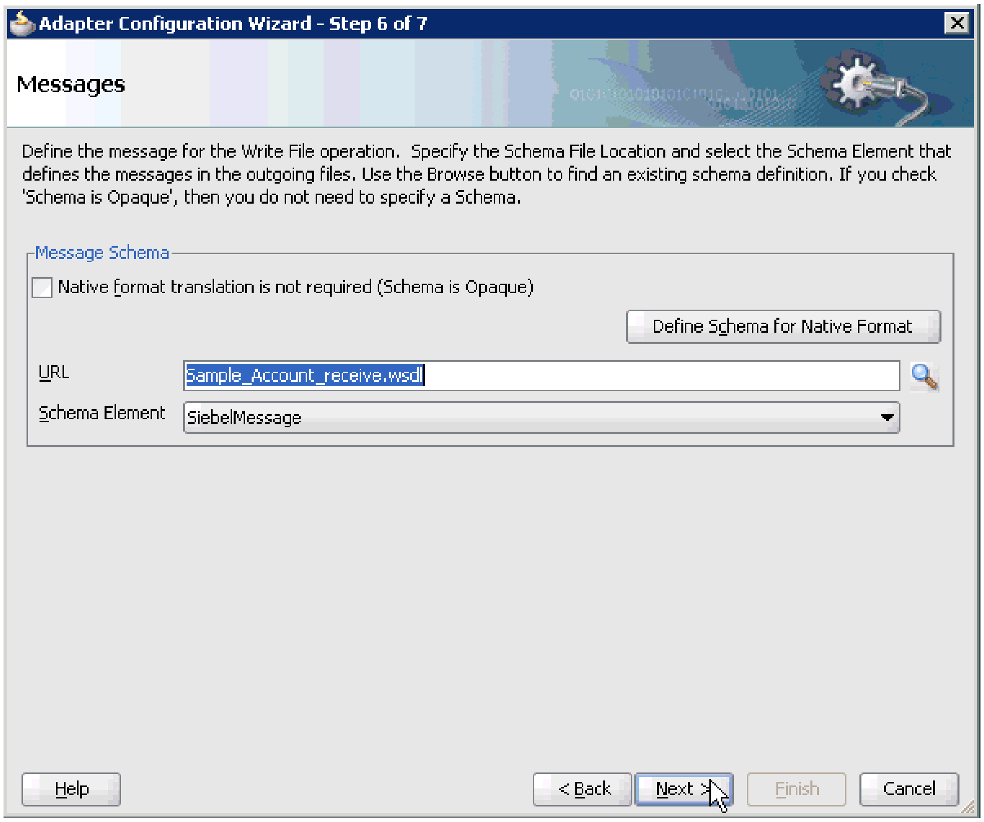
□ Show Detailed Node Information

16. Expand **Project WSDL Files**, **Sample_Account_receive.wsdl**, **Inline Schemas**, and **schema**.

17. Select the available schema (for example, SiebelMessage)

18. Click **OK**.

    You are returned to the Messages page.



Adapter Configuration Wizard - Step 6 of 7

Messages

Define the message for the Write File operation. Specify the Schema File Location and select the Schema Element that defines the messages in the outgoing files. Use the Browse button to find an existing schema definition. If you check 'Schema is Opaque', then you do not need to specify a Schema.

Message Schema

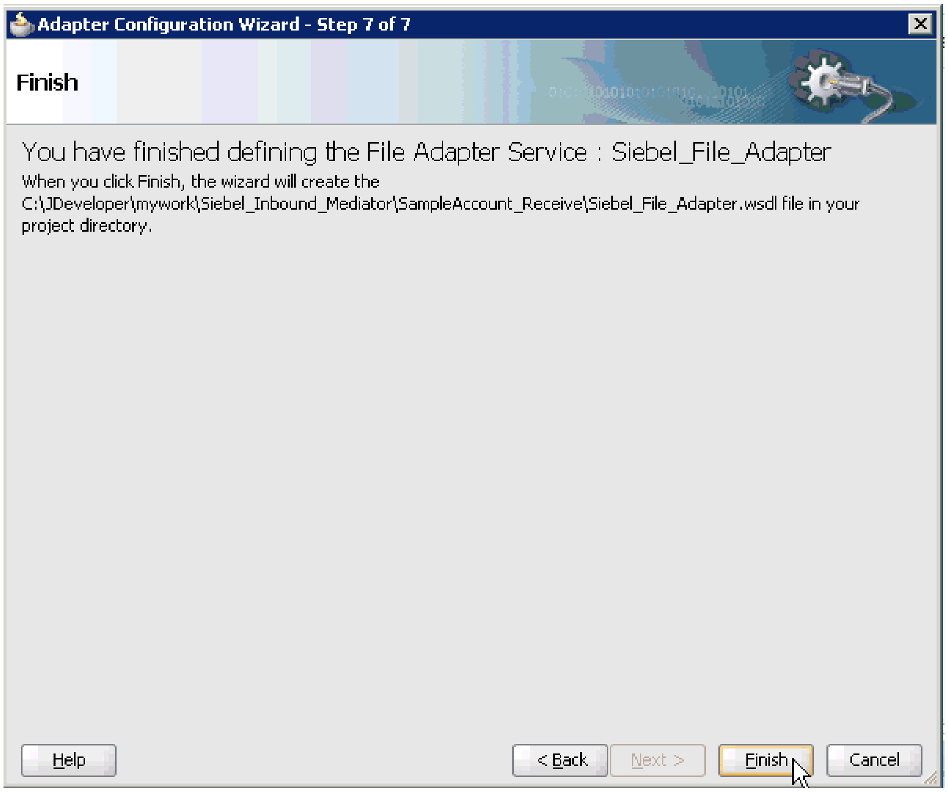
□ Native format translation is not required (Schema is Opaque)

URL: Sample_Account_receive.wsdl

Schema Element: SiebelMessage

19. Click **Next**.

    The Finish page is displayed.



Adapter Configuration Wizard - Step 7 of 7

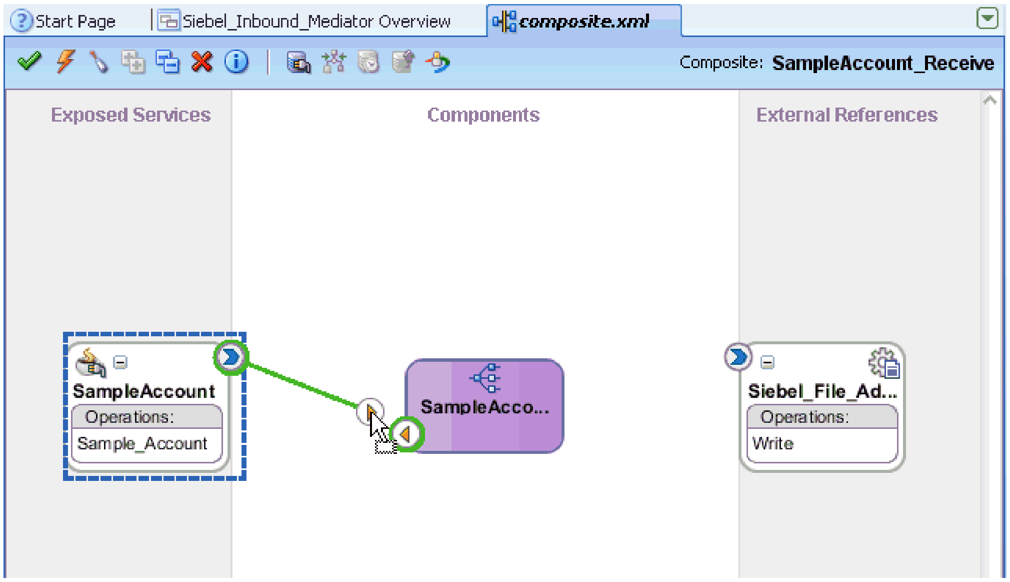
Finish

You have finished defining the File Adapter Service : Siebel_File_Adapter

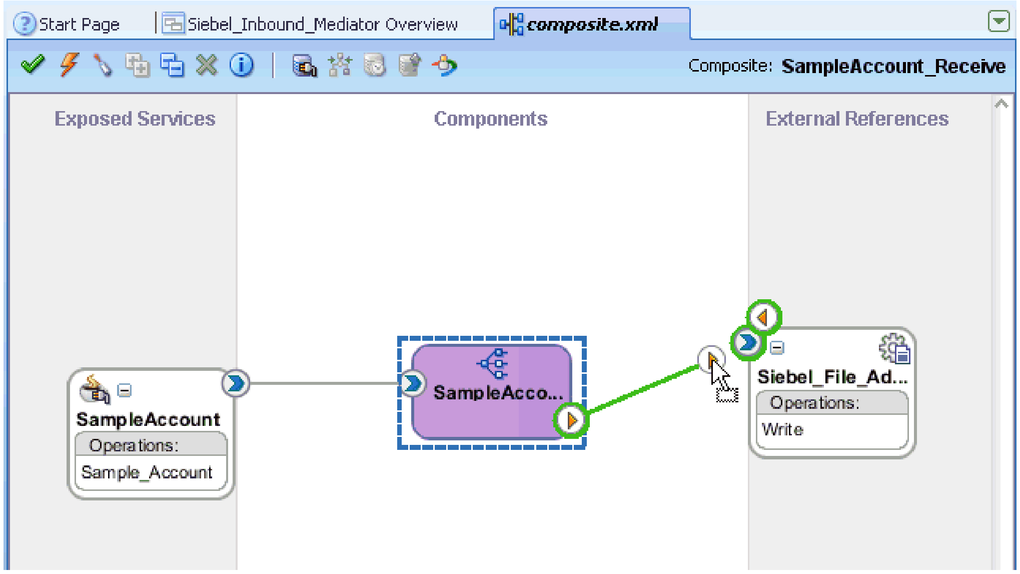
When you click Finish, the wizard will create the C:\JDeveloper\mywork\Siebel_Inbound_Mediator\SampleAccount_Receive\Siebel_File_Adapter.wsdl file in your project directory.

20. Click **Finish**.

21. Create a connection between the inbound Mediator process component and the third party adapter service component.



22. Create a connection between the inbound Mediator process component and the File adapter component.

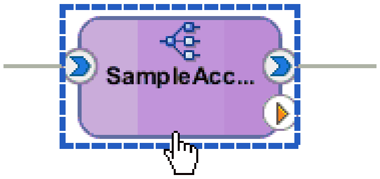


You are now ready to configure the routing rules.

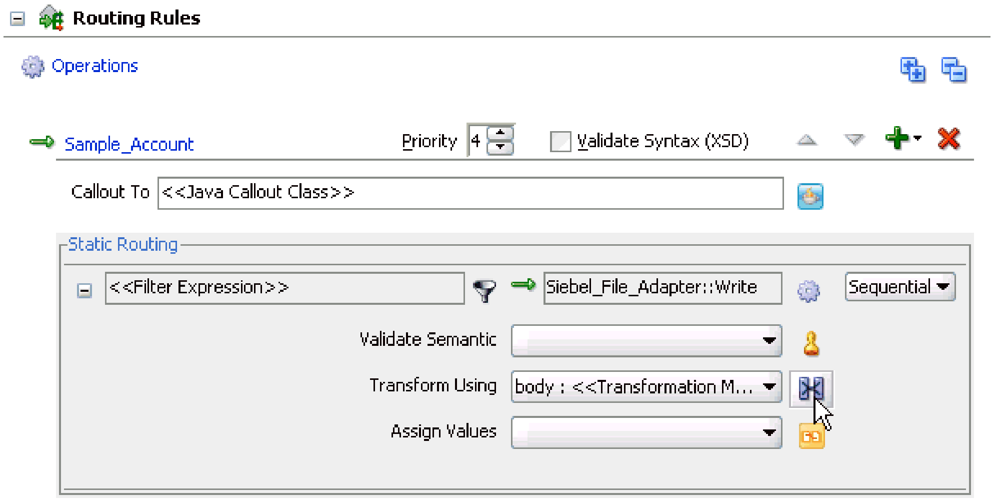
Configuring the Routing Rules

Perform the following steps to configure routing rules for the Mediator inbound process component:

1. Double-click the inbound Mediator process component in the Components pane.



The Routing Rules dialog is displayed.



Priority 4

□ Validate Syntax (XSD)

Callout To <<Java Callout Class>>

<<Filter Expression>> Siebel_File_Adapter::Write Sequential

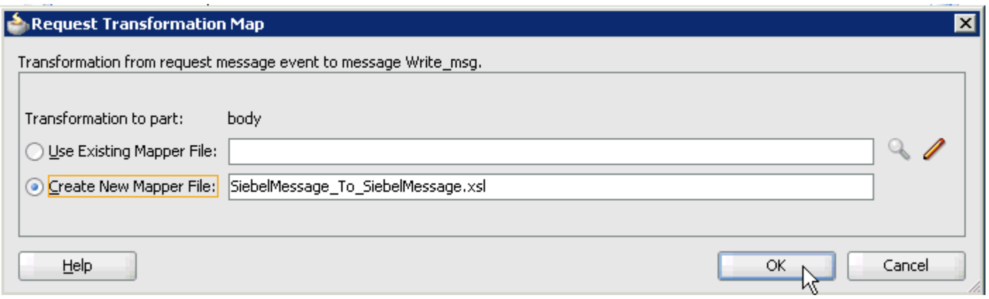
Validate Semantic

Transform Using body : <<Transformation M...

Assign Values

2. In the <<Filter Expression>> area, click the **Select an existing mapper file or create a new one** icon to the right of the Transform Using field.

   The Request Transformation Map dialog is displayed.



Transformation from request message event to message Write_msg.

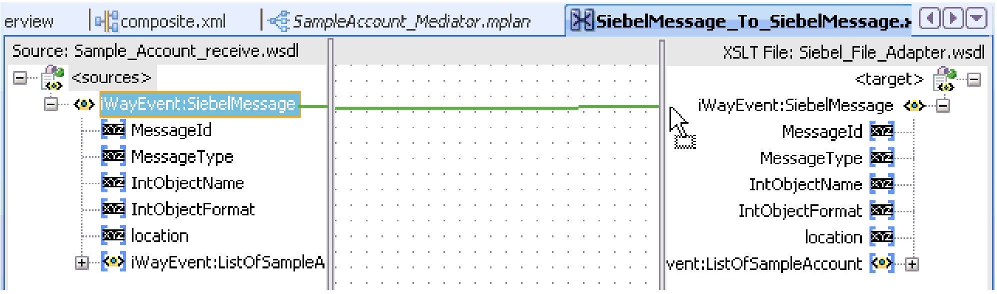
Transformation to part: body

○ Use Existing Mapper File:

● Create New Mapper File: SiebelMessage_To_SiebelMessage.xsl

3. Select the **Create New Mapper File** option and click **OK**.

   The SiebelMessage_To_SiebelMessage.xsl tab is displayed.

