### **Oracle® Fusion Middleware Application Adapters**

Application Adapter for Siebel User's Guide for 12*c* (12.2.1.2.0) **E84214-01** 

December 2016

Provides information on how to integrate with Siebel systems and develop applications.



Oracle Fusion Middleware Application Adapter 12c (12.2.1.2.0) for Siebel User's Guide for Oracle WebLogic Server, 12c (12.2.1.2.0)

E84214-01

Copyright © 2001, 2016, Oracle and/or its affiliates. All rights reserved.

Primary Author: Stefan Kostial

Contributors: Vikas Anand, Marian Jones, Sunil Gopal, Bo Stern

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, the following notice is applicable:

U.S. GOVERNMENT RIGHTS Programs, software, databases, and related documentation and technical data delivered to U.S. Government customers are "commercial computer software" or "commercial technical data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, duplication, disclosure, modification, and adaptation shall be subject to the restrictions and license terms set forth in the applicable Government contract, and, to the extent applicable by the terms of the Government contract, the additional rights set forth in FAR 52.227-19, Commercial Computer Software License (December 2007). Oracle America, Inc., 500 Oracle Parkway, Redwood City, CA 94065.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information on content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.

# Contents

Preface	ix
Audience	ix
Documentation Accessibility	ix
Related Documents	ix
Conventions	х

# 1 Introduction

Adapter Features	1-1
Oracle Adapter Business Services Engine (BSE) Architecture	1-2
Oracle Adapter J2CA Generic Architecture	1-3
The Siebel Application Model	1-4
Integration with Siebel	1-4
Integrating with Siebel EAI Architecture	1-5
Using Application Explorer with Oracle Application Adapter for Siebel	1-5
BSE Versus Oracle Adapter J2CA Deployment	1-6
Sample Projects	1-6
Quick Start Guide	1-8
Installation	1-8
Copying Third-Party Library Files	1-8
Configuration	1-8
WebLogic Server Deployment and Integration	1-10
Creating Configurations, Targets, and Channels in Application Explorer	1-10
0 1	1-10
0	1-10
Other Features	1-11

# 2 Configuring Oracle Application Server Adapter for Siebel

Starting Application Explorer	2-2
Configuring Repository Settings	2-2
Creating a Repository Configuration	2-3
Creating a Configuration for BSE	2-3
Creating a Configuration for J2CA	2-4
Connecting to a BSE or J2CA Configuration	2-5
Establishing a Connection (Target) for Siebel	2-5
Defining a Target to Siebel	2-6

Connecting to a Defined Target	. 2-9
Disconnecting From Siebel	. 2-9
Editing a Target	2-10
Deleting a Target to Siebel	2-10
Viewing Application System Objects	2-10
Viewing Metadata	2-11
Creating XML Schemas	2-12
Siebel Schema Considerations	2-13
Creating an XML Schema for a Siebel Business Object or Business Service	2-13
Creating an XML Schema for a Siebel Business Component or Business Service	2-13
Searching for a Specific Siebel Object	2-15
Returning Fields in a Specified Order	2-15
Using QueryWithView	2-16
Siebel Prerequisites for Working With Integration Objects	2-16
Creating Schemas for Siebel Integration Objects	2-17
Creating a Siebel XDR or XSD Schema for a Siebel Integration Object	2-17
Creating Integration Object (IO) Nodes for Siebel	2-19
Creating an XML Schema for a Siebel Integration Object	2-21
Creating a Service Node for a Siebel Business Service	2-22
Creating and Testing a Web Service (BSE Configurations Only)	2-24
Creating a Web Service	2-24
Testing a Web Service	2-25
Generating WSDL (J2CA Configurations Only)	2-27
Configuring an Event Adapter	2-28
Creating and Modifying a Channel	2-29

# 3 Oracle WebLogic Server Deployment and Integration

Adapter Integration with Oracle WebLogic Server	3-1
Deployment of Adapter	3-1
Updating Adapter Configuration	3-2
Creating a Managed Connector Factory Object	3-3
Creating Multiple Managed Connector Factory Objects	3-4
Modifying WSDL Files for Additional Connection Factory Values	3-6

# 4 Integration With BPEL Service Components in the Oracle SOA Suite

Overview	4-1
Deployment of Adapter	4-2
Configuring a New Application Server Connection	4-2
Designing an Outbound BPEL Process for Service Integration (J2CA Configuration)	4-7
Generating WSDL for Request/Response Service	4-8
Creating an Empty Composite for SOA	4-9
Defining a BPEL Outbound Process	4-11
Deploying the BPEL Outbound Process	4-28
Invoking the Input XML Document in the Oracle Enterprise Manager Console	4-31
Testing Outbound BPEL and Mediator Processes	4-33
Designing an Inbound BPEL Process for Event Integration (J2CA Configuration)	4-34
Generating WSDL for Event Integration	4-34

Creating an Empty Composite for SOA	4-41
Defining a BPEL Inbound Process	4-42
Deploying the BPEL Inbound Process	4-48
Triggering an Event in Siebel	4-49
Designing an Outbound BPEL Process for Service Integration (BSE Configuration)	4-75
Generating a WSDL File for Request and Response Services Using a Web Service	4-75
Creating an Empty Composite for SOA	4-77
Defining a BPEL Outbound Process	4-77

# 5 Integration With Mediator Service Components in the Oracle SOA Suite

Configuring a New Application Server Connection	5-2
Configuring a Mediator Outbound Process (J2CA Configuration)	. 5-2
Creating an Empty Composite for SOA	5-2
Defining a Mediator Outbound Process	. 5-3
Deploying the Mediator Outbound Process	5-10
Invoking the Input XML Document in the Oracle Enterprise Manager Console	5-11
Configuring a Mediator Inbound Process (J2CA Configuration)	5-11
Creating an Empty Composite for SOA	5-11
Defining a Mediator Inbound Process	5-11
Configuring a Mediator Outbound Process (BSE Configuration)	5-17
Creating an Empty Composite for SOA	5-18
Defining a Mediator Outbound Process	5-18

## 6 Integration With BPM Service Components in the Oracle SOA Suite

Overview	6-1
Deployment of Adapter	6-1
Configuring a New Application Server Connection	6-2
Designing an Outbound BPM Process Using Transformations for Service Integration (J2CA	
Configuration)	6-2
Creating an Empty Composite for BPM	6-2
Defining a BPM Outbound Process	6-3
Adjusting for Known Deployment Issues With 12c	6-25
Deploying the BPM Outbound Process	6-25
Invoking the Input XML Document in the Oracle Enterprise Manager Console	6-26
Designing an Inbound BPM Process Using Transformations for Event Integration (J2CA	
Configuration)	6-27
Creating an Empty Composite for BPM	6-27
Defining a BPM Inbound Process	6-28
Designing an Outbound BPM Process Using Transformations for Service Integration (BSE	
Configuration)	6-42
Creating an Empty Composite for BPM	6-42
Defining a BPM Outbound Process	6-42

# 7 Configuring an Outbound and Inbound Process for Oracle Service Bus Using sbconsole

Overview of Application Adapter Integration with Oracle Service Bus	-1	
---	----	--

Configuring an Outbound Process Using sbconsole (J2CA Configuration)	. 7-2
Starting Oracle Service Bus and Creating Project Folders	. 7-2
Setting the Class Path for Application Explorer to Integrate With Oracle Service Bus	. 7-6
Publishing a WSDL From Application Explorer to Oracle Service Bus	. 7-6
Configuring a WSDL-based Business Service	. 7-7
Configuring a File Type Business Service	. 7-9
Configuring a Pipeline With Proxy Service	7-13
Configuring an Inbound Process Using sbconsole (J2CA Configuration)	7-22
Starting Oracle Service Bus and Creating Project Folders	7-22
Setting the Class Path for Application Explorer to Integrate With Oracle Service Bus	7-22
Publishing a WSDL From Application Explorer to Oracle Service Bus	7-23
Configuring a WSDL-based Proxy Service	7-24
Configuring a File Type Business Service	7-25
Configuring a Pipeline	7-29
Configuring an Outbound Process Using sbconsole (BSE Configuration)	7-36
Starting Oracle Service Bus and Creating Project Folders	7-36
Setting the Class Path for Application Explorer to Integrate With Oracle Service Bus	7-36
Publishing a WSDL From Application Explorer to Oracle Service Bus	7-37
Configuring a File Type Business Service	7-38
Configuring a WSDL-based Business Service	7-38
Configuring a Pipeline With Proxy Service	7-40
Configuring JMS Proxy Services Using Oracle Service Bus (J2CA Configuration)	7-49
Configuring HTTP Proxy Services Using Oracle Service Bus (J2CA Configuration)	7-64

# 8 Configuring an Outbound and Inbound Process for Oracle Service Bus Using JDeveloper

Configuring an OSB Outbound Process Using JDeveloper (J2CA Configuration)	. 8-1
Creating a Service Bus Application for OSB	. 8-2
Defining an OSB Outbound Process	. 8-3
Deploying the OSB Outbound Process	8-16
Configuring an OSB Inbound Process Using JDeveloper (J2CA Configuration)	8-19
Creating a Service Bus Application for OSB	8-19
Defining an OSB Inbound Process	8-19
Deploying the OSB Inbound Process	8-27
Configuring an OSB Outbound Process Using JDeveloper (BSE Configuration)	8-28
Creating a Service Bus Application for OSB	8-28
Defining an OSB Outbound Process	8-28
Deploying the OSB Outbound Process	8-42
Configuring a JMS Inbound Process Using JDeveloper (J2CA Configuration)	8-42
Configuring a JMS Outbound Process Using JDeveloper (J2CA Configuration)	8-48
Configuring an HTTP Outbound Process Using JDeveloper (J2CA Configuration)	8-55

# 9 Key Features

Configuring the Logging Feature	9-1
Configuring Log File Management for the J2CA Connector Application	9-1
Configuring Log File Management for Business Services Engine (BSE)	9-8
Configuring the Diagnosibility Feature	9-11

Supporting Protocols	9-12
Configuring the SOA Debugging Feature	9-12
Guidelines for Using the SOA Debugger	9-13
Prerequisite	9-13
Debugging a BPEL Process in Oracle JDeveloper	9-13
Debugging an OSB Process in Oracle JDeveloper	9-26
Exception Filter	9-44
Configuring the Exception Filter	9-44
Credential Mapping for Oracle SOA Suite (BPEL, Mediator, or BPM)	9-55
Configuring Credential Mapping	9-56
Credential Mapping for Oracle Service Bus (OSB) Using JDeveloper	9-60
Configuring Credential Mapping	9-61

# 10 Troubleshooting and Error Messages

Troubleshooting	10-1
General Usage Notes for the Oracle Application Adapter for Siebel	10-1
Application Explorer	10-2
Siebel	10-3
Oracle Adapter J2CA	10-4
BSE Error Messages	10-4
General Error Handling in BSE	10-5
Adapter-Specific Error Handling	10-5

# A Using Siebel Workflows

	-1
Siebel Workflows A	(- I
Using a Policy to Invoke a Siebel EAI Workflow A	۰-2
Siebel Workflow - Outbound A	۰-2
Siebel Workflow - Inbound A	۰-3
Creating a Siebel Workflow A	۰-3
Creating a Siebel Workflow for an Event Using MQSeries Transport A	<b>\-4</b>
Creating a Siebel Workflow for an Event Using File Transport A	8-۸
Creating a Siebel Workflow for an Event Using HTTP Transport	13
Creating a Siebel Workflow for a Service Using MQSeries Transport A-1	16
Creating a Siebel Workflow for a Service Using File Transport A-2	21
Creating a Siebel Workflow for a Service Using HTTP Transport	25

# Glossary

# Index

# Preface

Welcome to Oracle Fusion Middleware Application Adapter for Siebel User's Guide for Oracle WebLogic Server. This document provides information on how to integrate with Siebel systems and develop applications.

# Audience

This document is intended for system administrators and developers who integrate with Siebel systems and develop applications.

## **Documentation Accessibility**

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

#### Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

# **Related Documents**

For more information, see the following documents in the Oracle Enterprise Repository 12*c* (12.2.1.2.0) 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
- Oracle's Unified Method (OUM)

A wealth of additional Governance information can be found within Oracle's Unified Method (OUM). OUM can be used by Oracle employees, Oracle Partner Network Certified Partners or Certified Advantage Partners, and Clients who either participate in the OUM Customer Program or are engaged on projects where Oracle provides consulting services. OUM is a web-deployed toolkit for planning, executing and controlling software development and implementation projects.

For more information about OUM, see the OUM FAQ at

http://my.oracle.com/portal/page/myo/ROOTCORNER/KNOWLEDGEAREAS1/BUSIN ESS\_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.

# 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 contains the following sections:

**Note:** Throughout this document, *<ORACLE\_HOME>* refers to the 12*c* (12.2.1.0.0) SOA/OSB installed home location.

<ADAPTER\_HOME> refers to the following:

For SOA:

<ORACLE\_HOME>\soa\soa\thirdparty\ApplicationAdapters

For OSB:

<ORACLE\_HOME>\osb\3rdparty\ApplicationAdapters

- Section 1.1, "Adapter Features"
- Section 1.2, "The Siebel Application Model"
- Section 1.3, "Integration with Siebel"
- Section 1.4, "Using Application Explorer with Oracle Application Adapter for Siebel"
- Section 1.5, "BSE Versus Oracle Adapter J2CA Deployment"
- Section 1.6, "Sample Projects"
- Section 1.7, "Quick Start Guide"

### **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). This section contains the following topics:

- Section 1.1.1, "Oracle Adapter Business Services Engine (BSE) Architecture"
- Section 1.1.2, "Oracle Adapter J2CA Generic Architecture"

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

### 1.1.1 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.

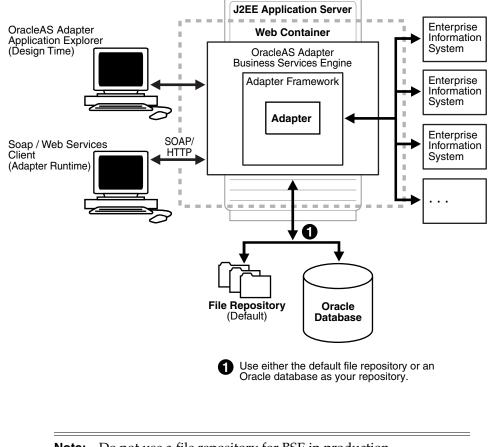


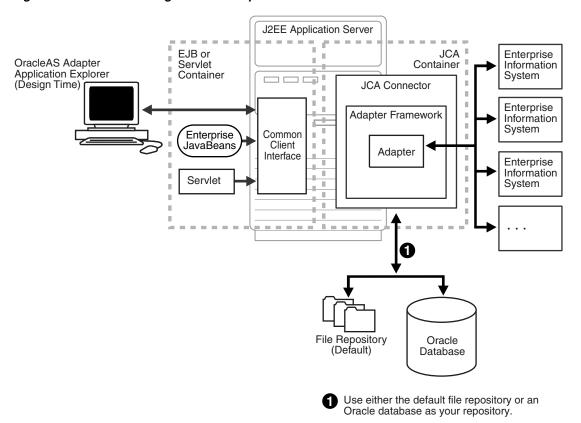
Figure 1–1 Oracle Adapter Business Services Engine (BSE) Generic Architecture

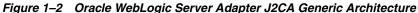
**Note:** Do not use a file repository for BSE in production environments.

### 1.1.2 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. For more information, see Chapter 3, "Oracle WebLogic Server Deployment and Integration".





### **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.

This section contains the following topic:

Section 1.3.1, "Integrating with Siebel EAI Architecture"

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.

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

Table 1–1 Siebel Objects and Processes

### **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 Oracle SOA Suite components (for example, BPEL, Mediator, BPM, or OSB), then note that:

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

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

- **1.** BSE has the following advantages:
  - Can be deployed in a separate instance of Oracle WebLogic Server.
  - Provides better distribution of load.
  - Conforms more closely to the Service Oriented Architecture (SOA) model for building applications.
- 2. Oracle Adapter J2CA does provide slightly better performance than BSE.

# 1.6 Sample Projects

Sample projects for the Oracle Application Adapter for Siebel that demonstrate outbound and inbound integration scenarios using Oracle BPEL, Mediator, BPM, and OSB tools are packaged with the Application Adapters installation. The following table lists the locations of the sample projects:

Sample Project	Location
	<adapter_home>\etc\sample\SIEBEL_Samples.zip\SIEBEL_</adapter_home>
(J2CA)	Samples\BPEL\J2CA\Outbound_Project

Sample Project	Location
Inbound BPEL Process (J2CA)	<pre><adapter_home>\etc\sample\SIEBEL_Samples.zip\SIEBEL_ Samples\BPEL\J2CA\Inbound_Project</adapter_home></pre>
Outbound BPEL Process (BSE)	<adapter_home>\etc\sample\SIEBEL_Samples.zip\SIEBEL_ Samples\BPEL\BSE\Outbound_Project</adapter_home>
Outbound Mediator Process (J2CA)	<pre><adapter_home>\etc\sample\SIEBEL_Samples.zip\SIEBEL_ Samples\Mediator\J2CA\Outbound_Project</adapter_home></pre>
Inbound Mediator Process (J2CA)	<pre><adapter_home>\etc\sample\SIEBEL_Samples.zip\SIEBEL_ Samples\Mediator\J2CA\Inbound_Project</adapter_home></pre>
Outbound Mediator Process (BSE)	<adapter_home>\etc\sample\SIEBEL_Samples.zip\SIEBEL_ Samples\Mediator\BSE\Outbound_Project</adapter_home>
Outbound BPM Process (J2CA)	<pre><adapter_home>\etc\sample\SIEBEL_Samples.zip\SIEBEL_ Samples\BPM\J2CA\Siebel_Sample_J2CA_BPM_Outbound_Project</adapter_home></pre>
Inbound BPM Process (J2CA)	<ababel{stamples} <ababel{stamples.zip}siebel_samples.zip}siebel_samples<abr=""></ababel{stamples}> BPM\J2CA <li>Inbound_Project</li>
Outbound BPM Process (BSE)	<pre><adapter_home>\etc\sample\SIEBEL_Samples.zip\SIEBEL_ Samples\BPM\BSE\Outbound_Project</adapter_home></pre>
Outbound OSB sbconsole Process (J2CA)	<pre><adapter_home>\etc\sample\SIEBEL_Samples.zip\SIEBEL_ Samples\OSB\J2CA\Siebel_Sample_J2CA_OSB_Outbound_Project</adapter_home></pre>
Inbound OSB sbconsole Process (J2CA)	<pre><adapter_home>\etc\sample\SIEBEL_Samples.zip\SIEBEL_ Samples\OSB\J2CA\Siebel_Sample_J2CA_OSB_Inbound_Project</adapter_home></pre>
Outbound OSB sbconsole Process (BSE)	<pre><adapter_home>\etc\sample\SIEBEL_Samples.zip\SIEBEL_ Samples\OSB\BSE\Siebel_Sample_BSE_OSB_Outbound_Project</adapter_home></pre>
Outbound OSB Jdeveloper Process (J2CA)	<pre><adapter_home>\etc\sample\SIEBEL_Samples.zip\SIEBEL_ Samples\OSB_Jdeveloper\J2CA\Siebel_Sample_J2CA_OSB_ Outbound_Project</adapter_home></pre>
Inbound OSB Jdeveloper Process (J2CA)	<adapter_home>\etc\sample\SIEBEL_Samples.zip\SIEBEL_ Samples\OSB_Jdeveloper\J2CA\Siebel_Sample_J2CA_OSB_ Inbound_Project</adapter_home>
Outbound OSB Jdeveloper Process (BSE)	<adapter_home>\etc\sample\SIEBEL_Samples.zip\SIEBEL_ Samples\OSB_Jdeveloper\BSE\Siebel_Sample_BSE_OSB_Outbound_ Project</adapter_home>

# 1.7 Quick Start Guide

This section enables you to quickly learn the basic steps to install and configure Oracle Application Adapter for Siebel and to use it immediately. It includes the following topics:

- Section 1.7.1, "Installation"
- Section 1.7.2, "Copying Third-Party Library Files"
- Section 1.7.3, "Configuration"
- Section 1.7.4, "WebLogic Server Deployment and Integration"
- Section 1.7.5, "Creating Configurations, Targets, and Channels in Application Explorer"
- Section 1.7.6, "Working With Service Components in the SOA Suite"
- Section 1.7.7, "Working With Oracle Service Bus"
- Section 1.7.8, "Other Features"

### 1.7.1 Installation

To install Oracle Application Adapter for Siebel, download the Oracle Fusion Middleware Application Adapters installer and complete the installation for SOA/OSB.

For more information on installing the Oracle Fusion Middleware Application Adapters, see the Oracle Fusion Middleware Application Adapters Installation Guide for Oracle WebLogic Server.

### 1.7.2 Copying Third-Party Library Files

Once the adapter installation is completed, copy the required third-party library files for Siebel to the following directories:

<ADAPTER\_HOME>\lib

<ORACLE\_HOME>\user\_projects\domains\base\_domain\lib

For more information on encoding settings and prerequisites for Siebel versions 6.2 and lower, see the following topics in Chapter 2, "Configuring Oracle Application Server Adapter for Siebel":

- Encoding Support on UNIX Platforms
- Adding Required Encoding Option (All UNIX Platforms)
- Siebel Connectivity Prerequisites for Versions 6.2 and Lower

### 1.7.3 Configuration

Navigate to *<ADAPTER\_HOME>* and make the following changes:

1. Open *iwafjca.rar*\*META-INF*\*ra.xml* and add the following values under the specified config-property-name parameters, as shown in Table 1–2.

Table 1–2	
Config-Property-Name Config-Property-Value	
IWayHome	<adapter_home></adapter_home>
	For example:
	• For SOA:
	$\verb C:\12C_soa\soa\thirdparty\ApplicationAdapters  $
	■ For OSB:
	C:\12c_OSB\osb\3rdparty\ApplicationAdapters
IWayConfig	The name of the configuration. For example:
	jca_sample

**2.** Open *ibse.war\WEB-INF\web.xml* and add the following values under the specified param-name parameters, as shown in Table 1–3.

Param-Name	Param-Value
ibseroot	<adapter_home>\ibse.war</adapter_home>
	For example:
	■ For SOA:
	C:\12C_ soa\soa\thirdparty\ApplicationAdapters\ibse.war
	■ For OSB:
	C:\12c_ OSB\osb\3rdparty\ApplicationAdapters\ibse.war
IWay.home	<adapter_home></adapter_home>
	For example:
	<ul> <li>For SOA:</li> </ul>
	$C:\12C\_soa\soa\thirdparty\ApplicationAdapters$
	■ For OSB:
	C:\12c_OSB\osb\3rdparty\ApplicationAdapters
Iway.config	The name of the configuration. For example:
	IBSE

**Note:** These steps are provided only when configuring a File repository. For more information about configuring a database repository and general configuration information, see Chapter 2, "Configuring Oracle Application Server Adapter for Siebel" and Chapter 3, "Oracle WebLogic Server Deployment and Integration".

#### Table 1–3

### 1.7.4 WebLogic Server Deployment and Integration

- 1. Start the WebLogic server and open the WebLogic console.
- **2.** Deploy the adapter components (ibse.war, iwafjca.war, and iwafjca.rar files) and start the deployed adapter components.

For more information on deployment, integration, and target creation, see Chapter 3, "Oracle WebLogic Server Deployment and Integration".

### 1.7.5 Creating Configurations, Targets, and Channels in Application Explorer

For more information on creating configurations, targets, and channels in Application Explorer, see the following sections in this user's guide:

- Starting Application Explorer: Section 2.1, "Starting Application Explorer"
- Creating a BSE Configuration: Section 2.3.1, "Creating a Configuration for BSE"
- Creating a J2CA Configuration: Section 2.3.2, "Creating a Configuration for J2CA"
- Connecting the Created Configurations: Section 2.3.3, "Connecting to a BSE or J2CA Configuration"
- Creating and Connecting to Targets: Section 2.4, "Establishing a Connection (Target) for Siebel"
- Working with Integration Objects: Section 2.7, "Siebel Prerequisites for Working With Integration Objects", Section 2.8, "Creating Schemas for Siebel Integration Objects", and Section 2.9, "Creating Integration Object (IO) Nodes for Siebel".
- Working With Service Nodes: Section 2.10, "Creating a Service Node for a Siebel Business Service"
- Creating and Testing Web Services: Section 2.11, "Creating and Testing a Web Service (BSE Configurations Only)"
- Generating WSDL Files: Section 2.12, "Generating WSDL (J2CA Configurations Only)"
- Creating and Working With Channels: Section 2.13, "Configuring an Event Adapter"

### 1.7.6 Working With Service Components in the SOA Suite

Oracle Application Adapter for Siebel integrates with service components in SOA suite such as BPEL, Mediator, and BPM. Required processes are created in JDeveloper and then deployed to the SOA server.

For more information on working with BPEL, Mediator, and BPM service components, see:

- Chapter 4, "Integration With BPEL Service Components in the Oracle SOA Suite"
- Chapter 5, "Integration With Mediator Service Components in the Oracle SOA Suite"
- Chapter 6, "Integration With BPM Service Components in the Oracle SOA Suite"

### 1.7.7 Working With Oracle Service Bus

Oracle Application Adapter for Siebel integrates with Oracle Service Bus (OSB) to facilitate Web service integration. Required processes are created in the Oracle Service

Bus Console. The process can also be created in JDeveloper and then deployed to the SOA server.

For more information on working with OSB Console, see Chapter 7, "Configuring an Outbound and Inbound Process for Oracle Service Bus Using sbconsole".

For more information on working with OSB Jdeveloper, see Chapter 8, "Configuring an Outbound and Inbound Process for Oracle Service Bus Using JDeveloper".

### 1.7.8 Other Features

The following is list of other features and their relevant sections in this user's guide:

- Configuring the Exception Filter: Section 9.4, "Exception Filter"
- Configuring Credential Mapping:
  - Section 9.5, "Credential Mapping for Oracle SOA Suite (BPEL, Mediator, or BPM)"
  - Section 9.6, "Credential Mapping for Oracle Service Bus (OSB) Using JDeveloper"

# 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. It contains the following sections:

- Section 2.1, "Starting Application Explorer"
- Section 2.2, "Configuring Repository Settings"
- Section 2.3, "Creating a Repository Configuration"
- Section 2.4, "Establishing a Connection (Target) for Siebel"
- Section 2.5, "Viewing Application System Objects"
- Section 2.6, "Creating XML Schemas"
- Section 2.7, "Siebel Prerequisites for Working With Integration Objects"
- Section 2.8, "Creating Schemas for Siebel Integration Objects"
- Section 2.9, "Creating Integration Object (IO) Nodes for Siebel"
- Section 2.10, "Creating a Service Node for a Siebel Business Service"
- Section 2.11, "Creating and Testing a Web Service (BSE Configurations Only)"
- Section 2.12, "Generating WSDL (J2CA Configurations Only)"
- Section 2.13, "Configuring an Event Adapter"

#### Siebel Connectivity Prerequisites for Versions 6.2 and Lower

For Siebel versions 6.2 and lower only, you must perform the following steps to connect to your Siebel system 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.** Open the command prompt.
- 3. Navigate to the following directory:

```
<ADAPTER_HOME>\user_projects\domains\base_domain\bin
```

4. Execute setDomainEnv.cmd(Windows) or . ./setDomainEnv.sh
 (UNIX/Linux).

This command sets the class path and other environment variables for Application Explorer in the Oracle WebLogic Server environment. In addition, it allows Application Explorer to access the Oracle WebLogic Server APIs to publish WSDL files to the Oracle Service Bus (OSB) Console.

- 5. Do not close the command prompt.
- 6. Navigate to the following directory:

<ADAPTER\_HOME>\tools\iwae\bin

7. Execute *ae.bat* (Windows) or *iwae.sh* (UNIX/Linux) to start Application Explorer.

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

**Note:** Before you run the **iwae.sh** file on UNIX or Linux platforms, the permissions must be changed. For example:

chmod +x iwae.sh

# 2.2 Configuring Repository Settings

A repository holds information about configuration details, adapter targets, channels, and other configuration information. For more information on how to configure BSE and J2CA repository settings, see the *Oracle Fusion Middleware Application Adapters Installation Guide for Oracle WebLogic Server* (Section 2.7.4 "Configuring the Oracle Database Repository").

## 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.

This section contains the following topics:

- Section 2.3.1, "Creating a Configuration for BSE"
- Section 2.3.2, "Creating a Configuration for J2CA"
- Section 2.3.3, "Connecting to a BSE or J2CA Configuration"

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. For more information, see "Adapter Features" on page 1-1.

### 2.3.1 Creating a Configuration for BSE

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

This section contains the following topic:

Section 2.3.1.1, "Defining a New Configuration for BSE"

#### 2.3.1.1 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, as shown in Figure 2–1.

Figure 2–1 New Configuration Dialog

Rew Configuration	×
Service Provider BSE	
iBSE URL http://localhost:7001/lbse/IBSEServlet	
OK Cancel	

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.

As shown in Figure 2–2, a node representing the new configuration appears beneath the root Configurations node.

#### Figure 2–2 SampleConfig Node

SampleConfigurations
I → □ → SampleConfig

### 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.

To define a new configuration for J2CA:

- 1. Start the Application Explorer.
- 2. Right-click Configurations and select New, as shown in Figure 2–3.

Figure 2–3 Configurations Node



The New Configuration dialog is displayed, as shown in Figure 2–4.

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

Figure 2–4 New Configuration Dialog

🔊 New Config	uration			×
Service Provide	er JCA 💌			
Home C:\oracl	e\Middlewar	e\Oracle_SO	A1\soa\third;	part
	ок	Cancel		

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

As shown in Figure 2–5, a node representing the new configuration appears beneath the root Configurations node.

#### Figure 2–5 SampleConfig Node

The Oracle Adapter J2CA configuration folder is stored in a location based on your adapter installation:

<ADAPTER\_HOME>\config\configuration\_name

The *configuration\_name* is the name of the configuration you created (for example, SampleConfig).

### 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, then the Business Services node is not shown. As shown in Figure 2–6, the following is an example of a BSE configuration named SampleConfig:

# Figure 2–6 The New SampleConfig Configuration That Appears Under The Configurations Node



- Use the Adapters node to create inbound interaction with Siebel. For example, you
  use the Siebel node in the Adapters node to configure a service that updates
  Siebel.
- Use the Events node (available for J2CA configurations only) to configure listeners that listen for events in Siebel.
- Use the Business Services node (available for BSE configurations only) to test Web services created in the Adapters node. You can also control security settings for the Web services by using the security features of the Business Services node.

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.

This section contains the following topics:

- Section 2.4.1, "Defining a Target to Siebel"
- Section 2.4.2, "Connecting to a Defined Target"

- Section 2.4.3, "Disconnecting From Siebel"
- Section 2.4.4, "Editing a Target"
- Section 2.4.5, "Deleting a Target to Siebel"

**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 2-6. 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:

 $\mbox{Error:}$  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=IS08859\_1"

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

<ADAPTER\_HOME>\user\_projects\domains\base\_domain\bin

#### 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 Oracle WebLogic Server. In addition, make sure to close Application Explorer before you restart the Oracle WebLogic Server.

To define a target to Siebel:

1. In the left pane, expand the Adapters node, as shown in Figure 2–7.

#### Figure 2–7 Adapters Node

🐯 Configurations							
🗄 📲 SampleConfig							
🖻 😇 🛛 Adapters							
JDEdwards							
-B MySAP							
PeopleSoft							
Siebel							
Events							
-							

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, as shown in Figure 2–8.

Figure 2–8 Java Data Bean Connection Dialog

Java Data Bean Conne	ction 🔀
Logon Advanced	
Gateway Server*	
Enterprise Name*	
Siebel Server	
User*	
Password*	
Siebel Version	Siebel 7.7 and above 💌
<u>[</u>	OK Cancel
Fields marked with * a	re 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, as shown in Figure 2–9 and verify the following:

#### Language

**Object Manager** 

Java Data Bean Conne	ction 🔀				
Logon Advanced					
Language	enu				
Object Manager*	EAIObjMgr				
Repository Name	Siebel Repository				
Encryption	None 💌				
OK Cancel					
Fields marked with * are required.					

Figure 2–9 Java Data Bean Connection Dialog Advanced Tab

#### **Object Manager**

For Siebel 7.0.3, the default Object Manager is EAIObjMgr. For Siebel 7.7, the default is EAIObjMgr\_enu. Siebel 7.7 requires that you add a language extension (for example, \_enu) to the end of the Object Manager name. Check with your Siebel Administrator for the specific names that apply to your system.

#### **Repository Name**

If no repository is specified, then a full list of objects from all available repositories is returned. If a specified repository is not found, then 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, as shown in Figure 2–10.

#### Figure 2–10 Disconnected Siebel Target

È**⊢₩)** Siebel └─╤ siebel\_target

2. 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, as shown in Figure 2–11.

#### Figure 2–11 Siebel Target Node

🗄 📲 Siebel	
🗄 🖵 sieb	el_target
-6	Business Object
-3	Business Service
	Integration Object

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, as shown in Figure 2–12.



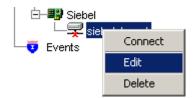


### 2.4.4 Editing a Target

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, as shown in Figure 2–13.

#### Figure 2–13 Edit Option



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.

This section contains the following topic:

Section 2.5.1, "Viewing Metadata"

### 2.5.1 Viewing Metadata

To view metadata:

- 1. 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, as shown in Figure 2–14.

Figure 2–14 Account Node



• For a **Siebel Business Service**, select the object in which you are interested, for example, **addAccount**, as shown in Figure 2–15.

Figure 2–15 Simple Add Account Node



**5.** In the right pane, click the ellipsis (...) in the Table row of the properties table. The metadata table appears in the right pane, as shown in Figure 2–16.

🎆 Detail 🔳	Table				
Name	Туре	Required	MultiValued	ReadOnly	Active
Account Co	string				<b>&gt;</b>
Account Con	. string				<b>~</b>
Account Mar	string				>
Account Org	string				>
Account Pro	string				Image: A start of the start
Account Role	string				Image: A start of the start
Account Stat	. string				Image: A start of the start
Account Trend	string				<ul> <li>Image: A set of the set of the</li></ul>
Address Act	string		Image: A start of the start		Image: A start of the start
Address Id	string		Image: A start of the start		Image: A start of the start
Address Inte	string		Image: A start of the start		Image: A start of the start
Agreement E	string		Image: A start of the start		Image: A start of the start
Agreement N	string		Image: A start of the start		<ul> <li>Image: A set of the set of the</li></ul>
Agreement S	string		Image: A start and a start		<ul> <li>Image: A set of the set of the</li></ul>
Agreement S	string		Image: A start of the start		<b>&gt;</b>
Algorithm Type	string		Image: A start of the start		<b>&gt;</b>
Alias	string				<b>&gt;</b>
Annual Reve	string				<b>&gt;</b>
Assignment	string				
Assignment	string				
Assignment	string		<ul> <li>Image: A set of the set of the</li></ul>	<ul> <li>Image: A start of the start of</li></ul>	<ul> <li>Image: A set of the set of the</li></ul>
Assignment	boolean				<ul> <li>Image: A set of the set of the</li></ul>
Assignment	string		<ul> <li>Image: A set of the set of the</li></ul>		Image: A start of the start

Figure 2–16 Metadata Table for the Siebel Object

## 2.6 Creating XML Schemas

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

This section contains the following topics:

- Section 2.6.1, "Siebel Schema Considerations"
- Section 2.6.2, "Creating an XML Schema for a Siebel Business Object or Business Service"
- Section 2.6.3, "Creating an XML Schema for a Siebel Business Component or Business Service"
- Section 2.6.4, "Searching for a Specific Siebel Object"
- Section 2.6.5, "Returning Fields in a Specified Order"
- Section 2.6.6, "Using QueryWithView"

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. For more information, see "Creating and Testing a Web Service (BSE Configurations Only)" on page 2-24 if you plan to deploy Oracle Application Adapter for Siebel in a Web services environment.

### 2.6.1 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).

### 2.6.2 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.

For example, the Account Business Object can be expanded to display all available Business Components, as shown in Figure 2–17.



#### Figure 2–17 Account Business Object

### 2.6.3 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. 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, as shown in Figure 2–18.