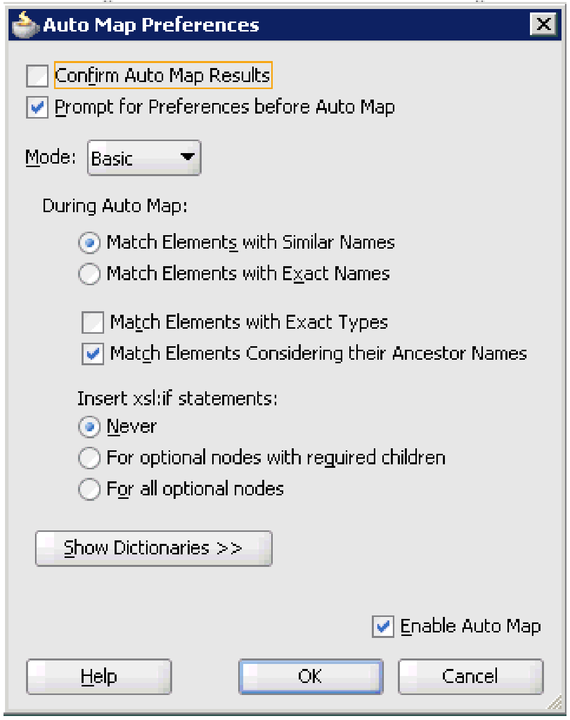


Source: Sample_Account_receive.wsdl

XSLT File: Siebel_File_Adapter.wsdl

4. Map the **iWayEvent:SiebelMessage** source element to the **iWayEvent:SiebelMessage** target element.

   The Auto Map Preferences dialog is displayed.



Auto Map Preferences

□ Confirm Auto Map Results

☑ Prompt for Preferences before Auto Map

Mode: Basic

During Auto Map:

● Match Elements with Similar Names

○ Match Elements with Exact Names

□ Match Elements with Exact Types

☑ Match Elements Considering their Ancestor Names

Insert xsl:if statements:

● Never

○ For optional nodes with required children

○ For all optional nodes

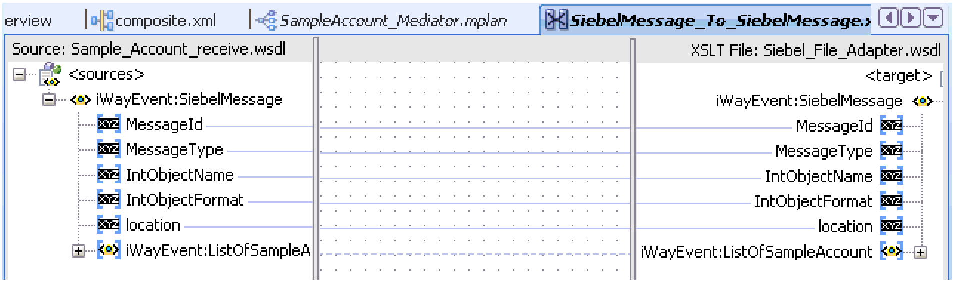
Show Dictionaries >>

☑ Enable Auto Map

Help | OK | Cancel

5. Retain the default values and click **OK**.

   The mapping is now complete.



erview | composite.xml | SampleAccount_Mediator.mplan | SiebelMessage_To_SiebelMessage.x

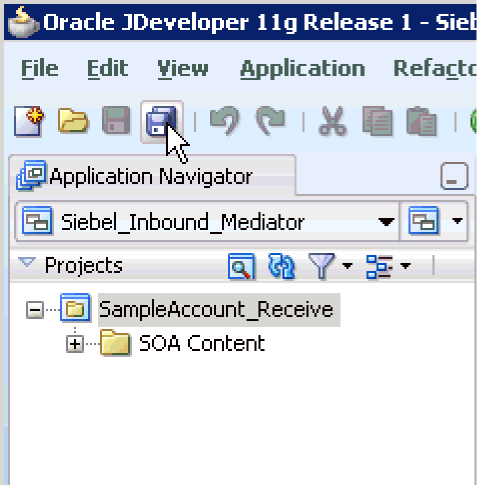
Source: Sample_Account_receive.wsdl

- <sources>
  - iWayEvent:SiebelMessage
    - MessageId
    - MessageType
    - IntObjectName
    - IntObjectFormat
    - location
    - iWayEvent:ListOfSampleA

XSLT File: Siebel_File_Adapter.wsdl

- <target>
  - iWayEvent:SiebelMessage
    - MessageId
    - MessageType
    - IntObjectName
    - IntObjectFormat
    - location
    - iWayEvent:ListOfSampleAccount

6. Click the **Save All** icon in the menu bar to save the new inbound Mediator process component that was configured.



You are now ready to deploy the Mediator inbound process. You can follow the same procedure that is described in "Defining a BPEL Inbound Process" on page 4-44.

Once event messages are triggered through Siebel, output XML is received in the location that was specified for the File adapter component. For more information on triggering events in Siebel, see "Triggering an Event in Siebel" on page 4-55.

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

6.1 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 following directory:

  ```
  C:\oracle\Middleware\Oracle_
  SOA1\soa\thirdparty\ApplicationAdapters\config\config_name\log
  ```

- BSE trace information can be found under the following directory:

  ```
  C:\oracle\Middleware\home_GA\user_projects\domains\base_
  domain\servers\soa_server1\stage\ibse\ibse.war\ibselogs
  ```

- The log file for Application Explorer can be found under the following directory:

  ```
  C:\oracle\Middleware\Oracle_
  SOA1\soa\thirdparty\ApplicationAdapters\tools\iwae\bin
  ```

General Usage Notes for the Oracle Application Adapter for Siebel

The Oracle Application Adapter for Siebel is subject to the following limitations:

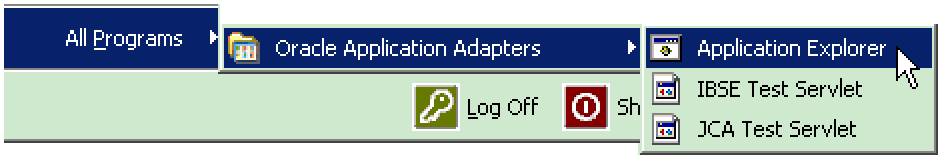
- The HTTPS protocol is not supported for services and events.

- 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:

1. Ensure that Oracle WebLogic Server is started, which is where Application Explorer is deployed.
2. Start Application Explorer by clicking the Windows **Start** menu, selecting **All Programs**, **Oracle Application Adapters**, and clicking **Application Explorer**.



You can also start Application Explorer by executing the **ae.bat** file, which is located in the following directory:

```
C:\oracle\Middleware\home_0309\Oracle_
SOA1\soa\thirdparty\ApplicationAdapters\tools\iwae\bin\ae.bat
```

It is a good practice to create a shortcut for the **ae.bat** file on your desktop.

If you are using a UNIX or Linux platform you can start Application Explorer by executing the **iwae.sh** file.

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 `C:\oracle\Middleware\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\lib` directory. For example, for Siebel 7.03 environments, the `SiebelJI_Common.jar` and `SiebelJI_enu.jar` should be placed in this 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.

Error	Solution
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).
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 are 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`): `java.lang.ClassNotFoundException: org.bouncycastle.jce.provider.BouncyCastleProvider`	This is a benign exception. It does not affect adapter functionality. Download BouncyCastle files from: `ftp://ftp.bouncycastle.org/pub`

Error	Solution

Unable to start Application Explorer in a Solaris environment. The following exception is thrown in the console:
`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)`
`Could not create the connection factory.`
	`JAVACMD` is not set on the user system. Before starting Application Explorer, export `JAVACMD` as follows:
	`JAVACMD=/<jdk_home>/bin/java`, where `<jdk_home>` is the directory where JDK is installed on your system.

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.

Error	Solution
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, the following error is received: `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: `C:\oracle\Middleware\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\tools\iwae\bin\..\..\..\`

6.2 BSE Error Messages

This topic discusses the different types of errors that can occur when processing Web services through BSE.

6.2.1 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.

6.2.2 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

7.1 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 is not governed by it. However, if a policy is applied to the iBS, all methods are governed by it. At run-time, the user ID and password that are sent to 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.

7.1.1 Configuring Web Services Policy-Based Security

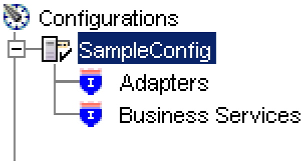
The following procedures describe how to configure Web services policy-based security.

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.

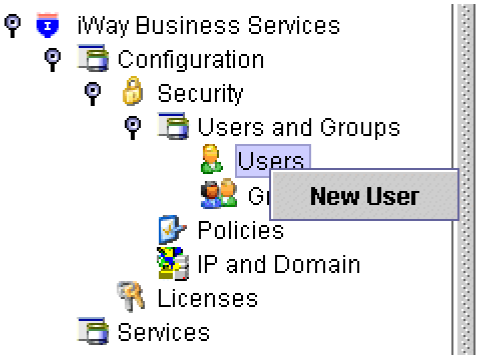
1. Start Application Explorer.
2. Right-click the configuration to which you want to connect, for example, SampleConfig. See Chapter 2, "Configuring Oracle Application Server Adapter for Siebel" for information on creating a new configuration.
3. Select Connect.

   Nodes appear for **Adapters** and **Business Services** (also known as Web services).

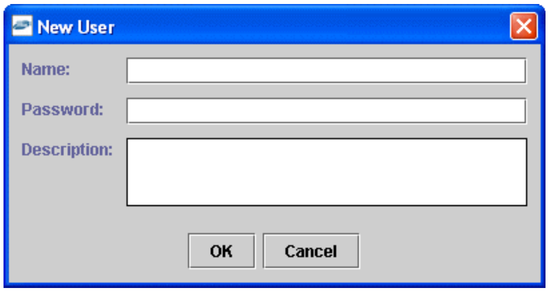


   Perform the following steps:

   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:

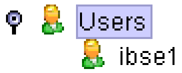
a. In the Name field, enter a user ID.

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

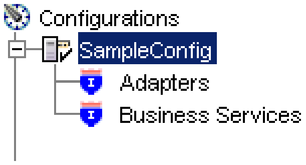
To create a group to use with a policy:

1. Start Application Explorer.

2. Right-click the configuration to which you want to connect, for example, SampleConfig. See Chapter 2, "Configuring Oracle Application Server Adapter for Siebel" for information on creating a new configuration.

3. Select Connect.

Nodes appear for **Adapters** and **Business Services** (also known as Web services).



Perform the following steps:

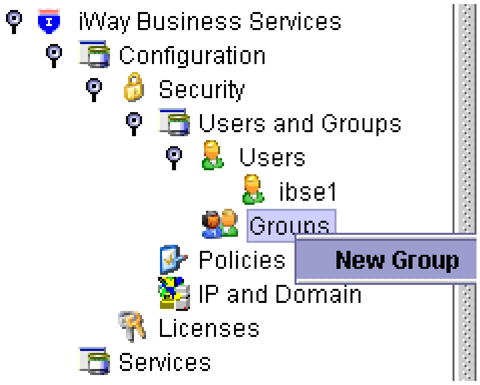
a. Expand the Business Services node.

b. Expand the Configurations node.

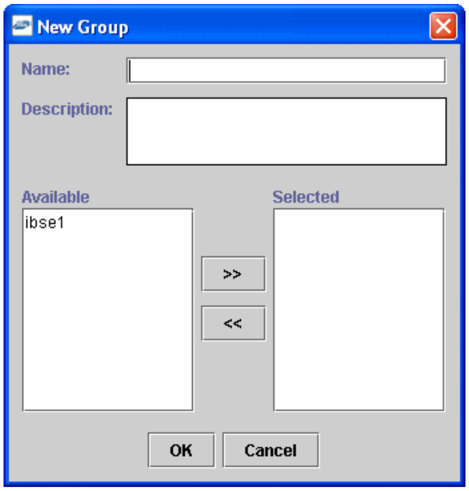
c. Expand the Security node.

d. Expand the Users and Groups node.

4. Right-click Groups and select New Group.



The New Group dialog box is displayed.



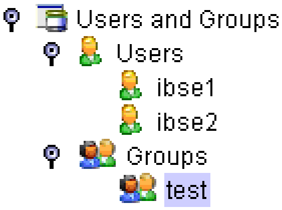
Perform the following steps:

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.

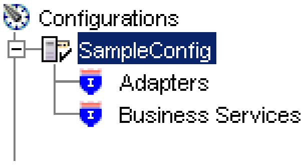
To create an execution policy:

1. Start Application Explorer.

2. Right-click the configuration to which you want to connect, for example, SampleConfig. See Chapter 2, "Configuring Oracle Application Server Adapter for Siebel" for information on creating a new configuration.

3. Select Connect.

Nodes appear for **Adapters** and **Business Services** (also known as Web services).



Perform the following steps:

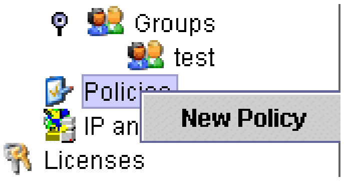
a. Expand the Business Services node.

b. Expand the Configurations node.

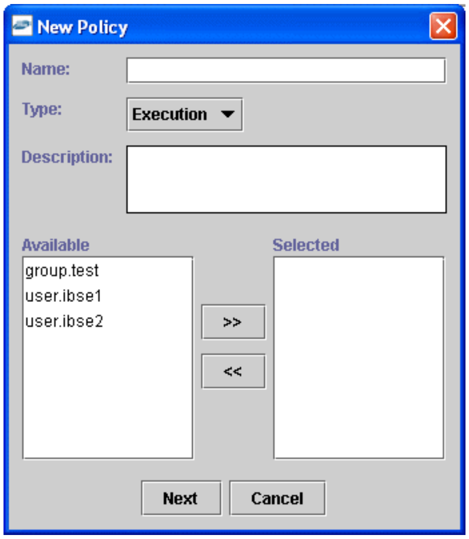
c. Expand the Security node.

d. Expand the Policies node.

4. Right-click Policies and select New Policy.



The New policy dialog box is displayed.



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.

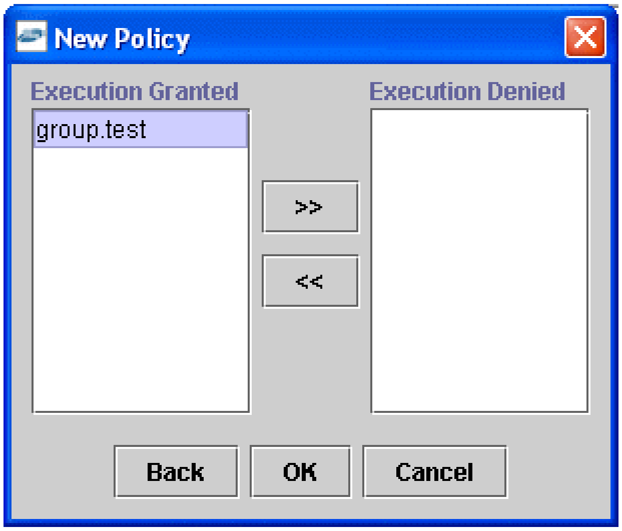
6. Click Next.