#### Figure 2–18 Insert Method selected Under the Account Business Object



• For a **Siebel Business Service**, expand the **Business Service** node containing the object for which you want to create schema, as shown in Figure 2–19.

#### Figure 2–19 The addAccount Object Under The Add Account Business Service



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

Application Explorer accesses the Siebel repository and builds schemas.

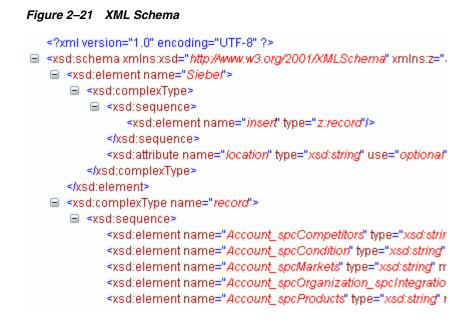
As shown in Figure 2–20, schema tabs similar to the following appear in the right pane.

#### Figure 2–20 Request and Response Schema Tabs



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

The schema appears on the right, as shown in Figure 2–21.



### 2.6.4 Searching for a Specific Siebel Object

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

- 1. Start Application Explorer and connect to your Siebel system through a target.
- 2. Expand the target and select **Business Object**, **Business Service**, or **Integration 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.

#### 2.6.5 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, then 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: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>
```

### 2.6.6 Using QueryWithView

For Business Components, the Oracle 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 and contains the following topic:

 Section 2.8.1, "Creating a Siebel XDR or XSD Schema for a Siebel Integration Object"

### 2.8.1 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, as shown in Figure 2–22.

Figure 2–22 Siebel Tools Menu

Siebel Tools	×
	SIEBEL.7
To log in, please er	nter your user ID and password and select a database
	User ID: SADMIN
	Password:
	Connect to: Server
	OK Cancel

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, as shown in Figure 2–23. Integration Objects appear in the right pane.

Integration Objects         Sinbel Objects       Synchronize       Generate Schema       Generate Schema         Sinbel Objects       Sinbel Objects       Sinbel Objects       Sinbel Objects       Sinbel Object        Sinboo       S	Edit View Screens Go Query Reports De				
Detail       File       Synchronize       Generate Schema       Generate Code         PP85       Detail       File       Seled Diports       San Desty       Adapter Info       Base Object Type         P1       Apploation       San Desty       Adapter Info       Base Object Type       San Desty	) 🖬 🕼 🕺 🛍 🛍 🗠 🗠 📑 💌	· ◆ ▶ ▶   ♀ ♀ ≵ ≩↓   ◆ ⇒ 🏄	14		
ext       **Al Projects **       Synchronite       Generale Schema       Generale Code         PPD       Detail       Flat        Seleb Objects       Seleb Objects       Seleb Objects       Seleb Object       Seleb Object </th <th>ect Explorer</th> <th></th> <th>Integration Object</th> <th>Its</th> <th></th>	ect Explorer		Integration Object	Its	
Per       Detail       Flat         2) Siebel Objects       Adapter Info       Base Object Type         4) Application       SAP BAPI Wirard - Get Function Lit (       SAP Datign       SAP BAPI Output         4) Assignment Althobe       SAP BAPI Wirard - Get Function Lit (       SAP Datign       SAP BAPI Output         4) Assignment Althobe       SAP BAPI Wirard - Get Function Lit (       SAP Datign       SAP BAPI Output         4) Assignment Althobe       SAP BAPI Wirard - Get Function Lit (       SAP Datign       SAP BAPI Input         4) Assignment Althobe       SAP BAPI Wirard - Get IDOC (BAPI :       SAP Datign       SAP BAPI Output         4) Buitness Diplect       SAP IDOC Wirard - Get IDOC (BAPI :       SAP Datign       SAP BAPI Output         5) Dock Ward - Get IDOC Wirard - Get IDOC (Ward - Get IDOC Lit (GF       SAP Datign       SAP BAPI Input         5) Dock Object       SAP IDOC Wirard - Get IDOC Segme       SAP Datign       SAP BAPI Output         5) Dock Object       SAP IDOC Wirard - Get IDOC Segme       SAP Datign       SAP BAPI Output         5) Dock Object       SAP IDOC Wirard - Get IDOC Segme       SAP Datign       SAP BAPI Output         5) Dock Wirard - Get IDOC Wirard - Get IDOC Segme       SAP Datign       SAP BAPI Output         5) Dock Wirard - Get IDOC Wirard - Get IDOC Segme       SAP Datign	ect: ** All Projects **	<b>T</b>			
SAP BAPI Witzerd - Get Function Litt (       SAP Datign       SAP BAPI Output         SAP BAPI Witzerd - Get Function Litt (       SAP Datign       SAP BAPI Output         SAP SAPI Mitzerd - Get Function Litt (       SAP Datign       SAP BAPI Output         SAP SAPI Mitzerd - Get Function Litt (       SAP Datign       SAP BAPI Output         SAP BAPI Mitzerd - Get Function Litt (       SAP Datign       SAP BAPI Output         SAP BAPI Mitzerd - Get FUNCtion Litt (       SAP Datign       SAP BAPI Output         SAP BAPI Mitzerd - Get FUNCtion Litt (       SAP Datign       SAP BAPI Output         SAP BAPI Mitzerd - Get FOOC (Mard - Get FOOC (Mard - Get FOOC (Mard - Get FOOC (Mard - Get FOOC Litt (Get SAP Datign       SAP BAPI Output         SAP DDC Witzerd - Get FOOC Litt (Get SAP Datign       SAP BAPI Output       SAP BAPI Output         SAP DDC Witzerd - Get TOOC Litt (Get SAP Datign       SAP BAPI Output       SAP BAPI Output         SAP DDC Witzerd - Get TOOC Segme       SAP Datign       SAP BAPI Output         SAP DDC Witzerd - Get TOOC Segme       SAP Datign       SAP BAPI Output         SAP DDC Witzerd - Get TOOC Segme       SAP Datign       SAP BAPI Output         SAP DDC Witzerd - Get TOOC Segme       SAP Datign       SAP BAPI Output         SAP DDC Witzerd - Get TOOC Segme       SAP Datign       SAP BAPI Output         SAP DDC Witzerd	pes Detail Flat		Synchronize	Generate Schema	Generate Code
Image: Subjection       SAP BAPI Wizerd - Get Function List (       SAP Design       SAP BAPI Output         Image: Subject Index       SAP Get System Parameters (BAPI In In       SAP Design       SAP BAPI Output         Image: Subject Index       SAP Get System Parameters (BAPI In In       SAP Design       SAP BAPI Output         Image: Subject Index       SAP Get System Parameters (BAPI In Int)       SAP Design       SAP BAPI Output         Image: Subject Index       SAP Index Index       SAP Design       SAP BAPI Output         Image: Subject Index       SAP Index Index       SAP Design       SAP BAPI Output         Image: Subject Index       SAP Index Index       SAP Design       SAP BAPI Output         Image: Subject Index       SAP Index Index       SAP Doc Wixerd - Get IDOC List (BF       SAP Design       SAP BAPI Output         Image: Subject Index       SAP Index Index       Get IDOC List (BF       SAP Design       SAP BAPI Output         Image: Subject Index       SAP Index Index       Get IDOC List (BF       SAP Design       SAP BAPI Output         Image: Subject Index       SAP Index Index       Get IDOC Subject       SAP Index Index       SAP Design       SAP BAPI Index         Image: Subject Index       SAP Index Index       Get IDOC Subject       SAP Index Index       SAP Design       SAP BAPI Output	Siebel Objects	W Name	Changed Project	Adapter Info	Base Object Type
************************************	🗄 🦳 Applet	SAP BAPI Wizard - Get Function Li	t ( SAP Design		SAP BAPI Output
Image Category       SAP Bade Output         Image Category       SAP Doc Wisard - Get DOC (Bade)         Image Category       SAP Doc Wisard - Get DOC Misted         Image Category       SAP Doc Wisard - Get DOC Misted         Image Category       SAP Doc Wisard - Get DOC Segme         Image Category       SAP Doc Wisard - Get DOC Segme         Image Category       SAP Doc Wisard - Get DOC Segme         Image Category       SAP Doc Wisard - Get DOC Segme         Image Category       SAP Doc Wisard - Get DOC Segme         Image Category       SAP Doc Wisard - Get DOC Segme         Image Category       SAP Doc Wisard - Get RCC Table En         Image Category       SAP Doc Wisard - Get RCC Table En         I	🕀 🔚 Application	SAP BAPI Wizard - Get Function Li	t ( SAP Design		SAP BAPI Output
Binag Category       SAP IDOC Witard - Get IDOC (BAP1:       SAP Datign       SAP BAP1 Input         Business Object       SAP IDOC Witard - Get IDOC (BAP1:       SAP Datign       SAP BAP1 Input         Business Object       SAP IDOC Witard - Get IDOC (BAP1:       SAP Datign       SAP BAP1 Input         Business Object       SAP IDOC Witard - Get IDOC Litt (B2       SAP Datign       SAP BAP1 Input         Business Object       SAP IDOC Witard - Get IDOC Litt (B2       SAP Datign       SAP BAP1 Input         Class       SAP IDOC Witard - Get IDOC Litt (B2       SAP Datign       SAP BAP1 Input         Diate       SAP IDOC Witard - Get IDOC Litt (B2       SAP Datign       SAP BAP1 Input         Diate       SAP IDOC Witard - Get IDOC Segme       SAP Datign       SAP BAP1 Input         Diate       SAP IDOC Witard - Get IDOC Segme       SAP Datign       SAP BAP1 Input         Diate       SAP IDOC Witard - Get IDOC Segme       SAP Datign       SAP BAP1 Input         Diate       SAP IDOC Witard - Get IDOC Segme       SAP Datign       SAP BAP1 Input         Diate       SAP IDOC Witard - Get IDOC Struct.       SAP Datign       SAP BAP1 Input         Diate       SAP IDOC Witard - Get IPOC Struct.       SAP Datign       SAP BAP1 Output         Diate       SAP IDOC Witard - Get IPOC Table En       SA	🖅 🖅 Assignment Attribute	SAP Get System Parameters (BAPI	In SAP Design		SAP BAPI Input
■ Bitnap Category       SAP IDAQ: Ward - Get IDOC (BAP1:       SAP Datign       SAP BAP1 Input         ● Business Object       SAP IDOC Ward - Get IDOC (BAP1:       SAP Datign       SAP BAP1 Input         ● Business Object       SAP IDOC Ward - Get IDOC (BAP1:       SAP Datign       SAP BAP1 Input         ● Business Object       SAP IDOC Ward - Get IDOC Litt (B2       SAP Datign       SAP BAP1 Input         ● Business Device       SAP IDOC Ward - Get IDOC Litt (B2       SAP Datign       SAP BAP1 Input         ● Business Device       SAP IDOC Ward - Get IDOC Litt (B2       SAP Datign       SAP BAP1 Output         ● Business Device       SAP IDOC Ward - Get IDOC Segme       SAP Datign       SAP BAP1 Output         ● Business Device       SAP IDOC Ward - Get IDOC Segme       SAP Datign       SAP BAP1 Output         ● Dock Object       SAP IDOC Ward - Get IDOC Segme       SAP Datign       SAP BAP1 Output         ● Dock Object       SAP IDOC Ward - Get IDOC Segme       SAP Datign       SAP BAP1 Output         ● The Ide Ide       SAP IDOC Ward - Get IDOC Segme       SAP Datign       SAP BAP1 Output         ● The Ide Ide       SAP IDOC Ward - Get IDOC Segme       SAP Datign       SAP BAP1 Output         ● The Ide Ide Ide       SAP IDOC Ward - Get IDOC Struct.       SAP Datign       SAP BAP1 Output         ● The	🗈 👻 Assignment Criteria	SAP Get System Parameters (BAPI	OL SAP Design		SAP BAPI Output
Buinness Component       SAP BDOC Witard - Get IDOC (BAP1 -       SAP Design       SAP BAP1 Output         Buinness Object       SAP IDOC Witard - Get IDOC Litt (B4       SAP Design       SAP BAP1 Output         Buinness Service       SAP IDOC Witard - Get IDOC Litt (B4       SAP Design       SAP BAP1 Output         Class       Class       SAP IDOC Witard - Get IDOC Mitada       SAP Design       SAP BAP1 Output         SAP IDOC Witard - Get IDOC Mitada       SAP Design       SAP BAP1 Output       SAP BAP1 Output         SAP IDOC Witard - Get IDOC Mitada       SAP Design       SAP BAP1 Output         SAP IDOC Witard - Get IDOC Mitada       SAP Design       SAP BAP1 Output         SAP IDOC Witard - Get IDOC Segme       SAP Design       SAP BAP1 Output         SAP IDOC Witard - Get IDOC Segme       SAP Design       SAP BAP1 Output         SAP IDOC Witard - Get IDOC Segme       SAP Design       SAP BAP1 Output         SAP IDOC Witard - Get IDOC Structu       SAP Design       SAP BAP1 Output         SAP IDOC Witard - Get IDOC Structu       SAP Design       SAP BAP1 Output         SAP IDOC Witard - Get RFC Table En       SAP Design       SAP BAP1 Output         SAP IDOC Witard - Get RFC Table En       SAP Design       SAP BAP1 Output         SAP IDOC Witard - Get RFC Table En       SAP Design       SAP BAP1 Out					SAP BAPI Input
Image: Subject       SAP IDOC Wizerd - Get IDOC List (Br       SAP Design       SAP BAP I Input         Image: Service       SAP IDOC Wizerd - Get IDOC Matada       SAP Design       SAP BAP I Input         Image: Service       SAP IDOC Wizerd - Get IDOC Matada       SAP Design       SAP BAP I Input         Image: Service       SAP IDOC Wizerd - Get IDOC Matada       SAP Design       SAP BAP I Input         Image: Service       SAP IDOC Wizerd - Get IDOC Segme       SAP Design       SAP BAP I Input         Image: Service       SAP IDOC Wizerd - Get IDOC Segme       SAP Design       SAP BAP I Input         Image: Service       SAP IDOC Wizerd - Get IDOC Segme       SAP Design       SAP BAP I Input         Image: Service       SAP IDOC Wizerd - Get IDOC Segme       SAP Design       SAP BAP I Input         Image: Service       SAP IDOC Wizerd - Get IDOC Segme       SAP Design       SAP BAP I Input         Image: Service       SAP IDOC Wizerd - Get IDOC Segme       SAP Design       SAP BAP I Input         Image: Service       SAP IDOC Wizerd - Get IDOC Segme       SAP Design       SAP BAP I Input         Image: Service       SAP IDOC Wizerd - Get RCC Table En       SAP Design       SAP BAP I Input         Image: Service Mark       SAP IDOC Wizerd - Get RCC Table En       SAP Design       SAP BAP I Input <t< td=""><td></td><td></td><td></td><td></td><td>SAP BAPI Output</td></t<>					SAP BAPI Output
Business Object Component         SAP IDOC Witard - Get IDOC List (64         SAP Design         SAP BAPI Output           Business Object Component         SAP IDOC Witard - Get IDOC Metada         SAP Design         SAP BAPI Output           Business Object         SAP IDOC Witard - Get IDOC Metada         SAP Design         SAP BAPI Output           Dock Object         SAP IDOC Witard - Get IDOC Segme         SAP Design         SAP BAPI Output           Dock Object         SAP IDOC Witard - Get IDOC Segme         SAP Design         SAP BAPI Output           Dock Object         SAP IDOC Witard - Get IDOC Segme         SAP Design         SAP BAPI Output           Dock Object         SAP IDOC Witard - Get IDOC Segme         SAP Design         SAP BAPI IDut           Dock Object         SAP IDOC Witard - Get IDOC Struct.         SAP Design         SAP BAPI IDut           Dock Object         SAP IDOC Witard - Get RC Table En         SAP Design         SAP BAPI IDut           Dock Object         SAP IDOC Witard - Get RC Table En         SAP Design         SAP BAPI IDut           Dock Object         SAP IDOC Witard - Get RC Table En         SAP Design         SAP BAPI IDut           Dock Object         SAP IDOC Witard - Get RC Table En         SAP Design         SAP BAPI IDut           Dock Witard - Get RC Table En         SAP Design         SAP BAPI					SAP BAPI Input
Buildings Service       SAP IDOC Wizerd - Get IDOC Metada       SAP Detajn       SAP BAP1 Input         Class       Class       SAP IDOC Wizerd - Get IDOC Metada       SAP Detajn       SAP BAP1 Unput         Class       Class       SAP IDOC Wizerd - Get IDOC Segme       SAP Detajn       SAP BAP1 Input         Dock Übject       SAP IDOC Wizerd - Get IDOC Segme       SAP Detajn       SAP BAP1 Input         Dock Übject       SAP IDOC Wizerd - Get IDOC Segme       SAP Detajn       SAP BAP1 Input         Deck Übject       SAP IDOC Wizerd - Get IDOC Segme       SAP Detajn       SAP BAP1 Output         Deck Übject       SAP IDOC Wizerd - Get IDOC Segme       SAP Detajn       SAP BAP1 Output         Deck Übject       SAP IDOC Wizerd - Get IDOC Structu       SAP Detajn       SAP BAP1 Output         De Holg Idinates Table       SAP IDOC Wizerd - Get IRC Table En       SAP Detajn       SAP BAP1 Output         De Integration Diject       SAP IDOC Wizerd - Get IRC Table En       SAP Detajn       SAP BAP1 Input         De Integration Diject       SAP IDOC Wizerd - Get IRC Table En       SAP Detajn       SAP BAP1 Output         De Integration Diject       SAP IDOC Wizerd - Get IRC Table En       SAP Detajn       SAP BAP1 Output         De Integration Diject       SAP IDOC Wizerd - Get IRC Table En       SAP Detajn       SAP BAP		SAP IDOC Wizard - Get IDOC List I	BA SAP Design		SAP BAPI Output
Bass       SAP IBAS       SAP IDOC Wizerd - Get IDOC Metada       SAP Detign       SAP BAPI Output         Bass       Command       SAP IDOC Wizerd - Get IDOC Segme       SAP Detign       SAP BAPI Output         Bass       Dock Object       SAP IDOC Wizerd - Get IDOC Segme       SAP Detign       SAP BAPI Output         Bass       Dock Object       SAP IDOC Wizerd - Get IDOC Segme       SAP Detign       SAP BAPI Output         Bass       Find       SAP IDOC Wizerd - Get IDOC Segme       SAP Detign       SAP BAPI Output         Command       SAP IDOC Wizerd - Get IDOC Segme       SAP Detign       SAP BAPI Output         Command       SAP IDOC Wizerd - Get IDOC Segme       SAP Detign       SAP BAPI Output         Com Map       SAP IDOC Wizerd - Get IDOC Struct.       SAP Detign       SAP BAPI Input         SAP IDOC Wizerd - Get RFC Table En       SAP Detign       SAP BAPI Output         SAP IDOC Wizerd - Get RFC Table En       SAP Detign       SAP BAPI Output         SAP IDOC Wizerd - Get RFC Table En       SAP Detign       SAP BAPI Output         SAP IDOC Wizerd - Get RFC Table En       SAP Detign       SAP BAPI Output         SAP IDOC Wizerd - Get RFC Table En       SAP Detign       SAP BAPI Output         SAP IDOC Wizerd - Get RFC Table En       SAP Detign       SAP BAPI Output					
SAP Idoc Wizard - Get IDoC Segnet       SAP Delign       SAP BAP1 Input         Dick Object       SAP IDoC Wizard - Get IDOC Segnet       SAP Delign       SAP BAP1 Input         Dick Object       SAP IDoC Wizard - Get IDOC Segnet       SAP Delign       SAP BAP1 Input         Dick Object       SAP IDOC Wizard - Get IDOC Segnet       SAP Delign       SAP BAP1 Input         Dick Object       SAP IDOC Wizard - Get IDOC Segnet       SAP Delign       SAP BAP1 Input         Mathematic Interface       SAP IDOC Wizard - Get IDOC Struct.       SAP Delign       SAP BAP1 Output         Mathematic Interface       SAP IDOC Wizard - Get IDOC Struct.       SAP Delign       SAP BAP1 Output         Mathematic Interface       SAP IDOC Wizard - Get IPOC Table En       SAP Delign       SAP BAP1 Input         Mathematic Interface       SAP IDOC Wizard - Get RFC Table En       SAP Delign       SAP BAP1 Output         Mathematic Integration Dipicit       SAP IDOC Wizard - Get RFC Table En       SAP Delign       SAP BAP1 Output         Mathematic Integration Dipicit       SAP IDOC Wizard - Get RFC Table En       SAP Delign       SAP BAP1 Output         Mathematic Integration Dipicit       SAP IDOC Wizard - Get REC Table En       SAP Delign       SAP BAP1 Output         Mathematic Integration Dipicit       SAP IDOC Wizard - Get REC Table En       SAP Delign       S					
SAP Elder Ubject       SAP IDOC Wizerd - Get IDOC Segmei       SAP Design       SAP BAPI Joutput         SP Eld Interface Table       SAP IDOC Wizerd - Get IDOC Segmei       SAP Design       SAP BAPI Joutput         SP Eld Interface Table       SAP IDOC Wizerd - Get IDOC Segmei       SAP Design       SAP BAPI Joutput         SP Eld Interface Table       SAP IDOC Wizerd - Get IDOC Segmei       SAP Design       SAP BAPI Joutput         SP HIM Interface Table       SAP IDOC Wizerd - Get IDOC Structu.       SAP Design       SAP BAPI Joutput         SP HIM Interface Table       SAP IDOC Wizerd - Get RCC Table En       SAP Design       SAP BAPI Joutput         SP II Integration Digicit       SAP IDOC Wizerd - Get RCC Table En       SAP Design       SAP BAPI Joutput         SP II Integration Digicit       SAP IDOC Wizerd - Get RCC Table En       SAP Design       SAP BAPI Joutput         SP II Integration Digicit       SAP IDOC Wizerd - Get RCC Table En       SAP Design       SAP BAPI Joutput         SP II Integration Digicit       SAP IDOC Wizerd - Get RCC Table En       SAP Design       SAP BAPI Joutput         SP II Integration Digicit       SAP IDOC Wizerd - Get RCC Table En       SAP Design       SAP BAPI Joutput         SP IDOC Wizerd - Get RCC Table En       SAP Design       SAP BAPI Joutput       SAP BAPI Joutput         SP IDOC Wizerd - Get RCC Table En <td></td> <td></td> <td></td> <td></td> <td></td>					
ShL       SAP IDOC Wizard - Get IDOC Segnet       SAP Design       SAP BAP1 Input         Sh Dick Object       SAP IDOC Wizard - Get IDOC Segnet       SAP Design       SAP BAP1 Input         Sh Tind       SAP IDOC Wizard - Get IDOC Structu.       SAP Design       SAP BAP1 Input         Sh Tind       SAP IDOC Wizard - Get IDOC Structu.       SAP Design       SAP BAP1 Input         Sh Tind       SAP IDOC Wizard - Get IDOC Structu.       SAP Design       SAP BAP1 Input         Sh Tind       SAP IDOC Wizard - Get RCC Table En       SAP Design       SAP BAP1 Input         Sh Tindo Ubject       SAP IDOC Wizard - Get RCC Table En       SAP Design       SAP BAP1 Output         Sh Tindo Ubject       SAP IDOC Wizard - Get RCC Table En       SAP Design       SAP BAP1 Output         Sh Tindo Ubject       SAP IDOC Wizard - Get RCC Table En       SAP Design       SAP BAP1 Output         Sh Tindo Ubject       SAP IDOC Wizard - Get RCC Table En       SAP Design       SAP BAP1 Output         Sh Tindo Ubject       SAP IDOC Wizard - Get RCC Table En       SAP Design       SAP BAP1 Output         Sh Tindo Ubject       SAP IDOC Wizard - Get RCC Table En       SAP Design       SAP BAP1 Output         Sh Tindo Ubject       SAP IDOC Wizard - Get RCC Table En       SAP Design       SAP BAP1 Output         Sh Tindo Ubject					
SAP IDOC Wizerd - Get IDOC Segnet       SAP Design       SAP BAPI Output         This ElM Interface Table       SAP IDOC Wizerd - Get IDOC Structu.       SAP Design       SAP BAPI Output         This ElM Interface Table       SAP IDOC Wizerd - Get IDOC Structu.       SAP Design       SAP BAPI Output         This ElM Interface Table       SAP IDOC Wizerd - Get IDOC Structu.       SAP Design       SAP BAPI Output         This ElM Interface Table       SAP IDOC Wizerd - Get RFC Table En       SAP Design       SAP BAPI Output         This ElM Integration Dipicit       SAP IDOC Wizerd - Get RFC Table En       SAP Design       SAP BAPI Output         This ElM Integration Dipicit       SAP IDOC Wizerd - Get RFC Table En       SAP Design       SAP BAPI Output         This ElM Integration Dipicit       SAP IDOC Wizerd - Get RFC Table En       SAP Design       SAP BAPI Output         SAP IDOC Wizerd - Get REC Table En       SAP Design       SAP BAPI Output       SAP IDOC Wizerd - Get REC Table En       SAP Design       SAP BAPI Output         SAP IDOC Wizerd - Get REC Table En       SAP Design       SAP BAPI Output       SAP IDOC Wizerd - Get REC Table En       SAP Design       SAP BAPI Output         SAP IDOC Wizerd - Get REC Table En       SAP Design       SAP BAPI Input       SAP IDOC Wizerd - Get REC Table En       SAP Design       SAP BAPI Output         SAP IDOC Wizerd					
Image: SAP IDAC Struct       SAP BAP Input         Image: SAP IDAC Wizerd - Get IDOC Struct       SAP Design       SAP BAP Input         Image: SAP IDAC Wizerd - Get IDOC Struct       SAP Design       SAP BAP Input         Image: SAP IDAC Wizerd - Get IDOC Struct       SAP Design       SAP BAP Input         Image: SAP IDAC Wizerd - Get IDOC Struct       SAP Design       SAP BAP Input         Image: SAP IDAC Wizerd - Get IPC Table En       SAP Design       SAP BAP Input         Image: SAP IDAC Wizerd - Get IPC Table En       SAP Design       SAP BAP I Output         Image: SAP IDAC Wizerd - Get IPC Table En       SAP Design       SAP BAP I Output         Image: SAP IDAC Wizerd - Get IPC Table En       SAP Design       SAP BAP I Output         Image: SAP IDAC Wizerd - Get IPC Table En       SAP Design       SAP BAP I Output         Image: SAP IDAC Wizerd - Get IPC Table En       SAP Design       SAP BAP I Output         Image: SAP IDAC Wizerd - Get IPC Table En       SAP Design       SAP BAP Input         Image: SAP IDAC Wizerd - Get IPC Table En       SAP Design       SAP BAP Input         Image: SAP IDAC Wizerd - Get IPC Table En       SAP Design       SAP BAP Input         Image: SAP IDAC Wizerd - Get IPC Table En       SAP Design       SAP BAP Input         Image: SAP IDAC Wizerd - Get IPC Table En       SAP Design					
<sup>2</sup> Help Id <sup>2</sup> AP IDOC Wizerd - Get IDOC Struct. <sup>2</sup> SAP BAPI Output <sup>2</sup> Sheema Maintennoc Phase <sup>2</sup> Sheema Maintennoc Phase <sup>2</sup> Sheema Maintennoc Phase <sup>2</sup> Sheema Maintennoc Phoses <sup>2</sup> <sup>2</sup> Sheema Maintennoc Phoses <sup>2</sup> <sup>2</sup> Sheema Maintennoc Phoses <sup>2</sup>			-		
Integration Dipied       SAP IDOC Wizard - Get RFC Table En       SAP Design       SAP BAP1 Input         Integration Dipied       SAP IDOC Wizard - Get RFC Table En       SAP Design       SAP BAP1 Unput         Integration Dipied       SAP IDOC Wizard - Get RFC Table En       SAP Design       SAP BAP1 Unput         Integration Dipied       SAP IDOC Wizard - Get RFC Table En       SAP Design       SAP BAP1 Output         Integration Dipied       SAP IDOC Wizard - Get RFC Table En       SAP Design       SAP BAP1 Output         Integration Dipied       SAP IDOC Wizard - Get RFC Table En       SAP Design       SAP BAP1 Output         SAP IDOC Wizard - Get RFC Table En       SAP Design       SAP BAP1 Output         SAP IDOC Wizard - Get REC Table En       SAP Design       SAP BAP1 Output         SAP IDOC Wizard - Get REC Table En       SAP Design       SAP BAP1 Output         SAP IDOC Wizard - Get REC Table En       SAP Design       SAP BAP1 Input         SAP IDOC Wizard - Get REC Table En       SAP Design       SAP BAP1 Input         SAP IDOC Wizard - Get REC Table En       SAP Design       SAP BAP1 Input         SAP IDOC Wizard - Get REC Table En       SAP Design       SAP BAP1 Input         SAP IDOC Wizard - Get REC Table En       SAP Design       SAP BAP1 Output         SAP Wizards - Get Field Info (GAP1 In       S					
Import Object       SAP IDOC Wizerd - Get RFC Table En       SAP Design       SAP BAP Linput         Import Object       SAP IDOC Wizerd - Get RFC Table En       SAP Design       SAP BAP Louput         Import Object       SAP IDOC Wizerd - Get RFC Table En       SAP Design       SAP BAP Louput         Import Object       SAP IDOC Wizerd - Get RFC Table En       SAP Design       SAP BAP Louput         Import Object       SAP IDOC Wizerd - Get RFC Table En       SAP Design       SAP BAP Louput         Import Object       SAP IDOC Wizerd - Get RFC Table En       SAP Design       SAP BAP Louput         Import Object       SAP IDOC Wizerd - Get REC Table En       SAP Design       SAP BAP Louput         Import Object       SAP IDOC Wizerd - Get REC Table En       SAP Design       SAP BAP Louput         Import Object       SAP IDOC Wizerd - Get REC Table En       SAP Design       SAP BAP Louput         Import Object       SAP IDOC Wizerd - Get REC Table En       SAP Design       SAP BAP Louput         Import Object       SAP RAP Louput       SAP EAP Louput       SAP BAP Louput         Import Object       SAP Wizerd - Get Field Info (BAPI In       SAP Design       SAP BAP Louput         Import Object       SAP Wizerd - Get Field Info (BAPI Ori       SAP Design       SAP BAP Louput         Import Object					
Import Übject       SAP IDOC Wizard - Get RPC Table En       SAP Dagin       SAP BAP1 Output         Integration Übject       SAP IDOC Wizard - Get RPC Table En       SAP Dagin       SAP BAP1 Output         Integration Übject       SAP IDOC Wizard - Get RPC Table En       SAP Dagin       SAP BAP1 Output         Integration Übject       SAP IDOC Wizard - Get RPC Table En       SAP Dagin       SAP BAP1 Output         Integration Übject       SAP IDOC Wizard - Get Record Struct       SAP Design       SAP BAP1 Output         Integration Übject       SAP IDOC Wizard - Get Record Struct       SAP Design       SAP BAP1 Output         Integration Übject       SAP RC - Execute ABAP (GAP1 Inpu       SAP Design       SAP BAP1 Output         Integration Übject       SAP RC - Execute ABAP (GAP1 Inpu       SAP Design       SAP BAP1 Output         Integration Dipicat       SAP Wizards - Get Field Info (BAP1 In       SAP Design       SAP BAP1 Input         Integration Dipicat       SAP Wizards - Get Field Info (BAP1 In       SAP Design       SAP BAP1 Output         Integration Dipicat       SAP Wizards - Get Field Info (BAP1 In       SAP Design       SAP BAP1 Output         Integration Dipicat       SAP Wizards - Get Field Info (BAP1 In       SAP Design       SAP BAP1 Output         Integration Dipicat       SAP Wizards - Get Field Info (BAP1 In       SAP					
Iministration Diject       SAP IDOC Witard - Get RFC Table En       SAP Dation       SAP BAP I Output         Iministration Diject       SAP IDOC Witard - Get RFC Table En       SAP Dation       SAP BAP I Output         Iministration Diject       SAP IDOC Witard - Get RFC Table En       SAP Dation       SAP BAP I Output         Iministration Diject       SAP IDOC Witard - Get RFC Table En       SAP Dation       SAP BAP I Output         Iministration Diject       SAP IDOC Witard - Get Record Struct       SAP Dation       SAP BAP I Output         Iministration Diject       SAP IDOC Witard - Get Record Struct       SAP Dation       SAP BAP I Output         Iministration Diject       SAP RFC - Execute ABAP (BAPI Input       SAP Dation       SAP BAPI Output         Iministration Diject       SAP Witards - Get Field Info (BAPI In       SAP Dation       SAP BAPI Output         Iministration Diject       SAP Witards - Get Field Info (BAPI In       SAP Design       SAP BAPI Output         Iministration Diject       SAP Witards - Get Field Info (BAPI In       SAP Design       SAP BAPI Output         Iministration Diject       SAP Witards - Get Field Info (BAPI In       SAP Design       SAP BAPI Output         Iministration Diject       SAP Witards - Get Field Info (BAPI In       SAP Design       SAP BAPI Output         Iminite Account       SAP Witards - Get					•
An Integration Component     An Integration Component     An Integration Dipiect User Prop     Link     Menu     SAP IDOC Wirard - Get Record Struct     SAP Design     SAP BAP Input     SAP Wirards - Get Field Info (BAP In     SAP Design     SAP BAP Input     SAP BAP Input     SAP Wirards - Get Field Info (BAP In     SAP Design     SAP BAP Input     SAP BAP Input     SAP Wirards - Get Field Info (BAP In     SAP Design     SAP BAP Input     SAP BAP Input     SAP Wirards - Get Field Info (BAP In     SAP Design     SAP BAP Input     SAP BAP Input     SAP Wirards - Get Field Info (BAP In     SAP Design     SAP BAP Input     SAP BAP Input     SAP Wirards - Get Field Info (BAP In     SAP Design     SAP BAP Input     SAP BAP Input     SAP Wirards - Get Field Info (BAP In     SAP Design     SAP BAP Input     SAP BAP Input     SAP BAP Input     SAP Wirards - Get Field Info (BAP In     SAP Design     SAP BAP Input     SAP BAP Input     SAP BAP Input     SAP Wirards - Get Field Info (BAP In     SAP Design     SAP BAP Input     S					
Ar Doc Mitard - Get Record Stud: SAP Design SAP De					
Inik     SAP RFC - Execute ABAP (BAP1 Input     SAP Design     SAP BAP1 Input       Image: Sap Bap1 Sap Bap2			•		
Image: Solution of the state of the solution	- Nr Link				
Image: Sape Category     SAP Witards - Get Field Info (BAPI In     SAP Design     SAP BAPI Input       Image: Sape Depict     SAP Witards - Get Field Info (BAPI In     SAP Design     SAP BAPI Input       Image: Sape Depict     SAP Witards - Get Field Info (BAPI In     SAP Design     SAP BAPI Input       Image: Sape Depict     SAP Witards - Get Field Info (BAPI In     SAP Design     SAP BAPI Output       Image: Sape Depict     SAP Witards - Get Field Info (BAPI On     SAP Design     SAP BAPI Output       Image: Sape Depict     SAP Witards - Get Field Info (BAPI On     SAP Design     SAP BAPI Output       Image: Sape Depict     Sample Account     EAI Test     Siebel Business Object       Image: Sample Account LIV     EAI Test     Siebel Business Object					
Image: Ubject     SAP Wizwds - Get Field Info (BAPI In     SAP Design     SAP BAPI Input       Image: Divided     SAP Wizwds - Get Field Info (BAPI Oric)     SAP Design     SAP BAPI Output       Image: Divided     SAP Wizwds - Get Field Info (BAPI Oric)     SAP Design     SAP BAPI Output       Image: Divided     SAP Wizwds - Get Field Info (BAPI Oric)     SAP Design     SAP BAPI Output       Image: Divided     SAP Wizwds - Get Field Info (BAPI Oric)     SAP Design     SAP BAPI Output       Image: Divided     Sample Account     EAI Test     Siebel Business Object       Image: Divided     Sample Account LIV     EAI Test     Siebel Business Object	🗄 🔟 Message Category				
Implicit List     SAP Witards - Get Field Info (BAPI Ori     SAP Design     SAP BAPI Output       Implicit     SAP Witards - Get Field Info (BAPI Ori     SAP Design     SAP BAPI Output       Implicit     SAP Witards - Get Field Info (BAPI Ori     SAP Design     SAP BAPI Output       Implicit     SAP Witards - Get Field Info (BAPI Ori     SAP Design     SAP BAPI Output       Implicit     SAP Witards - Get Field Info (BAPI Ori     SAP Design     SAP BAPI Output       Implicit     Sample Account     EAI Test     Siebel Business Object       Implicit     Sample Account LIV     EAI Test     Siebel Business Object					
Image: Construction     SAP Wizards - Get Field Info (BAPI On SAP Design SAP BAPI Output)       Image: Construction of Construction     SAP Wizards - Get Field Info (BAPI On SAP Design SAP BAPI Output)       Image: Construction of Construction     Sample Account       Image: Constret     Sample Account <td< td=""><td> 🔚 Pick List</td><td></td><td></td><td></td><td></td></td<>	🔚 Pick List				
Bepolity     Siebel Business Object     Sechema Maintenance Phase     Bepolity     Sechema Maintenance Process					
Sample Account LIV EAI Test Siebel Business Object     Sechema Maintenance Phase     Schema Maintenance Process	🗉 🛅 Report				
					· · · · · ·
		Sample Account LIV	EAI Test		Siebel Business Object
🗄 🔂 Schema Maintenance Step 🛛 🛛 A B C D E F G H I J K L M N O P O R S T U V W X Y Z *	😟 😼 Schema Maintenance Process 🗄 🕕 Schema Maintenance Step				<u> </u>

Figure 2–23 Siebel Tools Window

- **3.** To create a schema, select an Integration Object, for example, Sample Account.
- 4. Click Generate Schema.

The Generate XML Schema wizard is displayed, as shown in Figure 2–24.

Figure 2–24 Generate XML Schema Wizard

Generate XML Schema		×
	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:\Way\Sample_AccountXDR Browse	
Antiperio Provins USA antiperio Provinsi Antiperio Antiperio Antiperio Antiperio Antiperio Antiperio Antiperio Antiperio Antiperio		
	< Back Finish Cancel	

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

This section contains the following topic:

Section 2.9.1, "Creating an XML Schema for a Siebel Integration Object"

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

1. In Application Explorer, connect to a defined target. For more information on how to connect to a target, see "Connecting to a Defined Target" on page 2-9.

The X over the icon disappears, indicating that the node target is connected, as shown in Figure 2–25.





- 2. Expand the Integration Object node and select Sample Account.
- Right-click the Sample Account node and select Add IO Node. The Add IO Node dialog is displayed, as shown in Figure 2–26.

Figure 2–26 Add IO Node Dialog

🗢 Add IO Node		×
Node name*	SampleAccount	
Schema location*	file://i:ListOfSampleAccount.XDR Browse	·
🗌 XSD Schema		
Protocol*	HTTP 🔻	
	Continue Cancel	
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 2-17.

- **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, then select XSD Schema. If you are using Siebel-generated XDR schemas, then 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, as shown in Figure 2–27.

Figure 2–27 Add IO Node Dialog

		ī
WE URL*	http://ariba01/eai/start.swe	]
SWE External S	iource* wf	
SWE External C	ommand* Execute	
Jser Name*	SADMIN	]
Dassword*	*****	
	Finish Cancel	

- **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 2-17.

**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, as shown in Figure 2–28.

#### Figure 2–28 Integration Object's Sample Account Node



You can now create an XML schema.

### 2.9.1 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, as shown in Figure 2–29.

Figure 2–29 Siebel Integration Objects Node, Sample Account

📮 SAP Wizards - Get 📩 🔁 SAP Wizards - Get	💥 Detail
Sample Account	iwaf.description Sample Account
🗆 🧠 SampleAccor	
📑 Sample Contact	1-614
📑 Sample Employee 👘	default
🛅 Sample Internal Div	Active
👼 Sample Order	Active

- 2. Scroll down and select an Integration Object (for example, SampleAccount).
- **3.** Right-click the created Integration Object node (for example, SampleAccount) and select **Export Schema(s)** from the menu, as shown in Figure 2–30.

Figure 2–30 Export Schema(s) Menu Option

	e Account	
— 🔁 🌀 sar — 📑 Sampl	Romovo This Nodo	
— 📑 Sampl		
– 📑 Sampl – 📑 Sampl	EXMULT SUBPRIMIST	
— 📑 Sampl		
– 📑 Sampl – 📑 Sampl	Create Inhound ICO Service(Event)	
Compl	Create Outbound JCA Service(Request/Response)	
	Apply Filter	

The Select Export Directory dialog is displayed.

The exported event schema must be specified during the channel creation process in the PreParser tab (Schema location field).

4. Click **OK** to save the Schemas.

# 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 2-17.

- 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, then 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, as shown in Figure 2–31.

Figure 2–31 Add Service Node Dialog

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, as shown in Figure 2–32.

#### Figure 2–32 Service Node 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:

- Section 2.11.1, "Creating a Web Service"
- Section 2.11.2, "Testing a Web Service"

### 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, as shown in Figure 2–33.

#### Figure 2–33 Account Business Object with queryWithView method



- **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, leave the default method name.
- c. In the **Description** field, enter a brief description of the method (optional).
- 7. Click OK.

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

8. Right-click the new Web service and select **Save WSDL** from the menu.

The Save dialog is displayed.

- **9.** Provide a name for the WSDL file and a location to save the WSDL file on your file system.
- 10. Click Save.

### 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.

This section contains the following topics:

- Section 2.11.2.1, "Testing a Web Service for a Business Object"
- Section 2.11.2.2, "Testing a Web Service for a Business Service"
- Section 2.11.2.3, "Identity Propagation"

#### 2.11.2.1 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.** As shown in Figure 2–34, select the name of the business service you want to test.

#### Figure 2–34 Expanded Service Node



**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, then an input field is displayed.

5. Click Invoke.

Application Explorer displays the results in the results pane, as shown in Figure 2–35.

#### Figure 2–35 XML Results in the Results Pane

xml version="1.0" encoding="UTF-8" ?	Ì
- <soap-env:envelope< th=""><th></th></soap-env:envelope<>	
xmlns:xsd="http://www.w3.org/2001/XMLSchem	1a"
xmlns:SOAP-	
ENV="http://schemas.xmlsoap.org/soap/envelo	
xmlns:xsi="http://www.w3.org/2001/XMLSchem	a-
instance">	
- <soap-env:body></soap-env:body>	
– <querywithviewresponse< p=""></querywithviewresponse<>	
xmlns="urn:iwaysoftware:ibse:jul2003:Query\	NithVi∈
cid="638ED68A7082CDA3B0492896446C44D8	
- <siebelresponse status="success"></siebelresponse>	
- <record></record>	
<name>SIEBEL1 ACCOUNT</name>	
<location>ONE</location>	
- <record></record>	
<name>SIEBEL2 ACCOUNT</name>	
<location><b>TWO</b></location>	
- <record></record>	
<name>SIEBEL3</name>	
<location>RR</location>	
- <record></record>	ſ

#### 2.11.2.2 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.** 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, then an input field is displayed.

- **5.** Provide the appropriate input.
- 6. Click Invoke.

Application Explorer displays the results in the results pane.

#### 2.11.2.3 Identity Propagation

If you test or execute a Web service using a third party XML editor, for example XMLSPY, then the user name 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.

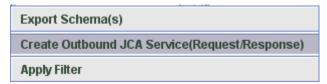
**Note:** The **Create Inbound JCA Service (Event)** option is only available when the selected node supports events.

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, as shown in Figure 2–36.

Figure 2–36 Create Outbound JCA Service (Request/Response) Option



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

As shown in Figure 2–37, the Export WSDL dialog is displayed.

lame	tapters\tools\iwae\bin\.1.1.\wsdls\J2CA_Outbound_invoke.wsdl	e
Export to OSB		
ocation		
lost		
ort		
ser		
assword		
	OK Cancel	

Figure 2–37 Export WSDL Dialog

**3.** Accept the default name or provide a name (for example, J2CA\_Outbound) 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, then your application is a consumer of this event.

This section contains the following topic:

Section 2.13.1, "Creating and Modifying a Channel"

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, then 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. For more information, see "Creating and Modifying a Channel" on page 2-29.

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

### 2.13.1 Creating and Modifying a Channel

This section contains the following topics:

- Section 2.13.1.1, "Creating an HTTP Channel"
- Section 2.13.1.2, "Creating an MQ Series Channel"
- Section 2.13.1.3, "Creating a File Channel"
- Section 2.13.1.4, "Editing a Channel"
- Section 2.13.1.5, "Deleting 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 Oracle WebLogic Server.

**Note:** If you are planning to integrate Oracle Application Adapter for Siebel with BPM, BPEL, Mediator, or OSB inbound process components, then do not start the channel. The channel is managed by the run-time server after the BPM, BPEL, Mediator, or OSB process component is deployed. If you start the channel from Application Explorer for testing and debugging purposes, then stop it before run-time (when working with BPM, BPEL, Mediator, or OSB 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, as shown in Figure 2–38.

Figure 2–38 Add Channel Dlalog

🙀 Add Channel		×
Name:		
SiebelEvent		
Description:		
Protocol:		
HTTP Listener		<b>T</b>
J		
Available Port(s)		ed Port(s)
Available Port(s)	Selecte	ed Port(s)
Available Port(s)		ed Port(s)
Available Port(s)	>>	ed Port(s)
Available Port(s)		ed Port(s)
Available Port(s)	۶۶ ۶	ed Port(s)
		ed Port(s)

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 Http Listener dialog is displayed, as shown in Figure 2–39.

Figure 2–39 Http Listener Dialog

Http Listener	×
Basic PreParser	
Listener port*	8080
Https	
Synchronization Type	REQUEST
Encoding Type	ASCII
OK Cancel	
Fields marked with * are r	equired.

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 <b>Https</b> check box. This option is currently not supported.
Synchronization Type	Select <b>REQUEST_RESPONSE</b> 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, as shown in Figure 2–40.

Figure 2–40 PreParser Tab

Http Liste	ener		×
Basic	PreParser		
Sche	ma location*		
			OK Cancel
Fields m	arked with * ar	e 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, then BPEL, BPM, OSB, 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, as shown in Figure 2–41.

Figure 2–41 Inactive SiebelHTTP Node



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, as shown in Figure 2–42.

Figure 2–42 MQ Listener Dialog

MQ Listener	×		
Request Response Advanced			
Queue manager name*			
MQ server host for MQClient operati	on*		
MQ server port for MQClient operation	MQ server port for MQClient operation*		
MQ server channel for MQClient ope	ration*		
☑ Document type XML			
Request queue name*			
ОК	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	The number to connect to an MQ Server queue manager (MQ client only).	
for MQClient operation	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 <b>REQUEST_RESPONSE</b> 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.	
	<ul> <li>Sequential indicates single processing of requests.</li> </ul>	
	Threaded indicates processing of multiple requests simultaneously.	
Thread limit	If you selected threaded processing, then 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, as shown in Figure 2–43.

Figure 2–43 File Listener Dialog

File Listener	×
Request Response Advance	ed
Polling Location*	
File Mask* .*	
	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
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 <b>REQUEST_RESPONSE</b> 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.	
	<ul> <li>Sequential indicates single processing of requests.</li> </ul>	
	Threaded indicates processing of multiple requests simultaneously.	
Thread limit	If you selected threaded processing, then 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.

# Oracle WebLogic Server Deployment and Integration

This chapter describes Oracle WebLogic Server (OracleWLS) deployment and integration with Oracle Application Adapter for Siebel. It contains the following sections:

- Section 3.1, "Adapter Integration with Oracle WebLogic Server"
- Section 3.2, "Deployment of Adapter"
- Section 3.3, "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.

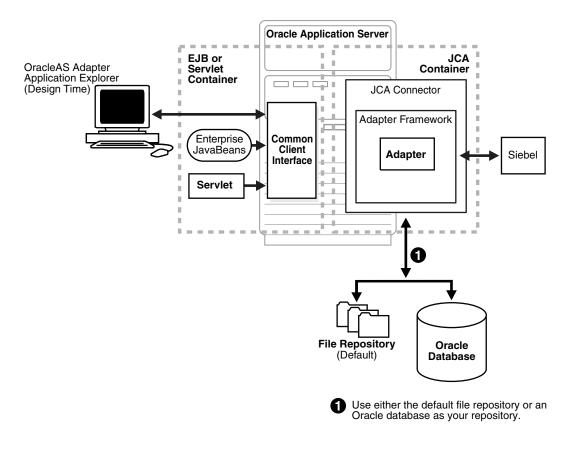
#### See Also:

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.





#### See Also:

Oracle Application Server Adapter Concepts Guide

# 3.3 Updating Adapter Configuration

This section contains the following topics:

- Section 3.3.1, "Creating a Managed Connector Factory Object"
- Section 3.3.2, "Creating Multiple Managed Connector Factory Objects"
- Section 3.3.3, "Modifying WSDL Files for Additional Connection Factory Values"

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

<ADAPTER\_HOME>\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).

### 3.3.1 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>
   clicense-required>false</license-required>
  </license>
  <resourceadapter>
<managedconnectionfactory-class>com.ibi.afjca.spi.IWAFManagedConnectionFactory</ma
nagedconnectionfactory-class>
<connectionfactory-interface>javax.resource.cci.ConnectionFactory</connectionfacto
rv-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</pre>
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, then 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.

### 3.3.2 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:

<ADAPTER\_HOME>\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-factory-interface>
        </connection-instance>
```

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>
```

```
<propertv>
    <name>IWayRepoURL</name>
    <value></value>
               </property>
               <property>
     <name>IWayRepoUser</name>
     <value></value>
               </property>
                <property>
     <name>IWayRepoPassword</name>
      <value></value>
               </property>
               <propertv>
     <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, then 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 Oracle WebLogic Server must be restarted. If the Oracle WebLogic Server is already running, then stop the Oracle WebLogic Server and then restart it.

In addition, the iwafjca.rar file must be redeployed in the Oracle WebLogic Administration Console to activate these changes.

### 3.3.3 Modifying WSDL Files for Additional Connection Factory Values

Application Explorer generates the J2CA properties file using the default connection factory name <code>eis/OracleJCAAdapter/DefaultConnection</code>. If you created additional connection factories, then the WSDLs generated for the additional configuration and connection factory must 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

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

#### For example:

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.

# 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 contains the following topics:

- Section 4.1, "Overview"
- Section 4.2, "Deployment of Adapter"
- Section 4.3, "Configuring a New Application Server Connection"
- Section 4.4, "Designing an Outbound BPEL Process for Service Integration (J2CA Configuration)"
- Section 4.5, "Designing an Inbound BPEL Process for Event Integration (J2CA Configuration)"
- Section 4.6, "Designing an Outbound BPEL Process for Service Integration (BSE Configuration)"

### 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. For more information, see "Generating WSDL (J2CA Configurations Only)" on page 2-27.

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

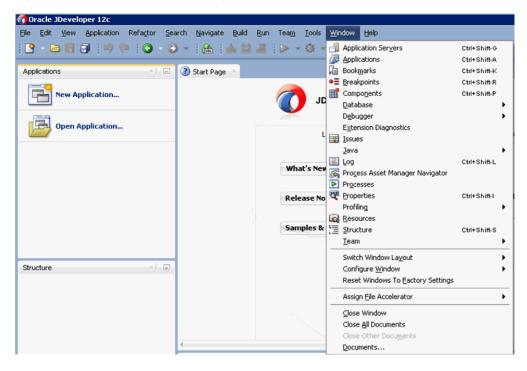
During installation, Oracle Application Adapter for Siebel is deployed as a J2CA 1.0 resource adapter within the WLS container. The adapter must be deployed in the same WLS container as Oracle BPEL Process Manager.

# 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 **Window** and select **Application Server Navigator**, as shown in Figure 4–1.

Figure 4–1 Application Server Navigator



The Application Server tab is displayed, as shown in Figure 4–2.

Figure 4–2 Application Server Tab

Application	Application Server
🚱 । 🗶	1
Application Serve	ers
	New Application Server
	Import
	Export
	🔁 Refresh

Right-click Application Servers and select New Application Server.
 The Create Application Server Connection Wizard is displayed, as shown in Figure 4–3.

Figure 4–3 Create Application Server Connection Wizard

Usage	erver Connection - Step 1 of 3
🔍 Usage	Indicate how the application server will be used.
<ul> <li><u>Name and Type</u></li> <li>Finish</li> </ul>	<ul> <li>Standalone Server         A standalone server is not started, stopped, nor configured by JDeveloper. An application must be manually deployed to a standalone server.     </li> </ul>
	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.
Help	

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

The Name and Type page is displayed, as shown in Figure 4–4.

😚 Create Application Se	rver Connection - Step 2 of 3
Name and Type	
Name and Type	Specify a unique name and type for the connection. The name must be a valid Java identifier. Create connection in: IDE Connections <u>Connection Name:</u> ApplicationServer_Connection Connection <u>Type:</u> WebLogic 12.x
Help	< <u>B</u> ack <u>N</u> ext > Einish Cancel

Figure 4–4 Name and Type Page

 Specify a new name for the Application Server connection and click Next. The Authentication page is displayed, as shown in Figure 4–5.

Figure 4–5 Authentication Page

Screate Application Ser	ver Connection - Step 3 of 6
Usage Name and Type Authentication Configuration Test Finish	Specify a username and password to authenticate the connection.          Username:
Help	< <u>Back</u> <u>Next</u> > <u>Finish</u> Cancel

- **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, as shown in Figure 4–6.

Figure 4–6	Configuration	Page
------------	---------------	------

Create Application Se	erver Connection - Step 4 of	6	
configuration			5
Usage Name and Type Authentication	WebLogic Server connectio Domain of the target will be Weblogic Hostname (Admin localhost		18
Configuration			
_	Port: 7001	SL Port: 7002	
<u>Test</u>		/////	
) Finish	Always use SSL		
	Weblogic Domain:		
	base_domain		
Help		< Back Next > Finish	Cancel

- **8.** Specify the Oracle WebLogic host name (for example, localhost), which is the system IP where the process must deploy and Oracle WebLogic domain (for example, base\_domain).
- 9. Click Next.

The Test page is displayed, as shown in Figure 4–7.

Figure 4–7 Test Page

Name and Type	Authentication	Configuration	Test		
	tion to determine if he application serve		pecified succes	sfully establi	shes a
<u>T</u> est Connecti	on				
<u>S</u> tatus:					
Testing JSR-1	50 Runtime		success		
Testing JNDI			SUCCESS		
Testing JSR-1	50 DomainRuntim	e	Success		
Testing JSR-1	50 Edit		Success		
Testing HTTP			Success		
Testing HTTP	Authentication		Success		
Testing JSR-8	8		SUCCESS		
Testing JSR-8	8-LOCAL		success		
-	r MBeans Model		SUCCESS		
Testing App C			SUCCESS		
Testing JSR-8			SUCCESS		
Testing JSR-8	8-DEP-MGR-LOCAL		SUCCESS		
12 of 12 test	s successful.				

- **10.** Click **Test Connection**.
- **11.** Make sure that the test status is successful.
- 12. Click Next.

The Finish page is displayed, as shown in Figure 4–8.

Create Application S	erver Connection - Step 6 of 6
Finish	
Q Usage	You have completed creating the connection.
Name and Type	To open your connection, expand the connection node in the Application Server Navigator.
Authentication	
Configuration	
🖕 <u>Test</u>	
🧅 Finish	
Help	< <u>Back</u> <u>Next</u> > Einish Cancel

Figure 4–8 Finish Page

13. Click Finish.

The new Application Server connection is listed in the left pane (Application Server tab).

# 4.4 Designing an Outbound BPEL Process for Service Integration (J2CA Configuration)

This section describes how to design an outbound BPEL process for service integration.

A sample project has been provided for this outbound use case scenario in the following folder of the Application Adapters installation:

<ADAPTER\_HOME>\etc\sample\SIEBEL\_Samples.zip\SIEBEL\_Samples\BPEL\J2CA\Outbound\_
Project

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

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

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

This section contains the following topics:

Section 4.4.1, "Generating WSDL for Request/Response Service"

- Section 4.4.2, "Creating an Empty Composite for SOA"
- Section 4.4.3, "Defining a BPEL Outbound Process"
- Section 4.4.4, "Deploying the BPEL Outbound Process"
- Section 4.4.5, "Invoking the Input XML Document in the Oracle Enterprise Manager Console"
- Section 4.4.6, "Testing Outbound BPEL and Mediator Processes"

# 4.4.1 Generating WSDL for Request/Response Service

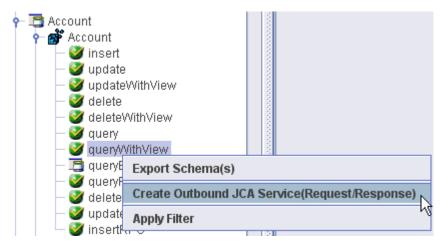
Before you design a BPEL process, you must generate the respective WSDL file using Application Explorer. Perform the following steps to generate a WSDL for the request/response service:

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

For more information on starting the Application Explorer and on connecting a target, see Section 2.1, "Starting Application Explorer" on page 2-2 and Connecting to a Defined Target on page 2-9.

- **2.** Expand the Siebel target to which you are connected.
- **3.** As shown in Figure 4–9, expand **Business Object**, **Account**, and then **Account**.

Figure 4–9 Create Outbound JCA Service (Request/Response) Option



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

The Export WSDL dialog is displayed, as shown in Figure 4–10.

ame	Japters\tools\iwae\bin\\\.wsdls\J2CA_Outbound_invoke.wsdl	e
Export to OSB		
ocation		
lost		
ort		
lser		
assword		
	OK Cancel	

Figure 4–10 Export WSDL Dialog

**5.** Accept the default name or provide a name (for example, J2CA\_Outbound) 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.

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 an Empty Composite for SOA

Perform the following steps to create an empty composite for SOA:

- 1. Create a new SOA application.
- **2.** Enter a name for the new SOA Application and click **Next**, as shown in Figure 4–11.

Create SOA Application	- Step 1 of 3	×
Name you <mark>r</mark> applicatio	n 01010101010101010101010101010101010101	<b>B</b> S
Application Name	Application Name:	
	SOA_Application	
Project Name	Directory:	
<ul> <li>Project SOA Settings</li> </ul>	C:\WORK\mywork\SOA_Application	Browse
	Application Package Prefix:	
	< <u>B</u> ack Next > Einish	Cancel

Figure 4–11 Name Your Application Page

The Name your project page is displayed, as shown in Figure 4–12.

Figure 4–12 Name Your Project Page

Treate SOA Application	- Step 2 of 3			×
Name your project			01010101010101010404040404	5
Application Name     Project Name	Project Name: Dir <u>e</u> ctory:	2CA_Outbound	tion\J2CA_Outbound	Bro <u>w</u> se
Project SOA Settings	Project Feature	5:		
	SOA Suite is a s	uite of tools to model SOA(Serv	vice Oriented Architecture) app	lications.
Help		< <u>B</u> ack <u>N</u> e	xt > <u>F</u> inish	Cancel

3. Enter a project name and click Next.

The Configure SOA settings page is displayed, as shown in Figure 4–13.

Figure 4–13 Con	figure SOA	Settings	Page
-----------------	------------	----------	------

Create SOA Application	- Step 3 of 3 X
Configure SOA settin	gs
Application Name Project Name	Composite Name: J2CA_Outbound Start from:  Standard Composite  SoA Template  Composite With Human Task Composite With BPEL Process Composite With Spring Composite With Subprocess Composite With Mediator Composite With Mediator Composite With BPMN Process Composite With Case Management Composite With Business Rule
( )	
Help	< <u>B</u> ack <u>N</u> ext > <u>Finish</u> Cancel

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

# 4.4.3 Defining a BPEL Outbound Process

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

- Section 4.4.3.1, "Configuring a Third Party Adapter Service Component"
- Section 4.4.3.2, "Configuring an Outbound BPEL Process Component"
- Section 4.4.3.3, "Adjusting for Known Deployment Issues With 12c"

#### 4.4.3.1 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 Service Adapters pane to the External References pane, as shown in Figure 4–14.

	Comp × Resour
J2CA_Outbound	Q.
External References	SOA 🔹
	MSMQ
	🔞 REST
	8 Soap
	6 Socket
	UMS
	Applications
<b></b>	්රිම් E-Business Suite
	S JDE World
	Custom/Third Party
	📽 Third Party
	\$

Figure 4–14 Third Party Adapter Component

The Create Third Party Adapter Service dialog is displayed, as shown in Figure 4–15.

Figure 4–15 Create Third Party Adapter Service Dialog

👩 Create Third Party	Adapter Service	×
Third Party Adapter	Service	5
Create a JCA adapte	r service for a third party adapter.	er
<u>N</u> ame:	Service	
<u>T</u> ype:	Reference	
WSDL URL:		1
Port Type:		
Operation:		
<u>C</u> allback Port Type:		
Oper <u>a</u> tion:		
<u>J</u> CA File:		1
		Caral 1
Help	OK	Cancel //

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

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

The WSDL Chooser dialog is displayed, as shown in Figure 4–16.

👩 WSDL Chooser							×
Application Server	File System	Project Libraries	SOA-MDS	UDDI	WSIL		
Location:	C:\12c_50	A\soa\soa\thirdp	arty\ApplicationA	dapters\wsdls		- 0 0 🕏 🗳	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Work Project Application	J2CA_Outb	ound_invoke.ws	dl				
Home	Eile Name: J2C4	4_Outbound_inv	oke.wsdl				
	File <u>Type</u> : Web	) Service Definitio	on Files (*.wsdl)				-
Selection: file:/C:/:	12c_SOA/soa/soa	a/thirdparty/App	licationAdapters/v	vsdls/J2CA_Outb	ound_invoke.wsdl		
Help						ок	Cancel

Figure 4–16 WSDL Chooser Dialog

- Browse and select an outbound WSDL file from the following directory: <adapter\_HOME>\wsdls
- 5. Click OK.

The Localize Files dialog is displayed, as shown in Figure 4–17.

Figure 4–17 Localize Files Dialog

🕜 Localize Files		×
file:/C:/12c_SOA/soa/soa/thirdparty/ApplicationAdapters/wsdls/J2CA_Outbound current project. In order to make this file available to your project at runtime, JDe of this file and any dependent files that it imports or includes.		
Copy Options: V Maintain original directory structure for imported files The following files will be created in directory C:\Jdeveloper\WORK\mywork\SOA_Application\J2CA_Outbound\SOA :		
WSDLs/J2CA_Outbound_invoke.wsdl WSDLs/J2CA_Outbound_invoke_request.xsd WSDLs/J2CA_Outbound_invoke_response.xsd		
Help	OK Cancel	

## 6. 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, as shown in Figure 4–18.

Figure 4–18 Create Third Party Adapter Service Dialog

👩 Create Third Party	Adapter Service	×
Third Party Adapter 9	Service	5
Create a JCA adapte	r service for a third party adapter.	Th
<u>N</u> ame:	Service	
<u>Т</u> уре:	Reference 💌	
WSDL URL:	work\SOA_Application\J2CA_Outbound\SOA\WSDLs\J2CA_Outbound_invoke.wsdl	1
Port Type:	queryWithViewPortType	
Operation:	queryWithView 👻	
Callback Port Type:	No Callback	
Oper <u>a</u> tion:		
<u>J</u> CA File:		1
Help	OK	Cancel

 Click the Find JCA file icon, which is located to the right of the JCA File field. The Transformation Chooser dialog is displayed, as shown in Figure 4–19.

Transformation Chooser		
File System Project SOA-MDS		
Location: C:\12c_50A\soa\soa\thirdparty\ApplicationAdapters\wsdls	- 0 0 0	3 📰 💷
Work       Image: Second state s		
$\underline{S} election: file:/C:/12 c\_SOA/soa/soa/thirdparty/ApplicationAdapters/wsdls/32 CA\_Outbound\_invoke.jca$		
Help	ОК	Cancel

Figure 4–19 Transformation Chooser Dialog

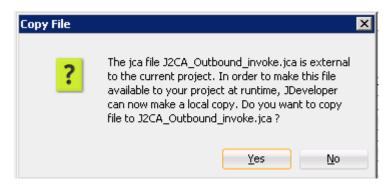
**8.** Browse and select the JCA properties file from the following directory:

<ADAPTER\_HOME>\wsdls

9. Click OK.

The Copy File message is displayed, as shown in Figure 4–20.

Figure 4–20 Copy File Message



10. 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, as shown in Figure 4–21.

👩 Creat	e Third Party	Adapter Service	×
Third Pa	arty Adapter	Service	5
Creat	e a JCA adapte	r service for a third party adapter.	- A
Nam	a.	Service	
<u>N</u> am			
<u>Т</u> уре	*	Reference 💌	
<u>W</u> SD	L URL:	work\SOA_Application\J2CA_Outbound\SOA\WSDLs\J2CA_Outbound_invoke.wsdl	1
Port	Туре:	queryWithViewPortType	
Oper	ration:	queryWithView 👻	
<u>C</u> allb	ack Port Type:	No Callback	
Oper	r <u>a</u> tion:		
<u>]</u> CA	File:	J2CA_Outbound_invoke_3P.jca	1
Help		OK	Cancel

Figure 4–21 Create Third Party Adapter Service Dialog

## **11.** Click **OK**.

The third party adapter service component is created and displayed in the External References pane.

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

## 4.4.3.2 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 Components pane to the Components pane.

The Create BPEL Process dialog is displayed, as shown in Figure 4–22.

👩 Create BPE	L Process	×
	s cess is a service orchestration, based on the BPEL specification, used to describe/execute a ocess (or large grained service), which is implemented as a stateful service.	
BPEL 2.0 Sp	pecification O BPEL 1.1 Specification	
<u>N</u> ame:	BPELProcess1	
Namespace:	http://xmlns.oracle.com/SOA_Application/J2CA_Outbound/BPELProcess1	
Directory:	C:\Jdeveloper\WORK\mywork\SOA_Application\J2CA_Outbound\SOA\BPEL	Q
<u>T</u> emplate:	😂 Synchronous BPEL Process 🔹	0
Ser <u>v</u> ice Name:	bpelprocess1_client	
	Expose as a SOAP service	
	Transaction: required	2
	Input: {http://xmlns.oracle.com/SOA_Application/J2CA_Outbound/BPELProcess1}process	Q
	$\underline{Output:} :: //xmlns.oracle.com/SOA_Application/J2CA_Outbound/BPELProcess1 \} processResponse$	Q
Help	OK Cance	el

Figure 4–22 Create BPEL Process Dialog

**2.** In the Name field, enter a name to identify the new outbound BPEL process component or leave it to the default value.

By default, the BPEL 2.0 Specification option is selected.

- 3. From the Template list, select Synchronous BPEL Process.
- **4.** Click the **Browse** 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, as shown in Figure 4–23.

Figure 4–23 Type Chooser Dialog

🕜 Type Chooser		×
	* 1	@
Type Explorer Project Schema Files BPELProcess1.xsd Siebel Project WSDL outbound_invoke_response.xsd Project WSDL Files Recent Files		
Iype: In:iwaysoftware:adapter:siebel:request:S/BO/Account/Account/queryWithVi	iew}Sie	bel
Show Detailed Node Information Help OK OK	Cancel	

- 5. Expand Project Schema Files, J2CA\_Outbound\_invoke\_request.xsd, and select Siebel.
- 6. Click OK.

You are returned to the Create BPEL Process dialog.

**7.** Click the **Browse** 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, as shown in Figure 4–24.

Type Chooser	
	2 @
Type Explorer	
Project Schema Files	
BPELProcess1.xsd	
J2CA_Outbound_invoke_request.xsd	
J2CA_Outbound_invoke_response.xsd	
SiebelResponse	
🗄 ··· 🚞 Recent Files	
ype: ware:adapter:siebel:response:S/BO/Account/A	account/querywithview}SiebeiRespons
Show Detailed Node Information	
Help	OK Cancel

Figure 4–24 Type Chooser Dialog

- 8. Expand Project Schema Files, J2CA\_Outbound\_invoke\_response.xsd, and select SiebelResponse.
- 9. Click OK.

You are returned to the Create BPEL Process dialog.

- **10.** Click **OK**.
- **11.** Create a connection between the outbound BPEL process component and the third party adapter service component, as shown in Figure 4–25.

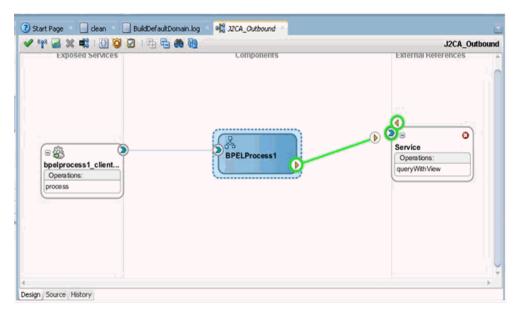
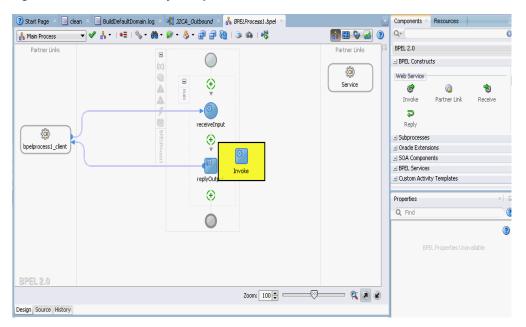


Figure 4–25 Created Connection

- **12.** Double-click the outbound BPEL process component in the Components pane.
- **13.** Drag and drop the **Invoke** activity component under BPEL Constructs Web Service, to the Components pane and place it between the **receiveInput** activity component and the **replyOutput** activity component, as shown in Figure 4–26.



#### Figure 4–26 Invoke Activity Component

**14.** Create a connection between the new Invoke activity component Service and the third party adapter service component (Service), as shown in Figure 4–27.

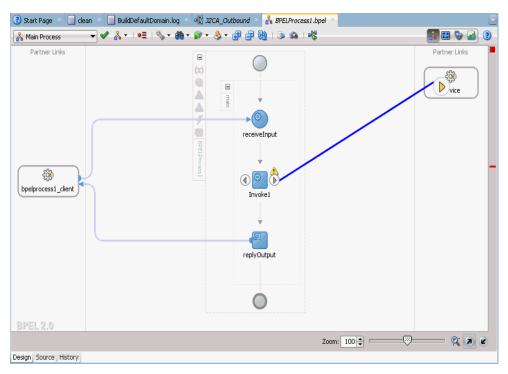


Figure 4–27 Created Connection

The Edit Invoke dialog is displayed.

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

The Create Variable dialog is displayed.

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

You are returned to the Edit Invoke dialog, as shown in Figure 4–28.

leaders Doo	umentation Ski	p Condition Targe	ets Sources	
General	Correlations	Properties	Assertions	Annotations
<u>l</u> ame:	Invoke1			
onversation II	D:			fx
etail Label:				
	🔄 <u>I</u> nvoke as De	etail		
— <u>I</u> nteraction	Type: 🔯 Partne	r Link 🔻		
Partner <u>L</u> ink:	Service			9
Port <u>T</u> ype:	ë queryWithVi	ewPortType		•
Operation:	🐚 queryWithVi	ew		•
Input O	utput			
O Argu <u>m</u> er	nts Mapping 💿 <u>I</u> nj	out Variable		0
Input: Inv	oke1_queryWithVi	ew_InputVariable		<b>→ ↓</b>

Figure 4–28 Edit Invoke Dialog

**17.** Select the **Output** tab and click the **Plus sign** icon, which is located to the right of the Output field to configure a new output variable.

The Create Variable dialog is displayed.

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

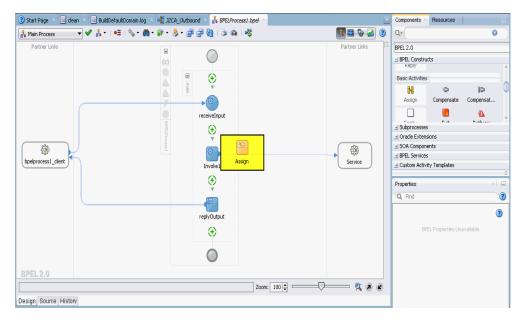
You are returned to the Edit Invoke dialog, as shown in Figure 4–29.