   The New Policy permissions dialog box is displayed.

7. When you have selected at least one user, click OK.

8. Click Next.

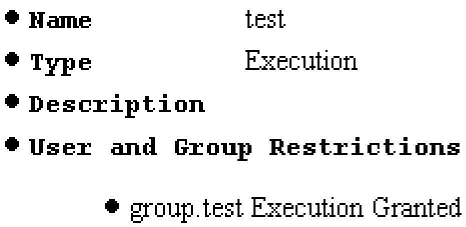
The New Policy permissions dialog box is displayed.



- 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.

9. Click OK.

   The following pane summarizes your configuration.



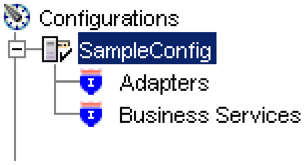
- **Name** test
- **Type** Execution
- **Description**
- **User and Group Restrictions**
  - group.test Execution Granted

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 Server Adapter for Siebel" for information on creating a new configuration.
3. Select Connect.

   Nodes appear for **Adapters** and **Business Services** (also known as Web services).



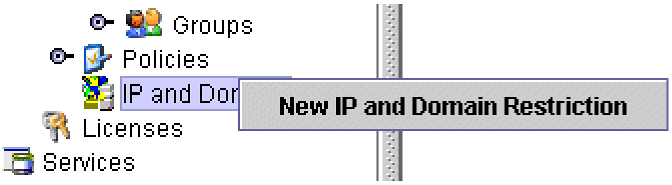
Perform the following steps:

a. Expand the Business Services node.

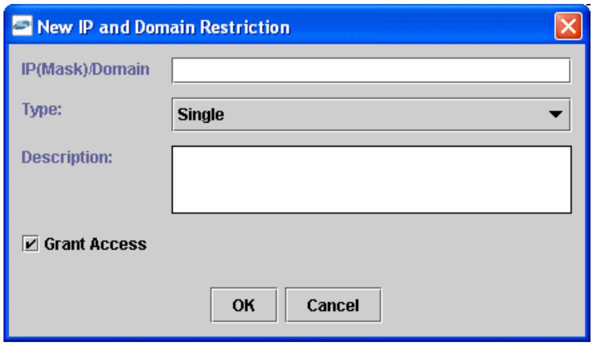
b. Expand the Configurations node.

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.



New IP and Domain Restriction

IP(Mask)/Domain

Type: Single

Description:

☑ Grant Access

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.

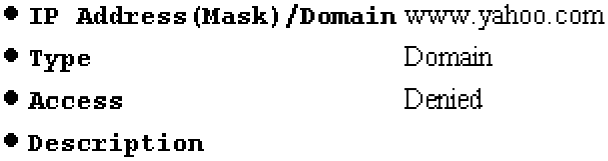
c. In the Description field, enter a description (optional).

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**

7.2 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

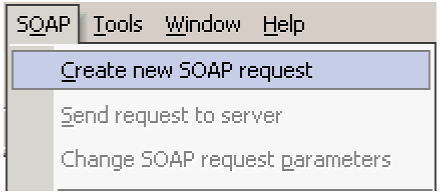
To migrate a BSE repository:

1. Copy the BSE control service URL, for example:

   ```
   http://localhost:8001/ibse/IBSEServlet/admin/iwcontrol.ibs
   ```

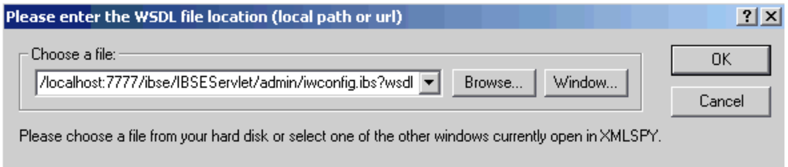
2. Open a third party XML editor, for example, XMLSPY.
3. From the menu bar, click SOAP.

   A list of options appears.



4. Select Create new SOAP request.

   The WSDL file location dialog box is displayed.



Please enter the WSDL file location (local path or url)

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:

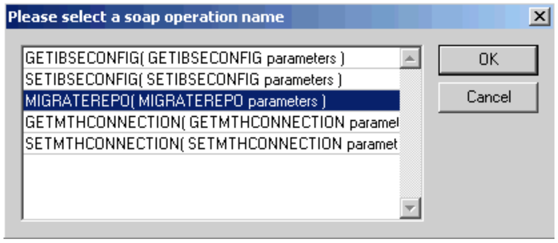
   a. In the Choose a file field, paste the BSE control service URL.

   b. Append ?wsdl to the URL, for example:

   ```
   http://localhost:8001/ibse/IBSEServlet/admin/iwcontrol.ibs?wsdl
   ```

5. Click OK.

   The soap operation name dialog box displays the available control methods.

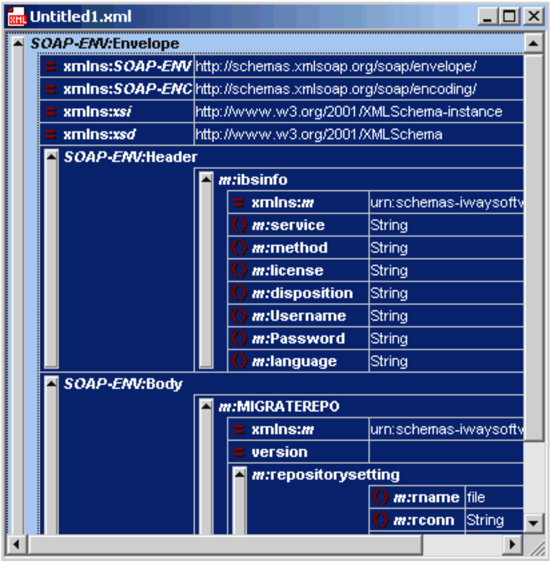


GETIBSECONFIG(GETIBSECONFIG parameters)
SETIBSECONFIG(SETIBSECONFIG parameters)
MIGRATEREPO(MIGRATEREPO parameters)
GETMTHCONNECTION(GETMTHCONNECTION paramet
SETMTHCONNECTION(SETMTHCONNECTION paramet

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

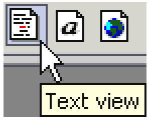
Note: The MIGRATEREPO(MIGRATEREPO parameters) control method is available from the BSE administration console. This control method migrates all Web services to the new (empty) repository. You can choose to migrate select Web services only.

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:

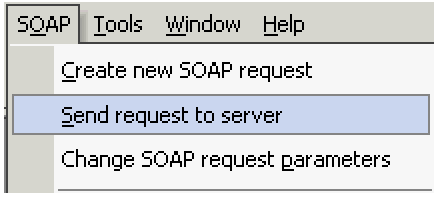
      ```
      <m:servicename>SiebelService1</m:servicename>
      ```

    - 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:

   ```
   C:\oracle\Middleware\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\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.

A.1 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.

A.1.1 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.

A.1.2 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.

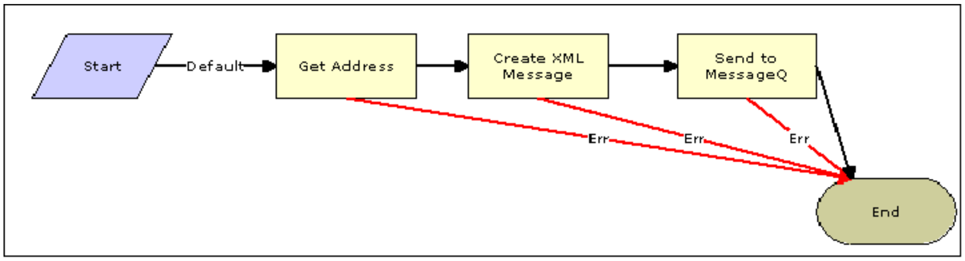
A.1.3 Siebel Workflow - Outbound

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.



A.1.4 Siebel Workflow - Inbound

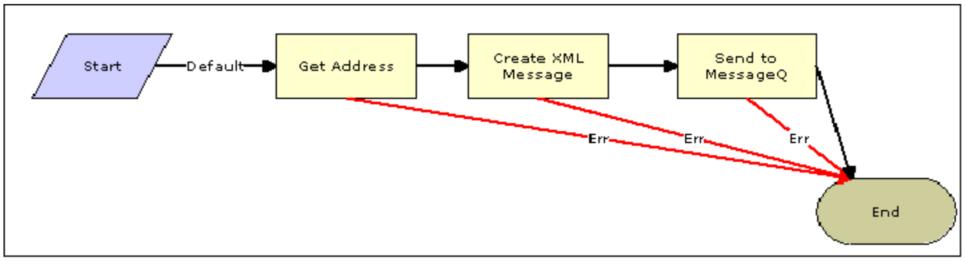
A Siebel Workflow that is triggered by an external event begins by receiving a Siebel XML document placed on one of its transports. The result might be the update of a Siebel record using the XML as input, for example, when a new account is added in another CRM system but also must be updated in the 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.



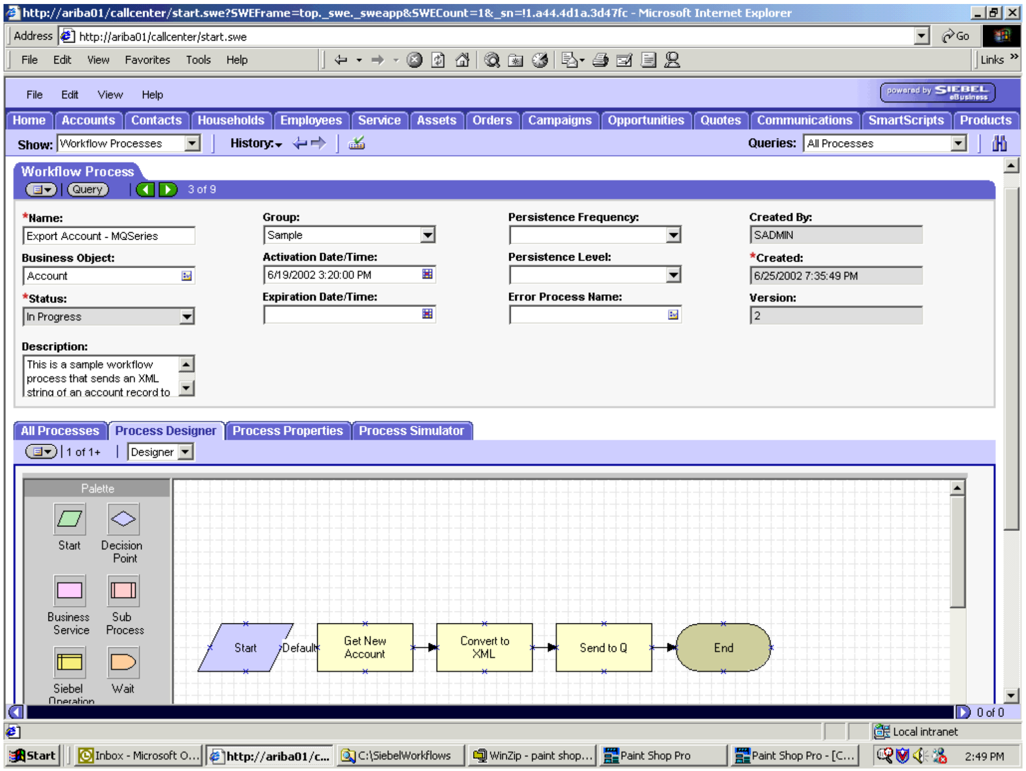
A.2 Creating a Siebel Workflow

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

A.2.1 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.



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
History:
Workflow Process
Query
3 of 9
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
Get New Account
Convert to XML
Send to Q
End
0 of 0
Local intranet
Start Inbox - Microsoft O... http://ariba01/c... C:\SiebelWorkflows WinZip - paint shop... Paint Shop Pro Paint Shop Pro - [C...
2:49 PM

Show: Workflow Processes

Queries: All Processes

*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.

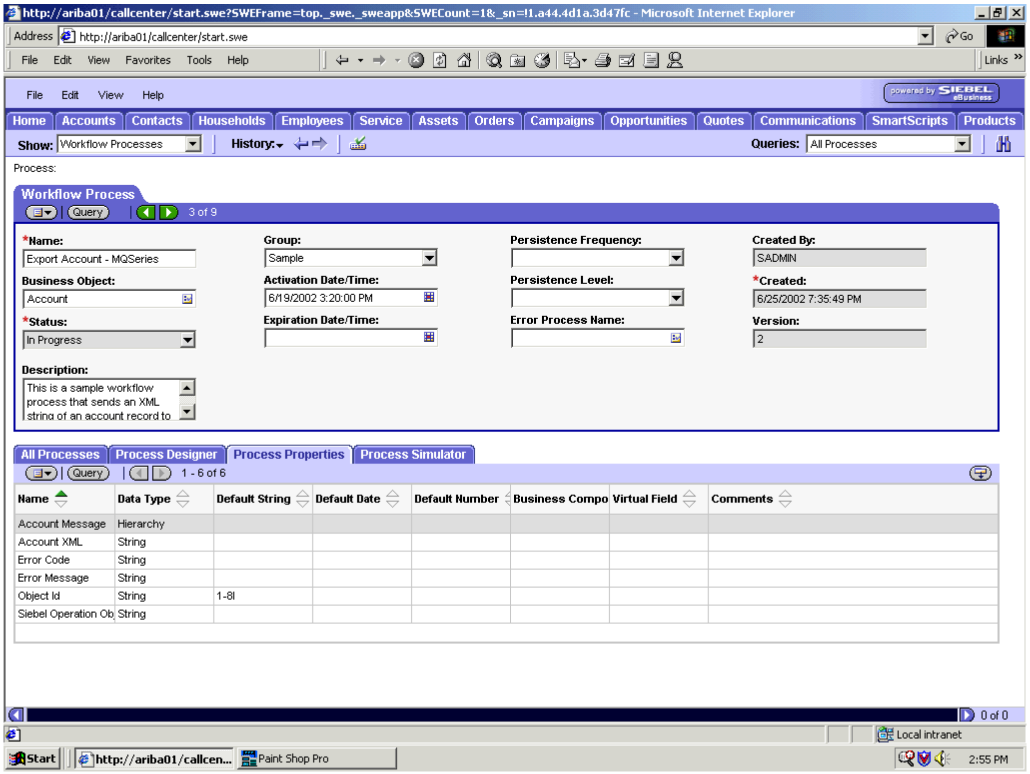
To create a Siebel Workflow:

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
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 9
All Processes
Process Designer
Process Properties
Process Simulator
1 - 6 of 6
0 of 0
Local intranet
Start
http://ariba01/callcen...
Paint Shop Pro
2:55 PM

Show: Workflow Processes

Queries: All Processes

Process:

*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

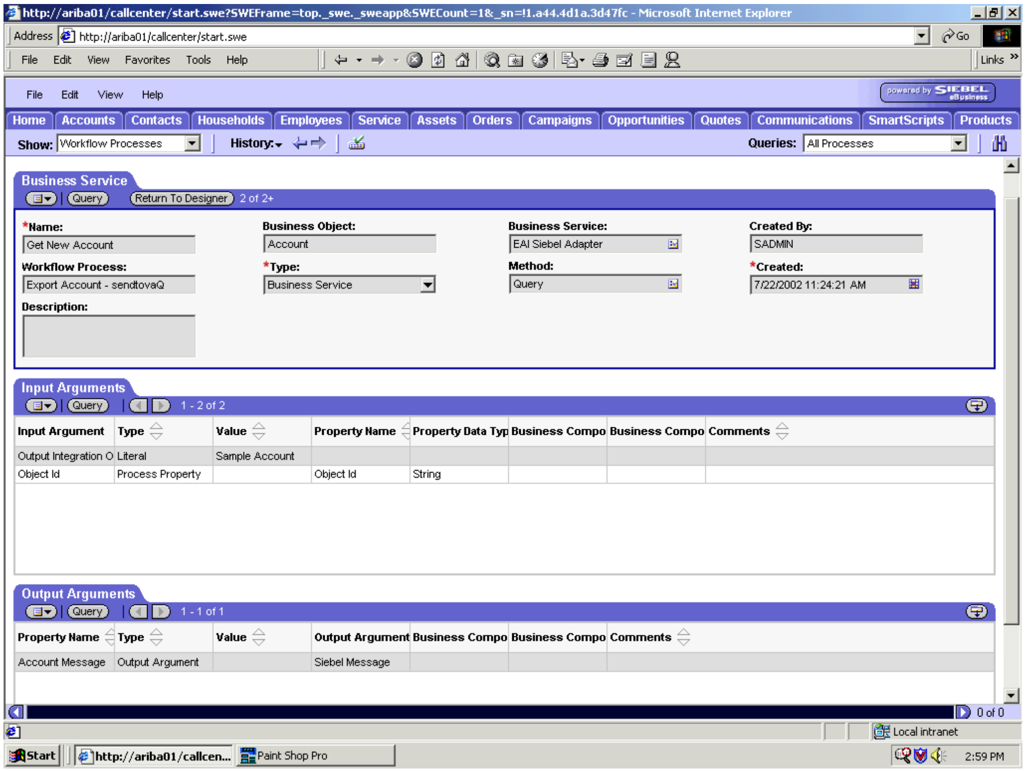
Name	Data Type	Default String	Default Date	Default Number	Business Compo	Virtual Field	Comments
Account Message	Hierarchy						
Account XML	String						
Error Code	String						
Error Message	String						
Object Id	String	1-8I					
Siebel Operation Ob	String						

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
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:
Query
Return To Designer
Start
http://ariba01/callcen...
Paint Shop Pro
Local intranet
2:59 PM

Show: Workflow Processes

Queries: All Processes

Business Service

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

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

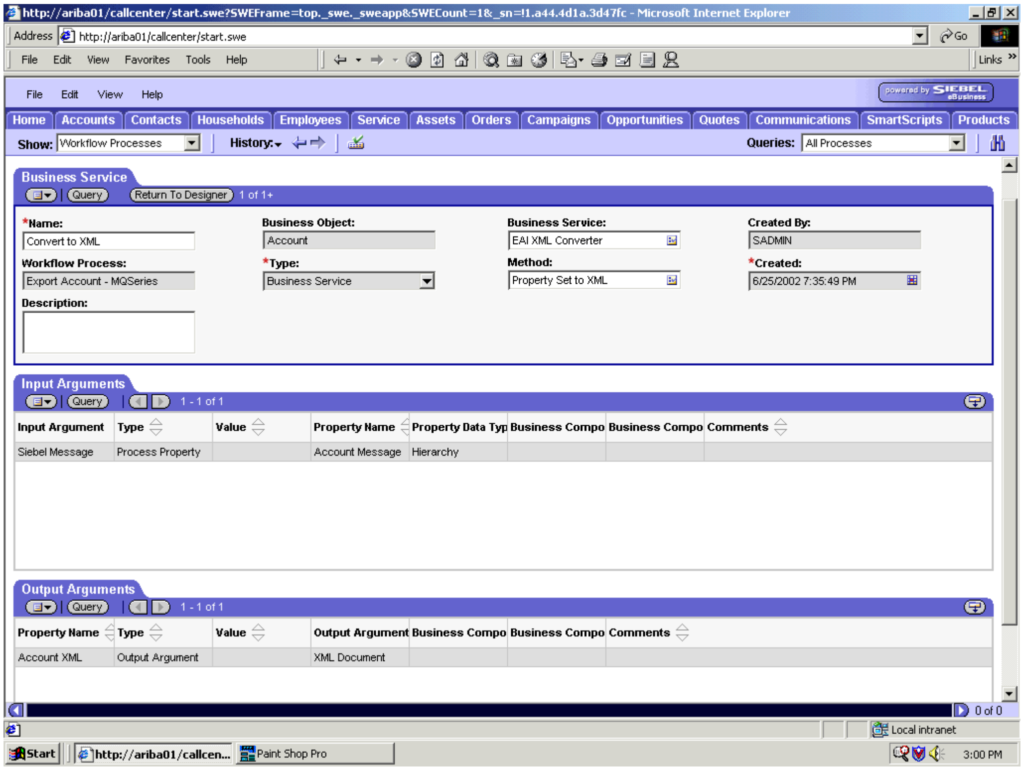
1 - 1 of 1

Property Name	Type	Value	Output Argument	Business Compo	Business Compo	Comments
Account Message	Output Argument		Siebel Message			

0 of 0

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
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:
Query
Return To Designer
Start
http://ariba01/callcen...
Paint Shop Pro
Local intranet
3:00 PM

Show: Workflow Processes

Queries: All Processes

Business Service

1 of 1+

*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

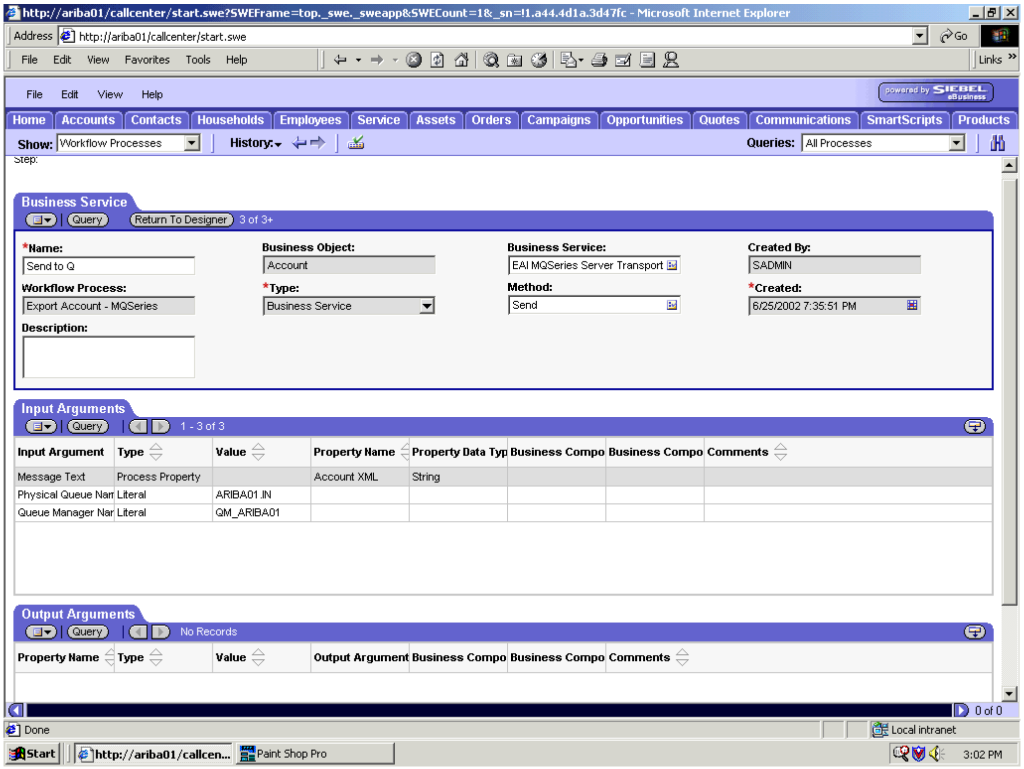
1 - 1 of 1

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
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
3 of 3+
Input Arguments
1 - 3 of 3
Output Arguments
No Records
Done
Local intranet
Start
Paint Shop Pro
3:02 PM

*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:			