Headers Do	ocumentation	Skip Condition	Targe	ts Sources	
General	Correlations	s Proper	ties	Assertions	Annotations
<u>N</u> ame:	Invoke1				
<u>Conversation</u>	ID:				
Detail Label:					
	Invoke a	as Detail			
	n Type: 🔞 Pa	artner Link 🔻 🚽			
Partner <u>L</u> in	k: Service				a
Port <u>T</u> ype:	<u> </u>	ithViewPortType			
Operation:	n die	ithView			-
Input	Output				
O Argu <u>m</u> e	ents Mapping 🤇	) <u>O</u> utput Variable	•		0
Output:	Invoke1_query	WithView_Output	Variable		- 🕂 🔍

Figure 4–29 Edit Invoke Dialog

- **19.** Click **Apply** and then **OK**.
- **20.** Drag and drop the **Assign** activity under BPEL Constructs Basic Activities component, to the Components pane and place it between the Receive activity component (receiveInput) and the Invoke activity component (Invoke1), as shown in Figure 4–30.

Figure 4–30 Assign Activity Component



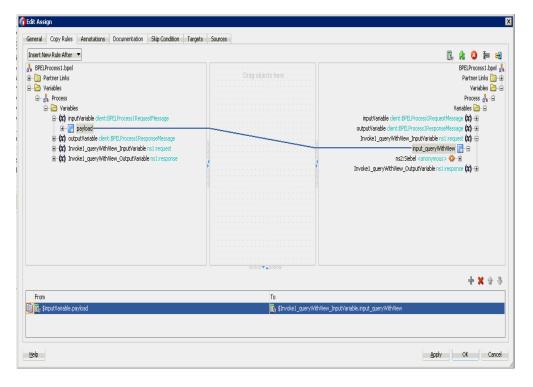
21. Double-click the new Assign activity component (Assign1).

The Edit Assign dialog is displayed.

- 22. In the left pane, under Variables, expand InputVariable, and then select payload.
- **23.** In the right pane, under Variables, expand **Invoke1\_queryWithView\_ InputVariable**, and then select **input\_queryWithView**.
- **24.** Drag and map the **payload** variable to the **input\_queryWithView** variable.

The mapped variables are populated in the highlighted area as shown in Figure 4–31.

Figure 4–31 Edit Assign Dialog



- **25.** Click **Apply** and then **OK**.
- **26.** Drag and drop the **Assign** activity component to the Components pane and place it between the Invoke activity (Invoke1) and the Reply activity (replyOutput).
- **27.** Double-click the new Assign activity component (**Assign2**), as shown in Figure 4–32.

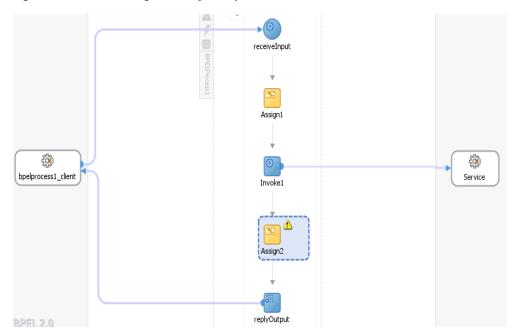


Figure 4–32 New Assign Activity Component

The Edit Assign dialog is displayed.

- **28.** In the left pane, under Variables, expand Invoke1\_queryWithView\_ OutputVariable, and then select output\_queryWithView.
- **29.** In the right pane, under Variables, expand **outputVariable** and select **payload**.
- **30.** Drag and map the **output\_queryWithView** variable to the **payload** variable.

The mapped variables are populated in the highlighted area as shown in Figure 4–33.

Figure 4–33 Edit Assign Dialog

General Copy Rules Annotations Documentation Skip Condition Ta Insert New Rule After ▼ BREFLorcess: boel Partner Links Partner Links Pa	Corag objects here	Image: Section 2016       Image: Section 2016         Image: Section 2016       Image: Section 2016 </th
		+ 🗙 🕁 🗧
From	То	
Invoke1_queryWithView_OutputVariable.output_queryWithView	🙀 \$outputVariable.payload	

## **31.** Click **Apply** and then **OK**.

You are returned to the Activity component pane, as shown in Figure 4–34.

Figure 4–34	Activity	Component	Pane
-------------	----------	-----------	------

Applications × Application S	🕐 Start Page 🔺 📃 clean 🔺 📃 BuildDefaultDomain.log 🗠	🛛 🙀 J2CA_Outbound 🐣 🔏 BPELProcess1.bpel 🗵	2
🔁 SOA_Application 🔹 💌	🖌 🖗 🌌 🗙 🖏 i 🕅 🧕 🖉 i 🖶 🖶 🏟 🕅		J2CA_Outbound
Projects  Projects Projects  Projects Projects  Projects  Projects  Projects  Projects  Projects  Projects Projects Projects Projects Projects Projects Projects Projects Proje	Exposed Services	Components	External References
Application Resources     A Application Resources     A Data Controls     More Tries     A Recent Files     AZCA_Outbound - Structure     X ■	Deelprocess 1_client Operations: process	BPELProcess1	Service Operations: queryWithView
Issues (3)     Issues (3)     Generated by Oracle SOA Modeler     forentated by Oracle SOA Modeler     forposite     mont     mont     mont     mort     property - productiversion     property - productiversion     forporety - compositeID     formerty - compositeID     formerty - service			×

**32.** 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.

## 4.4.3.3 Adjusting for Known Deployment Issues With 12c

Perform the following steps to adjust for known deployment issues with 12c.

1. Double-click J2CA\_Outbound (created BPEL process) of the created process, as shown in Figure 4–35.

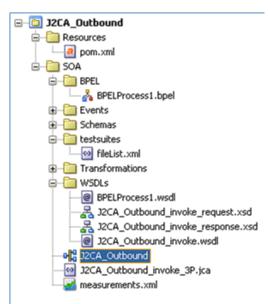
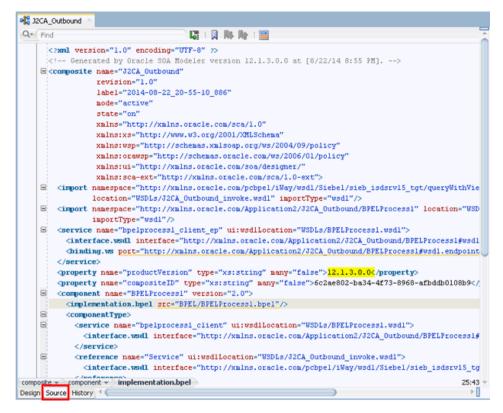


Figure 4–35 J2CA\_Outbound Node

2. Click the Source tab below the opened process, as shown in Figure 4–36.

Figure 4–36 Source Tab



**3.** Change the productVersion property value from 12.1.3.0.0 to 11, as shown in Figure 4–37.

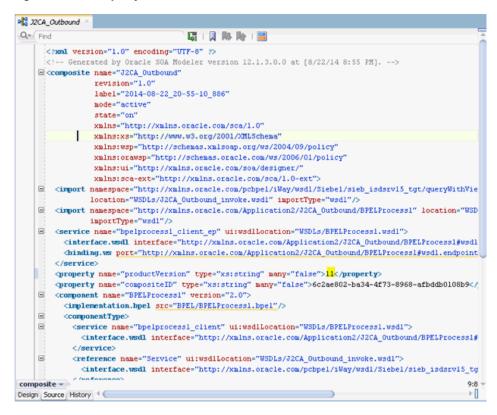


Figure 4–37 Property Value

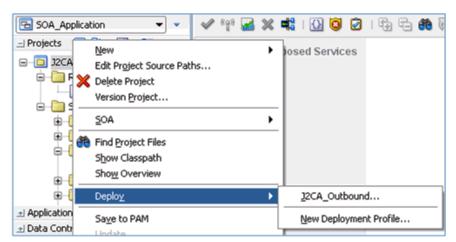
4. Save the changes and proceed to deploy the project.

## 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, select **Deploy**, and then click **J2CA**\_ **Outbound**, as shown in Figure 4–38.

Figure 4–38 J2CA\_Outbound Option



The Deployment Action page is displayed, as shown in Figure 4–39.

Deploy CompanyCode_	GD X
Deployment Action	
Deployment Action Deploy Configuration Summary	Select a deployment action from the list below.  Deploy to Application Server Deploy to SAR  Deploy this archive to SOA configured Application server(s)
Help	< Back Next > Einish Cancel

Figure 4–39 Deployment Action Page

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

The Deploy Configuration page is displayed, as shown in Figure 4–40.

Figure 4–40 Deploy Configurations Page

ploy Configuration		
Deployment Action	러 J2CA_Outbound	
Deploy Configuration	🖃 Composite Revi	ision ID
Select Server	Project:	J2CA_Outbound
Summary	Current Revision ID:	1.0
	New Revision ID:	1.0
	_	
	🛨 SOA Configurati	ion Plan
	SOA Configurati     Mark composite revis	
	✓ Mark composite revis	
	Mark composite revis     Overwrite any existir	ion as default.
	Mark composite revis Overwrite any existin Keep running inst	ion as default. ng composites with the same revision ID.

4. Leave the default values selected and click Next.

The Select Server page is displayed, as shown in Figure 4–41.

Deploy CompanyCode_ Select Serv <mark>e</mark> r	OC	
Deployment Action     Deploy Configuration	Application Servers: IntegratedWebLogicServer (domain unconfigured)	<b>ب</b>
Select Server	axtst166	
U Summary		
Help	< Back Next >	Finish Cancel

Figure 4–41 Select Server Page

 Select an available application server that was configured and click Next. The SOA Servers page is displayed, as shown in Figure 4–42.

Figure 4–42 SOA Servers Page

SOA Servers				
Contraction Deployment Action	Choose the target SOA se archive.	rver(s) and corresp	oonding partitions to w	hich you want to deploy this
Deploy Configuration	SOA Server:	Partition:	Status:	Server URL:
A Select Server	🗹 🚟 soa_server1	default		http://amtex-ch-ga1
👷 SOA Servers				
Summary				
Help			< <u>B</u> ack <u>N</u> ext >	<u>Finish</u> Cancel

6. Select a target SOA server and click Next.

The Summary page is displayed, as shown in Figure 4–43.

Figure 4–43 Summary Page

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

The process is deployed successfully, as shown in Figure 4–44.

Figure 4–44 Successful Deployment Message

<pre>C Design Source History SOA - Log scac:    [scac] Validating composite : 'C:\JDeveloper\mywork\MySAP_sep23\CompanyCode</pre>	>
SGA - Log	
scac:	
	G
(, fulldaring composite	_GD\cc
BUILD SUCCESSFUL	
Total time: 3 seconds	

# 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. Logon to the Oracle Enterprise Manager console.

**Note:** For customers using 12*c* (12.2.1.1.0) and 12*c* (12.2.1.2.0), perform the following steps:

**2.** Click **Target Navigation** in the left pane, expand **SOA**, and then select **soa-infra (soa\_server1)**.

**3.** Click the **Deployed Composites** tab, which will list all of the deployed composites. Click on the available project (for example, J2CA\_Outbound).

Skip to **Step 4** in this procedure.

- 2. Expand SOA, select soa-infra (soa\_server1), and then click Default.
- **3.** Select an available project (for example, J2CA\_Outbound) and click **Test** as shown in Figure 4–45.

Figure 4–45 Test Button

ORACLE' Enterprise Manager Fusion Middlew	are Control 12c
📑 WebLogic Domain 👻 🚆 SOA Infrastructure 👻	
Target Navigation	2CA_Outbound [1.0]      Ø     SOA Composite →
Application Deployments     Application SOA     B    SoA     B    Soa-infra (soa_server 1)     A    (@) default	Active Retire Shut Down Test Settings  Dashboard Composite Definition Flow Instances Unit Tests Policies
Vetlogic Domain     WebLogic Domain     WebLogic Domain	⊿ Components Name
User Messaging Service	A BPELProcess 1
	✓ Services and References
	Name Subpelprocess I_client_ep
	C Service

- 4. Click the **Request** tab.
- 5. Select XML View from the list, as shown in Figure 4–46.

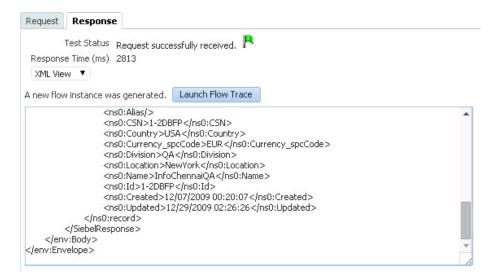
Figure 4–46 Input Arguments List

	ity ty of Se	ruico					
		TAICE					
	Header						
Addit	ional Te	st Options					
Input	Argum	ents					
XML Vi	ew 🔻	Enable Validation		Load Payload	Choose File	No file chosen	Save Payload
<selec <acco <acco <acco <acco <acco< th=""><td>t&gt; ount_spcC ount_spcC ount_spcC ount_spcC ount_spcE ount_spcF</td><td>tion="5/80/Account ompetitors&gt;ondition&gt;Indicts&gt;roducts&gt;ole&gt;tabus<td>ount_spc spcMa egration t_spcPr cRole&gt;</td><td>ocCompetitors&gt; andition&gt; ukets&gt; n_spcId&gt;</td></td></acco<></acco aducts&gt;<td></td><td>ation_spcIntegration_</td><td>spcId&gt;</td></acco </acco </acco </selec 	t> ount_spcC ount_spcC ount_spcC ount_spcC ount_spcE ount_spcF	tion="5/80/Account ompetitors>ondition>Indicts>roducts>ole>tabus <td>ount_spc spcMa egration t_spcPr cRole&gt;</td> <td>ocCompetitors&gt; andition&gt; ukets&gt; n_spcId&gt;</td>	ount_spc spcMa egration t_spcPr cRole>	ocCompetitors> andition> ukets> n_spcId>		ation_spcIntegration_	spcId>

**6.** Provide an appropriate input XML document in the Input Arguments area and click **Test Web Service**.

The output response is received in the Oracle Enterprise Manager console, as shown in Figure 4–47.

Figure 4–47 Received Output Response



# 4.4.6 Testing Outbound BPEL and Mediator Processes

When testing an outbound BPEL process or an outbound Mediator process from the Oracle 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 (J2CA Configuration)

This section describes Siebel event integration.

A sample project has been provided for this inbound use case scenario in the following folder of the Application Adapters installation:

<aDAPTER\_HOME>\etc\sample\SIEBEL\_Samples.zip\SIEBEL\_Samples\BPEL\J2CA\Inbound\_
Project

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

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

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

This section contains the following topics:

- Section 4.5.1, "Generating WSDL for Event Integration"
- Section 4.5.2, "Creating an Empty Composite for SOA"
- Section 4.5.3, "Defining a BPEL Inbound Process"
- Section 4.5.4, "Deploying the BPEL Inbound Process"
- Section 4.5.5, "Triggering an Event in Siebel"

Before you design a BPEL process, you must generate the respective WSDL file using Application Explorer. For more information, see "Generating WSDL for Event Integration" on page 4-34.

# 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, then event messages may not be delivered to the right BPEL process.

This section contains the following topics:

- Section 4.5.1.1, "Creating a Channel"
- Section 4.5.1.2, "Creating an Integration Object Node"

Section 4.5.1.3, "Generating WSDL for Event Notification"

## 4.5.1.1 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, then 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, as shown in Figure 4–48.





3. Right-click Channels and select Add Channel.

The Add Channel dialog is displayed, as shown in Figure 4–49.

📓 Add Channel	×
Name:	
SiebelEvent	
Description:	
Protocol:	
HTTP Listener	•
Available Port(s)	Selected Port(s)
	>>
	>
	<
	<<
Nex	d Cancel

Figure 4–49 Add Channel Dialog

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, as shown in Figure 4–50.

Figure	4–50	Basic	Dialog
--------	------	-------	--------

Http Listener	×
Basic PreParser	
Listener port*	8080
🗌 Https	
Synchronization Type	REQUEST
Encoding Type	ASCII
а	OK Cancel
Fields marked with * are re	equired.

**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 <b>Https</b> check box.
	This option is currently not supported.
Synchronization Type	Select <b>REQUEST_RESPONSE</b> 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, as shown in Figure 4–51.
- Figure 4–51 PreParser Tab

Http Listener	×
Basic PreParser	
Schema location*	
	OK Cancel
Fields marked with * are re	juired.

**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 empty, then BPEL and Mediator processes do not work properly as the Siebel published documents do not contain any namespaces.

8. Click OK.

As shown in Figure 4–52, the channel is displayed under the channels node in the left pane. An X over the icon indicates that the channel is currently disconnected.

#### Figure 4–52 New Channel Node



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

You must now create an Integration Object node.

## 4.5.1.2 Creating an Integration Object Node

- 1. Start Application Explorer.
- 2. Expand the Adapters node, as shown in Figure 4–53.

Figure 4–53 Disconnected Siebel Target Node, Siebel, Under the Siebel Node

Ė**⊢**₩ Siebel └──╤ siebel\_target

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.
- 4. Right-click the target name and select Connect.

The x icon disappears, indicating that the node is connected, as shown in Figure 4–54.



≟ <b>–≡</b> ₿ Siebel	
🗄 🖵 si	ebel_target
	👌 Business Object
	👌 Business Service
	👌 Integration Object

- 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, as shown in Figure 4–55.

Figure 4–55 Add IO Node Dialog

📓 Add IO Node		×
Node name*	Sample_Account	
Schema location	C:\TEMP\sampleaccount78.xsd Browse	
✓ XSD Schema		
Protocol*	HTTP 💌	
	Continue Cancel	
Fields marked with	i * 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, then select XSD Schema. If you are using Siebel-generated XDR schemas, then 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 inFigure 4–56.

#### Figure 4–56 Integration Object Node



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

### 4.5.1.3 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. For detailed information on how to define and connect to a target, see "Establishing a Connection (Target) for Siebel" on page 2-5.

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), as shown in Figure 4–57.

*Figure 4–57 Create Inbound JCA Service (Event) Option Selected in Application Explorer* 

🛉 🛅 Sample Acci	ount
🗆 👈 Sample_	Account null
– 🛅 Sample Acc	Remove This Node
– 🛅 Sample Cor	
– 🛅 Sample Em	Edit This Node
– 🛅 Sample Inte	
– 🛅 Sample Ord	Constant Francisk Daniel
– 🛅 Sample Ord	
– 🛅 Sample Quo	GIGGE INVALIA OCH SCIVICOLLACITY
– 🛅 Sample Ser	Croste Outbound ICA Service(Permet/Personee)
– 🛅 SearchRepo	create Outbound JCA Service(Request/Response)
— 🛅 SearchRepo	
🔄 🗖 ColoctChant	

The Export WSDL dialog is displayed, as shown in Figure 4–58.

Name	<pre>vdapters\tools\iwae\bin\.1.1.\wsdls\J2CA_Inbound_receive.wsdl</pre> Browse
Channel	SiebelEvent 🗸
Validation	Root
	Namespace
	Schema
Export to OS	В
Location	<b>F</b>
Host	
Port	
User	
Password	
	OK Cancel

Figure 4–58 Export WSDL Dialog

**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 an Empty Composite for SOA

Perform the following steps to create an empty composite for SOA:

- 1. Create a new SOA application.
- 2. Enter a name for the new SOA Application and click Next.

The Name your project page is displayed.

3. Enter a project name and click Next.

The Configure SOA settings page is displayed.

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

For more information, see Section 4.4.2, "Creating an Empty Composite for SOA" on page 4-9.

## 4.5.3 Defining a BPEL Inbound Process

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

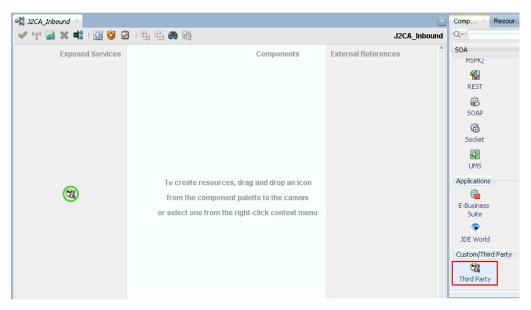
- Section 4.5.3.1, "Creating a Third Party Adapter Service Component"
- Section 4.5.3.2, "Creating an Inbound BPEL Process Component"

#### 4.5.3.1 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 Service Adapters pane to the Exposed Services pane, as shown in Figure 4–59.

Figure 4–59 Third Party Adapter Component



The Create Third Party Adapter Service dialog is displayed, as shown in Figure 4–60.

0	Create Third Party	Adapter Service	×
Т	hird Party Adapter		
	Create a JCA adapte	r service for a third party adapter.	-
	<u>N</u> ame:	Service	
	<u>Т</u> уре:	Service -	
	WSDL URL:		1
-	<u>P</u> ort Type:		
	Operation:		
	<u>C</u> allback Port Type:		
	Oper <u>a</u> tion:		
	JCA File:		1
e	Help	OK	Cancel

Figure 4–60 Create Third Party Adapter Service Dialog

- 2. Ensure that **Service** is selected from the Type list (default).
- **3.** Click the **Find existing WSDLs** icon, which is located to the right of the WSDL URL field.

The WSDL Chooser dialog is displayed, as shown in Figure 4–61.

Figure 4–61 WSDL Chooser Dialog

Application Server	File System	Project Libraries	SOA-MDS		WSIL		
Location:	: C:\12c_50	A\soa\soa\thirdp	arty\ApplicationA	dapters\wsdls		- 0 0 0	
Work	J2CA_Inbou	und_receive.wsc	Ι				
Application							
	Eile Name: J2CA	A_Inbound_rece	ive.wsdl				
$\wedge$	Eile Name: J2CA File Type: Web						

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

<ADAPTER\_HOME>\wsdls

5. Click OK.

The Localize Files dialog is displayed, as shown in Figure 4–62.

Figure 4–62 Localize Files Dialog

👩 Localize Files	×
file:/C:/12c_SOA/soa/soa/thirdparty/ApplicationAdapters/wsdls/J2CA_Inbound_receive.wsdl is external to project. In order to make this file available to your project at runtime, JDeveloper can now make a local cop 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\WORK\mywork\SOA_Application\J2CA_Inbound\SOA :	
WSDLs/J2CA_Inbound_receive.wsdl WSDLs/J2CA_Inbound_receive_request.xsd	
Help	Cancel

6. 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.

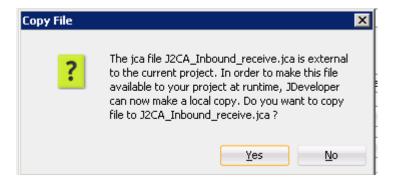
7. Click the Find JCA file icon, which is located to the right of the JCA File field.

The Transformation Chooser dialog is displayed.

- Browse and select the JCA properties file from the following directory: <adapter\_HOME>\wsdls
- 9. Click OK.

A Copy File message is displayed, as shown in Figure 4–63.

Figure 4–63 Copy File Confirmation Message



10. 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, as shown in Figure 4–64.

Figure 4–64 Create Third Party Adapter Service Dialog

😚 Create Third Party	Adapter Service	×
Third Party Adapter 9	Service	5
Create a JCA adapter	r service for a third party adapter.	E.
<u>N</u> ame:	Service	
<u>T</u> ype:	Service 🔻	
WSDL URL:	$\label{eq:mywork} www.setstepse.se$	2
<u>P</u> ort Type:	SampleAccountPortType	
Operation:	SampleAccount	
Callback Port Type:	No Callback	
Oper <u>a</u> tion:	<b></b>	
<u>J</u> CA File:	nywork/SOA_Application/J2CA_Inbound/SOA/Adapters/J2CA_Inbound_receive.jca	6
Help	OK	Cancel

**11.** Click **OK**.

The third party adapter service component is created and displayed in the Exposed Services pane.

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

## 4.5.3.2 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 Service Components pane to the Components pane.

The Create BPEL Process dialog is displayed, as shown in Figure 4–65.

👩 Create BPE	L Process			×
	ess is a service orches	stration, based on the BPEL specification, used to describe/ex d service), which is implemented as a stateful service.	ecute a	<b>.</b>
BPEL 2.0 S	pecification 🔘 BPEL 1	.1 Specification		
<u>N</u> ame:	BPELProcess1			
Name <u>s</u> pace:	http://xmlns.oracle.c	om/SOA_Application/J2CA_Inbound/BPELProcess1		
Directory:	C:\Jdeveloper\WORk	<pre></pre>		_ 🔍
<u>T</u> emplate:	🔞 Base on a WSDL			- 3
Service Name:	bpelprocess1_client			
	Expose as a SOAP	P service		
	WSDL URL:			۵
	Port Type:		•	
	Callback Port Type:			
Help		0		Iancel

Figure 4–65 Create BPEL Process Dialog

**2.** In the Name field, enter a name to identify the new inbound BPEL process component or leave to default.

By default, the BPEL 2.0 Specification option is selected.

- 3. From the Template list, select Base on a WSDL.
- 4. Uncheck the **Expose as SOAP service** check box.
- **5.** Click the **Find existing WSDLs** icon, which is located to the right of the WSDL URL field.

The WSDL Chooser dialog is displayed.

6. Select an inbound WSDL file from the following directory:

<ADAPTER\_HOME>\wsdls

7. Click OK.

The Localize Files dialog is displayed, as shown in Figure 4–66.

🕌 Localize Files	
file:/C:/12c_5OA/soa/soa/thirdparty/ApplicationAdapters/wsdls/J2CA_Inbound_r project. In order to make this file available to your project at runtime, JDeveloper 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\WORK\mywork\SOA_Application\J2CA_Inbound\SOA : 	
WSDLs/J2CA_Inbound_receive_1.wsdl WSDLs/J2CA_Inbound_receive_request_1.xsd	
Help	OK Cancel

Figure 4–66 Localize Files Dialog

- 8. Uncheck the **Rename duplicate files** option.
- 9. Click OK.

You are returned to the Create BPEL Process dialog.

**10.** Click **OK**.

Figure 4–67 Created Connection

Applications × Application S	📲 J2CA_Inbound 🐣			Components ×	Resources	E
🔁 SOA_Application 💌 💌	🗸 🖞 🌌 🗶 🖏 🕦 🗿 🖉 I	월 월 👸 🕲	J2CA_Inbound	Q+		0
			J2CA_Inbound		Business Rule Spring AQ Coherence Properties Service wesd http://mm	Karale co
	Messages - Log × Build - Issues					
Source Design	Messages Extensions & BPEL *	100 m	+ •			
	· · · · · · · · · · · · · · · · · · ·			L		
[10:15:32 AM] Successful compilation: 0 en	rors, 0 warnings.					<b>a</b> (

**11.** Create a connection between the third party adapter service component and the inbound BPEL process component, as shown in Figure 4–67.

**12.** Double-click **J2CA\_Outbound** in the left pane.

🛛 🖃 📲 J2CA\_Inbound Applications 🗸 🖗 🌌 🗶 🖏 | 🖸 🥘 🖄 | 🖶 🖶 🏟 🕅 🔁 SOA\_Application1 • • J2CA Inbound 🖃 Projects 🛛 🔃 🛪 🍸 🛪 🔚 External References Exposed Services Components 🖃 🛅 J2CA\_Inbound 🚊 🛅 Resources --- 🧕 pom. xml 🗄 🛅 SOA 🖨 🛅 Adapters 🧐 sampacc\_node\_rece 🖨 🔁 BPEL - 💑 BPELProcess1.bpel 8 2 E. 🗄 [ 🛐 Events BPELProcess1 Service 🗄 🗋 Schemas 🗄 🛅 testsuites Operations: sampacc\_node 🗄 词 Transformations 🖨 🚺 WSDLs ampacc\_node\_rece J2CA\_Inbound measurements.xml 16-Design Source History

Figure 4–68 Save All Icon

**13.** Click the **Save All** icon in the menu bar to save the new inbound BPEL process component that was configured, as shown in Figure 4–68.

You are now ready to deploy the BPEL inbound process.

#### 4.5.3.3 Adjusting for Known Deployment Issues With 12c

For more information on how to adjust for known deployment issues with 12c, see Section 4.4.3.3, "Adjusting for Known Deployment Issues With 12c" on page 4-26.

# 4.5.4 Deploying the BPEL Inbound Process

Perform the following steps to deploy the BPEL inbound process.

 Right-click the project name in the left pane, select Deploy, and click J2CA\_ Inbound.

The Deployment Action page is displayed.

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

The Deploy Configuration page is displayed.

4. Leave the default values selected and click Next.

The Select Server page is displayed.

- Select an available application server that was configured and click Next. The SOA Servers page is displayed.
- **6.** Select a target SOA server and click **Next**. The Summary page is displayed.

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

The process is deployed successfully.

For more information, see Section 4.4.4, "Deploying the BPEL Outbound Process" on page 4-28.

Once event messages are triggered through Siebel, successful instances are received in the Oracle Enterprise Manager console, as shown in Figure 4–69.

Figure 4–69 Received Instances

Target Navigation	12CA_Inbound [1.0] 🔞		-	ged in as <b>weblogic</b>
View 👻	📲 SOA Composite 🗸		Page Refreshed Aug	25, 2014 9:46:52 A
Application Deployments     SOA     Soa     Soa     Goa-infra (soa_server1)     A     Go default	Active Retire Shut Down Dashboard Composite Definition Flow Ins		cies	<i>₽</i> Rela
VebLogic Domain     Dase domain	Search Results - Instances Created ( Actions - View - 🗱 🗌	24 HOUI'S) 🛰 Recent Inst	ances   Instances With Faults   Re	coverable Instances
	Flow ID Initiating Composite	Flow State	Created	Last Updated
📇 soa_server1	80038 J2CA_Inbound [1.0]	🛷 Completed	Aug 25, 2014 10:08:24 AM	Aug 25, 2014 10:0
▷ 🛅 Metadata Repositories	80037 J2CA_Inbound [1.0] 80036 J2CA_Inbound [1.0]	<ul> <li>Completed</li> <li>Completed</li> </ul>	Aug 25, 2014 10:08:22 AM Aug 25, 2014 10:08:20 AM	Aug 25, 2014 10:0 Aug 25, 2014 10:0
	Rows Selected 1 Columns Hidden	2	_	
	Faults Composite Sensor Values Compo			
	Recover 🕶 View 🔫		Flov	/ Instance 80036
	Error Message	Fault Ow	iner	Fault Time Recc
	No faults found.			

## 4.5.5 Triggering an Event in Siebel

This section describes how to trigger an event in Siebel and verify event integration using Oracle Application Adapter for Siebel.

This section contains the following topics:

- Section 4.5.5.1, "Triggering a Siebel Event to Test Event Runtime Integration"
- Section 4.5.5.2, "Triggering an Event in Siebel 7.8 to Test Event Runtime Integration"
- Section 4.5.5.3, "Triggering an Event in Siebel 8.0 to Test Event Runtime Integration"
- Section 4.5.5.4, "Verifying the Results"

## 4.5.5.1 Triggering a Siebel Event to Test Event Runtime Integration

To trigger an event in Siebel:

**1.** As shown in Figure 4–70, start the Siebel Call Center by entering the following URL in a browser:

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



Figure 4–70 Site Map Option Selected Under the View Menu in the Siebel Call Center

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

The Site Map view is displayed, as shown in Figure 4–71.

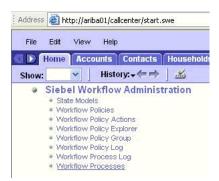
Figure 4–71 Site Map View

File Edit View Help		
Enderstander Derstander Derstander Derstander	suseholds Employees Service Assets Orders Camp	Daigns Opportunities Quotes Communication
SHOW: Construction of the second seco		WHETHER, THIRP
locounts	Estimate Compensation	Quality
ctivities	Events	Quotes
greements	Expense Reports	Reception
lett Administration	Forecast Administration	References
natytics Administration	Forecasts	Resolution Documents Administration
pplication Administration	Fulfillment	Resolution Documents
ssets	Group Administration	Resource Request
ssignment Administration	High-Availability Upgrade Administration	Responses
udit Trail Administration	Home	Revenues
udit Trail	Households	Puntime Events Administration
riefings Administration	Info Center Explorer	Sales Quota Administration
riefings	Indo Center	Sales Quotas
usiness Service Administration	Integration Administration	<ul> <li>Search Administration</li> </ul>
alendar	Interactive Designer	Server Administration
ampaign Administration	Involces	Server Component Requests
ampaigns	List Management	Service Administration
atalog Administration	Literature	Service Requests
alegory	Market Development Fund Administration	Sessions
ommunications Administration	Market Development Fund Requests	Shopping Cart
ommunications	Marketing Administration	Siebel Anywhere Administration
ompensation Administration	Messages	Siebel Remote Administration
ompensation Tracking	Mobile	Siebel Worldlow Administration
ompensation	Opportunities	Siebel to Siebel Connector
ompetitors	Opportunity Product Analysis	SmartScript Administration
ontact Hs	Orders	SmartScripts

## 3. Click Siebel Workflow Administration.

The Siebel Workflow Administration page is displayed, as shown in Example 4–72.

Figure 4–72 Siebel Workflow Administration Page



## 4. Click Workflow Processes.

The Workflow Processes page is displayed, as shown in Example 4–73.

File Edit	View Help Accounts Contac	ts Household	Is Employees	Senice
Show: Workflo	NOTION TAXABLE PROPERTY CONTRACTOR		-⇒   ≝ .	Jernee
Process:				
Workflow P	rocesses			
	y Activate (Revis	se)   💽 🚺 1	- 7 of 7+	
Name 🌧	Business Object	Status $\Leftrightarrow$	Group 🚔	Activat
AAA - SPA ACC	OUI Account	Outdated	Sample	6/19/20
AAA - SPA ACC	COUL Account	Inactive	Sample	6/19/20
AAA - SPA ARIE	BA0 Quote	In Progress	Sample	6/19/20
AAA - SPA QUO	DTE Quote	Active	Sample	6/19/20
AAA - SPA QUO	TE Quote	Inactive	Sample	6/19/20
AAA - SPA QUO	DTE Quote	In Progress	Sample	6/19/20
AAA - SPA QUO	DTE Quote	Active	Sample	6/19/20
All Pro	ocesses Process			Process
	COUNT EXPORT (FIL	Samp		-
Business Obj		and a second sec	tion Date/Time:	
	E C	6/19/2	2002 3:20:00 PM	H
Account				
Account		Fynira	tion Date/Time:	

Figure 4–73 Workflow Processes Page

**5.** Click **Query** to search for the Workflow needed to trigger a Siebel event, as shown in Figure 4–74.

File Edit	View Help			
Home	Accounts Contac	ts Household	ds Employees	Service
Show: Workflo	w Processes 🛛 💌	History:	>   💰	
Process:				
Workflow P	rocesses			
	rch) (Cancel) (Activa	te) (Revise)	1 - 7 of 7+ Ent	er Query
Name 🚔	Business Object	Status $\Leftrightarrow$	Group 🚔	Activa
		1		
All Pro	ocesses Process	Designer Pro	ocess Properties	Process
and the second se	and the second se	Designer Pro	A CONTRACTOR OF	Process
and the second se	and the second se	Contraction of the local division of the loc	uery	Process
	and the second se	of 7+ Enter Q	uery	Process
Ilame:	ncel) (Search)   1 (	of 7+ Enter Qu Group	uery	
Hame:	ncel) (Search)   1 (	of 7+ Enter Qu Group	uery >:	Process
Hame:	ect:	of 7+ Enter Qu Group Activa	uery >:	

6. As shown in Figure 4–75, enter a Siebel workflow name and click Search.

File	Edit	View Help		
I D 🗍	Home	Accounts Contac	ts Househol	lds Employ
Show:	Workf	low Processes 🛛 👻	History: -	++ 4
0.0000.000	flow F	Processes		
0.0000.000	~	and the second se		1 - 2 of 2
Work	flow F )   (Que		e	1 - 2 of 2 Group 🚔
Vork Work Imme	flow F )   (Que	ery) (Activate) (Revis		

Figure 4–75 Workflow Processes Page

**7.** As shown in Figure 4–76, select the workflow.

Figure 4–76 Process Designer Tab

Group:	Persistence Frequency:	Cr
	Persistence Frequency:	C .
Sample		
	<b>_</b>	S
Activation Date/Time:	Persistence Level:	*
6/19/2002 3:20:00 PM		F
Expiration Date/Time:	Error Process Name:	v
H	1	1
	Expiration Date/Time:	Expiration Date/Time: Error Process Name:

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

The Input Arguments tab is displayed, as shown in Figure 4–77.