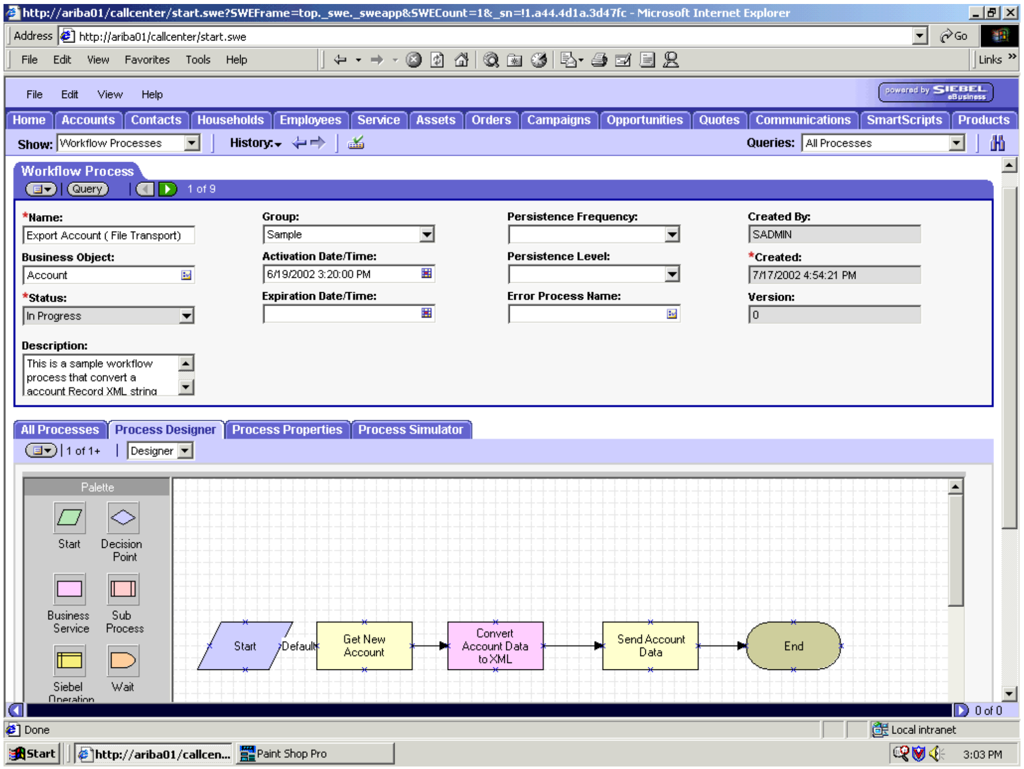
Input Argument	Type	Value	Property Name	Property Data Typ	Business Compo	Business Compo	Comments
Message Text	Process Property		Account XML	String			
Physical Queue Nam	Literal	ARIBA01.IN					
Queue Manager Nar	Literal	QM_ARIBA01					

Property Name	Type	Value	Output Argument	Business Compo	Business Compo	Comments

A.2.2 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.

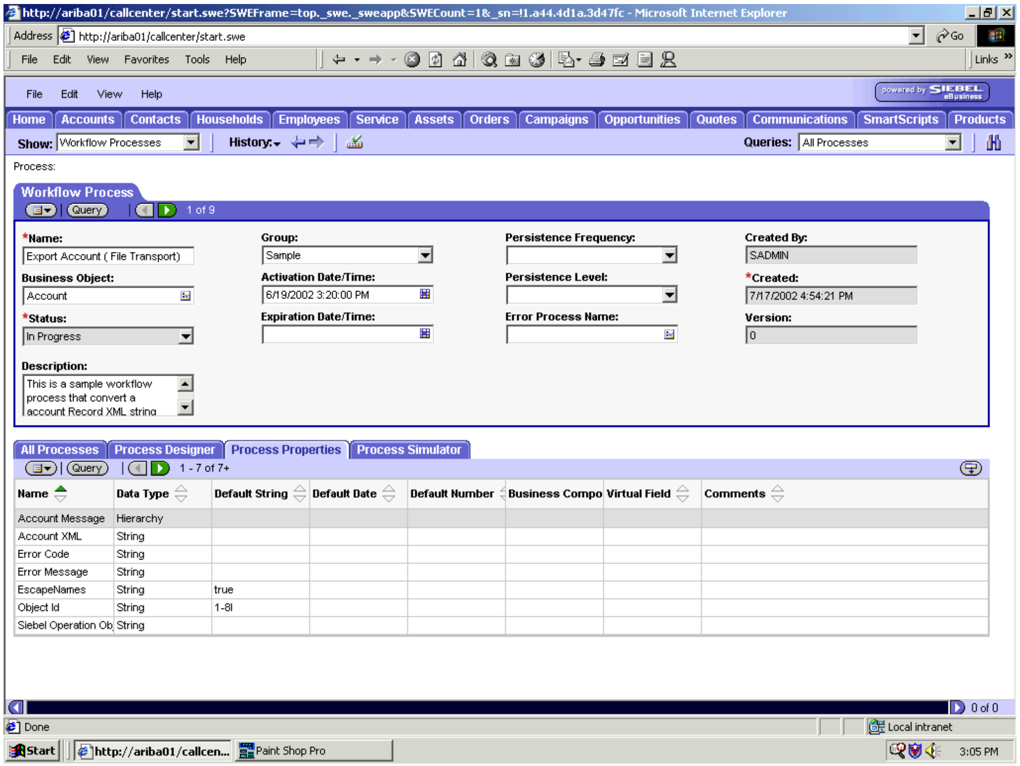

http://ariba01/callcenter/start.swe?SWEFrame=top._swe._sweapp&SWECount=1&_sn=!1.a44.4d1a.3d47fc - Microsoft Internet Explorer
Address http://ariba01/callcenter/start.swe
File Edit View Favorites Tools Help
Home Accounts Contacts Households Employees Service Assets Orders Campaigns Opportunities Quotes Communications SmartScripts Products
Show: Workflow Processes
History:
Queries: All Processes
Workflow Process
Query
1 of 9
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
Get New Account
Convert Account Data to XML
Send Account Data
End
0 of 0
Done
Local intranet
Start
http://ariba01/callcen...
Paint Shop Pro
3:03 PM

*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

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
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
Process:
Workflow Process
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

*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						

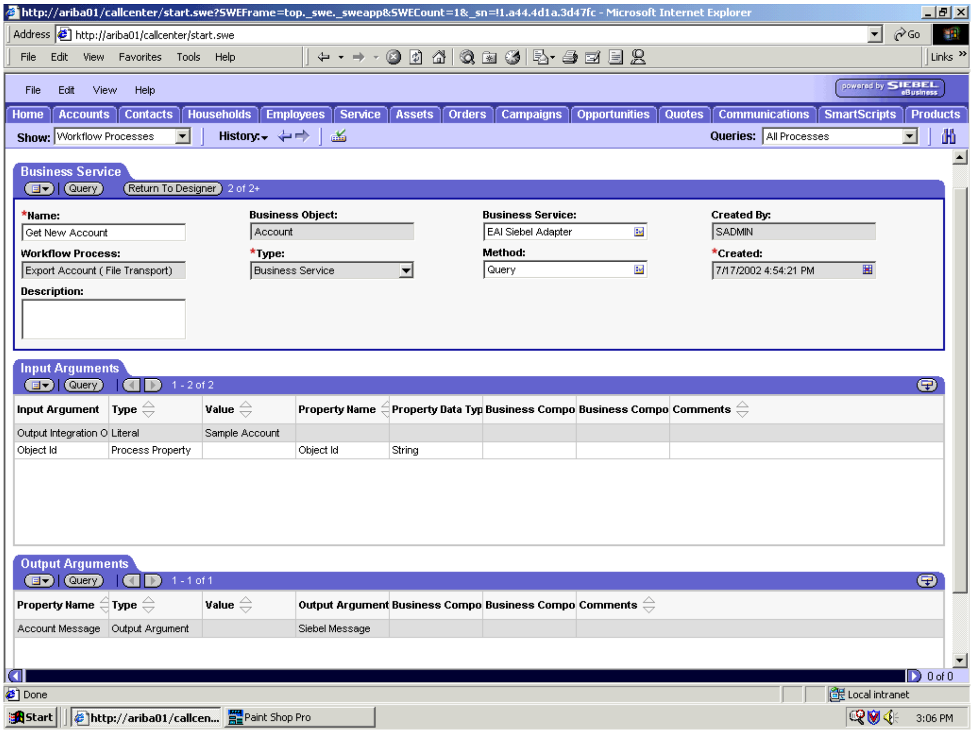
1. On the Process Properties tab of the Workflow Process window, define the Account message and Account XML process properties.

   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
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
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
3:06 PM

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

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			

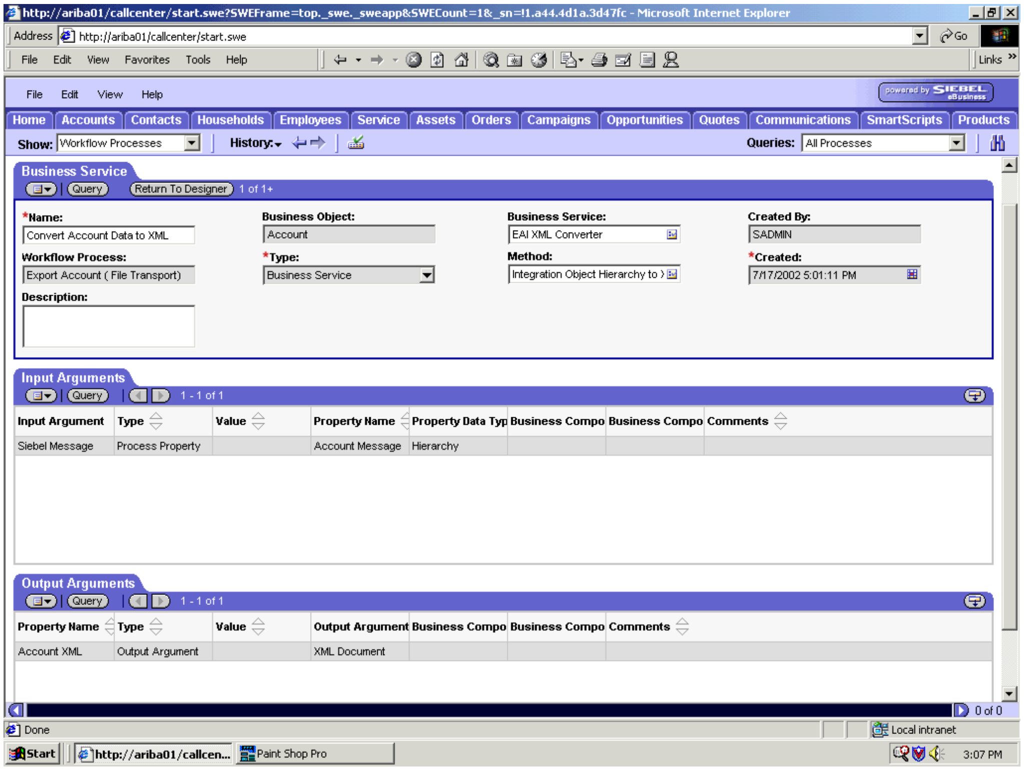
Output Arguments

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
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
Done
Local intranet
Start
http://ariba01/callcen...
Paint Shop Pro
3:07 PM

Show: Workflow Processes

Queries: All Processes

Business Service 1 of 1+

*Name: Convert Account Data to XML	Business Object: Account	Business Service: EAI XML Converter	Created By: SADMIN
Workflow Process: Export Account (File Transport)	*Type: Business Service	Method: Integration Object Hierarchy to ›	*Created: 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			

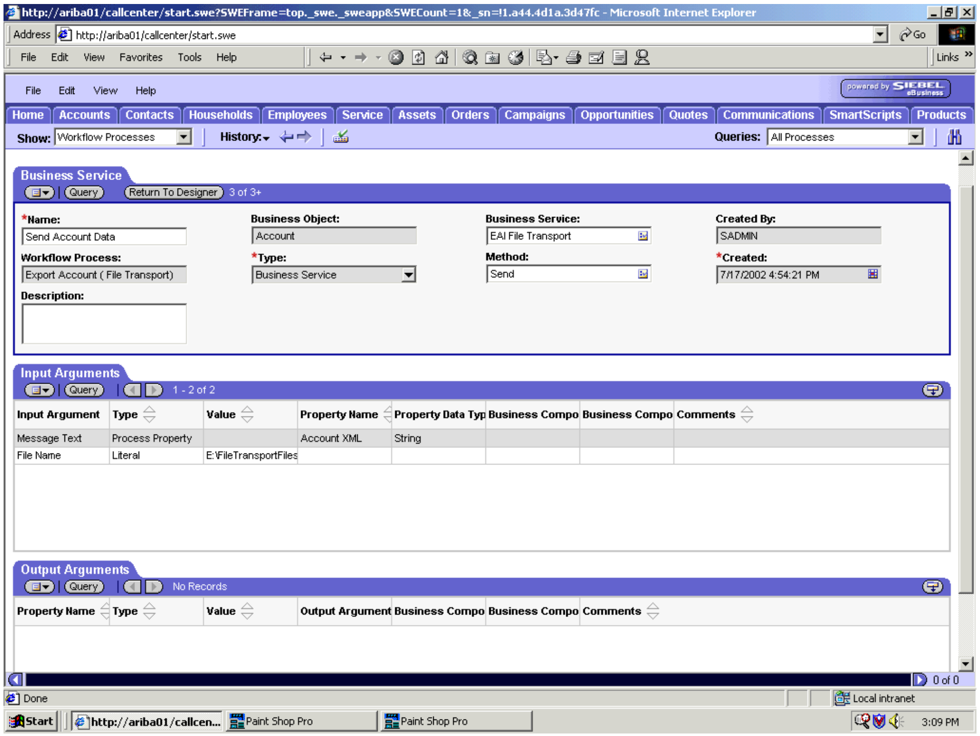
Output Arguments 1 - 1 of 1

Property Name	Type	Value	Output Argument	Business Compo	Business Compo	Comments
Account XML	Output Argument		XML Document			

0 of 0

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
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
Done
Local intranet
Start
http://ariba01/callcen...
Paint Shop Pro
Paint Shop Pro
3:09 PM

Show: Workflow Processes

Queries: All Processes

Business Service 3 of 3+

*Name: Send Account Data	Business Object: Account	Business Service: EAI File Transport	Created By: SADMIN
Workflow Process: Export Account (File Transport)	*Type: Business Service	Method: Send	*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
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

0 of 0

5. Define an EAI File Transport Business Service step and call it `Send Account Data`.

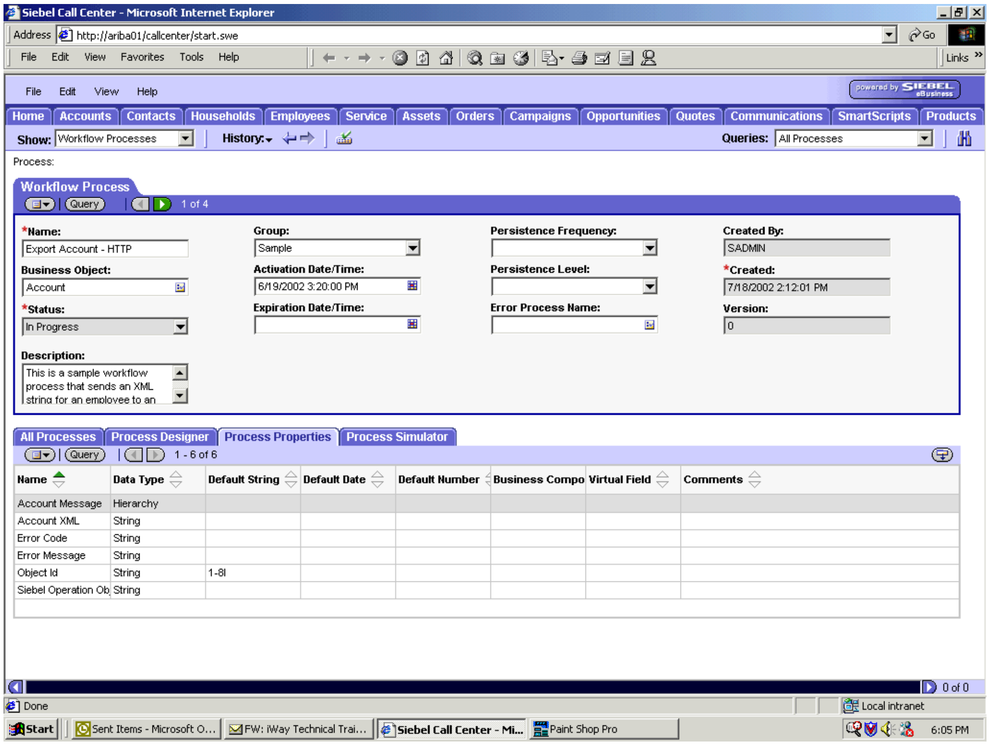
   This Business Service is defined to receive the Account data from the EAI XML Converter Business Service in Siebel XML format and send the Account XML to the file system in a specified directory using the Send method.

A.2.3 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
Home Accounts Contacts Households Employees Service Assets Orders Campaigns Opportunities Quotes Communications SmartScripts Products
History:
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

Process:

Workflow Process

*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

Process Properties

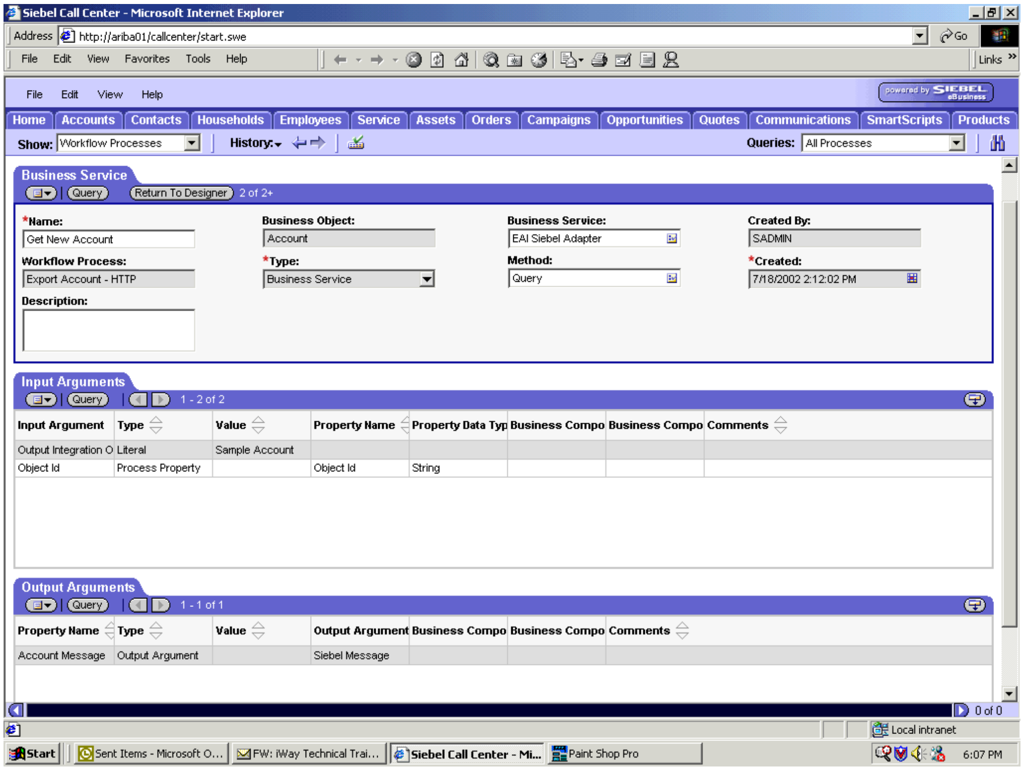
Name	Data Type	Default String	Default Date	Default Number	Business Compo	Virtual Field	Comments
Account Message	Hierarchy						
Account XML	String						
Error Code	String						
Error Message	String						
Object Id	String	1-8I					
Siebel Operation Ob	String						

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
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
Query
Return To Designer
2 of 2+
1 - 2 of 2
1 - 1 of 1
0 of 0
Local intranet
Start
Sent Items - Microsoft O...
FW: iWay Technical Trai...
Siebel Call Center - Mi...
Paint Shop Pro
6:07 PM

Business Service

*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

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

Property Name	Type	Value	Output Argument	Business Compo	Business Compo	Comments
Account Message	Output Argument		Siebel Message			

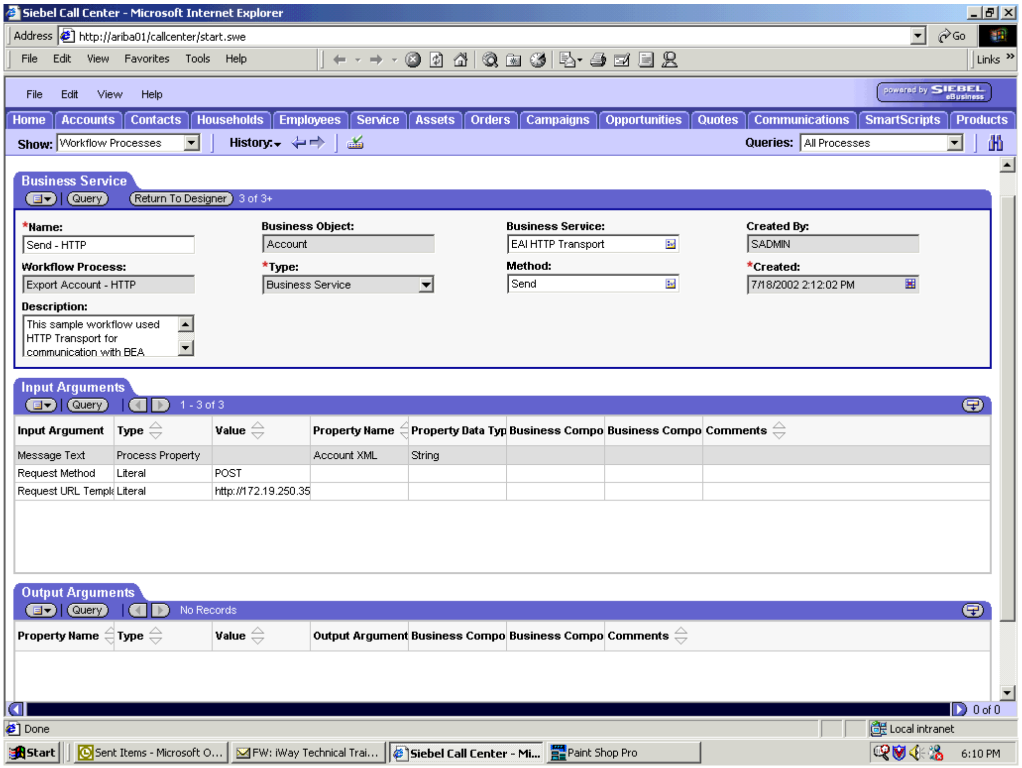
3. Define an EAI Siebel Adapter Business Service step to receive an instance of Account data and call it `Get New Account`.

   The Business Service obtains the Account information from Siebel using the Query method.

   Output from this Business Service is generated in hierarchical format.

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
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
3 of 3+
Done
Local intranet
Start
Sent Items - Microsoft O...
FW: iWay Technical Trai...
Siebel Call Center - Mi...
Paint Shop Pro
6:10 PM

Business Service

*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

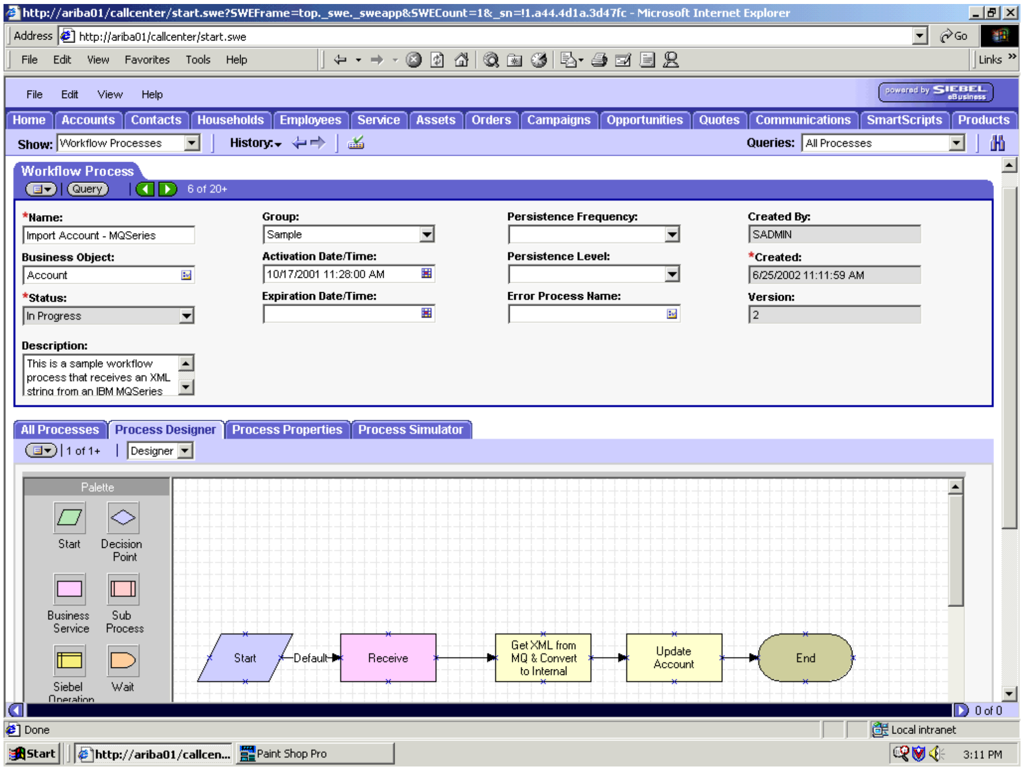
5. Define an EAI HTTP Transport Business Service step and call it `Send - HTTP`.

   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.

A.2.4 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
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
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

Business Object: Account

*Status: In Progress

Description: This is a sample workflow process that receives an XML string from an IBM MQSeries

Group: Sample

Activation Date/Time: 10/17/2001 11:28:00 AM

Expiration Date/Time:

Persistence Frequency:

Persistence Level:

Error Process Name:

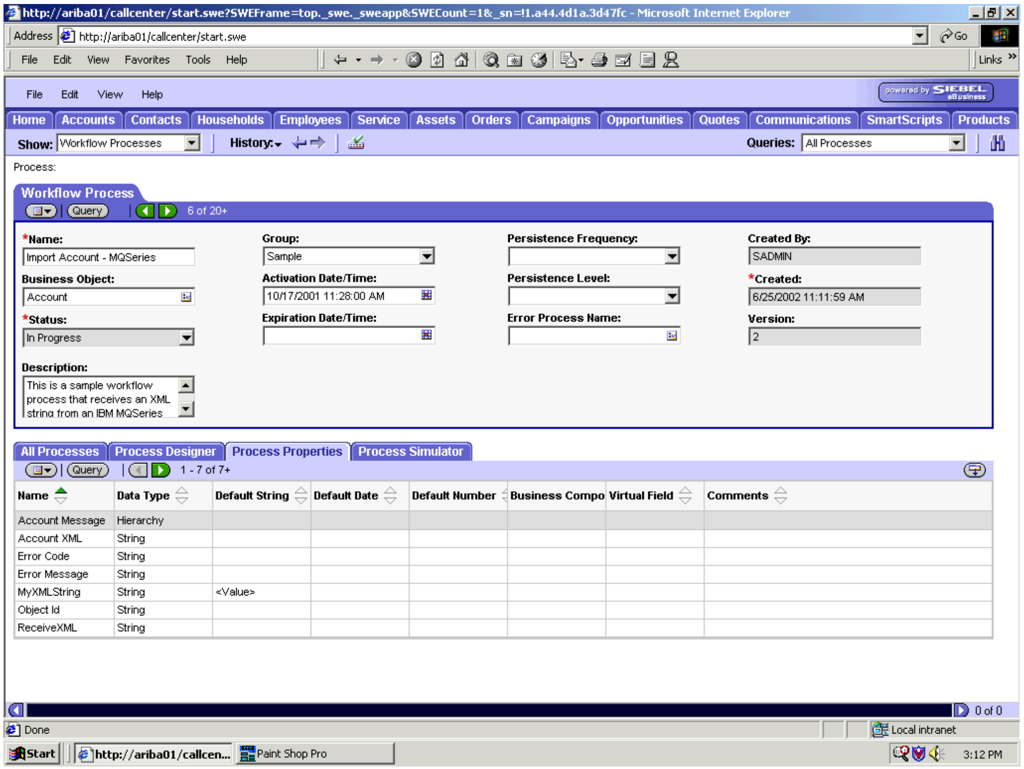
Created By: SADMIN

*Created: 6/25/2002 11:11:59 AM

Version: 2

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
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
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

Business Object: Account

*Status: In Progress

Description: This is a sample workflow process that receives an XML string from an IBM MQSeries

Group: Sample

Activation Date/Time: 10/17/2001 11:28:00 AM

Expiration Date/Time:

Persistence Frequency:

Persistence Level:

Error Process Name:

Created By: SADMIN

*Created: 6/25/2002 11:11:59 AM

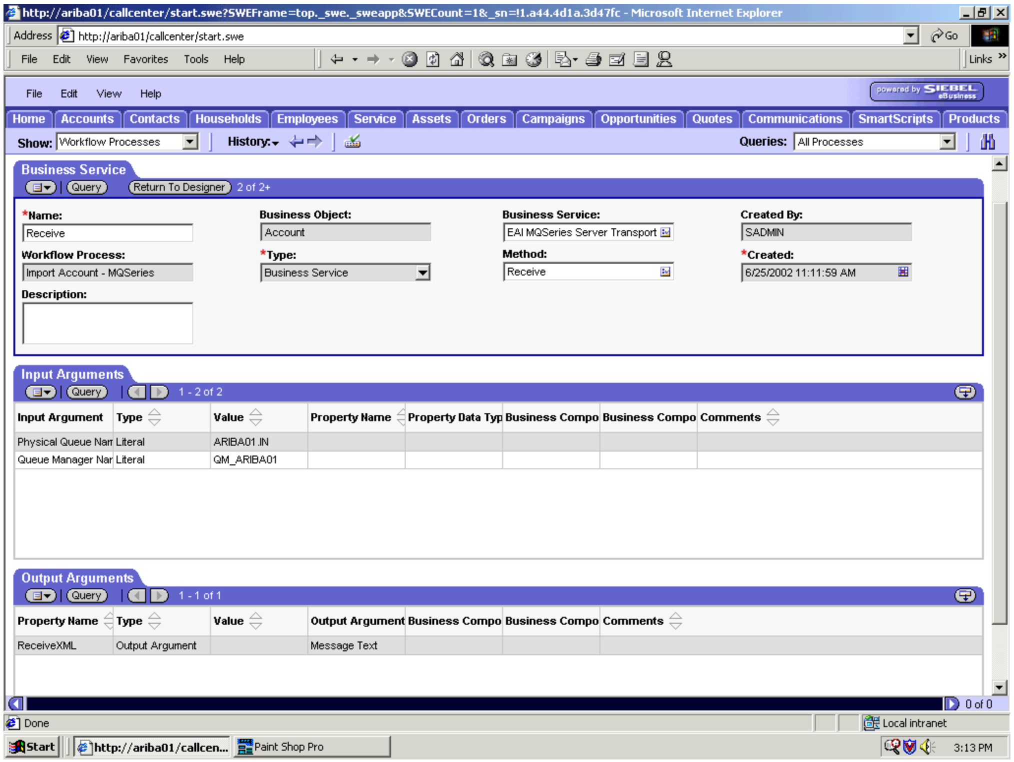
Version: 2

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
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
Query
Return To Designer
2 of 2+
Done
Local intranet
Start
http://ariba01/callcen...
Paint Shop Pro
3:13 PM
0 of 0

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

1 - 2 of 2