Figure 4–77 Input Arguments Tab

	Ď 1-3of3	
Input Argument	Туре 🚔	Value 🚔
<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**, as shown in Figure 4–78.

File Edit View Help	
Home Accounts Contac	cts Households Employees Service A
how: Workflow Processes 🛛 👻	│ History: 🗸 🚧 │ 🛣
sh.	
Business Service	opper) 3 of 3+
Business Service ■ Query Return To Desig	gner) 3 of 3+ ⊕ Business Object:
Business Service Survice (Return To Designation) Name:	e m
Business Service (av) (Query) (Return To Designation) (Name: Send Seibel Quote Data HTTP	Business Object:
ep: Business Service (Image: Send Seibel Quote Data HTTP Norkflow Process: LEE	Business Object: Account

Figure 4–78 Return To Designer Button in Business Service Tab

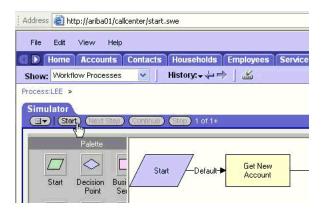
**11.** Click the Process Simulator tab, as shown in Figure 4–79.

Figure 4–79 Process Simulator Tab

		1 2 22 1	
Start Decision Point	Start Default	Get New Account	Convert Account Data to XML

The Simulator tab is displayed, as shown in Figure 4–80.

Figure 4–80 Simulator Tab



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

# 4.5.5.2 Triggering an Event in Siebel 7.8 to Test Event Runtime Integration

To trigger an event in Siebel 7.8:

1. Log in to Siebel Tools 7.8 by using the following parameters:

Username = sadmin Password = sadmin

2. Choose Server from the Connect to list and click OK as shown in Figure 4–81.

Figure 4–81 Siebel Tools 7.8 Log-in Pane

Siebel Tools	×
	SIEBEL.7
Siebel Tools 7.8	
To log in, please enter yo	ur user ID and password and select a database
	User ID: sadmin
	Password:
	Connect to: Server
	OK Cancel

You are logged-in to Siebel Tools 7.8, as shown in Figure 4–82.

Figure 4–82 Siebel Tools 7.8 Startup Pane



**3.** On the left pane, click on **Workflow Process**.

The Workflow Processes pane is displayed, as shown in Figure 4–83.

Siebel Tools - Siebel Repository - Workflow	Process List		
ile Edit View Screens Go Query Reports	Format Debug Tools Window	jelp	
Target Browser: IE 5.5  Ap	plication: Siebel Tools	▼ Interactivity: High ▼ Variable: ▼	
Ibject Explorer		Workflow Processes	
roject: ** All Projects **			
Types Detail Flat	_	Deploy	Expire Re
Siebel Objects	Auto Persist	Process Name	Status
Applet	> NO	Account - Check SAP 46C Customer	Completed
Application	NO	Account - Create or Update Oracle Customer	Completed
Business Component	NO	Account - Create or Update Oracle11i Customer	Completed
🐑 🎯 Business Object	NO	Account - Get SAP 46C Order List	Completed
🗈 🚱 Business Service	NO	Account - Get SAP Order List (MO)	Completed
	NO	Account - Get SAP Order List	Completed
🗈 🕞 Entity Relationship Diagram	NO	Account - Import SAP 46C Order and Get Detailed List SAP 46C Order	Completed
Integration Object	NO	Account - Import SAP 46C Order	Completed
	NO	Account - Import SAP Order (MO)	Completed
Pick List	NO	Account - Import SAP Order and Get SAP Order Status (MO)	Completed
Project     Screen	NO	Account - Import SAP Order and Get SAP Order Status	Completed
B Scleen B Scleen B Scleen	NO	Account - Import SAP Order	Completed
E Se View	NO	Account - New Order	Completed
E-View Page	NO	Account - New Quote	Completed
	NO	Account - Receive Oracle Customer Import Status	Completed
- 3 Workflow Process	NO	Account - Receive Oracle Customer	Completed
	NO	Account - Receive Oracle11i Customer Import Status	Completed
	NO	Account - Receive Oracle11i Customer	Completed
	NO	Account - Receive PeopleSoft Customer	Completed
	NO	Account - Receive SAP 46C Customer	Completed
	NO	Account - Receive SAP Customer	Completed
	NO	Account - Request SAP 46C Customer Number	Completed
	NO	Account - Send PeopleSoft Customer	Completed
	NO	Account - Send SAP 46C Customer	Completed
	NO	Account - Submit SAP 46C Customer	Completed
	NO	Add Quote Report Attachment	Completed
	NO	Add Sales Order Report Attachment	Completed
	NO	Add Service Order Report Attachment	Completed

Figure 4–83 Workflow Processes Pane

**4.** Click on the **New Query** magnifying tool icon with the white glow, as shown in Figure 4–84.

Figure 4–84 New Query Magnifying Tool Icon

	$\backslash$		
3 172.19.1.83 - Remote Desktop			
Siebel Tools - Siebel Repository - 1			
Eile Edit View Screens Go Query			
12 L         L 🖻 🕲   M 🗠	∬≣ н < ≻ н ⊅⊅∳		
Target Browser: IE 5.5	<ul> <li>Application: Siebel Tools</li> </ul>	▼ Interactivity: High ▼ Variable:	<u> </u>
Object Explorer		Workflow Proce	esses
Project: All Projects **	-		Deploy Expire Revi
Types Detail Flat			
Siebel Objects     Applet	Auto Persist	Process Name	Status
Application			
Business Component	<b>I</b> I		
Business Object	<b>I</b> I		
- S EIM Interface Table	<b>I</b> I		
	<b>I</b> I		
- My Link	<b>I</b> I		
Pick List	<b>I</b> I		
Screen	<b>I</b> I		
😟 🔁 Table			
E - See View E - ⊷] Web Page	<b>I</b> I		
😟 🧓 Web Template	<b>I</b> I		

5. In the Process Name field, enter the name **\*HTTP Event\*** as shown in Figure 4–85.

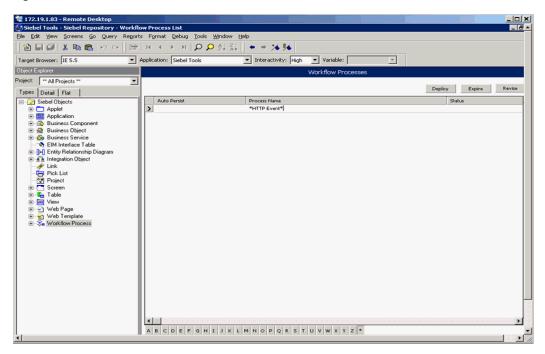


Figure 4–85 Process Name Field

6. Click on the Magnifying Tool icon with the yellow glow, as shown in Figure 4–86.

Figure 4–86 Yellow Magnifying Tool Icon

172.19.1.83 - Remote Desktop Siebel Tools - Siebel Repository	- Workflow Process List		
	ry Reports Format Debug Ioon 🖞	ándow Help	
🔁 🔜 🕼 👗 🐚 🛍 🗠 🕫			
arget Browser: IE 5.5	Application: Siebel Tools	▼ Interactivity: High ▼ Variable:	<b>T</b>
vject Explorer		Workflow Processes	
ject: ** All Projects **	•		Deploy Expire Revise
ypes Detail Flat			
- 🔀 Siebel Objects	Auto Persist	Process Name	Status
Applet	> NO	Copy Mel HTTP Event - Account -Siebel 7.7	In Progress
Application Business Component		Copy Mel HTTP Event - Account -Siebel 7.7 Copy Mel HTTP Event - Account -Siebel 7.7	In Progress
Business Object	NO	Copy Met HTTP Event - Account -Siebel 7.7 Copy Met HTTP Event - Account -Siebel 753	In Progress Completed
Business Service	NO	Copy Mel HTTP Event - Account - Sable 755	Completed
EIM Interface Table	NO	Copy Mel HTTP Event -chatura	In Progress
<ul> <li>⊕ Screen</li> <li>⊕ Book</li> <li>⊕ View</li> <li>⊕ Web Page</li> <li>⊕ Web Template</li> <li>⊕ Son Workflow Process</li> </ul>			
		J K L M N O D Q R S T U V W X Y Z *	

**7.** Click on the line, **Copy Me! HTTP Event - Account -Siebel 7.7**, as shown in Figure 4–87.

e Edit View Screens Go Query Repor			
rget Browser: IE 5.5	Application: Siebel Tools	▼ Interactivity: High ▼ Variable: ▼	3
ject Explorer		Workflow Processes	
ject: ** All Projects **			
vpes Detail Flat			Deploy Expire Revise
Siebel Objects	Auto Persist	Process Name	Status
Applet	NO	Copy Mel HTTP Event - Account -Siebel 7.7	In Progress
🕑 🧮 Application	> NO	Copy Mel HTTP Event - Account -Siebel 7.7	In Progress
Business Component	NO	Copy Mel HTTP Event - Account -Siebel 7.7	In Progress
Business Object	NO	Copy Mel HTTP Event - Account -Siebel 753	Completed
Business Service     Business Service     Business Service	NO NO	Copy Mel HTTP Event -chatura Copy Mel HTTP Event -chatura	Completed In Progress
Image: Project       Image: Table       Image: Table			

Figure 4–87 Copy Me! HTTP Event - Account -Siebel 7.7

**8.** Right-click the arrow next to the selection and select **Edit Workflow Process**, as shown in Figure 4–88.

Figure 4–88 Edit Workflow Process Option

	PA ***		
arget Browser: IE 5.5	Application: Siebel Tools	▼ Interactivity: High ▼ Variable:	<b>Y</b>
oject Explorer		Workflow Processes	
iject: ** All Projects **	<b>_</b>		Deploy Expire Revise
ypes Detail Flat	Auto Persist	Process Name	Status
Siebel Objects	NO	Copy Mel HTTP Event - Account -Siebel 7.7	In Progress
Application	NO NO	Copy Mel HTTP Event - Account -Siebel 7.7	In Progress
Application E Susiness Component	New Record	Copy Mel HTTP Event - Account -Siebel 7.7	In Progress
E Susiness Object	Delete Record	Copy Mel HTTP Event - Account -Siebel 753	Completed
🗉 💑 Business Service	⊆opy Record	Copy Mel HTTP Event -chatura	Completed
────────────────────────────────────	Undo Record	Copy Mel HTTP Event -chatura	In Progress
한 문활 View (위 관 ) Web Page (위 관) Web Fanglate (위 편) Workflow Process (위 문) 중 <sub>4</sub> Workflow Process	Check Out Object Lock Object Edit Workflow Ero Simulate Workflow Import Workflow F Export Workflow F	ress Process Process	

A diagram is displayed on the right pane, as shown in Figure 4–89.

••••••••••					
Siebel Tools - Siebel Repository - File Edit View Screens Go Query	Reports Fe	ormat Debug Tools	Window Help		
			D ≙↓ ≩↓   ← ⇒ % 56		
	19 ·	ation: Siebel Tools	Variable:		
Target Browser: IE 5.5		ation: Siebel Tools	Interactivity:  High	<u>~</u>	
Object Explorer		Palette			
Project <sup>™</sup> All Projects <sup>™</sup> Types Detail Flat <sup>®</sup> <sup>®</sup> <sup>®</sup> <sup>®</sup> <sup>®</sup> <sup>®</sup> <sup>®</sup> <sup>®</sup>	•	Start Business Pocision Sub Point		Convert Convert I to XPL U XPL Encodings Encodings Verter	
			WF Process Prop	«	
		Name Account Message	Display Name In/Out Employee Message In/Out	Changed	Business Object Account
		Account XML	Account XML In/Out		Account
		Error Code	Error Code In/Out		Account
			Error Message In/Out		
1		Error Message			Account

Figure 4–89 Workflow Process Diagram

**9.** Click the diagram box entitled, **Send Siebel Quote Data HTTP**, as shown in Figure 4–90.

Figure 4–90 Send Siebel Quote Data HTTP

Siebel Tools - Siebel Repository -		_ 2 -
Eile Edit View Screens Go Query Report	s Format Debug Iools Window Help	
	н < ▶ н   Ѻ Ѻ Ѯ∔ Ѯ↓ ] ◆ ⇒ ≫ № №	
	Application: Siebel Tools 💌 Interactivity: High 💌 Variable:	
Object Explorer	Palette	
Project: ** All Projects **		
Types Detail Flat	Start Business Start Get New Convert Send	
E-2 Siebel Objects	Start Business Start Account Account bata to XML Data HTTP	· • • • •
Applet     Application		
Application     Business Component		
Business Object	Decision Sub Point Process	
Business Service     EIM Interface Table		
Entity Relationship Diagram		
	Siebel User H	
- Pick List		
Project	EncodingCon verter	a the second as a second second
● Creen ● Cable	Wait Stop	
🗈 🚟 View		and a standard and a standard and
● · · · · · · · · · · · · · · · · · · ·		
Web remplate	End Connector	
	Exception	
		<u> </u>
	WF Steps	
		Business Service Name
	End End	
		EAI Siebel Adapter EAI HTTP Transport
	Start Start	and the second second
		▶ //.

**10.** Right-click **Send Siebel Quote Data HTTP** and select **Show Input Arguments**, as shown in Figure 4–91.

Siebel Tools - Siebel Repository - e Edit View Screens Go Query Report					
	H     →     H     D     D     D       Application:     Sisbel Tools         Paintes       Start     Business       Service       Decision       Pointes       Stabel       Decision       End       Connector       Enception	Interact		de:	
			WES	Steps	
	Name End Get New Account Send Seibel Quote Data HTTP	Changed	Type End Business Service Business Service	Business Component	Business Service Nam EAI Siebel Adapter EAI HTTP Transport
	Start		Start		

Figure 4–91 Show Input Arguments Option

**11.** At the bottom pane, enter the value for **HTTPrequestURLTemplate**, as shown in Figure 4–92, by using the following URL:

http://machineIP: portno

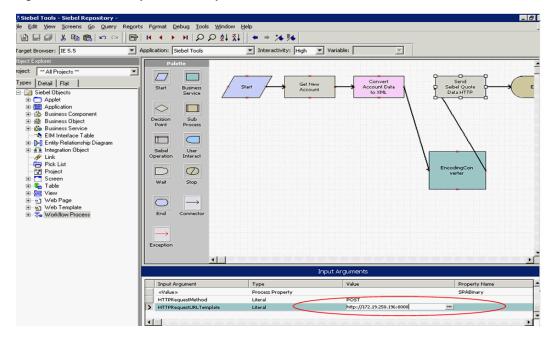


Figure 4–92 HTTPrequestURLTemplate Value

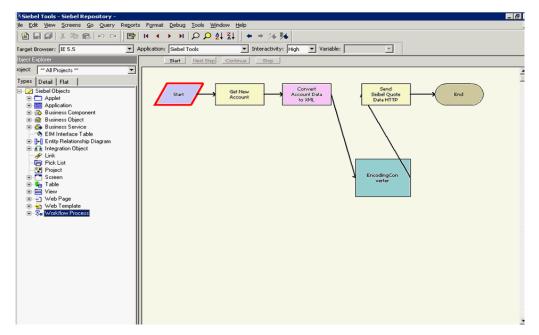
12. Right-click the diagram and select **Simulate**, as shown in Figure 4–93.

Siebel Tools - Siebel Repository -			- 8
ile Edit View Screens Go Query	Reports Format Debug Tools	Window Help	
		O ≙↓ X↓ 🖛 ⇒ 1% 94	
Target Browser: IE 5.5	Application: Siebel Tools	▼ Interactivity: High ▼ Variable: ▼	
Ibject Explorer	Palette		
roject: All Projects ==			
Types Detail Flat		Get New Convert	Send
E Z Siebel Objects	Start Business Service	Start Account Account to XML	Seibel Quote
😟 🧰 Applet			
Application     Business Component			$\lambda$
🗉 🎯 Business Object	Decision Sub Point Process		$\sim$
Business Service			$\sim$
Elm Interrace Table     Entity Relationship Diagram		Shape Properties,	$1 \dots \lambda$
🕀 👔 Integration Object	Siebel User	Edit +	
	Operation Interact	Layout	
- Project		Zoom +	EncodingCon verter
🕀 🛅 Screen	Wait Stop	Connection Points     Show Grid	
⊕ 🔩 Table ⊕ 🚟 View		✓ Snap to Grid	
🗄 🔄 Web Page	$\bigcirc$ $\rightarrow$	Copy Drawing Ctrl+O	
Web Template     Se Workflow Process	End Connector	Print Ctrl+P	
		Auto Size Page	
		Set Default Size	
		All Processes	
	Exception	Show Process Properties	
		Show Branch Labels	
		Simulate In Validate	
	Input Argument	Type Value	Property Name
	«Value»	Process Property	SPABinary
	HTTPRequestMethod	Literal POST	
	HTTPRequestURLTem	olate Literal http://172.19.250.196:8000	

Figure 4–93 Simulate Option

The Repository diagram is displayed, as shown in Figure 4–94.

Figure 4–94 Repository Diagram



**13.** Click **Start** and then minimize the Siebel 7 window that is displayed, as shown in Figure 4–95.

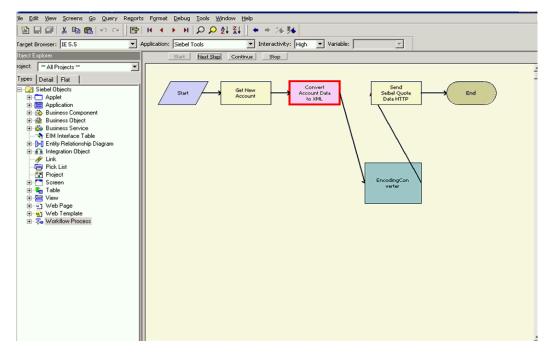
Target Browser: IE 5.5	Application: Siebel Tools     Inter	activity: High 💌 Variable:	Y	
bject Explorer	Start Next Step Continue	Stop		
Topect       "* All Projects **         Types       Detail         Image: State Character State       Image: State Character State         Image: State Character State       Image: State         Image: State       I	Start Next Step Continue	Convert Account Data to XINL	Send Subiel Quole Dua HTTP EncodingCon verter	
sady		Item: 1 of 1	Language:ENU	

Figure 4–95 Siebel 7 Window

**14.** Click **Next Step**. The Convert Account Data to XML image is highlighted, as shown in Figure 4–96.

**Note:** A red outline highlights each diagram image on each step.

Figure 4–96 Convert Data to XML



**15.** Click **Next Step**. The Encoding Converter image is highlighted, as shown in Figure 4–97.

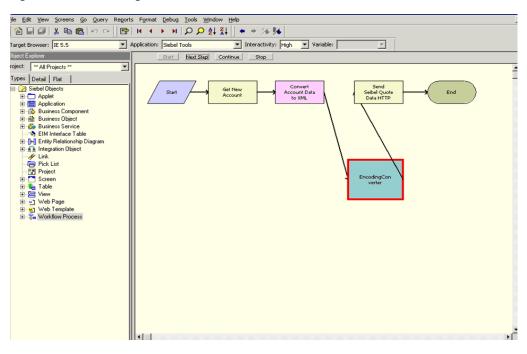
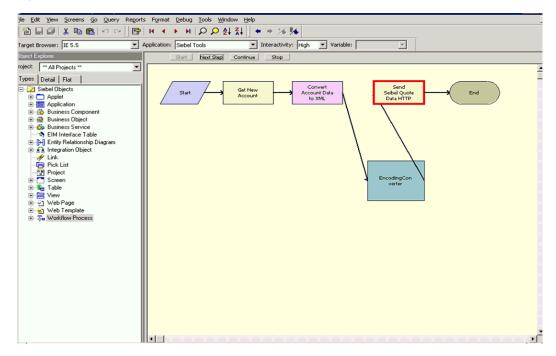


Figure 4–97 Encoding Converter

**16.** Click **Next Step**. The Send Siebel Quote Data HTTP image is highlighted, as shown in Figure 4–98.

Figure 4–98 Send Siebel Quote Data HTTP



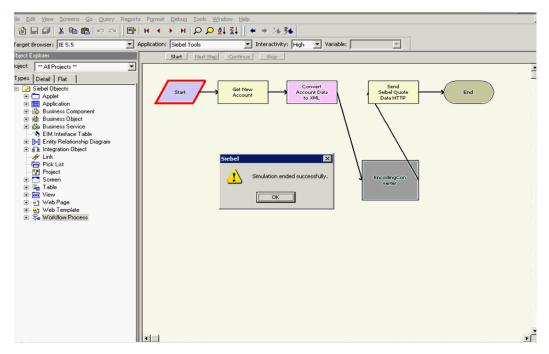
17. Click Next Step. The End image is highlighted, as shown in Figure 4–99.

e Edit Yew Screens Go Query Reports Format Debug Iools Window Help
11 🖬 🕼 🕼 🕲 ∞ 🔄 📴 🖪 ◀ → א   ♀ ♀ ⋬ ⋧↓] ★ ⇒ ≫ ≫ ≫
arget Browser:  IE 5.5 💌 Application: Siebel Tools 💌 Interactivity: High 👻 Variable:
sject Explorer Start Next Step
ypes Detail Flat
Start     Start

Figure 4–99 End

**18.** Click **Next Step**. A success message is displayed, confirming that triggering has been completed successfully, as shown in Figure 4–100.

Figure 4–100 Success Message



- **19.** Click **OK**.
- **20.** Click the **File** menu and select **Exit**, as shown in Figure 4–101.

jle Edit View Screens Go Q	Query Reports Format Debug Tools Window Help
Open Repository	□ □
New Object Close Ctrl+F4	Application: Siebel Tools
Save Ctrl+5 Save <u>A</u> I	Start Diazi Step
Import Export	Start Get New Convert Send End
Print Setup Print Preyjew Print Ctrl+P	
Exit	
B → Entity Relationship Diage     A Integration Object     Screen     A Integration Object     Screen     A Integration Object     Screen     A Integration Object     Screen     Screen	Form

Figure 4–101 Exit Option

# 4.5.5.3 Triggering an Event in Siebel 8.0 to Test Event Runtime Integration

To trigger an event in Siebel 8.0:

**1.** Log in to Siebel Tools 8.0 by using the following parameters:

Username = sadmin Password = sadmin

2. Choose Server from the Connect to list and click OK as shown in Figure 4–102.

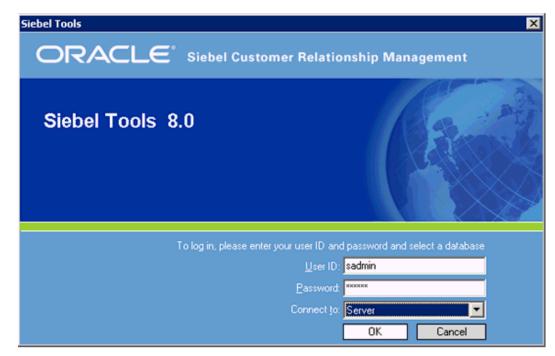


Figure 4–102 Siebel Tools 8.0 Log-in Pane

## 3. Click Workflow Process on the left pane.

The Workflow Process List is displayed on the right pane, as shown in Figure 4–103.

	-   🖻   ዞ ◀ →		≙↓ X↓ ▼ ↓   ← ⇒ ;	¥ 94 .		
• 💌 📰 🔒						
ect Explorer $\Psi  imes$	Properties	<b>4</b> × (	Workflow Process List	1		4
ect: XX All Projects XX	Workflow Process [ADM		Workflow Processes	•		- 0
pes Detail Flat	Alphabetic Categoriz			Workflow Processes		
Siebel Objects	Business Object					
Applet	Cache Locale		Auto Persist	Process Name	Status	Work
Application	Comments		> NO	ADM Deployment	Completed	7.0 Fi
Business Component		gway ADM	NO	ADM Restore	Completed	7.0 FI
🗈 🎲 Business Object	Effective End Da		NO	Account - Check SAP 46C Customer	Completed	Servi
🗈 🚳 Business Service	Effective Start D		NO	Account - Check SAP 47 Customer	Completed	Servi
	Error Process Na		NO	Account - Create or Update Oracle Cu		Servi
Entity Relationship Diagrar	Group Inactive FALSE		NO	Account - Create or Update Oracle11i		Servi
		Deployment	NO	Account - Get SAP 46C Order List	Completed	Servi
Pick List	Object Language	/epioyment	NO	Account - Get SAP 47 Order List	Completed	Servi
Project	Object Locked FALSE		NO	Account - Get SAP Order List (MO)	Completed	Servi
	Object Locked B		NO	Account - Get SAP Order List	Completed	Servi
teren lable teren lable	Object Locked D		NO	Account - Import SAP 46C Order and		Servi
	Pass By Ref HierFALSE		NO	Account - Import SAP 46C Order	Completed	Servi
€ web Page	Persistent Frequeno		NO	Account - Import SAP 47 Order and (		Servi
• • Web Template	Persistent Level		NO	Account - Import SAP 47 Order	Completed	Servi
■ Se Workflow Process	Process Name ADM D	eployment	NO	Account - Import SAP Order (MO)	Completed	Servi
	Replication LeveNone		NO	Account - Import SAP Order and Get		Servi
	Runnable FALSE		NO	Account - Import SAP Order and Get		Servi
	State ManagemeStatefi		NO	Account - Import SAP Order	Completed	Servi
	Status Compl	eted	NO	Account - New Order	Completed	Servi
	Version 0		NO	Account - New Quote	Completed	Servi
	Web Service En FALSE Workflow Mode 7.0 Flo		NO	Account - Receive Oracle Customer Ir		Servi
	WORNOW Mode 7.0 Ho	····	NO	Account - Receive Oracle Customer	Completed	Servi
			NO	Account - Receive Oracle11i Customer		Servi
			NO	Account - Receive Oracle11i Customer		Servi
			NO	Account - Receive SAP 46C Customer		Servi
			NO	Account - Receive SAP 47 Customer	Completed	Servi
			NO	Account - Receive SAP Customer	Completed	Servi
						•

Figure 4–103 Workflow Process List

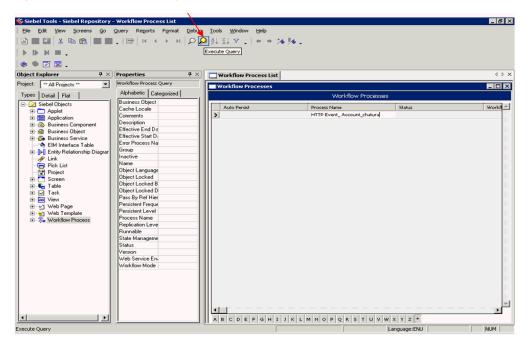
**4.** Click the **New Query** magnifying tool icon with the white glow, as shown in Figure 4–104.

le <u>E</u> dit <u>V</u> iew <u>S</u> creens <u>G</u> o	Query Reports Format Debug		idow <u>H</u> elp			
	Г 🖻 н ч → м <mark>Р</mark>	⊃ <u>≵</u>   <u>X</u>   ¥	· • • * * * * * •			
	New	Query				
🔍 💌 📰 🗸						
ect Explorer 🛛 📮 🗙	Properties 📮 🛪	- Workfle	ow Process List			4 1
ect: X All Projects X 💌	Workflow Process [ADM	Workflo	w Processes			_ 0
pes Detail Flat	Alphabetic Categorized			Workflow Processes		
1	Business Object	II		Workhow Processes		
Siebel Objects	Cache Locale	Auto P	Persist Process N	ame	Status	Workf
Applet     Application	Comments	> NO	ADM Dep	loyment	Completed	7.0 Flo
Application     Business Component	Description Hemingway ADM	NO	ADM Rest	ore	Completed	7.0 Flo
Business Object	Effective End Da	NO	Account	Check SAP 46C Customer	Completed	Servic
Business Object	Effective Start D-	NO	Account	Check SAP 47 Customer	Completed	Servic
EIM Interface Table	Error Process Na	NO	Account	Create or Update Oracle CL	Completed	Servio
Entity Relationship Diagram	Group	NO	Account	Create or Update Oracle11i	Completed	Servio
🚽 Link	Inactive FALSE	NO	Account	Get SAP 46C Order List	Completed	Servic
- 🔂 Pick List	Name ADM Deployment	NO	Account	Get SAP 47 Order List	Completed	Servic
Project	Object Language	NO	Account	Get SAP Order List (MO)	Completed	Servio
Screen	Object Locked FALSE	NO	Account	Get SAP Order List	Completed	Servio
🗄 🔓 Table	Object Locked B Object Locked D	NO	Account	Import SAP 46C Order and	Completed	Servic
🗄 🛃 Task	Pass By Ref HierFALSE	NO	Account	Import SAP 46C Order	Completed	Servio
E View	Persistent FrequeNO	NO	Account	Import SAP 47 Order and (	Completed	Servic
🖲 🚽 Web Page	Persistent Level	NO	Account	Import SAP 47 Order	Completed	Servio
Web Template	Process Name ADM Deployment	NO	Account	Import SAP Order (MO)	Completed	Servic
E 🖓 Workflow Process	Replication LeveNone	NO	Account	Import SAP Order and Get	Completed	Servic
	Bunnable FALSE	NO	Account	Import SAP Order and Get	Completed	Servio
	State ManagemeStateful	NO	Account	Import SAP Order	Completed	Servic
	Status Completed	NO	Account	New Order	Completed	Servio
	Version 0	NO	Account	New Quote	Completed	Servic
	Web Service En-FALSE	NO	Account	Receive Oracle Customer Ir	Completed	Servic
	Workflow Mode 7.0 Flow	NO	Account	Receive Oracle Customer	Completed	Servic
		NO	Account	Receive Oracle11i Customer	Completed	Servic
		NO	Account	Receive Oracle11i Customer	Completed	Servic
		NO	Account	Receive SAP 46C Customer	Completed	Servic
		NO	Account	Receive SAP 47 Customer	Completed	Servic
		NO	Account	Receive SAP Customer	Completed	Servic
		•				Þ
		ABCE	DEFGHIJKLMNOF		YZ*	

Figure 4–104 New Query Magnifying Tool Icon

5. Enter the process name HTTP Event\_Account\_chatura and click the Execute Query magnifying tool icon with the yellow glow to execute the query, as shown in Figure 4–105.

Figure 4–105 Execute Query Icon



**6.** Right-click the arrow next to the selected process and select **Edit Workflow Process**, as shown in Figure 4–106.

Siebel Tools - Siebel Repository	- Workflow Process List					_ 8 ×
	Query Reports Format Debug	Too	ols Window Help			
		21				
😻 📚 🗹 🔣 🗸						
Object Explorer 7 ×	Properties 4 ×		Workflow Process List			4 Þ 🗙
Project: ** All Projects **	Workflow Process [HTTP Event_		Workflow Processes			_ 🗆 🗵
Types Detail Flat	Alphabetic Categorized			Workflow Processes		
E Siebel Objects	Business Object Account		Auto Persist	Process Name	Status	Work 🛋
Applet	Cache Locale N	ll h	Auto Persist			7.0 Flo
Application	Comments	1117	New Record	HTTP Event_Account_chatura	In Progress	7.0 FIO
Business Component	Description SPA - This is a sar Effective End Da		Delete Record			
🗈 📸 Business Object	Effective Start D-06/19/2002 15:20:		Copy Record			
Business Service	Error Process Na		Undo Record			
EIM Interface Table	Group Sample					
Entity Relationship Diagram // Link	Inactive FALSE		Columns Displayed			
Pick List	Name HTTP Event Acc		≦ort Order			
Project	Object Language		Compare Objects			
€ Screen	Object Locked					
table	Object Locked B		Add to Archive			
Task	Object Locked D		⊻alidate			
🗓 🔚 View	Pass By Ref HierFALSE		Check Out Object			
🕀 🚽 Web Page	Persistent FrequeNO		Lock Object			
😟 🔬 Web Template	Persistent Level					
	Process Name HTTP Event_Acc Replication LeveNone		Deploy as Web Service			
1 1	Runnable TRUE		Edit Workflow Process			
1 1	State ManagemeStateful		Simulate Workflow Process			
1 1	Status In Progress					
1 1	Version 0		Import Workflow Process			
1 1	Web Service En-FALSE		Export Workflow Process			
1 1	Workflow Mode 7.0 Flow					
1 1						
1 1						
1 1						
						-1
		•				
↓ →				MNOPQRSTUVW	X Y Z *	
Ready			Item: 1 of	1	anguage:ENU	NUM

Figure 4–106 Edit Workflow Process Option

7. Click the Send Siebel Account Data HTTP box, as shown in Figure 4–107.

Figure 4–107 Send Siebel Account Data HTTP Box

-	el Repository - [Repository V					_ 8
	creens <u>Go</u> Query Report		burg Iools Window Help			_ 8
🖆 📰 👗 🖻	1 🗈 📄 🗸 🚍 🕅 H	< ► ► ►   S		+ 14 14 -		
▶ ⊪ ⊨ ≡ .						
😻 📚 🗹 🗷 🖕				<ul> <li></li></ul>		
bject Explorer	🕂 🗶 🗂 Workflow I	Process List 🛅	Workflow Process - HTTP E	vent		4 6 3
Project: ** All Projects	•• • • • • • • • • • • • • • • • • • • •					
Types Detail Flat						
Applet     Applet	pject ervice ce Table					ر آد
Aulti Value Property 1	Window					<b>中</b> :
Children of Send Seibel A						
Input Arguments Out						
Preferred Sequence	Input Argument <value></value>	Sequence 0		Value	Property Name	Business Compon
	<value> HTTPReguestMethod</value>	0	Process Property Literal	POST	SPABinary	
	HTTPRequestURLTemplate	0	Literal	http://172.30.246.53:8080		
•						
eft = 456 Top = 36 V	Width = 96 Height = 84				Language:ENU	NUM

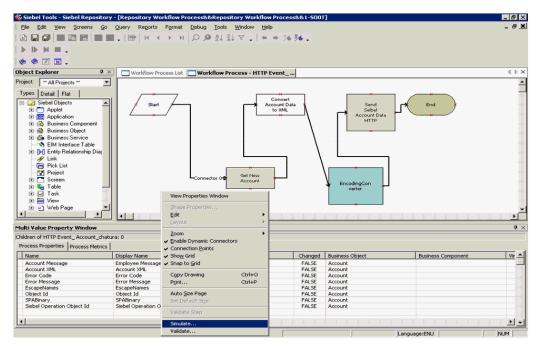
8. In the Multi Value Property Window at the bottom, enter the value for HTTPRequestURLTemplate as http://machineIP:portno then save the values, as shown in Figure 4–108.