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

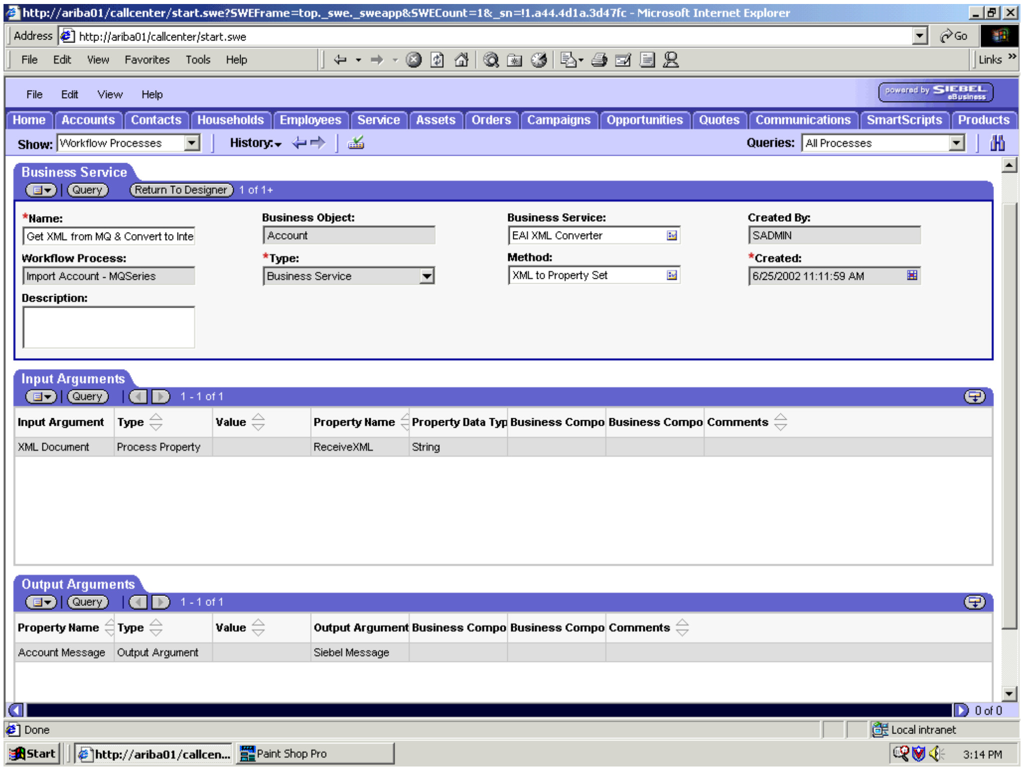
1 - 1 of 1

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.


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
Done
Local intranet
Start
Paint Shop Pro
3:14 PM

Business Service 1 of 1+

*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 1 - 1 of 1

Input Argument	Type	Value	Property Name	Property Data Typ	Business Compo	Business Compo	Comments
XML Document	Process Property		ReceiveXML	String			

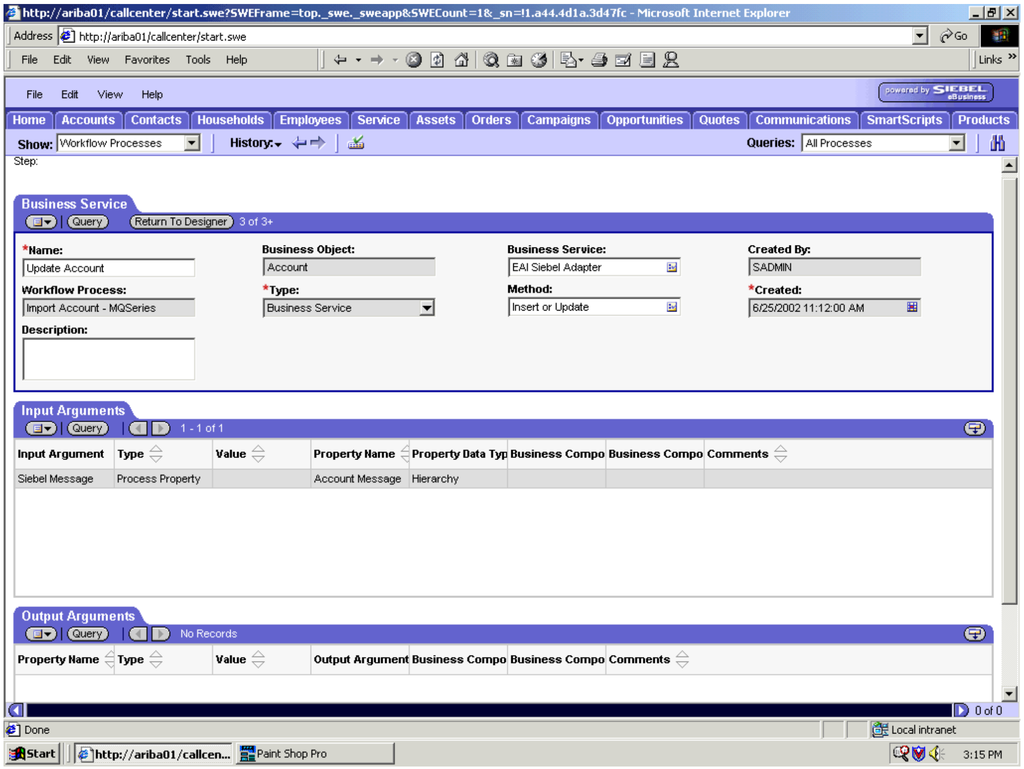
Output Arguments 1 - 1 of 1

Property Name	Type	Value	Output Argument	Business Compo	Business Compo	Comments
Account Message	Output Argument		Siebel Message			

0 of 0

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
Home Accounts Contacts Households Employees Service Assets Orders Campaigns Opportunities Quotes Communications SmartScripts Products
Show: Workflow Processes
History:
Queries: All Processes
Step:
Query
Return To Designer
Done
Local intranet
Start
Paint Shop Pro
3:15 PM

Business Service 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 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 No Records

Property Name	Type	Value	Output Argument	Business Compo	Business Compo	Comments

0 of 0

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.

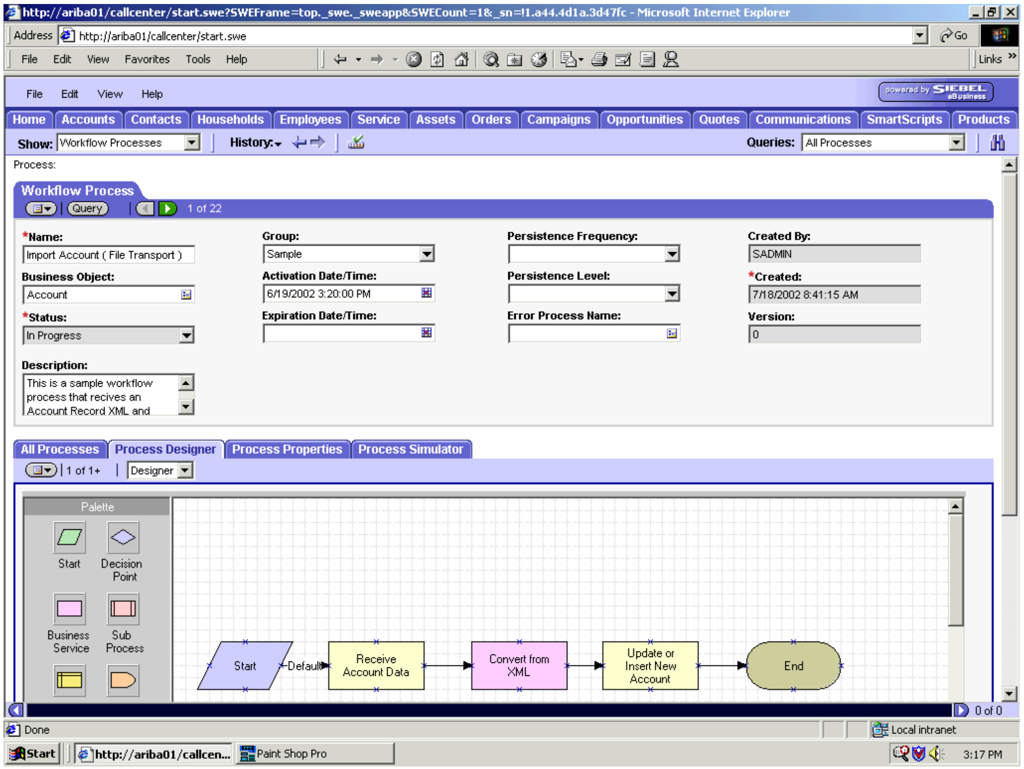
   The Business Service applies the Account information into Siebel using the Insert or Update method.

A.2.5 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

Show: Workflow Processes

Queries: All Processes

Process:

Workflow Process — 1 of 22

*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:

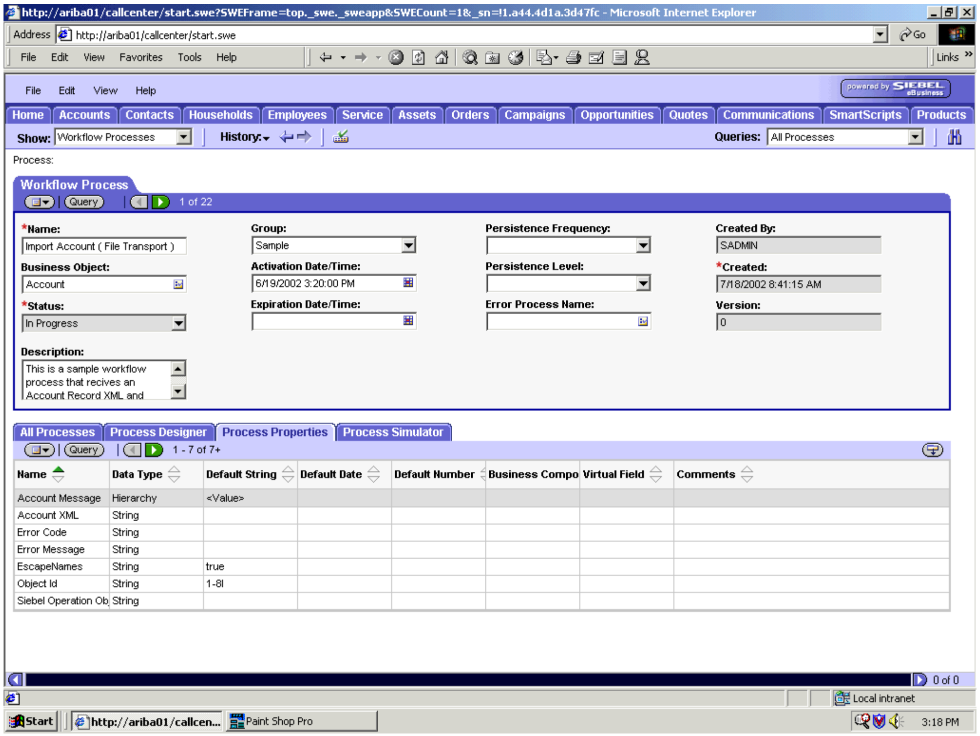
Error Process Name:

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
Start http://ariba01/callcen... Paint Shop Pro 3:18 PM
Local intranet

Process:

Workflow Process

Query 1 of 22

*Name: Import 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: 7/18/2002 8:41:15 AM
*Status: In Progress	Expiration Date/Time:	Error Process Name:	Version: 0

Description: This is a sample workflow process that recives an Account Record XML and

All Processes | Process Designer | Process Properties | Process Simulator

Query 1 - 7 of 7+

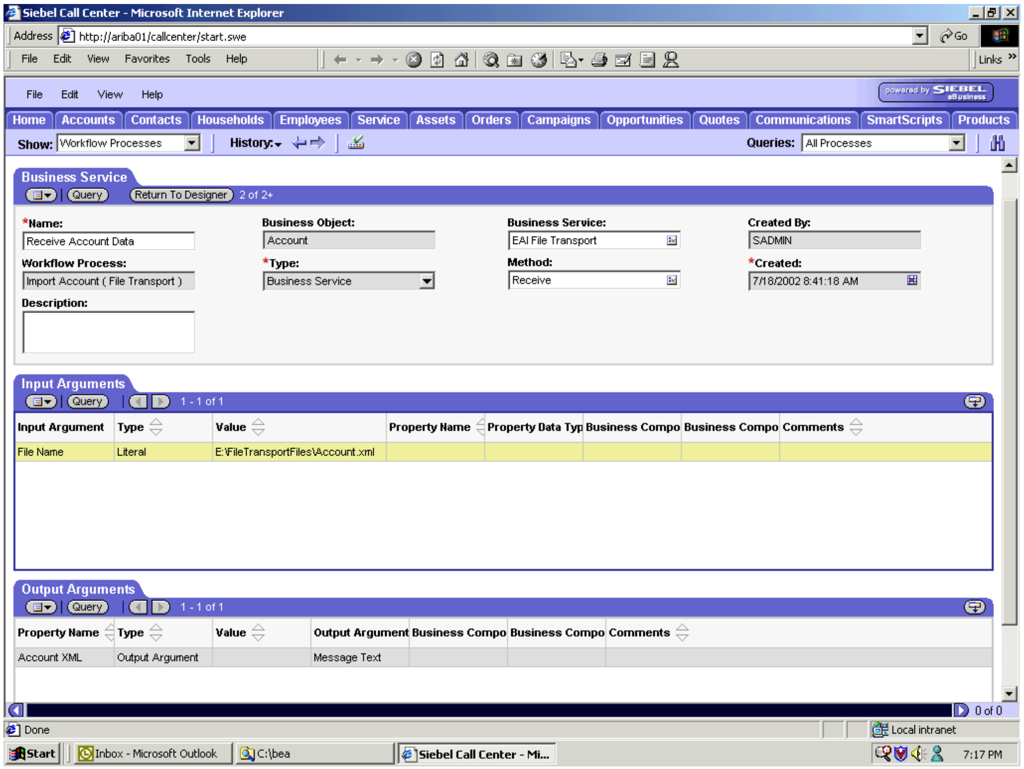
Name	Data Type	Default String	Default Date	Default Number	Business Compo	Virtual Field	Comments
Account Message	Hierarchy	<Value>					
Account XML	String						
Error Code	String						
Error Message	String						
EscapeNames	String	true					
Object Id	String	1-8I					
Siebel Operation Ob	String						

0 of 0

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
Home Accounts Contacts Households Employees Service Assets Orders Campaigns Opportunities Quotes Communications SmartScripts Products
Show: Workflow Processes
History:
Queries: All Processes
Done
Local intranet
Start Inbox - Microsoft Outlook C:\bea Siebel Call Center - Mi... 7:17 PM

Business Service

Query Return To Designer 2 of 2+

*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 Arguments

Query 1 - 1 of 1

Input Argument	Type	Value	Property Name	Property Data Typ	Business Compo	Business Compo	Comments
File Name	Literal	E:\FileTransportFiles\Account.xml					

Output Arguments

Query 1 - 1 of 1

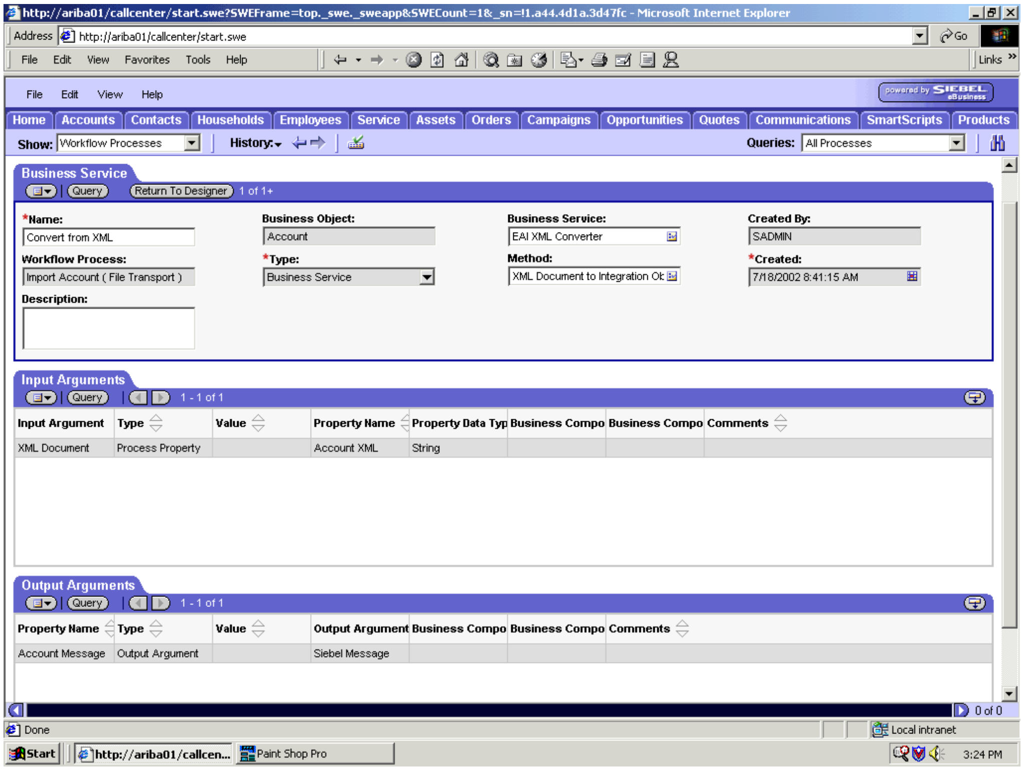
Property Name	Type	Value	Output Argument	Business Compo	Business Compo	Comments
Account XML	Output Argument		Message Text			

0 of 0

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
History:
Query
Return To Designer
Done
Local intranet
Start
http://ariba01/callcen...
Paint Shop Pro
3:24 PM

Show: Workflow Processes

Queries: All Processes

Business Service 1 of 1+

*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 Ok	*Created: 7/18/2002 8:41:15 AM
Description:			

Input Arguments 1 - 1 of 1

Input Argument	Type	Value	Property Name	Property Data Typ	Business Compo	Business Compo	Comments
XML Document	Process Property		Account XML	String			

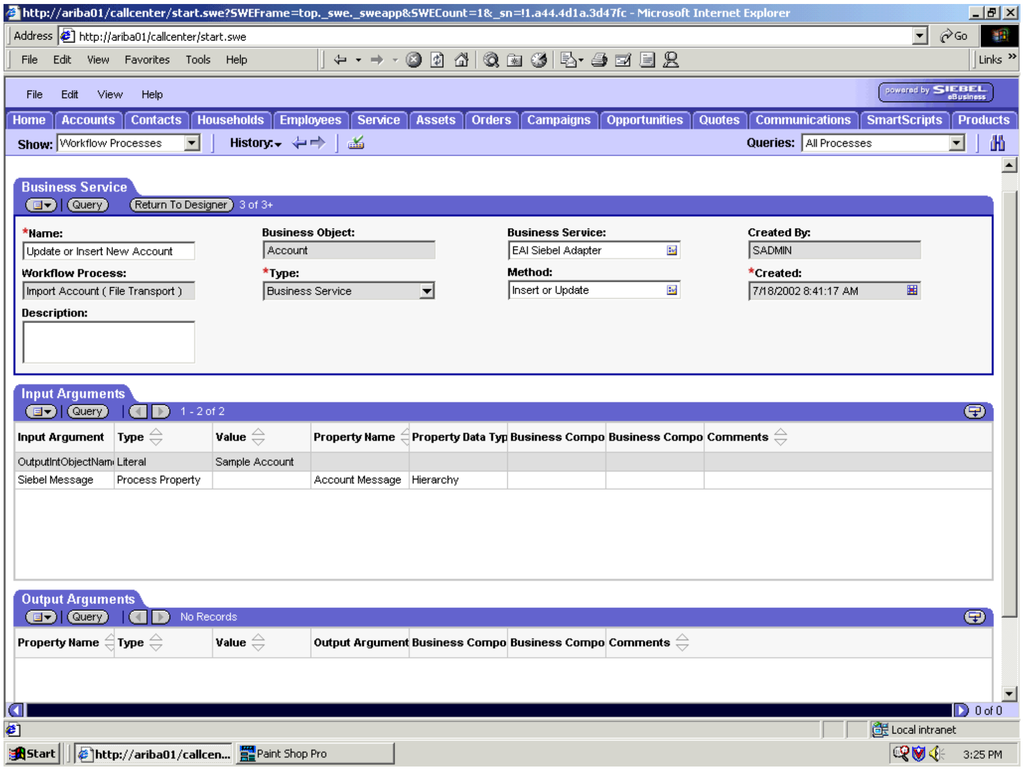
Output Arguments 1 - 1 of 1

Property Name	Type	Value	Output Argument	Business Compo	Business Compo	Comments
Account Message	Output Argument		Siebel Message			

0 of 0

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
File Edit View Help
Home Accounts Contacts Households Employees Service Assets Orders Campaigns Opportunities Quotes Communications SmartScripts Products
History:
Return To Designer
Query
Local intranet
Start
http://ariba01/callcen...
Paint Shop Pro
3:25 PM

Show: Workflow Processes

Queries: All Processes

Business Service 3 of 3+

*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

0 of 0

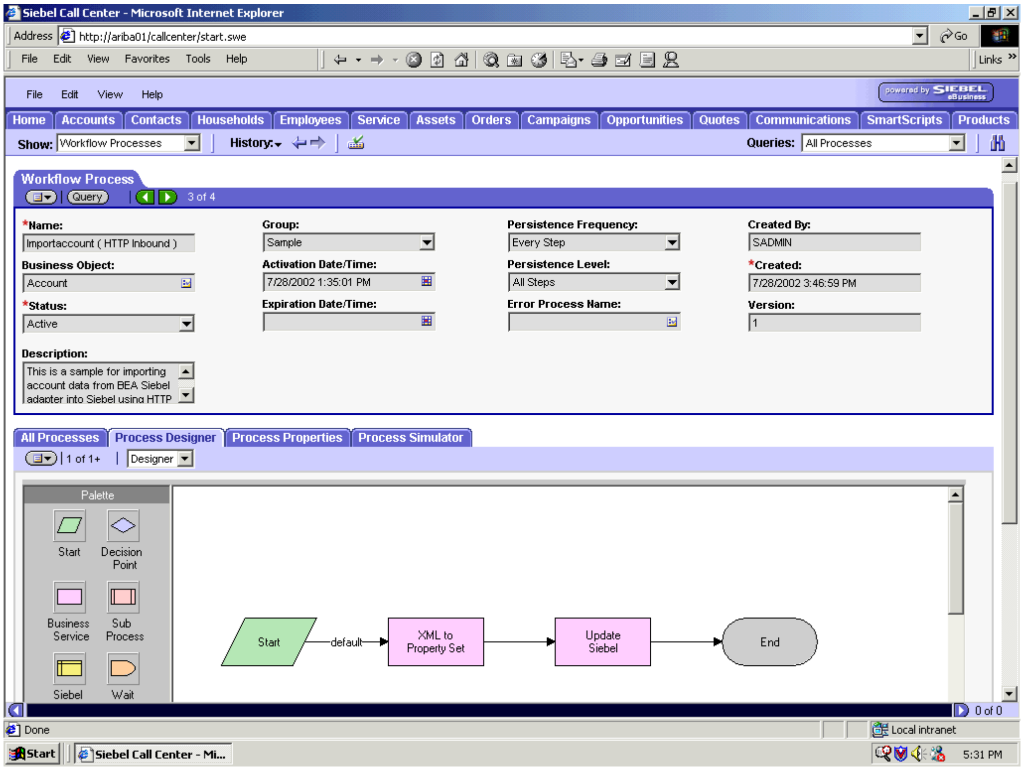
4. Define an EAI Siebel Adapter Business Service step and call it `Update` or `Insert New Account`.

   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.

A.2.6 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.

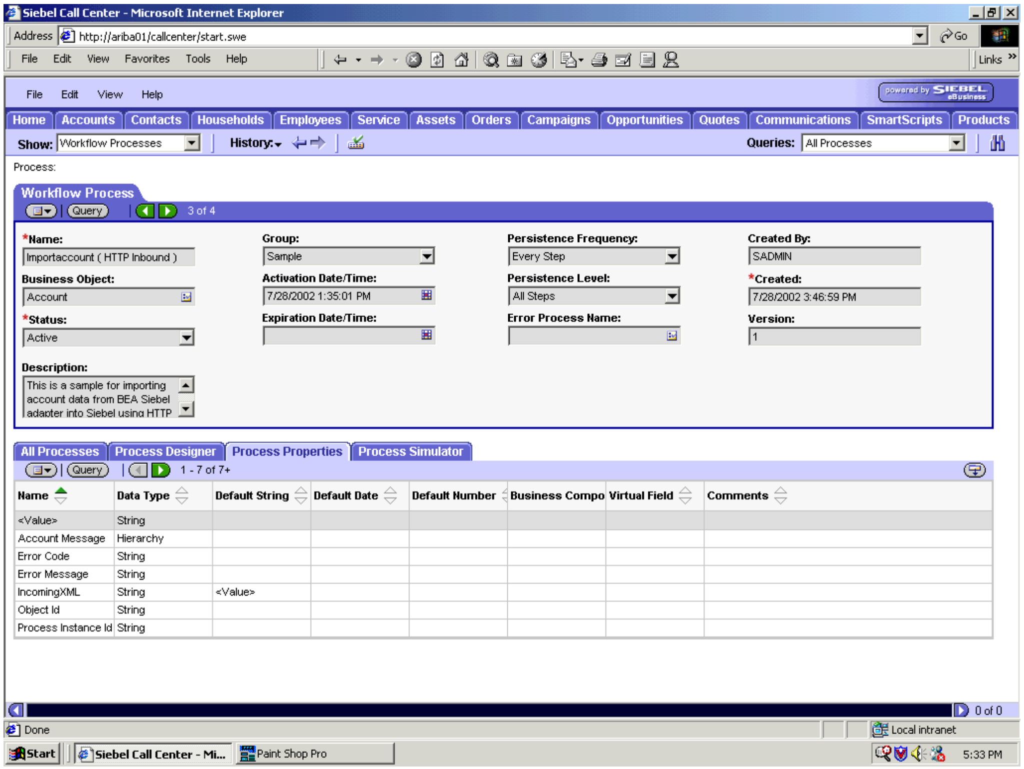

Siebel Call Center - Microsoft Internet Explorer
Address http://ariba01/callcenter/start.swe
File Edit View Favorites Tools Help
Home Accounts Contacts Households Employees Service Assets Orders Campaigns Opportunities Quotes Communications SmartScripts Products
Show: Workflow Processes
History:
Queries: All Processes
Workflow Process
Query
3 of 4
All Processes Process Designer Process Properties Process Simulator
1 of 1+
Designer
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

*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

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
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 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

*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

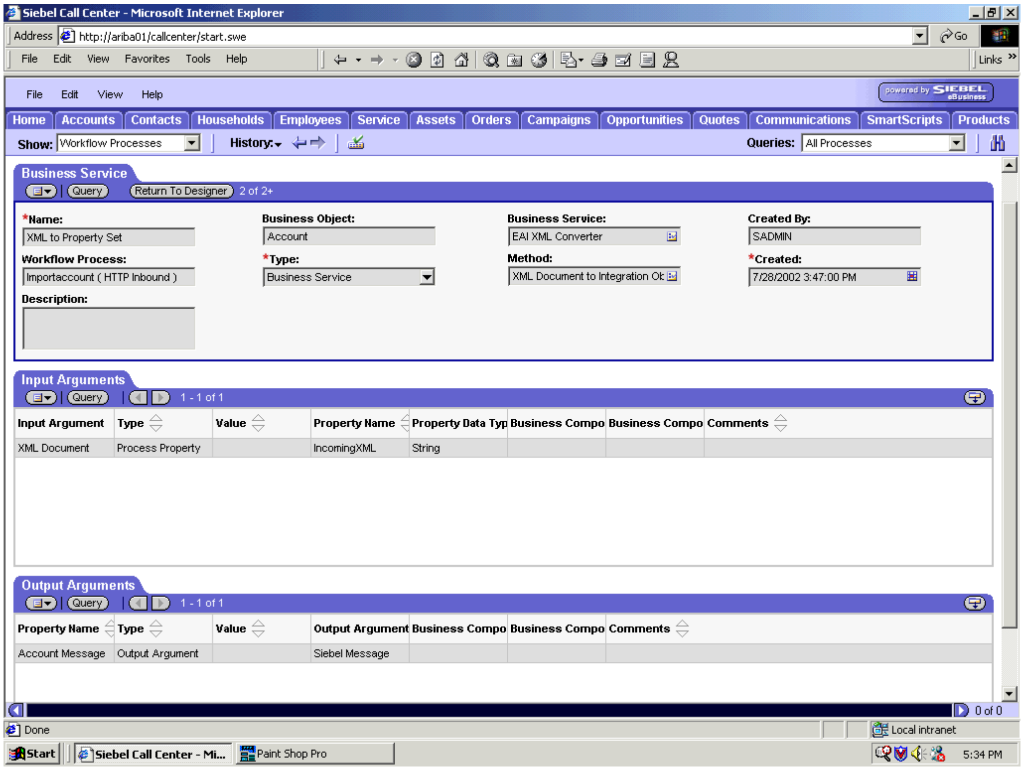
Description: This is a sample for importing account data from BEA Siebel adapter into Siebel using HTTP

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
Show: Workflow Processes
History:
Queries: All Processes
Query
Return To Designer
2 of 2+
Query
1 - 1 of 1
Query
1 - 1 of 1
0 of 0
Done
Local intranet
Start
Siebel Call Center - Mi...
Paint Shop Pro
5:34 PM

Business Service

*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 Arguments

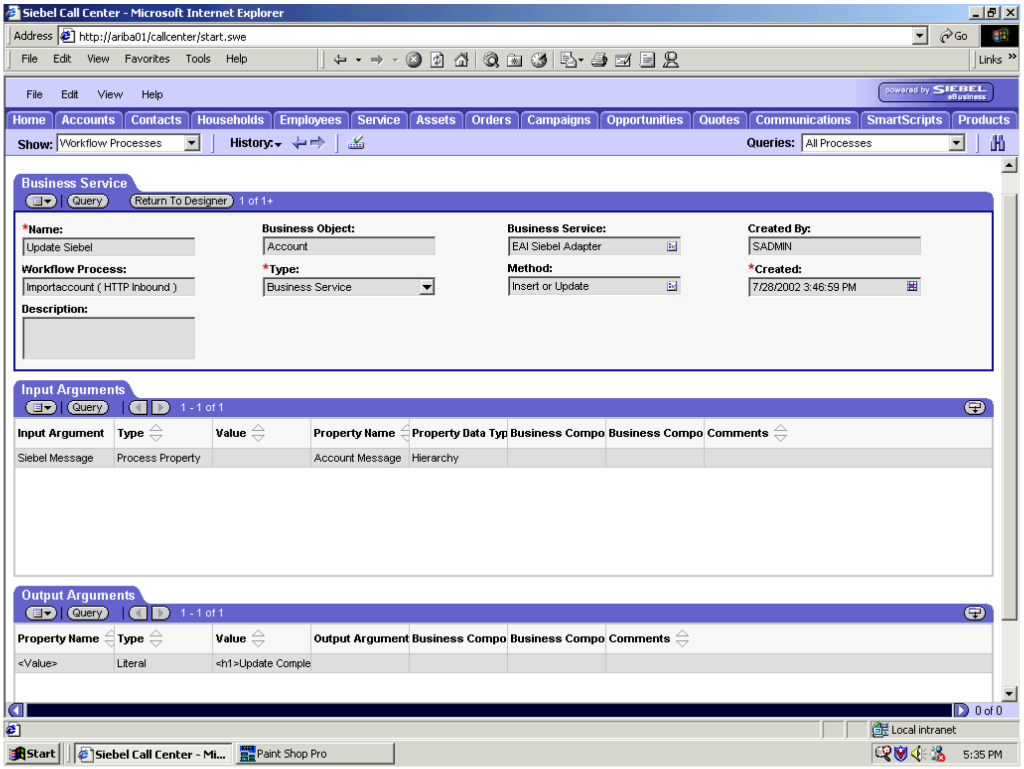
Input Argument	Type	Value	Property Name	Property Data Typ	Business Compo	Business Compo	Comments
XML Document	Process Property		IncomingXML	String			

Output Arguments

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
Home Accounts Contacts Households Employees Service Assets Orders Campaigns Opportunities Quotes Communications SmartScripts Products
History:
Query
Return To Designer
1 of 1+
1 - 1 of 1
0 of 0
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

Input Argument	Type	Value	Property Name	Property Data Typ	Business Compo	Business Compo	Comments
Siebel Message	Process Property		Account Message	Hierarchy			

Output Arguments

Property Name	Type	Value	Output Argument	Business Compo	Business Compo	Comments
<Value>	Literal	<h1>Update Comple				

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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