🚭 Siebel Tools - Siebel Repository - [Repository Wo	rkflow Proces	s&&Repository Workflow Proce	ss8:8:1-	-SOOT]	_ 8 ×
Elle Edit View Screens Go Query Reports	Format Debr	ug <u>T</u> ools <u>W</u> indow <u>H</u> elp			_ <del>7</del> X
🖆 🔜 🕼   👗 📭 🖪   🔳 🔲 🗸 🕞   H 🔸	⇒ H Q		⊧ 14 -		
😻 📚 🗹 🔣 🗸					
Object Explorer 7 × Workflow Pr	ocess List 🛅 🕷	orkflow Process - HTTP Event_			4 Þ 🗙
Project: ** All Projects **			4.1.4.		
Types Detail Flat				······································	
Binkel Objects       Binkel Objects       Binkel Objects       Binkel Objects       Binkel Object       Binkel O		nnector 0 <sup>-0</sup> Get New		Societ Societ Account Data HTTP EncodingCon weter	
Multi Value Property Window					<b>4</b> ×
Children of Send Seibel Account Data HTTP					
Input Arguments Output Arguments					
Preferred Sequence Input Argument <value></value>		Туре	Value	Property Name	Business Compon
<value> HTTPReguestMethod</value>		Process Property Literal	POST	SPABinary	
HTTPRequestURLTemplate		Literal	http://	1.2.168.128.120:8080	
					<
			_		
Left = 456 Top = 36 Width = 96 Height = 84				Language:ENU	NUM

Figure 4–108 HTTPRequestURLTemplate Value

**9.** Right-click the diagram and select **Simulate**, as shown in Figure 4–109.

Figure 4–109 Simulate



**10.** Click the **Start Simulation** icon, as shown in Figure 4–110.

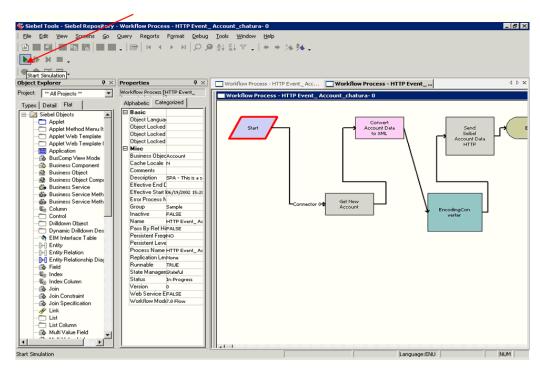
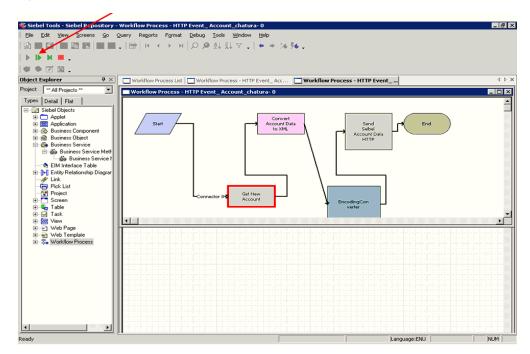


Figure 4–110 Start Simulation

**11.** Click the **Simulate Next** icon. The Get New Account box is highlighted, as shown in Figure 4–111.

Figure 4–111 Simulate Next



**12.** Click the **Simulate Next** icon. The Convert Account Data to XML box is highlighted, as shown in Figure 4–112.

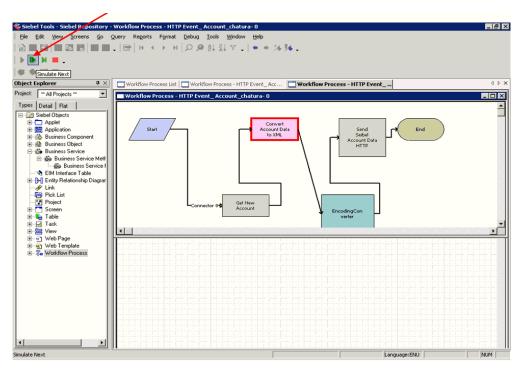
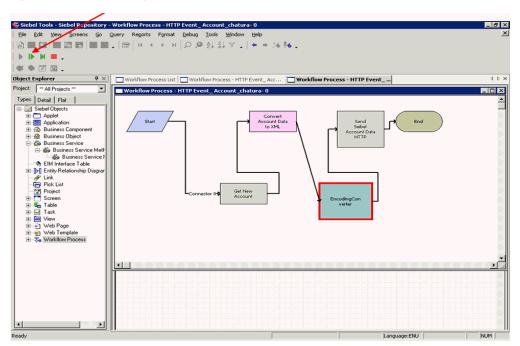


Figure 4–112 Convert Account Data to XML

**13.** Click the **Simulate Next** icon. The Encoding Converter box is highlighted, as shown in Figure 4–113.

Figure 4–113 Encoding Converter



**14.** Click the **Simulate Next** icon. The Send Siebel Account Data HTTP box is highlighted, as shown in Figure 4–114

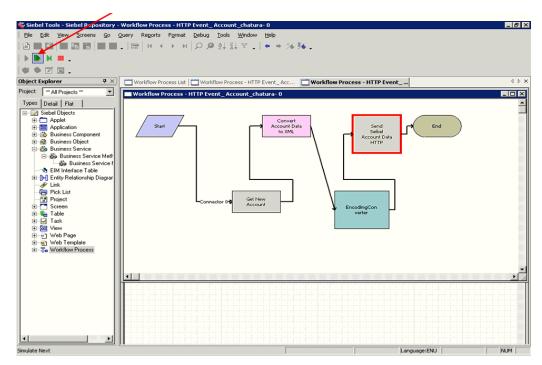
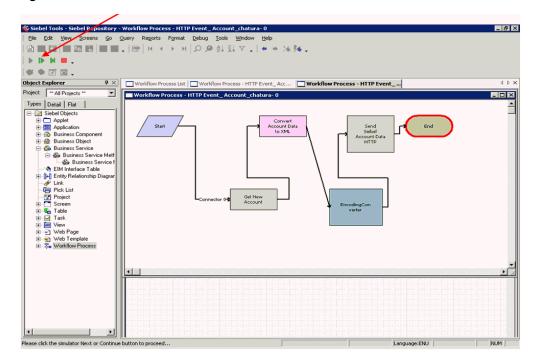


Figure 4–114 Send Siebel Account Data HTTP

**15.** Click the **Simulate Next** icon. The End image is highlighted as shown in Figure 4–115.

Figure 4–115 Simulate Next



**16.** Click **Next Step** and then click **OK** when the Siebel success message is displayed, as shown in Figure 4–116.

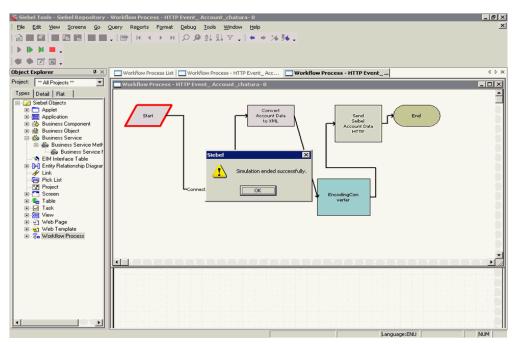
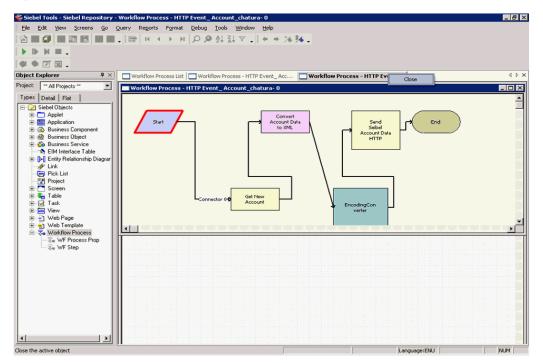


Figure 4–116 Siebel Success Message

**17.** Right-click the third **Workflow Process** tab and select **Close**, as shown in Figure 4–117.

Figure 4–117 Workflow Process Tab



**18.** Right-click the second **Workflow Process** tab and select **Close**, as shown in Figure 4–118.

File Edit View Screens	cory - worknow process - HTTP E	vent_Account_chatura- 0				_ 8
File For Men Fridelin	<u>G</u> o Query Regorts Format [	⊇ebug <u>T</u> ools <u>W</u> indow <u>H</u> elp				
14 🔜 🍠 🔲 🗈 🔝 🖿	III. B H ← → H .		M .			
E DE DE MIL						
· · · · · - •						
😻 📚 🗹 🧮 🖕						
bject Explorer	• × Workflow Process List	Workflow Process - HTTP Event	L			4 Þ
roject: ** All Projects **	Workflow Process - HT	TP Event Account chatura	Close			_ 🗆 ×
Types Detail Flat						
🖃 😥 Siebel Objects				alaisha kaisa k		
🗉 🧰 Applet		Conver				
🖅 🔚 Application	Start /	Account [		Send Send	End to the second se	
💿 🚯 Business Component		to XML	· • • •	Seibel Account Data		
Business Object				HTTP		
🗄 🚳 Business Service			· · · · · · · · · · · · · · · · · · ·			
EIM Interface Table			<b>\</b> -	· · · · · · · · · · · · · · · · · · ·		
Entity Relationship Dia			1			
- My Link						
Pick List		· · · · · · · · · · · · · · · · · · ·		\		
Project						
Screen						
🗈 🔩 Table		Get New				
⊕ 🔩 Table ⊕ 🖌 Task		Connector 0		EncodingCon		
🗈 🔩 Table				EncodingCon verter		
⊕ - 🗣 Table ⊕ - 🖌 Task ⊕ - 🚘 View						
Table     ✓ Task     ✓ Task     ✓    ✓    ✓    ✓    ✓    ✓    ✓	<u>×</u>					4
⊕ 🔩 Table ⊕ 🖌 Task	hatura: 0					
table     Task     Task     Task     View     View     Iulti Value Property Window						4
B B Table B J Table Constraints Constrai	Display Name	In/Out	Changed	Verter Business Object	Business Component	# 
Control Message     Control Message	ics Display Name Employee Message	In/Out	FALSE	Business Object Account	Business Component	
Comparison of the second	rics Display Name Employee Message Account XML	In/Out	FALSE	Verter     Business Object     Account     Account	Business Component	
Control Message     Account Message     A	itics Display Name Employee Message Account XML Error Code	In/Out	FALSE FALSE FALSE	Business Object Account Account Account	Business Component	
Code Code Code Code Code Code Code C	ics Display Name Employee Message Account XML Error Code Error Message	In/Out In/Out In/Out In/Out	FALSE FALSE FALSE FALSE	Business Object Account Account Account Account	Business Component	
Control Message     Account Message     A	Ics Display Name Employee Message Account XML Error Code Error Message EscapeHames	In/Out In/Out In/Out In/Out	FALSE FALSE FALSE FALSE FALSE	Business Object Account Account Account Account Account	Business Component	
Comparing the second seco	Ics Display Name Employee Message Account XML Error Code Error Message EscapeNames Object Id	InfOut InfOut InfOut InfOut InfOut InfOut InfOut InfOut	FALSE FALSE FALSE FALSE FALSE FALSE	Business Object Account Account Account Account Account Account	Business Component	
ten Garan ten Star ten	Ics Display Name Employee Message Account XML Error Code Error Message EscapeNames Object Id SPABinary	In/Out In/Out In/Out In/Out In/Out In/Out In/Out In/Out	FALSE FALSE FALSE FALSE FALSE FALSE FALSE	Business Object Account Accoun	Business Component	
Comparing the second seco	Ics Display Name Employee Message Account XML Error Code Error Message EscapeNames Object Id	InfOut InfOut InfOut InfOut InfOut InfOut InfOut InfOut	FALSE FALSE FALSE FALSE FALSE FALSE	Business Object Account Account Account Account Account Account	Business Component	
	Ics Display Name Employee Message Account XML Error Code Error Message EscapeNames Object Id SPABinary	In/Out In/Out In/Out In/Out In/Out In/Out In/Out In/Out	FALSE FALSE FALSE FALSE FALSE FALSE FALSE	Business Object Account Accoun	Business Component	
	Ics Display Name Employee Message Account XML Error Code Error Message EscapeNames Object Id SPABinary	In/Out In/Out In/Out In/Out In/Out In/Out In/Out In/Out	FALSE FALSE FALSE FALSE FALSE FALSE FALSE	Business Object Account Accoun	Business Component	

Figure 4–118 Workflow Process Tab

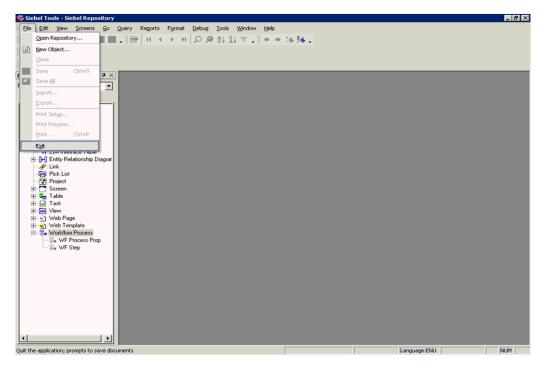
**19.** Right-click the remaining **Workflow Process** tab and select **Close**, as shown in Figure 4–119.

Siebel Tools - Siebel Repository - Workl					6
Elle Edit View Screens Go Query					
) II X 10 🛍 II . I	<u>}</u> א א א גע א	, <u>x</u> , <b>x</b> ,   + ⇒ <b>x</b> , <b>%</b> ,			
* * 71 🖼 -					
	Workflow Process	_			4
	Vorkflow Processes				
ypes Detail Flat	VORKHOW Processes				
Siebel Objects		Work	flow Processes		
Generation of the content of th	Auto Persist	Process Name	Status	Workflow Mod	de Chan
Application	NO	HTTP Event_ Account_chatura	In Progress	7.0 Flow	
😥 🚯 Business Component	NO	UDA HTTP Transport	Completed	7.0 Flow	
Business Object      One Business Service	NO	UQ HTTP Processing	Completed	Service Flow	
Image: Screen       Image: Scree					
		Item: 1 of		Language:ENU	NUM

Figure 4–119 Workflow Process Tab

**20.** From the File menu, click **Exit** to close the tool, as shown in Figure 4–120.

Figure 4–120 Exit



# 4.5.5.4 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. Click SOA, select soa-infra (soa\_server1), default, and then click J2CA\_Inbound.
- **3.** Click Flow Instances.

Instances will be received as shown in Example 4–121.

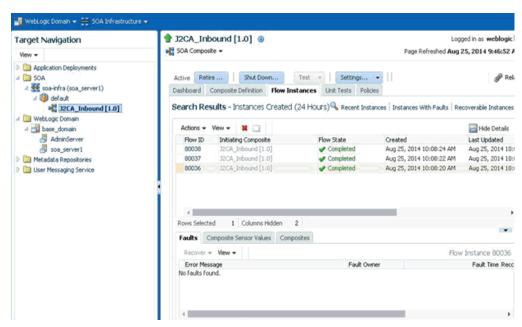


Figure 4–121 Flow Instances Tab

# 4.6 Designing an Outbound BPEL Process for Service Integration (BSE Configuration)

This section describes how to design an outbound BPEL process for service integration.

A sample project has been provided for this outbound use case scenario in the following folder of the Application Adapters installation:

<ADAPTER\_HOME>\etc\sample\SIEBEL\_Samples.zip\SIEBEL\_Samples\BPEL\BSE\Outbound\_
Project

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

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

This section includes the following topics:

- Section 4.6.1, "Generating a WSDL File for Request and Response Services Using a Web Service"
- Section 4.6.2, "Creating an Empty Composite for SOA"
- Section 4.6.3, "Defining a BPEL Outbound Process"

Before you design a BPEL process, you must generate the respective WSDL file using Application Explorer. For more information, see Section 4.6.1, "Generating a WSDL File for Request and Response Services Using a Web Service".

## 4.6.1 Generating a WSDL File for Request and Response Services Using a Web Service

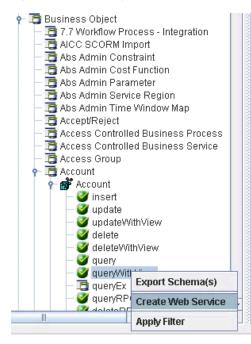
To generate a WSDL file for request and response services using a Web service:

**1.** Start Application Explorer and connect to a defined Siebel target (BSE configuration).

For more information on defining a target and connecting to Siebel, see Section 2.4.1, "Defining a Target to Siebel".

- **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 Web Service** from the menu, as shown in Figure 4–122.

Figure 4–122 queryWithView Node



The Create Web Service dialog is displayed, as shown in Figure 4–123.

Figure 4–123 Create Web Service Dialog

📓 Create Web Service	×
Existing Service Names:	<new service=""></new>
Service Name:	IBSE_Outbound
Service Description:	
	Next Cancel

- 5. Enter a service name, and click Next.
- 6. Click **OK** on the next dialog that is displayed.

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

7. Right-click the new Web service and select **Save WSDL** from the menu.

**8.** Save the WSDL in the wsdls folder and click **Save**.

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

# 4.6.2 Creating an Empty Composite for SOA

To create an empty composite for SOA:

- 1. Create a new SOA application.
- 2. Enter a name for the SOA Application and click Next.

The Name your project page is displayed.

3. Enter a project name and click Next.

The Configure SOA settings page is displayed.

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

For more information, see Section 4.4.2, "Creating an Empty Composite for SOA," on page 4-9.

# 4.6.3 Defining a BPEL Outbound Process

This section describes how to configure a BPEL outbound process component.

This section includes the following topics:

- Section 4.6.3.1, "Creating a Partner Link"
- Section 4.6.3.2, "Creating BPEL Activities and Mappings With the Created Partner Link"

To define a BPEL outbound process:

1. Drag and drop the **BPEL Process** component from the Service Components pane to the Components pane, as shown in Figure 4–124.

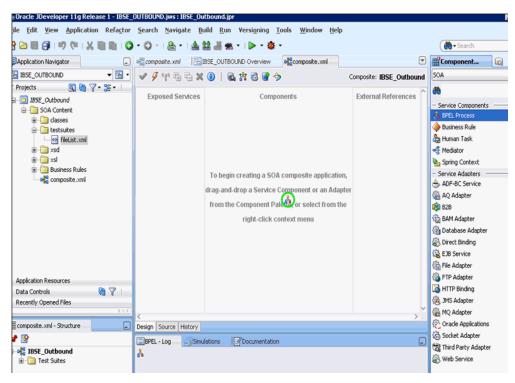


Figure 4–124 BPEL Process Component

**2.** In the Name field, enter a name to identify the new outbound BPEL process component or leave it to the default value.

By default, the BPEL 2.0 Specification option is selected.

- 3. From the Template drop-down list, select **Base on a WSDL**.
- **4.** Click the **Find existing WSDLs** icon, which is located to the right of the WSDL URL field, as shown in Figure 4–125.

🕜 Create BPI	EL Process	×
	<b>s</b> cess is a service orchestration, based on the BPEL specification, used to describe/execute a ocess (or large grained service), which is implemented as a stateful service.	-
BPEL 2.0 S	pecification O BPEL 1.1 Specification	
<u>N</u> ame:	BPELProcess1	
Namespace:	http://xmlns.oracle.com/SOA_Application/IBSE_Outbound/BPELProcess1	
Directory:	C:\WORK\mywork\SOA_Application\IBSE_Outbound\SOA\BPEL	Q
<u>T</u> emplate:	Base on a WSDL	- 2
Service Name:	bpelprocess1_client	
	✓ Expose as a SOAP service	
	<u>W</u> SDL URL:	1
	Port Type:	- V3
	Callback Port Type:	•
		_
Help	ОК	Cancel

Figure 4–125 Find Existing WSDLs Icon

The WSDL Chooser dialog is displayed.

**5.** Navigate to the location where the WSDL is exported from Application Explorer, select the WSDL, and click **OK**, as shown in Figure 4–126.

🛃 WSDL Choose	r							×
Application Server	File System	Project Libraries	SOA-MDS	UDDI	WSIL			
Location		Dracle_SOA1\soa\th	nirdparty\Applicatio	onAdapters\wsdls	;	- 0 0 5	ð 😭 (	<b>;</b> =
Work	IBSE_OU	tbound.wsdl						
Home		SE_Outbound.wsd						
<u>S</u> election: file:/C: Help	/12c/Oracle_SC	)A1/soa/thirdparty/	ApplicationAdapte	rs/wsdls/IBSE_Ou	utbound.wsdl	ОК		ancel

Figure 4–126 WSDL Chooser Dialog

The Localize Files window is displayed.

**6.** In the displayed Localize Files window, click **OK**. This imports the WSDL file to the project folder, as shown in Figure 4–127.

Figure 4–127 Localize Files Window

🕌 Localize Files	×
file:/C:/wsdls/IBSE_Outbound.wsdl is external to the current project. In order project at runtime, JDeveloper can now make a local copy of this file and any d includes.	
Copy Options: Maintain original directory structure for imported files The following files will be created in directory	
C:\JDeveloper\mywork\IBSE_OUTBOUND\IBSE_Outbound : IBSE_Outbound.wsdl	
Help	OK Cancel

The Create BPEL Process window is displayed.

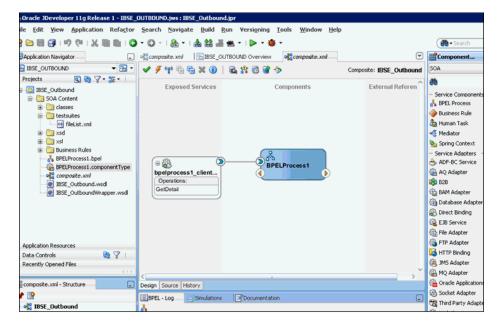
7. In the BPEL Process pane, click **OK**, as shown in Figure 4–128.

🕜 Create BPE	L Process X
	s cess is a service orchestration, based on the BPEL specification, used to describe/execute a ocess (or large grained service), which is implemented as a stateful service.
BPEL 2.0 Sp	pecification O BPEL 1.1 Specification
<u>N</u> ame:	BPELProcess1
Name <u>s</u> pace:	http://xmlns.oracle.com/SOA_Application/IBSE_Outbound/BPELProcess1
Directory:	C:\WORK\mywork\SOA_Application\IBSE_Outbound\SOA\BPEL
Template:	🔞 Base on a WSDL 🔹 🥥
Service Name:	bpelprocess1_client
	Expose as a SOAP service
	Transaction: required
	WSDL URL: rk\SOA_Application\IBSE_Outbound\SOA\WSDLs\IBSE_Outbound.wsdl 🔞 🧼
	Port Type: getdetail_ibseSoap 💌
	Callback Port Type: No Callback
Help	OK Cancel

Figure 4–128 BPEL Process Pane

The BPEL Process component is created and displayed, as shown in Figure 4–129.

Figure 4–129 BPEL Process Component

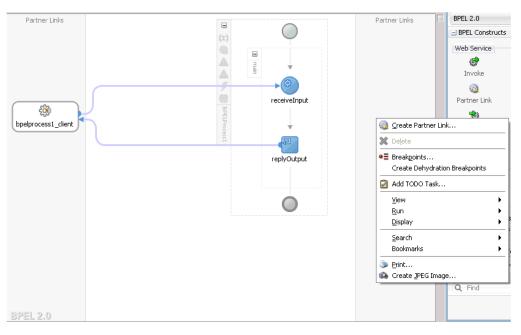


#### 4.6.3.1 Creating a Partner Link

This section describes how to create a partner link.

To create a partner link:

- 1. Double-click the outbound BPEL process component in the Components pane.
- **2.** Right-click on the **Partner Links** pane and select **Create Partner Link**, as shown in Figure 4–130.



## Figure 4–130 Create Partner Link

**3.** In the displayed Create Partner Link window, provide an appropriate name and click on the SOA Resource Browser tool, as shown in Figure 4–131.

Figure 4–131 SOA Resource Browser Tool

é	Create F	Partner Lir	nk 🛛 🗙	1
Í	General	Image	Property	
	<u>N</u> ame:	PartnerLin	k1	
	Process:			
	EWSDL Se	ettings		
			💁 i 🔊 🔊 🖉	
	<u>₩</u> SDL U	RL:	SOA Resource Browser.	
	Partner	Link Type:	<b>~</b>	Ī
	Partner	Role:	S -	
	My Role	:	· · · · · · · · · · · · · · · · · · ·	
-				
[	Help		Apply OK Cancel	

**4.** In the WSDL Chooser dialog that is displayed, navigate to the location where the WSDL is exported from Application Explorer, select the WSDL, and click **OK**, as shown in Figure 4–132.

🍰 WSDL Chooser	×
Application Server	BI ASIL
Location: 🛅 C:\12c\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\wsdls	- 0 0 🗟 🖆 🖽
Work       IBSE_Outbound.wsdl         Project       Image: Second S	
Selection: file:/C:/12c/Oracle_SOA1/soa/thirdparty/ApplicationAdapters/wsdls/IBSE_Outboun	d.wsdl
Help	OK Cancel

Figure 4–132 WSDL Chooser Dialog

**5.** In the displayed Localize Files window, uncheck the **Rename duplicate files** check box and click **OK**, as shown inFigure 4–133.

Figure 4–133 Localize Files Window

Localize File	15				
				to make this file available to your dependent files that it imports or	
Copy Options		inal directory structur	e for imported files		
	Rename dup				
	files will be create er\mywork\IBSE_C	d in directory UTBOUND\IBSE_Out!	ound ;		
IBSE_Outbo					
1000_00000	and the second				
	_				
Help				OK Cancel	

6. Click Yes in the displayed Partner Link Type window, as shown in Figure 4–134.

Figure 4–134 Partner Link Type



- **7.** In the displayed Create Partner Link window, expand the **Partner Role** drop-down list and select the available partner role.
- **8**. Click **Apply**, and then **OK**, as shown in Figure 4–135.

Figure 4–135 Create Partner Link

	Image	Property		umentat					
lame:	PartnerLin	ik1							
rocess:									
		e Partner Ro	ole						
WSDL S	ettings						~		
						9	Ż	3	। 🚱
<u>W</u> SDL L	IRL:	/WSDLs/I	BSE_O	utbound	lWrapp	er1.v	vsdl		
Partner	Link Type:	🐺 IBSE_C	Dutbou	ndSoap.	PLT				•
Partner	<u>R</u> ole:	BSE_C	Dutbou	ndSoap	Role				-
My Role	n.	🧟 No	ot Spec	ified					-

#### 4.6.3.2 Creating BPEL Activities and Mappings With the Created Partner Link

This section describes how to create BPEL activities and mappings with the created partner link.

To create BPEL Activities and map with the created partner link:

- Drag and drop the Invoke activity component from BPEL Constructs to the Components pane. Place it between the receiveInput activity component and the replyOutput activity component.
- **2.** Create a connection between the new **Invoke** activity component (Invoke1) and the **Partner Link** component (Partner link1), as shown in Figure 4–136.

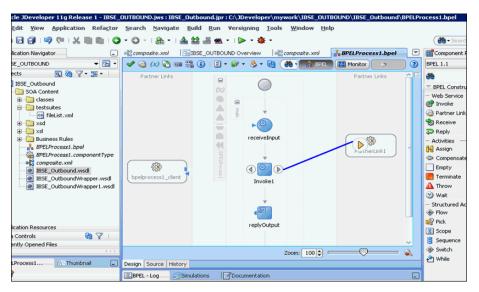


Figure 4–136 Partner Link Component

- **3.** In the displayed Edit Invoke window, click the Plus (+) icon, located to the right of the Input field, to configure a new input variable.
- **4.** Accept the default values that are provided for the new input variable and click **OK**.
- **5.** Click the Plus (+) icon, which is located to the right of the Output field, to configure a new output variable, as shown in Figure 4–137.

leaders Do	cumentation Sk	ip Condition Tar	gets Sources	
General	Correlations	Properties	Assertions	Annotations
lame:	Invoke1			
onversation i	ID:			
etail Label:				
	Invoke as D	etail		
Interaction	n Type: 🚳 Partn	er Link 🔻		
Partner Lin	k: PartnerLink1			Q.
-		1-		
Port Type:		oundSoap		
Operation:	a query With W	iew		•
Input	Dutput			
⊖ Argu <u>m</u> e	ents Mapping 💿 In	nput Variable		3
Inout: In	voke1_queryWithV	iew InnutVariable		- <b>P</b>
Preset In	roner_quer/man	iorr_ingracranaeio		

Figure 4–137 Edit Invoke Window

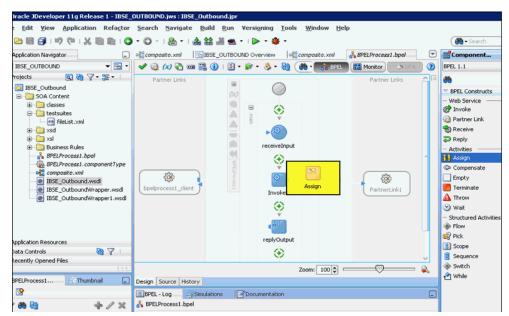
- **6.** Accept the default values that are provided for the new output variable and click **OK**.
- 7. Click **Apply** and then **OK**, as shown in Figure 4–138.

E <b>dit Invoke</b> Headers Doc General	umentation Skip Condition Targe Correlations Properties	ets Sources Assertions	Annotations
General	Correlations Properties	Assertions	Annocacions
<u>N</u> ame:	Invoke1		
<u>C</u> onversation ID			
<u>D</u> etail Label:			
	Invoke as Detail		
<u>I</u> nteraction	Type: 🔞 Partner Link 🔻		
Partner Link:	PartnerLink1		Q
Port <u>T</u> ype:	🐺 IBSE_OutboundSoap		•
Operation:	🐚 queryWithView		•
Input O	utput		
O Argu <u>m</u> en	ts Mapping ) Output Variable		0
O <u>u</u> tput: In	voke1_queryWithView_OutputVariable		

Figure 4–138 Edit Invoke Window

**8.** Drag and drop the **Assign** activity component from BPEL Constructs to the Components pane. Place it between the **Receive** activity component (receiveInput) and the **Invoke** activity component (Invoke1), as shown in Figure 4–139.

Figure 4–139 Assign Activity Component



**9.** Double-click the new **Assign** activity component (Assign1), as shown in Figure 4–140.

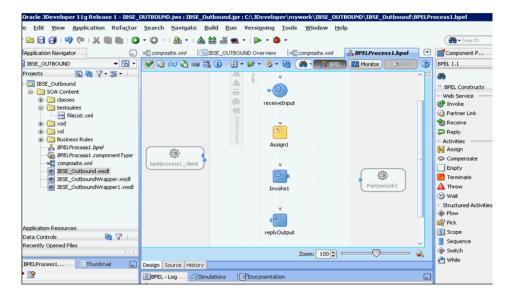
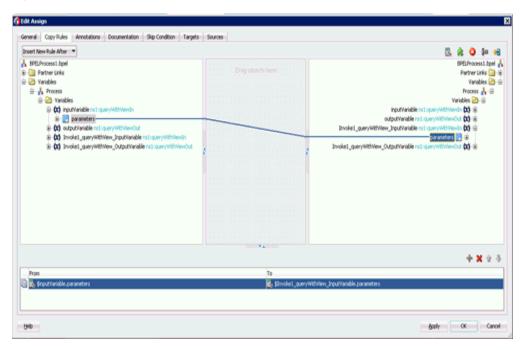


Figure 4–140 Assign Activity Component

- **10.** In the left pane, under Variables, expand **InputVariable**, and then select **parameters**.
- In the right pane, under Variables, expand Invoke1\_queryWithView\_ InputVariable, and then select parameters.
- **12.** Drag and map the **InputVariable** parameters to the **Invoke1\_queryWithView\_ InputVariable** parameters, as shown in Figure 4–141.

Figure 4–141 InputVariable Parameters



**13.** Click **Apply** and then **OK**.

**14.** Drag and drop the **Assign** activity component to the Components pane and place it between the **Invoke** activity (Invoke1) and the **Reply** activity (replyOutput), as shown in Figure 4–142.

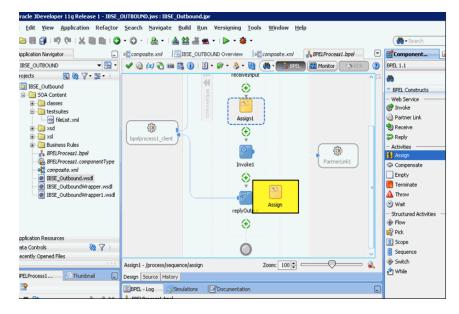


Figure 4–142 Assign Activity Component

**15.** Double-click the new **Assign** activity component (Assign2), as shown in Figure 4–143.

Figure 4–143 New Assign Activity Component

acle JDeveloper 11g Release 1 - IBSE_	OUTBOUND.jws : IBSE_Outbound.jpr : C:\JDeveloper\mywork\IBSE_OUTBOUND\IBSE_Outbound\BPELPr	ocess1.bpel
Edit Yiew Application Refactor	<u>Search Navigate Build Run Versioning Tools Window H</u> elp	
놀 🔂 🕼 I 🧐 🤍 I 🗶 🌆 🛍 I 🔇	- O - I 🏔 - I 📥 🖴 🛎 - I 🕨 - 🕸 -	- Search
pplication Navigator	all composite.xml	Component P
IBSE_OUTBOUND - 🖼 -	🛷 🏠 (x) 🌺 🚥 📇 🕦 I 🖉 • 📦 • 👶 • 🍓 🏟 • 🛼 BPEL 🔛 Monitor) 👘 DPA 🕘	BPEL 1.1
ojects 💽 🍓 🍸 • 📴 • 🛛		<b>8</b>
BES_Outbound     Content     Content     Descent     Descent	receiveInput Assign1 Invoke1 Invoke1 PatherUnk1	■ BPEL Constructs     ■ Web Service     ■ Web Service     ■ Partner Link     ■ Repty     Receive     ■ Repty     ■ Assign     ● Compensate     ■ Empty     ■ Terminate     ■ Terminate     ■ Terwinate     ■ Terwinate     ■ Firow     Wat     ■ Structured Activities     ● Flow     ■ Plok
oplication Resources		Scope
sta Controls 🥘 🏆 🗎	×	Sequence
cccc		🐵 Switch
PELProcess1 Thumbnail	replyOutput	🔁 While
······	Assign2 - /process/sequence/assign[2] Zoom: 100 🗣	
	Design Source History	
receive - receiveInput	BPEL - Log Simulations Documentation	

- **16.** In the left pane, under Variables, expand **Invoke1\_queryWithView\_ OutputVariable**, and then select **parameters**.
- **17.** In the right pane, under Variables, expand **outputVariable**, and then select **parameters**.
- **18.** Drag and map the **Invoke1\_queryWithView\_OutputVariable** parameters to the **outputVariable** parameters, as shown in Figure 4–144.

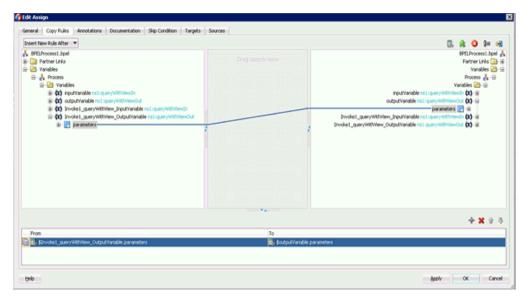


Figure 4–144 outputVariable Parameters

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

You are returned to the component pane, as shown in Figure 4–145.

Figure 4–145 Component Pane

e Edit Yiew Application Refactor			s <u>W</u> indow <u>H</u> el	þ		( <b>**</b>
🗁 🖯 🔂 I 🦃 🤍 I 💥 🛍 🛍 I 🔇	) • 🔘 •   🏯 •   🎰 🤅	🕍 🚢 🛳 •   🕨 • 🌞 •			_	( 馣 🕶 Search
Application Navigator	Composite.xml	BSE_OUTBOUND Overview	composite.xml	ABPELProcess1.bpel		Component P
IBSE_OUTBOUND - 🖼 -	🛷 🍓 (x) 🖏 🚥 🚟	🕦 । 💆 र 📦 र 🌭 र 🚱 (	🔲 🛛 👬 BREL	Monitor 👘 🛤	) 🕐	BPEL 1.1
Projects 💽 🗞 🏹 - 🌫 - 🗌					<u>^</u>	<b>6</b>
IBSE_Outbound						T BPEL Constructs
SOA Content		receiveInput				- Web Service
🛈 🧰 classes		10				🚱 Invoke
testsuites fileList.xml		PELS				Partner Link
⊕ ि xsd		BPELProcess				1 Receive
🕀 🛅 xsl		E Assign1				Reply
🗈 🛅 Business Rules						- Activities
BPELProcess1.bpel						N Assign
BPELProcess1.componentType				(22)		Compensate
Composite.xml     IBSE_Outbound.wsdl	bpelprocess1 client			<u>ب</u> دیک		Empty
@ IBSE_OutboundWrapper.wsdl	opeiprocess1_clienc	Invoke1		PartnerLink1		📒 Terminate
IBSE_OutboundWrapper1.wsd						A Throw
_		v				🎯 Wait
		<b>CO</b>				- Structured Activiti
		Aurier 2				I Flow
		Assign2				😰 Pick
Application Resources						🚼 Scope
Data Controls 🖓 🍸 🛛		×				Sequence
Recently Opened Files						le Switch
BPELProcess1		replyOutput			~	👌 While
	Assign2 - /process/sequent	e/assign[2]	Zoom: 100 🖨 🗖		<u>a</u>	
Se	Design Source History			¥.		
2 🚯 🚯 🕹 🖓 💥		1000				
s receive - receiveInput	EBPEL - Log Simu	lations				

**20.** 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. You can follow the same procedure as in Section 4.4.4, "Deploying the BPEL Outbound Process" on page 4-28.

Once deployed you can invoke the input XML, as defined in Section 4.4.5, "Invoking the Input XML Document in the Oracle Enterprise Manager Console" on page 4-31.

# Integration With Mediator Service Components in the Oracle SOA Suite

This chapter describes integration with Mediator service components in the Oracle SOA Suite. It contains the following sections:

- Section 5.1, "Configuring a New Application Server Connection"
- Section 5.2, "Configuring a Mediator Outbound Process (J2CA Configuration)"
- Section 5.3, "Configuring a Mediator Inbound Process (J2CA Configuration)"
- Section 5.4, "Configuring a Mediator Outbound Process (BSE Configuration)"

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. For more information, 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. For more information on Siebel design requirements, see Appendix A, "Using Siebel Workflows".

#### **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

For more information on how to configure a new Application Server connection in Oracle JDeveloper, see Section 4.3, "Configuring a New Application Server Connection" on page 4-2.

## 5.2 Configuring a Mediator Outbound Process (J2CA Configuration)

This section describes how to configure a Mediator outbound process to your Siebel system, using a Mediator project in Oracle JDeveloper.

A sample project has been provided for this outbound use case scenario in the following folder of the Application Adapters installation:

```
<aDAPTER_HOME>\etc\sample\SIEBEL_Samples.zip\SIEBEL_
Samples\Mediator\J2CA\Outbound_Project
```

This section contains the following topics:

- Section 5.2.1, "Creating an Empty Composite for SOA"
- Section 5.2.2, "Defining a Mediator Outbound Process"
- Section 5.2.3, "Deploying the Mediator Outbound Process"
- Section 5.2.4, "Invoking the Input XML Document in the Oracle Enterprise Manager Console"

#### Prerequisites

Before you design a Mediator outbound process, you must generate the respective WSDL file using Application Explorer. For more information, see Section 4.4.1, "Generating WSDL for Request/Response Service" on page 4-8.

## 5.2.1 Creating an Empty Composite for SOA

Perform the following steps to create an empty composite for SOA:

- 1. Create a new SOA application.
- 2. Enter a name for the new SOA Application and click Next.

The Name your project page is displayed.

**3.** Enter a project name and click **Next**.

The Configure SOA settings page is displayed.

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

For more information, see Section 4.4.2, "Creating an Empty Composite for SOA" on page 4-9.

## 5.2.2 Defining a Mediator Outbound Process

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

- Section 5.2.2.1, "Configuring a Third Party Adapter Service Component"
- Section 5.2.2.2, "Configuring an Outbound Mediator Process Component"
- Section 5.2.2.3, "Configuring the Routing Rules"
- Section 5.2.2.4, "Adjusting for Known Deployment Issues With 12c"

## 5.2.2.1 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 Service Adapters pane to the External References pane.
- 2. Enter a name for the third party adapter service.
- 3. Ensure that **Reference** is selected from the Type drop-down list (default).
- **4.** Click the **Find existing WSDLs** icon, which is located to the right of the WSDL URL field.
- Browse and select an outbound WSDL file from the following directory: <ADAPTER\_HOME>\wsdls
- 6. Click OK.
- 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.

- 8. Click the Find JCA file icon, which is located to the right of the JCA File field.
- 9. Browse and select the JCA properties file from the following directory:

<ADAPTER\_HOME>\wsdls

**10.** Click **OK**.

A Copy File confirmation message is displayed.

11. Click Yes.

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

Create Third Party	Adapter Service	×
<b>'hird Party Adapter</b> ! Create a JCA adapte	Service r service for a third party adapter.	÷
<u>N</u> ame:	Service	
<u>Т</u> уре:	Reference -	
<u>W</u> SDL URL:	work\SOA_Application\J2CA_Outbound\SOA\WSDLs\J2CA_Outbound_invoke.wsdl	1
<u>P</u> ort Type:	queryWithViewPortType	
Operation:	queryWithView	
<u>C</u> allback Port Type:	No Callback 💌	
Oper <u>a</u> tion:		
<u>J</u> CA File:	J2CA_Outbound_invoke_3P.jca	6
Help	OK	Cancel

Figure 5–1 Create Third Party Adapter Service Dialog

## 12. Click OK.

The third party adapter service component (GetDetail) is created in the External References pane.

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

For more information, see Section 6.4.3.1, "Configuring a Third Party Adapter Service Component" on page 6-11.

#### 5.2.2.2 Configuring an Outbound Mediator Process Component

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

1. Drag and drop the **Mediator Process** component from the Components pane to the Components pane.

The Create Mediator dialog is displayed, as shown in Figure 5–2.

👩 Create	Mediator		×
	r <b>Component</b> a mediator component to perform routing, filtering, and transformations.		¢
<u>N</u> ame:	Mediator1		
Directory:	C:\WORK\mywork\SOA_Application\JCA_Outbound\SOA\Mediators		] 🔍
<u>T</u> emplate:	🞏 Synchronous Interface		• 2
	Expose as a SOAP service		
	Input: {http://xmlns.oracle.com/singleString}singleString		Q
	Output: {http://xmlns.oracle.com/singleString}singleString		Q
Help		ОК	Cancel

Figure 5–2 Create Mediator Dialog

- **2.** In the Name field, enter a name to identify the new outbound Mediator process component or leave it to the default value.
- 3. From the Template drop-down list, select Synchronous Interface.
- **4.** Click the **Browse** 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, as shown in Figure 5–3.

👩 Type Chooser		×
		絮 🐿
🔍 Type Explorer		
😥 📄 Project Schema Files		
🖻 🗁 🗁 Project WSDL Files		
J2CA_Outbound_invoke.wsdl		
🖨 🗁 Imported Schemas		
Siebel		
Interview in the second interview in the second interview in the second interview interview in the second interview intervi		
Imported WSDL		
Turner and the second state with a large state of the second state state o		Uith Uis) Cish -1
Type: n:iwaysoftware:adapter:siebel:request:5/BO/Account/Ac	count/query	withview}Siebei
Show Detailed Node Information		
Help	ОК	Cancel

Figure 5–3 Type Chooser Dialog

- 5. Expand Project WSDL Files, J2CA\_Outbound\_invoke.wsdl, Imported Schemas, J2CA\_Outbound\_invoke\_request.xsd, and select Siebel.
- 6. Click OK.

You are returned to the Create Mediator dialog.

**7.** Click the **Browse** 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, as shown in Figure 5–4.

Type Explorer Project Schema Files Project WSDL Files Inported Schemas J2CA_Outbound_invoke_request.xsd J2CA_Outbound_invoke_response.xsd SiebelResponse record Imported WSDL	2
Project Schema Files     Project WSDL Files     J2CA_Outbound_invoke.wsdl     Project WSDL Files     J2CA_Outbound_invoke.request.xsd     J2CA_Outbound_invoke_request.xsd     J2CA_Outbound_invoke_response.xsd     SiebelResponse     record	
Project WSDL Files     J2CA_Outbound_invoke.wsdl     J2CA_Outbound_invoke_request.xsd     J2CA_Outbound_invoke_response.xsd     SiebelResponse     record	
<ul> <li>J2CA_Outbound_invoke.wsdl</li> <li>Imported Schemas</li> <li>J2CA_Outbound_invoke_request.xsd</li> <li>J2CA_Outbound_invoke_response.xsd</li> <li>SiebelResponse</li> <li>record</li> </ul>	
Imported Schemas      A J2CA_Outbound_invoke_request.xsd      J2CA_Outbound_invoke_response.xsd      SiebelResponse      record	
Let Constant and Constant	
i → SiebelResponse record	
→ ◆ SiebelResponse → ▲ record	
ecord	
Imported WSDL	
the state sector state and sector be	
ype: ware:adapter:siebel:response:5/BO/Account/Account/queryWithView}SiebelRespo	
Show Detailed Node Information	nse
Help OK Cance	nse

Figure 5–4 Type Chooser Dialog

- 8. Expand Project WSDL Files, J2CA\_Outbound\_invoke.wsdl, Imported Schemas, J2CA\_Outbound\_invoke\_response.xsd, and select SiebelResponse.
- 9. Click OK.

You are returned to the Create Mediator dialog, as shown in Figure 5–5.

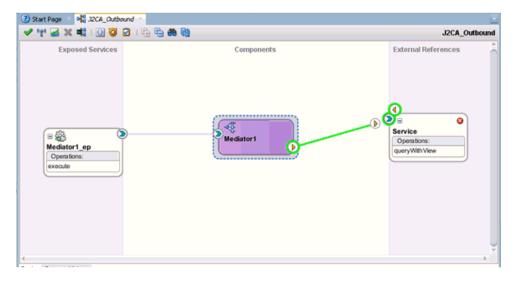
Figure 5–5 Create Mediator Dialog

👩 Create	Mediator	x
	a mediator component to perform routing, filtering, and transformations.	
<u>N</u> ame:	Mediator1	
Directory:	C:\bpmbeta\WORK\mywork\SOA_Application\J2CA_Outbound\SOA\Mediators	
<u>T</u> emplate:	🔁 Synchronous Interface 🔹 🥥	
	Expose as a SOAP service	
	Input: [n:iwaysoftware:adapter:siebel:request:S/BO/Account/Account/queryWithView}Siebel]	
	$\underline{O}utput: \ \ \ ware: adapter: siebel: response: S/BO/Account/Account/queryWithWiew \\ \\ Siebel Response \ \ \underline{O}utput: \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	
Help	OK Cancel	

#### 10. Click OK.

**11.** Create a connection between the outbound Mediator process component and the third party adapter service component, as shown in Figure 5–6.

Figure 5–6 Created Connection



You are now ready to configure the routing rules.

## 5.2.2.3 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 in the Components pane.

The Routing Rules dialog is displayed, as shown in Figure 5–7.

Figure 5–7 Routing Rules Dialog

Operations					eg (
execute		Priority 4	😧 🗌 Validate Syntax (XSD) 🔷	. 🔻	+ ×
Translate F	From Native < <no need<="" th="" translation=""><th>ded&gt;&gt;</th><th></th><th></th><th></th></no>	ded>>			
	Callout To < <java callout="" class=""></java>	>	<b>S</b>		
	<filter expression="">&gt;</filter>	8 8	Service::queryWithView		Sequential •
		Validate Semantic		- 4	
		Translate To Native	< <no needed="" translation="">&gt;</no>	-	ĩ
		Transform Using	< <transformation map="">&gt;&gt; input_query</transformation>		
		Assign Values		- 50	
		Override Using		-	1
	Synchronous Reply		*Initial Caller*::execute:output	Ø	1
		Transform Using	< <transformation map="">&gt;&gt; reply</transformation>	- 14	
		Assign Values		• 10	4

**2.** In the <<Filter Expression>> area, click the icon to the right of the Transform Using field.

The Request Transformation Map dialog is displayed, as shown in Figure 5–8.

Figure 5–8 Request Transformation Map Dialog

😚 Request Transformation Map	×
Transformation from request message requestMessage to message request. To Part: input_queryWithView Mapper File:	Q. 🕈 🖉 🗶
Нер	OK Cancel

**3.** Click the Add (+) icon.

The Create Transformation Map page is displayed.

- 4. Make sure the Type is selected as **XSLT** and click **OK**.
- 5. Click OK.
- **6.** Map the **ns0:Siebel** source element to the **ns0:Siebel** target element. The Auto Map Preferences dialog is displayed.
- 7. Retain the default values and click **OK**.
- **8.** Return to the Routing Rules dialog, as shown in Figure 5–9.

Figure 5–9 Routing Rules Dialog

) Operations			<b>F</b>
execute	Priority 4	🔄 Validate Syntax (XSD) 🔷	v 👌 🕈 🛛 🗙
Translate From Native < <no t<="" td=""><td>anslation Needed&gt;&gt;</td><td></td><td></td></no>	anslation Needed>>		
Callout To < <java< td=""><td>Callout Class&gt;&gt;</td><td></td><td></td></java<>	Callout Class>>		
Carlier Expression>2	8 8	Service::queryWithView	Sequential •
	Validate Semantic	•	8
	Translate To Native	< <no needed="" translation="">&gt;</no>	*
	Transform Using	Siebel_To_Siebel1.xsl> input_queryWi 💌	84
	Assign Values	,	
	Override Using	)	-
Synchronous R	epły 🛥	*Initial Caller*::execute:output	0
	Transform Using	< <transformation map="">&gt;&gt; reply</transformation>	80
	Assign Values		

**9.** In the Synchronous Reply area, click the icon to the right of the Transform Using field.

The Reply Transformation Map dialog is displayed.

**10.** Click the Add (+) icon.

The create Transformation Page is displayed.

11. Make sure the type is selected as **XSLT** and click **OK**.

A mapping page is displayed.

- **12.** Click **OK**.
- **13.** Map the **ns0:SiebelResponse** source element to the **ns0:SiebelResponse** target element.

The Auto Map Preferences dialog is displayed.

14. Retain the default values and click OK.

The mapping is completed, as shown in Figure 5–10.

Figure 5–10 Completed Mapping

XSLT map 🔹 🛉 🔹 💩 🖥	S 🔂 🛅 I	Q Search XSLT	Map XSLT
esources>	[]		xsl:stylesheet 級
😑 🚸 ns0:SiebelResponse		xslite	mplate(match=/)
- III status	H	ns0:Sid	belResponse 🚯 😑
a reason			status 🚥
Is0:record			—xsl:if 🍑 🕀
Variables		xsl	for-each 🙀 🕀

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

## 5.2.2.4 Adjusting for Known Deployment Issues With 12c

For more information on how to adjust for known deployment issues with 12c, see Section 4.4.3.3, "Adjusting for Known Deployment Issues With 12c" on page 4-26.

## 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, select **Deploy**, and then click **J2CA**\_ **Outbound**.

The Deployment Action page is displayed.

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

The Deploy Configuration page is displayed.

4. Leave the default values selected and click Next.

The Select Server page is displayed.

- Select an available application server that was configured and click Next. The SOA Servers page is displayed.
- **6.** Select a target SOA server and click **Next**. The Summary page is displayed.

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

For more information, see Section 4.4.4, "Deploying the BPEL Outbound Process" on page 4-28.

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

For more information, see Section 4.4.5, "Invoking the Input XML Document in the Oracle Enterprise Manager Console" on page 4-31.

## 5.3 Configuring a Mediator Inbound Process (J2CA Configuration)

This section describes how to configure a Mediator inbound process to your Siebel system, using a Mediator project in Oracle JDeveloper.

A sample project has been provided for this inbound use case scenario in the following folder of the Application Adapters installation:

```
<ADAPTER_HOME>\etc\sample\SIEBEL_Samples.zip\SIEBEL_Samples\Mediator\J2CA\Inbound_
Project
```

This section contains the following topics:

- Section 5.3.1, "Creating an Empty Composite for SOA"
- Section 5.3.2, "Defining a Mediator Inbound Process"

#### Prerequisites

Before you design a Mediator inbound process, you must generate the respective WSDL file using Application Explorer. For more information, see Section 4.5.1, "Generating WSDL for Event Integration" on page 4-34.

## 5.3.1 Creating an Empty Composite for SOA

Perform the following steps to create an empty composite for SOA:

- 1. Create a new SOA application.
- 2. Enter a name for the new SOA Application and click Next.

The Name your project page is displayed.

3. Enter a project name and click Next.

The Configure SOA settings page is displayed.

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

For more information, see Section 4.4.2, "Creating an Empty Composite for SOA" on page 4-9.

## 5.3.2 Defining a Mediator Inbound Process

This section describes how to define a Mediator inbound process, which contains the following topics:

- Section 5.3.2.1, "Configuring a Third Party Adapter Service Component"
- Section 5.3.2.2, "Configuring an Inbound Mediator Process Component With a File Adapter"

- Section 5.3.2.3, "Configuring the Routing Rules"
- Section 5.3.2.4, "Adjusting for Known Deployment Issues With 12c"

#### 5.3.2.1 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 Service Adapters pane to the Exposed Services pane.

The Create Third Party Adapter Service dialog is displayed.

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

The WSDL Chooser dialog is displayed.

- Browse and select an inbound WSDL file from the following directory: <adapter\_HOME>\wsdls
- 6. Click OK.

The Localize Files dialog is displayed.

7. Click OK.

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

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

- **8.** Click the **Find JCA file** icon, which is located to the right of the JCA File field. The Transformation Chooser dialog is displayed.
- **9.** Browse and select the JCA properties file from the following directory: <<u>ADAPTER HOME</u>>\wsdls
- 10. Click OK.

The Copy File Confirmation message is displayed.

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.

12. Click OK.

The third party adapter service component is created in the Exposed Services pane.

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

For more information, see Section 4.5.3.1, "Creating a Third Party Adapter Service Component" on page 4-42.

## 5.3.2.2 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 Process** component from the Service Components pane to the Components pane.

The Create Mediator dialog is displayed, as shown in Figure 5–11.

Figure 5–11	Create	Mediator	Dialog
-------------	--------	----------	--------

👩 Create	Mediator		×
	<b>Component</b> a mediator component to perform routing, filtering, and transformations.		¢
<u>N</u> ame:	Mediator1		
Directory:	C:\WORK\mywork\SOA_Application\JCA_Inbound\SOA\Mediators		Q
<u>T</u> emplate:	i Define Interface Later		• 2
Help		OK	Cancel

- **2.** In the Name field, enter a name to identify the new inbound Mediator process component.
- 3. From the Template drop-down list, select **Define Interface Later**.
- **4.** Click the **OK**.

The new Mediator process component is added to the Components pane.

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

The File Adapter Configuration Wizard is displayed.

6. Type a name for the new File adapter and click Next.

The Adapter Interface page is displayed.

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

The Operation page is displayed.

- 9. Click Next.
- **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.

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

The Messages page is displayed, as shown in Figure 5–12.

Figure 5–12 Messages Page

📤 Adapter Configu	uration Wizard - Step 6 of 7	x
Messages	Distribution and Market and Market	•
defines the message	of or the Write File operation. Specify the Schema File Location and select the Schema Element that es in the outgoing files. Use the Browse button to find an existing schema definition. If you check , then you do not need to specify a Schema.	t
-Message Schema-		1
Native format tr	ranslation is not required (Schema is Opaque)	
	Define Schema for Native Format	
URL		
Schema Element	-	
Help	< <u>Back</u> <u>N</u> ext > <u>Finish</u> Cancel	

**15.** Click **Browse**, which is located to the right of the URL field.

The Type Chooser dialog is displayed, as shown in Figure 5–13.

🕜 Type Chooser		×
	욻	6
🔍 Type Explorer		
😥 💼 Project Schema Files		
Project WSDL Files		
📄 🖳 J2CA_Inbound_receive.wsdl		
□···		
SiebelMessage SiebelMessage		
Imported WSDL		
Show Detailed Node Information		
Help	Cano	el

Figure 5–13 Type Chooser Dialog

- **16.** Expand Project WSDL Files, J2CA\_Inbound\_receive.wsdl, Imported Schemas, J2CA\_Inbound\_receive\_request.xsd, and select SiebelMessage SiebelMessage.
- 17. Click OK.

You are returned to the Messages page.

18. Click Next.

The Finish page is displayed.

- 19. Click Finish.
- **20.** Create a connection between the inbound Mediator process component and the third party adapter service component.
- **21.** Create a connection between the inbound Mediator process component and the File adapter component, as shown in Figure 5–14.

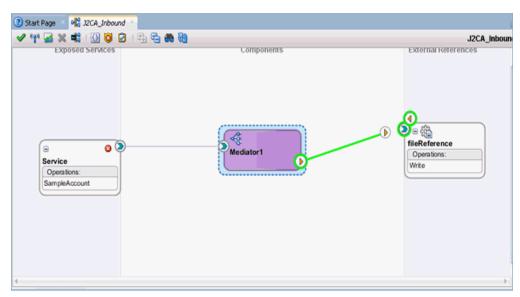


Figure 5–14 Created Connection

You are now ready to configure the routing rules.

#### 5.3.2.3 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 page.

The Routing Rules dialog is displayed, as shown in Figure 5–15.

Figure 5–15 Routing Rules Dialog

Operations				₽ ₽
SampleAccount	Priority	4 💌 🛛 Validate Syntax (XSD)		+ ×
Translate From Native < <no n<="" th="" translation=""><th>eeded&gt;&gt;</th><th>-</th><th></th><th></th></no>	eeded>>	-		
Callout To <td>\$\$&gt;&gt;</td> <td></td> <td></td> <td></td>	\$\$>>			
Resequence Off				
>	98.	fileReference::Write	( )	Sequential 💌
	Validate Semantic		- 4	
		< <no needed="" translation="">&gt;</no>	- 4	
	Translate To Native	< <no needed="" translation="">&gt;</no>		
	Translate To Native		-	

 In the <<Filter Expression>> area, click the icon to the right of the Transform Using field.

The Request Transformation Map dialog is displayed.

**3.** Click the Add (+) icon and ensure that the selected Type is **XSLT**, then click **OK**.

4. Click OK.

The mapping page is displayed, as shown in Figure 5–16.

Figure 5–16 Mapping Page

xsl:stylesheet & xsl:stylesheet & xsl:stylesheet & xsl:template(match=/) rs015tebeMassage &
ns0:SiebelMessage 🚸 😑
vdif 🙆 👘
xsl:if 🍑 🕢
xsbif 🍑 🕢
xsl:if 🍑 🕢
xsltif 🍑 🕀
xslaf 🍑 🕢

- 5. Click OK.
- 6. Map the ns0:SiebelMessage source element to the ns0:SiebelMessage target element.

The Auto Map Preferences dialog is displayed.

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

The mapping is now complete.

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

#### 5.3.2.4 Adjusting for Known Deployment Issues With 12c

For more information on how to adjust for known deployment issues with 12c, see Section 4.4.3.3, "Adjusting for Known Deployment Issues With 12c" on page 4-26.

You are now ready to deploy the Mediator inbound process. You can follow the same procedure in Section 4.5.4, "Deploying the BPEL Inbound Process" on page 4-48.

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 Section 4.5.5.3, "Triggering an Event in Siebel 8.0 to Test Event Runtime Integration" on page 4-64.

## 5.4 Configuring a Mediator Outbound Process (BSE Configuration)

This section describes how to configure a Mediator outbound process to your Siebel system, using a Mediator project in Oracle JDeveloper.

A sample project has been provided for this outbound use case scenario in the following folder of the Application Adapters installation:

<ADAPTER\_HOME>\etc\sample\SIEBEL\_Samples.zip\SIEBEL\_Samples\Mediator\BSE\Outbound\_
Project

This section contains the following topics:

- Section 5.4.1, "Creating an Empty Composite for SOA"
- Section 5.4.2, "Defining a Mediator Outbound Process"

#### Prerequisites

Before you design a Mediator outbound process, you must generate the respective WSDL file using Application Explorer. For more information, see Section 4.6.1,

"Generating a WSDL File for Request and Response Services Using a Web Service" on page 4-75.

## 5.4.1 Creating an Empty Composite for SOA

Perform the following steps to create an empty composite for SOA:

- 1. Create a new SOA application.
- 2. Enter a name for the SOA Application (for example, IBSE\_OUTBOUND), and click Next.
- 3. Enter a project name (for example, IBSE\_Outbound), and click Next.
- 4. From the Composite Template list, select Empty Composite and click Finish.

For more information, see Section 4.4.2, "Creating an Empty Composite for SOA" on page 4-9.

## 5.4.2 Defining a Mediator Outbound Process

This section describes how to define a Mediator outbound process. The following topics are included:

- Section 5.4.2.1, "Configuring a SOAP Service"
- Section 5.4.2.2, "Creating a Mediator Component"
- Section 5.4.2.3, "Configuring the Routing Rules"

### 5.4.2.1 Configuring a SOAP Service

Perform the following steps to configure a SOAP Service:

- 1. Drag and drop the **SOAP** node from the Technology Adapters pane to the External References pane.
- **2.** Enter an appropriate name for the SOAP Service and click on the **Find existing WSDLs** icon, which is located to the right of the WSDL URL field.
- **3.** In the displayed SOA Resource Browser window, select the File system tab and navigate to the location where the WSDL is exported from the Application Explorer, select the WSDL, and click **OK**.
- 4. In the Create Web Service Window, click OK.
- **5.** In the displayed Localize Files window, click **OK**. This imports the WSDL file to the project folder.

The Web Service is created and displayed.

#### 5.4.2.2 Creating a Mediator Component

Perform the following steps to create a Mediator component:

- 1. Drag and drop the **Mediator** component from the Components pane in to the Components pane.
- **2.** In the Name field, enter a name to identify the new outbound Mediator process component.
- 3. From the Template drop-down list, select Synchronous Interface.
- **4.** Click the **Browse** icon, which is located to the right of the Input field, to select the associated XML request schema file.

- In the Type Chooser dialog, expand Project WSDL Files, select IBSE\_ Outbound.wsdl, and click queryWithView, as shown in Figure 5–17.
- 👩 Type Chooser × 눎 🖻 🔍 Type Explorer 🕀 🛅 Project Schema Files 🖻 🛅 Project WSDL Files 🖮 🙋 IBSE\_Outbound.wsdl ---- Imported Schemas ė--- 🔁 🖨 📇 schema - urn:iwaysoftware:ibse:jul2003:queryWithView 🚸 queryWithView 👗 record 🖮 📇 schema - urn:iwaysoftware:ibse:jul2003:queryWithView:response 🗄 📲 schema - urn:schemas-iwaysoftware-com:iwse imported WSDL Type: {urn:iwaysoftware:ibse:jul2003:queryWithView}queryWithView Show Detailed Node Information OK Cancel Help

Figure 5–17 Type Chooser Dialog

- 6. Click OK.
- **7.** Click the **Browse** icon, which is located to the right of the Output field, to select the associated XML response schema file.
- In The Type Chooser dialog, expand Project WSDL Files, select IBSE\_ Outbound.wsdl, and click queryWithViewResponse, as shown in Figure 5–18.

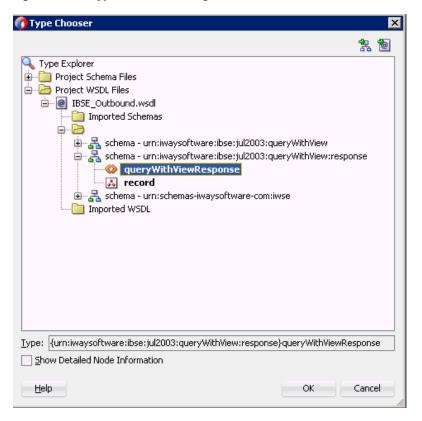


Figure 5–18 Type Chooser Dialog

- 9. Click OK.
- 10. Click OK.

The Mediator component is created and displayed.

**11.** Create a connection between the **Mediator** component and the **SOAP service** component, as shown in Figure 5–19.

xions 👔 🗹 🗶 🖏 1 🚯 🔯 😥 1 🕀 😪 🏟 🍓	Outboun
Exposed Services Components External References	

Figure 5–19 Created Connection

#### 5.4.2.3 Configuring the Routing Rules

Perform the following steps to configure the routing rules:

- 1. Double-click the **Mediator** component in the Components pane.
- **2.** In the <<Filter Expression>> area of the Static Routing section, click the icon to the right of the Transform Using field.
- **3.** In the displayed Request Transformation Map window, click the Add (+) icon and make sure the selected Type is **XSLT** in the Create Transformation Map dialog box and click **OK**.
- 4. Click OK.
- **5.** Map the **ns0:queryWithView** source element to the **ns0:queryWithView** target element, as shown in Figure 5–20.

Figure 5–20 GetDetail\_To\_GetDetail.xsl Tab

XSLT map 🔹 💠 🔹 🎄	3 🗟 🖾	Q Search XSLT	Map XSLT
sources>	<u>[]</u>		xsl:stylesheet 🐼
		xsl:ten	nplate(match=/)
😟 🚸 ns0:Siebel – – – – – – – – – – – –	- See and the second second	ns0:que	ryWithView 🚯 😑
Variables		ns	0:Siebel 🚷 🕀

- **6.** In the displayed Auto Map Preferences window, retain the default values and click **OK**.
- **7.** In the Synchronous Reply area, click the icon to the right of the Transform Using field.
- **8.** In the displayed Reply Transformation Map window, click the Add (+) icon and make sure the Type is selected as **XSLT** in the Create Transformation Map dialog box, and then click **OK**.

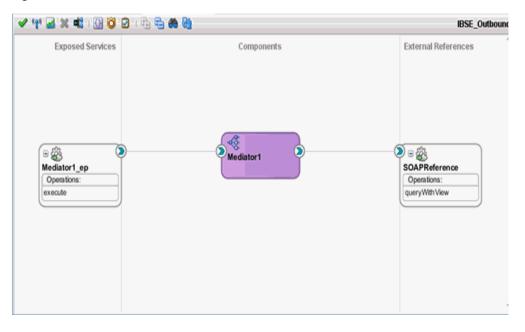
 Map the ns0:queryWithViewResponse source element to the ns0:queryWithViewResponse target element, as shown in Figure 5–21.

Figure 5–21 Source and Target Elements

XSLT map 🔹 🗣 🔹 🕹 🖏 🔛	Q Search XSLT Map XSLT
🔆 <sources></sources>	xsl:stylesheet 👸
Ons0:queryWithViewResponse	xsl:template(match=/)
con cid	ns0:gueryWithWiewResponse 🚸 😑
Operation of the second s	cid 🚥
Variables	(Q

- **10.** In the displayed Auto Map Preferences window, retain the default values and click **OK**.
- **11.** Double-click **composite.xml** in the left pane.
- **12.** Click the **Save All** icon in the menu bar to save the new outbound Mediator component that was configured, as shown in Figure 5–22.

Figure 5–22 Save All Icon



You are now ready to deploy the Mediator IBSE outbound process. You can follow the same procedure found in Section 5.2.3, "Deploying the Mediator Outbound Process" on page 5-10.

Once deployed, you can invoke the input XML, as defined in Section 5.2.4, "Invoking the Input XML Document in the Oracle Enterprise Manager Console" on page 5-11.

## Integration With BPM Service Components in the Oracle SOA Suite

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

This chapter contains the following sections:

- Section 6.1, "Overview"
- Section 6.2, "Deployment of Adapter"
- Section 6.3, "Configuring a New Application Server Connection"
- Section 6.4, "Designing an Outbound BPM Process Using Transformations for Service Integration (J2CA Configuration)"
- Section 6.5, "Designing an Inbound BPM Process Using Transformations for Event Integration (J2CA Configuration)"
- Section 6.6, "Designing an Outbound BPM Process Using Transformations for Service Integration (BSE Configuration)"

## 6.1 Overview

To integrate with Oracle BPM, Oracle Application Adapter for Siebel must be deployed in the same WLS container as Oracle BPM. 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. For more information, see "Generating WSDL (J2CA Configurations Only)" on page 2-27.

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

## 6.2 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 BPM.

## 6.3 Configuring a New Application Server Connection

For more information on how to configure a new Application Server connection in Oracle JDeveloper, see Section 4.3, "Configuring a New Application Server Connection" on page 4-2.

# 6.4 Designing an Outbound BPM Process Using Transformations for Service Integration (J2CA Configuration)

This section describes how to design an outbound BPM process using transformations for service integration.

A sample project has been provided for this outbound use case scenario in the following folder of the Application Adapters installation:

<ADAPTER\_HOME>\etc\sample\SIEBEL\_Samples.zip\SIEBEL\_Samples\BPM\J2CA\Siebel\_ Sample\_J2CA\_BPM\_Outbound\_Project The following tools are required to complete your outbound design-time configuration:

- Oracle Adapter Application Explorer (Application Explorer)
- Oracle JDeveloper BPM Designer (JDeveloper)

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

This section contains the following topics:

- Section 6.4.1, "Creating an Empty Composite for BPM"
- Section 6.4.2, "Defining a BPM Outbound Process"
- Section 6.4.3, "Adjusting for Known Deployment Issues With 12c"
- Section 6.4.4, "Deploying the BPM Outbound Process"
- Section 6.4.5, "Invoking the Input XML Document in the Oracle Enterprise Manager Console"

Before you design a BPM process, you must generate the respective WSDL file using Application Explorer. For more information, see Section 4.4.1, "Generating WSDL for Request/Response Service" on page 4-8.

## 6.4.1 Creating an Empty Composite for BPM

Perform the following steps to create an empty composite for BPM:

- 1. Create a new BPM application.
- 2. Enter a name for the new BPM application and click Next.

The Name your project page is displayed.

- **3.** Enter a project name, in the project features select **BPM**, and then click **Next**. The Configure SOA settings page is displayed.
- 4. From the Composite Template list, select Empty Composite and click Finish.

# 6.4.2 Defining a BPM Outbound Process

This section describes how to define a BPM outbound process, which contains the following topics:

- Section 6.4.2.1, "Configuring a Third Party Adapter Service Component"
- Section 6.4.2.2, "Configuring an Outbound BPM Process Component"
- Section 6.4.2.3, "Creating a File Adapter for the Write Operation"

# 6.4.2.1 Configuring a Third Party Adapter Service Component

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

- 1. Double-click the created project to load the components.
- **2.** Drag and drop the **Third Party Adapter** component from the Custom/Thirdparty pane to the External References pane.

The Create Third Party Adapter Service dialog is displayed.

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

The WSDL Chooser dialog is displayed.

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

<ADAPTER\_HOME>\wsdls

7. Click OK.

The Localize Files dialog is displayed.

8. 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.

9. Click the Find JCA file icon, which is located to the right of the JCA File field.

The Transformation Map dialog is displayed.

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

<ADAPTER\_HOME>\wsdls

**11.** Click **OK**.

The Copy File message is displayed.

12. 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.

13. Click OK.

The third party adapter service component is created and displayed in the External References pane.

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

For more detailed information, including screen shots, see Section 4.4.3.1, "Configuring a Third Party Adapter Service Component" on page 4-11.

## 6.4.2.2 Configuring an Outbound BPM Process Component

This section describes how to configure an outbound BPM process component.

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

**1.** Drag and drop the **BPMN Process** component from the Components pane to the Components pane.

The Create BPMN Process dialog is displayed, as shown in Figure 6–1.

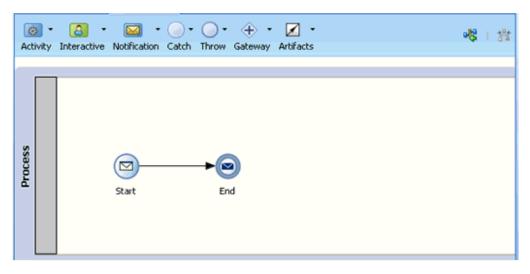
Figure 6–1 Create BPMN Process Dialog

😚 BPMN 2.0 Process Wizard 🛛 🗙 🗙				
BPI	MN 2.0 Process W	lizard		
Ŵ	Definition	Name:	Process	۲
ų	Arguments	Description:		۲
ų.	Initial Implementation			
9	Advanced			
		Directory:	C:\WORK\mywork\JCA_Outbound\BpmProject\SOA\processes	٩
		Type:		_
			hronous Service s a process with an asynchronous interface definition	î
			Start End	
		Synchr	onous Service	
		🛛 🔀 Manual	Process	-
	Help		< Back Next > Einish Cance	

**2.** Accept the default option that is selected under the Type area (Asynchronous Service) and click **Finish**.

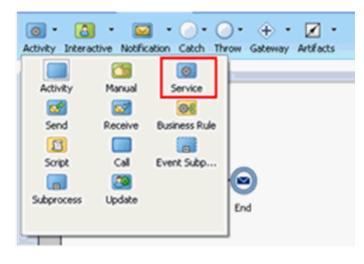
The BPMN process is displayed, as shown in Figure 6–2.

Figure 6–2 BPMN Process



3. Click the Activity drop-down menu and select Service, as shown in Figure 6–3.

Figure 6–3 Activity Drop-down Menu



**4.** Drop the Service icon on the wire between the Start and End event components, as shown in Figure 6–4.

Figure 6–4 Activity Icon

Activ	ity	Can - Interactive	Notification	O • Throw	Gateway	Artifacts
SSE						
Process			Start	En	e)	

The Properties - ServiceTask window is displayed.

- 5. Click the Implementation tab.
- 6. Select Service Call from the Message Exchange Type list, as shown in Figure 6–5.

# Figure 6–5 Service Call

🖕 Properties - ServiceTask	×
Basic Implementation	
Implementation Type: Service task	•
Message Exchange	
Type: Not Implemented	-
Not Implemented	
💱 Data 😽 Process Call	
Mess Service Call	
Service Call	

7. Click the Browse icon to the right of the Service field, as shown in Figure 6–6.

Figure 6–6 Browse Icon

💩 Properties - ServiceTask	×
Basic Implementation	
Implementation Type: Service task	•
Message Exchange	
Type: A Service Call	•
Conversation: <ul> <li>Default</li> <li>Advanced</li> </ul>	
Service Cal	
Service:	ا ال
Operation:	•

The Service dialog is displayed, as shown in Figure 6–7.

👩 Service	×
Search:	
Search Results:	
{🏟 Service	
Hala	OK Cancel
Help	OK Cancel

Figure 6–7 Service Dialog

8. Select the Third Party Service that has been created and click OK.

You are returned to the Properties - ServiceTask dialog, as shown in Figure 6–8.

Figure 6–8 Properties - ServiceTask Dialog

🕜 Properties - ServiceTask	×
Basic Implementation	
Implementation Type: 👸 Service task	•
Force commit after execution	
Message Exchange	
Type: 💓 Service Call	•
Conversation: <ul> <li>Default</li> <li>Advanced</li> </ul>	
Service Call	
Service: Service	۹ 🏈
Operation: queryWithView	<b></b>
Data Associations Di Correlations	Log Handlers
Message Headers	
Help	OK Cancel

9. Click the Data Associations hyperlink.

The Data Associations dialog is displayed.

**10.** Right-click the **Data Objects** node in the left pane under Process, and select **New** as shown in Figure 6–9.

Figure 6–9 New Option

🍘 Data Associations		×
Input Output		
		🗈 📾 Ki
Process       Data Obje       Image: Comparison of the second secon	Drag objects here	ServiceTask Arguments ڝ-⊖ companyCodeGetDetail िक्व-⊕

The Create Data Object dialog is displayed, as shown in Figure 6–10.

Figure 6–10 Create Data Object Dialog

譮 Create Da	ata Object	×
Name: dataO	bject1	
Type: abc S	tring	•
🗸 Auto initial	ize	
Help		OK Cancel

**11.** Enter a name in the Name field (for example, Request), click the drop-down button in the Type field, and select **Browse** from the list, as shown in Figure 6–11.

Figure 6–11 Create Data Object Dialog

🕜 Cre	ate Data Object	×
Name:	dataObject1	
Type:	abc string	-
	<>> duration	*
	💼 base64Binary	
Help	199E float	
	999 byte	
	999 short	
	🖄 date	
	🖄 time	
	🔍 Browse	-

The Browse Types dialog is displayed, as shown in Figure 6–12.

👩 Browse Types	×
Find:	
[999] int	
🚫 boolean	
99E double	
999 decimal	
🖄 dateTime	
999 long	
<>> duration	
📓 base64Binary	
99E float	
999 byte	
999 short	
🖄 date	
🖄 time	
🚜 Siebel	
🍓 SiebelResponse	
Types.QueryWithView.Siebel	
Help	OK Cancel

Figure 6–12 Browse Types Dialog

12. Select the first component (for example, Siebel) and click OK.

You are returned to the Create Data Object dialog.

**13.** Click **OK**.

The Data Object (for example, Request) that has been created is displayed under the Data Objects node in the Data Associations dialog.

**14.** Create another Data Object by right-clicking the **Data Objects** node in the right pane of the Output tab and selecting **New**, as shown in Figure 6–13.

Input Output			Resour
		UL 18 18 11	9-
ServiceTask Carguments Response Carguine Process Process	Crag objects here	Predefine: P Expand All Child No.	ides
		4 8 9 5	E IDE O
From	To		Busines
] Validate target after assigning output da	ta associations		
Help		OK Cancel	

Figure 6–13 Data Associations Dialog

The Create Data Object dialog is displayed.

**15.** Enter a name in the Name field (for example, Response), and then click the drop-down button in the Type field and select **Browse** from the list.

The Browse Types dialog is displayed, as shown in Figure 6–14.

Figure 6–14 Browse Types Dialog

😚 Browse Types	×
Find:	
[999] int	
S boolean	
99E double	
999 decimal	
🖄 dateTime	
999 long	
duration	
Base64Binary	
199E float	
999 byte	
999 short	
🖄 date	
20 time	
Ra Siebel	
🚒 SiebelResponse	Ţ.
Types.QueryWithView.SiebelResponse	
Help	OK Cancel

 Select the second component (for example, SiebelResponse) and click OK. You are returned to the Create Data Object dialog.

### 17. Click OK.

The Data Object (for example, Response) that has been created is displayed under the Process node in the Data Associations dialog.

**18.** Select the **Request** Data Object under the Data Objects node in the left pane of the Input tab and drag and connect it to Siebel under the Arguments node in the right pane, as shown in Figure 6–15.

Figure 6–15 Request Data Object

		D. 💀 🛙
Process	Drag objects here	ServiceTask
Data Objects		Arguments 🧰
Request     request     response		siebel 🦓 🕀
Image: Tesponse in the second seco		
S projectInfo		
No projectino		
Copy   From: request	🕞 To: siebel	📴 🕂 🗶 🕆
From	То	
and request	in siebel	
/alidate target after assigning input data associ		

**19.** Click on the **Output** tab and select **SiebelResponse** under the Arguments node in the left pane and drag and connect it to the Response Data Object under the Data Objects node, as shown in Figure 6–16.

	5		
nput Output			
ServiceTask ← Arguments ← Resented ← Resented Process	0768	Drag objects here	िः हिंदि Process Data Objects request (क) Fredefined Variables projectInfo
Copy 👻	From: siebelResponse	💽 To: response	💽 + X 🕆
		То	
From			

Figure 6–16 Response Data Object

#### 20. Click OK.

You are returned to the Properties - ServiceTask dialog.

21. Click OK.

The Service Task is created between the Start and End Event components, as shown in Figure 6–17.

Figure 6–17 Service Task



**22.** Save the process and double-click the Start event component. The Properties - Start dialog is displayed, as shown in Figure 6–18.

Figure 6–18 Properties - Start Dialog

譮 Propertie	s - Start	×
Basic Imp	lementation	
Name:	Start	۲
Description:		۲
Is Draft:		

**23.** Click the **Implementation** tab, as shown in Figure 6–19.

Figure 6–19 Implementation	on Tab	)
----------------------------	--------	---

		2
Basic Implementation		
Implementation Type: 0 M	essage	•
Message Exchange		
Type: 🙀 Define I	nterface	•
Conversation:   Default (	Advanced	
Define Interface		
Arguments Definition		🔁 / X
Name	Type	
Operation Name: start		
	DD <u>Correlations</u>	E Los Handers
Operation Name: start	Correlations	Costionders
FI Data Associations		Costlanders
IFE Data Associations		Cos Handlers
IFE Data Associations		Costionders

24. Click the Plus icon to the right of the Arguments Definition field.

The Create Argument dialog is displayed.

**25.** Enter a name in the Name field (by default, argument1), and then click the drop-down button in the Type field and select **Browse** from the list, as shown in Figure 6–20.

Figure 6–20 Create Argument Dialog

🕜 Edit	Argument 🛛	
Name:	argument1	
Type:	abc string 🗸 🗸 🗸	
	♦ duration	
Help	💼 base64Binary	Π
	99E float	
	999 byte	
sociations	999 short	
Headers	🖄 date	
	🖄 time	
	🔍 Browse 🎽	

The Browse Types dialog is displayed, as shown in Figure 6–21.

Figure 6–21 Browse Types Dialog

🚺 Browse Types	×
Find:	3
1999 int	-
🚫 boolean	
99E double	
999 decimal	
🖄 dateTime	
1999 long	
<>> duration	
💼 base64Binary	
199E float	
999 byte	
999 short	
🖄 date	
🖄 time	
🚒 Siebel	
Response	Ŧ
Types.QueryWithView.Siebel	
Неір ОК С	ancel

26. Select the first component (for example, Siebel) and click OK.

You are returned to the Create Argument dialog.

27. Click OK.

You are returned to the Properties - Start dialog.

**28.** In the Operation Name field, change **start** (default) to **operation** as shown in Figure 6–22.

Note: This change is necessary to work with old BPM payloads.

Properties - Start		
asic Implementation		
mplementation Type: 💿 Mes	sage	•
Message Exchange		
Type: 🧖 Define In	terface	•
Conversation: 💿 Default 🔘	) Advanced	
Define Interface		
Arguments Definition		<b>+</b> ∕ ×
Name	Туре	
argument1	Siebel	
Operation Name: operation	ו ו	
💐 <u>Data Associations</u>	D <u>Correlations</u>	Log Handlers
Message Headers	Service Properties	

Figure 6–22 Operation Name Field

**29.** Click the **Data Associations** hyperlink.

The Data Associations dialog is displayed.

- **30.** Select **arguments1** under the Arguments node in the left pane and drag and connect it to the **Request** Data Object under Data Objects in the right pane.
- **31.** Click **OK** as shown in Figure 6–23.

🖢 Data Associations		×
Output		
		🖪 🖬 🕅
Start		Process 😋
Arguments     Argument1	Drag objects here	Data Objects 🛅 🖨 Request 🚜 🔅
		Response 20-€
_	*	Predefined Variables 🧰 🕀 Mysap_ica_outbound 😪 🕀
		hijsep_ca_oubound 😋 🕁
	•	
Copy From: argument1	📆 To: Request	📴 🕂 🗙 🔄 🗦
From	То	
argument1	Request	
Validate target after assigning output data association	ns	
Help		OK Cancel
		Cancer

Figure 6–23 OK Button

You are returned to the Properties - Start dialog.

32. Click OK.

You are returned to the Process workspace area, as shown in Figure 6–24.

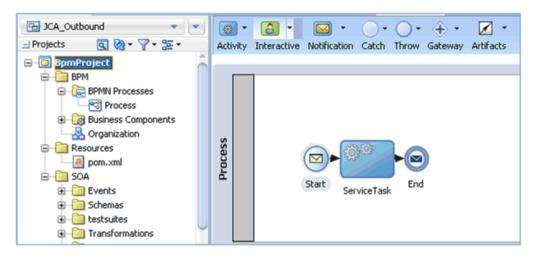


Figure 6–24 Process Workspace Area

- **33.** Double-click the created project to load the components.
- **34.** Click the **Save All** icon in the menu bar to save the new outbound BPM process component that was configured.

You are now ready to create a File adapter for the write operation.

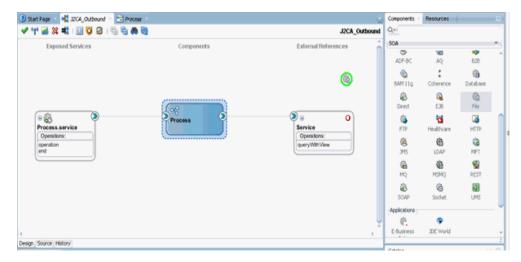
## 6.4.2.3 Creating a File Adapter for the Write Operation

This section describes how to create a File adapter for the write operation.

Perform the following steps to create a File adapter for the write operation:

1. Drag and drop the **File Adapter** component from the Technology Adapters pane to the External References pane, as shown in Figure 6–25.

Figure 6–25 File Adapter Component



The Adapter Configuration Wizard is displayed.

- 2. Provide a Reference Name (for example, FileWrite).
- 3. Click Next.

The Adapter Interface page is displayed.

- **4.** Ensure that the **Define from operation and schema (specified later)** option is selected.
- 5. Click Next.

The File Server Connection page is displayed.

6. Click Next.

The Operation page is displayed.

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

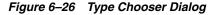
The File Configuration page is displayed.

- 9. Specify a location on your file system where the output file is written.
- **10.** In the File Naming Convention field, specify a name for the output file.
- 11. Click Next.

The Messages page is displayed.

12. Click Browse, which is located to the right of the URL field.

The Type Chooser dialog is displayed, as shown in Figure 6–26.



🍘 Type Chooser		×
	<b>4</b> 2	6
Type Explorer Project Schema Files J2CA_Outbound_invoke_request.xsd SiebelResponse Project WSDL Files	<u></u>	
Iype: ware:adapter:siebel:response:S/BO/Account/Account/queryWit	hView}SiebelResp	onse
Help	OK Cano	el

- **13.** Expand **Project Schema Files** and **J2CA\_Outbound\_invoke\_response.xsd**.
- 14. Select the available schema (for example, SiebelResponse).
- 15. Click OK.

You are returned to the Messages page.

16. Click Next.

The Finish page is displayed.

17. Click Finish.

The File Adapter service is created in the External References pane, as shown in Figure 6–27.

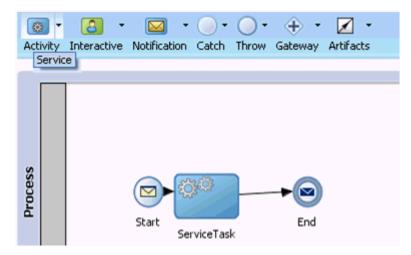
Figure 6–27 File Adapter Service

*** 🛥 🗙 📲 🔅 🤯	2 · 🔁 🖶 🍓	J2CA_Outbound
Exposed Services	Components	External References
		日本語 fileReference Operations: Write
Process.service Operations: operation end	Process	Service Operations: queryWithView

18. Double-click the BPMN Process component.

The BPMN process is displayed, as shown in Figure 6–28.

Figure 6–28 BPMN Process



- 19. Click the Activity icon, and select Service.
- **20.** Drop the Service icon on the wire between the Service Task and End event components, as shown in Figure 6–29.

Figure 6–29 Activity Icon

(@ Activ	• /ity	Can - Interactive		+ 🔘 • tion Catch	~	$\sim$	Artifacts	
Process			Start	ServiceTa	sk	End		

The Properties - ServiceTask1 dialog is displayed.

- **21.** Click the **Implementation** tab.
- **22.** Select **Service Call** from the Type drop-down list in the Message Exchange section, as shown in Figure 6–30.

Figure 6–30 Service Call

Properties - ServiceTask1	×
Basic Implementation	
Implementation Type: Service task	•
Message Exchange	
Type: Not Implemented	-
Not Implemented	7
👬 Data 🛃 Process Call	
Mess 🐡 Service Call	
Service Call	

23. Click the Browse icon to the right of the Service field.

The Service dialog is displayed, as shown in Figure 6–31.

👩 Service	
Search:	
Search Results:	
FileWrite	
Service	
Help	OK Cancel

Figure 6–31 Service Dialog

**24.** Select the service for write operation that has been created (for example, FileWrite) and click **OK**.

You are returned to the Properties - ServiceTask1 dialog, as shown in Figure 6–32.

😚 Properties - ServiceTask:	l	×
Basic Implementation		
Implementation Type: 👸 Ser	vice task	•
Force commit after execution	n	
Message Exchange		
Type: 🐼 Service C	all	<b>-</b>
Conversation: 💿 Default 🤇	) Advanced	
Service Call		
Service: FileWrite		۹. 🧳
Operation: write		
🞇 Data Associations 🧳	DD Correlations	Log Handlers
Message Headers	Service Properties	
Help		OK Cancel

Figure 6–32 Properties - ServiceTask1 Dialog

**25.** Click the **Data Associations** hyperlink.

The Data Associations dialog is displayed, as shown in Figure 6–33.

Figure 6–33 Data Associations Dialog

Process → Data Objects → Request → Response → Predefined Variables SOA	Drag objects here	টে. জে. ট Service Task! Arguments ₪ siebelResponse 🔞 ⊕
	20000 * #200000	4 X 4
	Το	

- **26.** In the Input tab, click the XSL Transformation icon in the top right pane.
- **27.** Drag and drop the XSL Transformation icon to the **SiebelResponse** node, as shown in Figure 6–34.

<ul> <li>Process</li> <li>Data Objects</li> <li>Request</li> <li>Reponse</li> <li>Predefined Variables</li> <li>SOA</li> </ul>	Drag objects here	ServiceTaski Arguments 🔁 siebelResponse 🕼 🟵
	*****	4 X 3
From	То	

Figure 6–34 CompanyCodeSiebelResponse Node

The Create Transformation dialog is displayed.

**28.** Select **Response** in the Sources section and click the right arrow symbol.

The Response object is added to the Selected elements area as shown in Figure 6–35.

😚 Create Transformation		×
Sources		
Sources:	Selected:	
request	> 🙀 response	
	>>>	
	8	
Target		
Target:	a siebelResponse	-
Transformation		
<ul> <li>Create</li> </ul>	response_body	
O Use Existing		-
Help	ОК	Cancel

Figure 6–35 Response Object

**29.** Accept the default value selected in the Target drop-down list and the default name in the Create field by clicking **OK**.

You are returned to the Data Associations dialog window with the XSL transformation created, as shown in Figure 6–36.

Figure 6–36 Data Associations Dialog

Process Data Objects Carl request Carl response Predefined Variables SOA	Drag objects hare	िः स्टिः ServiceTaski Arguments 🔁
		+ 🗙 🕆
	То	
From response_body	isis siebelResponse	

**30.** Click **OK**.

You are returned to the Properties - ServiceTask1 dialog.

### 31. Click OK.

The Response\_body.xsl tab is displayed.

**32.** Automap the Source and Target elements.

The Auto Map Preferences dialog is displayed.

**33.** Accept the default values and click **OK**.

The transformation is completed, as shown in Figure 6–37.

#### Figure 6–37 Completed Transformation

XSLT map 🔹 🗣 🔹	🛦 🗣 🗟 🔟	Q. Search XSLT	Map XSLT
sources>	<u> </u>		xsl:stylesheet 🐼
- O ns0:SiebelResponse		xsl:temp	late(match=/) 🚺 😑
- mi status		ns0:Siebe	Response 🚯 😑
and reason			tatus 🚥 —
Is0:record     Is0:record			xsl:if 🍑 🕀
Variables		xsl:for	-each 🙀 - ⊕

- **34.** Save the transformation.
- 35. Return to the Process workspace area.

The ServiceTask1 component is created between the ServiceTask component and the End event component.

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

You are now ready to deploy the outbound BPM process.

# 6.4.3 Adjusting for Known Deployment Issues With 12c

For more information on how to adjust for known deployment issues with 12c, see Section 4.4.3.3, "Adjusting for Known Deployment Issues With 12c" on page 4-26.

# 6.4.4 Deploying the BPM Outbound Process

Perform the following steps to deploy the Mediator outbound process.

1. Right-click the project name in the left pane, select **Deploy**, and then click **J2CA**\_ **Outbound**.

The Deployment Action page is displayed.

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

The Deploy Configuration page is displayed.

4. Leave the default values selected and click Next.

The Select Server page is displayed.

- Select an available application server that was configured and click Next. The SOA Servers page is displayed.
- 6. Select a target SOA server and click Next.

The Summary page is displayed.

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

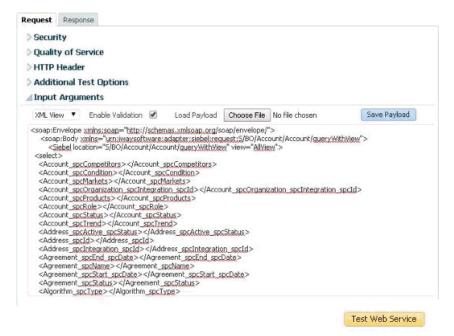
For more information, see Section 4.4.4, "Deploying the BPEL Outbound Process" on page 4-28.

# 6.4.5 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. Logon to the Oracle Enterprise Manager console.
- 2. Expand your domain in the left pane followed by the SOA folder.
- **3.** Select an available project (for example, J2CA\_Outbound).
- 4. Click Test.
- 5. Click the **Request** tab.

#### Figure 6–38 Request Tab



**6.** Provide an appropriate input value in the Value field and click **Test Web Service**, as shown in Figure 6–38.

A response is received in the Response tab to indicate that invocation was successful in the Oracle Enterprise Manager console, as shown in Figure 6–39.

 Request
 Response

 Test Status
 Request successfully received.

 Response Time (ms)
 6657

 A new flow instance was generated.
 Launch Flow Trace

 The web service invocation was successful.

Figure 6–39 Received Response

**7.** Navigate to the defined output directory on your file system and open the XML response document that was received.

The XML response document contains the generated output with values.

# 6.5 Designing an Inbound BPM Process Using Transformations for Event Integration (J2CA Configuration)

This section demonstrates how Oracle Application Adapter for Siebel integrates with Siebel to receive event data.

A sample project has been provided for this inbound use case scenario in the following folder of the Application Adapters installation:

```
<ADAPTER_HOME>\etc\sample\SIEBEL_Samples.zip\SIEBEL_Samples\BPM\J2CA\Inbound_
Project
```

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

- Oracle Adapter Application Explorer (Application Explorer)
- Oracle JDeveloper BPM Designer (JDeveloper)

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

This section contains the following topics:

- Section 6.5.1, "Creating an Empty Composite for BPM"
- Section 6.5.2, "Defining a BPM Inbound Process"

Before you design a BPM process, you must generate the respective WSDL file using Application Explorer. For more information, see Section 4.5.1, "Generating WSDL for Event Integration" on page 4-34.

# 6.5.1 Creating an Empty Composite for BPM

For more information on how to configure a new Application Server connection in Oracle JDeveloper, see Section 4.3, "Configuring a New Application Server Connection" on page 4-2.

# 6.5.2 Defining a BPM Inbound Process

This section describes how to define a BPM inbound process, which contains the following topics:

- Section 6.5.2.1, "Configuring a Third Party Adapter Service Component"
- Section 6.5.2.2, "Configuring an Inbound BPM Process Component"
- Section 6.5.2.3, "Creating a File Adapter for the Write Operation"
- Section 6.5.2.4, "Adjusting for Known Deployment Issues With 12c"

## 6.5.2.1 Configuring a Third Party Adapter Service Component

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

- 1. Double-click the created project to load the components.
- **2.** Drag and drop the **Third Party Adapter** component from the Custom/Thirdparty pane to the Exposed References pane, as shown in Figure 6–40.

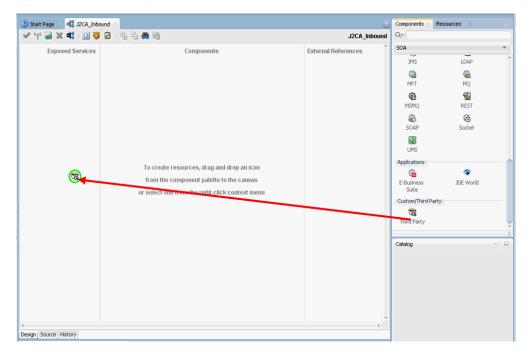


Figure 6–40 Third Party Adapter Component

The Create Third Party Adapter Service dialog is displayed.

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

The WSDL Chooser dialog is displayed.

**6.** Select **File System**, and then browse and select an inbound WSDL file from the following directory:

<ADAPTER\_HOME>\wsdls

7. Click OK.

The Localize Files dialog is displayed.

8. 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.

9. Click the Find JCA file icon, which is located to the right of the JCA File field.

The Transformation Chooser dialog is displayed.

**10.** Select **File System**, and then browse and select the JCA properties file from the following directory:

<ADAPTER\_HOME>\wsdls

11. Click OK.

The Copy File message is displayed.

12. 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.

13. Click OK.

The third party adapter service component (matmas) is created in the Exposed References pane.

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

For more information, see Section 4.5.3.1, "Creating a Third Party Adapter Service Component" on page 4-42.

# 6.5.2.2 Configuring an Inbound BPM Process Component

This section describes how to configure an inbound BPM process component.

Perform the following steps to configure an inbound BPM process component:

**1.** Drag and drop the **BPMN Process** component from the Components pane to the Components pane.

The Create BPMN Process dialog is displayed, as shown in Figure 6–41.

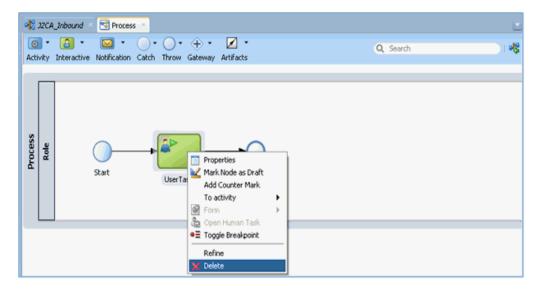
PMN 2.0 Process W	zard	
Definition	Name: Process	
Initial Implementation Advanced	Description:	6
	Directory: :\bpmbeta\WORK\mywork\BpmApplication2\J2CA_Inbound\ Type: Synchronous Service	SOA\processes
	Manual Process Creates an interactive process based on a user task.	
		nd

Figure 6–41 Create BPMN Process Dialog

- 2. Select Manual Process in the Type section.
- 3. Click Finish.

The BPMN process is displayed, as shown in Figure 6–42.

Figure 6–42 BPMN Process



- 4. Right-click **UserTask** and select **Delete** from the menu.
- 5. Double-click the Start event component.

The Properties - Start dialog is displayed.

6. Click the **Implementation** tab.

- 7. Select Message from the Implementation Type list.
- 8. Select Use Interface from the Message Exchange Type drop-down list.
- 9. Click the **Browse** icon to the right of the Reference field, as shown in Figure 6–43.

Figure 6–43 Browse Icon

riopercies	- Start		
lasic Imple	mentation		
mplementation	n Type: 🙆 Mes	sage	
Message Exc	hange		
Type:	🎡 Use Interfa	ace	•
Conversation	n: 💿 Default 🔿	Advanced	
Use Interfa	ace		
Reference	:		۹. 🧳
Operation			•
Message H	leaders	Service Properties	

The Service dialog is displayed, as shown in Figure 6–44.

👩 Service		×
Search:		
iearch Results:		
····· @ Service		
Help	OK Cancel	
Help		

Figure 6–44 Service Dialog

10. Select the Third Party Service that has been created and click OK.

You are returned to the Properties - Start dialog, as shown in Figure 6–45.

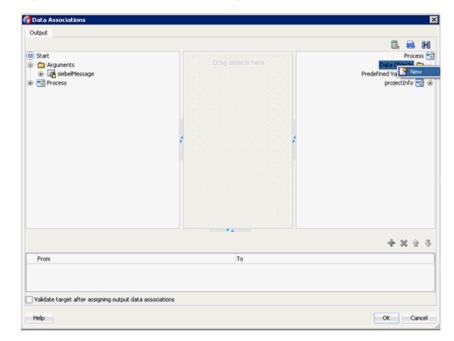
🕜 Properties -	Start			×
Basic Implem	entation			
Implementation	Type: 🙆 Messag	e		-
Message Exch	ange			
Type:	🐝 Use Interfac	•		-
Conversation:	💿 Default 🔵 Ad	lvanced		
Use Interfac	e			
Reference:	Service		Q,	<b>a</b>
Operation:	sampleAccount			-
🚧 Data Associ	ations	D <u>Correlations</u>	Log Handlers	
• Message He	aders	Service Properties		
Help			ОК	Cancel

Figure 6–45 Properties - Start Dialog

**11.** Click the **Data Associations** icon.

The Data Associations dialog is displayed, as shown in Figure 6–46.

Figure 6–46 Data Associations Dialog



12. Right-click the Data Object node in the right pane and select New.

The Create Data Object dialog is displayed.

**13.** Enter a name in the Name field, and then click the drop-down button in the Type field and select **Browse** from the list, as shown in Figure 6–47.

Figure 6–47 Create Data Object Dialog

🕜 Cre	ate Data Object	X
Name:	dataObject1	
Type:	abc string	-
	♦ duration	
	📓 base64Binary	
Help	99E float	
	999 byte	
	999 short	
	🖄 date	
	🖄 time	
	Srowse	-

The Browse Types dialog is displayed, as shown in Figure 6–48.

Figure 6–48 Browse Types Dialog

😚 Browse Types	×
Find:	
Find: at string at string at string boolean	
Types.Sample20Account.SiebelMessage	
Help	OK Cancel
	4

14. Select the component and click OK.

You are returned to the Create Data Object dialog.

15. Click OK.

The Data Object that has been created is displayed under the Data Objects node in the Data Associations dialog, as shown in Figure 6–49.

Dutput		
) Start Can Arguments Brite Massage	Drag objects here	
Process		Predefined Variables 🔂 🤤 projectinfo 😪 G
Copy  From: siebelMessage	🔂 To: dataObjectl	📆 🕂 🗙 🕁 🤻
From	То	
🛛 🥐 slebelMessage	🦓 dataObject1	

Figure 6–49 Data Associations Dialog

- **16.** Select and drag the **siebelMessage** Argument under the Start node in the left pane and drag it to the Data Object in the right pane.
- 17. Click OK.

You are returned to the Properties - Start dialog.

18. Click OK.

You are returned to the Process workspace area.

- **19.** Double-click the created project to load the components.
- **20.** Click the **Save All** icon in the menu bar to save the new inbound BPM process component that was configured.

You are now ready to create a File adapter for the write operation.

### 6.5.2.3 Creating a File Adapter for the Write Operation

This section describes how to create a File adapter for the write operation.

Perform the following steps to create a File adapter for the write operation:

**1.** Drag and drop the **File Adapter** component from the Technology Adapters pane to the External References pane.

The Adapter Configuration Wizard is displayed.

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

The Adapter Interface page is displayed.

- **3.** Ensure that the **Define from operation and schema (specified later)** option is selected.
- 4. Click Next.

The File Server Connection page is displayed.

### 5. Click Next.

The Operation page is displayed, as shown in Figure 6–50.

Figure	6–50	<b>Operation Page</b>

🖕 Adapter Con	nfiguration Wizard - Step 4 of 7		×
Operation			
system, a Write contents of a file	r supports four operations. There is a Read File File operation that creates outgoing files, a Syn e, and a List Files operation that lists file names i e. Only one operation per Adapter Service may b	chronous Read File operation n specified locations. Specify	that reads the current
Operation Type:	C Read File		
	Write File		
	○ ≦ynchronous Read File		
	◯ List Files		
Operation Name:	: Write		
Help		< Back Next >	Einish Cancel

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

The File Configuration page is displayed.

- 8. Specify a location on your file system where the output file is written.
- **9.** In the File Naming Convention field, specify a name for the output file.
- 10. Click Next.

The Messages page is displayed.

**11.** Click **Browse**, which is located to the right of the URL field.

The Type Chooser dialog is displayed, as shown in Figure 6–51.

🗊 Type Chooser		2
	2	6
Type Explorer         Project Schema Files         Image: Signature State         Signature State         Image: Signature State		
	Canc	el

Figure 6–51 Type Chooser Dialog

- 12. Expand Project Schema Files and J2CA\_Inbound\_receive\_request.xsd.
- **13.** Select the available schema.
- 14. Click OK.

You are returned to the Messages page.

15. Click Next.

The Finish page is displayed.

16. Click Finish.

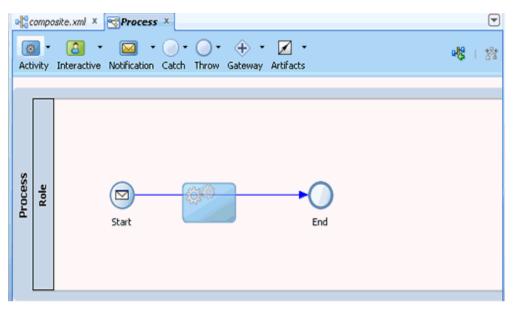
The File Adapter service is created in the External References pane.

17. Double-click the BPMN Process component.

The BPMN process is displayed.

- 18. Click the Activity icon, and select Service.
- **19.** Drop the Service icon on the wire between the Start and End event components, as shown in Figure 6–52.

Figure 6–52 Activity Icon



The Properties - ServiceTask dialog is displayed.

- **20.** Click the **Implementation** tab.
- 21. Select Service Task from the Implementation Type list.
- 22. Select Service Call from the Message Exchange Type list.
- **23.** Click the **Browse** icon to the right of the Service field.

The Type dialog is displayed, as shown in Figure 6–53.

Figure 6–53 Type Dialog

👩 Service		×
Search:		
Search Results:		
🙀 FileWrite		
Help	OK	Cancel

**24.** Select the service for write operation that has been created and click **OK**.

You are returned to the Properties - ServiceTask dialog, as shown in Figure 6–54.

Figure 6–54 Properties -	<ul> <li>ServiceTask Dialog</li> </ul>
--------------------------	--

👩 Properties -	- ServiceTask	×
Basic Implem	mentation	
Implementation	n Type: 🔞 Service task	
Force comm	nit after execution	
Message Exch	hange	
Туре:	🐲 Service Call	•
Conversation	n: 💿 Default 🔵 Advanced	
Service Call	1	
Service:	FileWrite	۹. 🥢
Operation:	write	
ेद्धे <u>Data Assoc</u> *☐ <u>Message H</u> a		Log Handlers
Help		OK Cancel

25. Click the Data Associations hyperlink.

The Data Associations dialog is displayed.

**26.** Right-click the **siebelMessage** argument on the right pane and select **XSL Transformation**, as shown in Figure 6–55.

Data Associations		Bu
Process □ Data Objects □ Data Objects □ Predefined Variables □ SOA	Drag objects here	Construct Task (Construction) Const
		+ × + +
From	То	
Validate target after assigning input data	a associations	OK Cancel

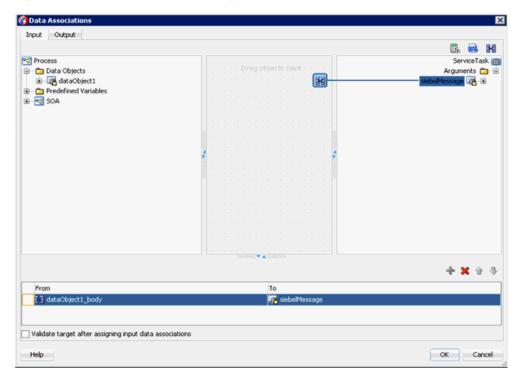
Figure 6–55 XSL Transformation

The Create Transformation dialog is displayed.

- **27.** Select the created data object in the Sources area and click the right arrow icon so that the created data object is added to the Selected elements area.
- 28. Click OK.

You are returned to the Data Associations dialog, as shown in Figure 6–56.

Figure 6–56 Data Associations Dialog



29. Click OK.

You are returned to the Properties - ServiceTask dialog.

**30.** Click **OK**.

The dataobject1\_body.xsl tab is displayed.

**31.** Automap the Source and Target elements.

The Auto Map Preferences dialog is displayed.

**32.** Accept the default values and click **OK**.

The transformation is completed, as shown in Figure 6–57.

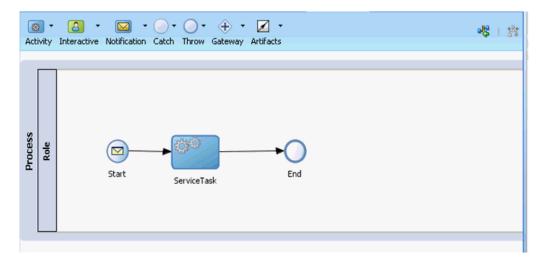
Figure 6–57 Completed Transformation

SLT map 🔹 🕈 🔹 🔬	S 🗟 💟 I	Q, Search XSLT	Map XSLT
<sources></sources>			xsl:stylesheet 🐰
- 00 ns0:SiebelMessage		xsl	:template(match=/) 📃 🖨
MessageId		ns0	:SiebelMessage 🚸 😑
MessageType			xsl:if 🍑 🕀
IntObjectName			xsl:if 🍑 🕀
IntObjectFormat			xsl:if 🍑 🕀
and location			xsl:if 🍑 🕀
ns0:ListOfSampleAccount			xsl:if 🍑 🕣
Variables	A A A A A A A A A A A A A A A A A A A		xsl:if 📎 🕀
_			

**33.** Save the transformation.

**34.** Return to the Process workspace area, as shown in Figure 6–58.





The ServiceTask component is created between the Start event component and the End event component.

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

## 6.5.2.4 Adjusting for Known Deployment Issues With 12c

For more information on how to adjust for known deployment issues with 12c, see Section 4.4.3.3, "Adjusting for Known Deployment Issues With 12c" on page 4-26.

You are now ready to deploy the inbound BPM process. You can follow the same procedure that is described in Section 4.5.4, "Deploying the BPEL Inbound Process" on page 4-48. For more information on how to trigger events in Siebel, see Section 4.5.5.3, "Triggering an Event in Siebel 8.0 to Test Event Runtime Integration," on page 4-64.

# 6.6 Designing an Outbound BPM Process Using Transformations for Service Integration (BSE Configuration)

This section describes how to configure a BPM outbound process to your Siebel system, using a BPM project in Oracle JDeveloper.

A sample project has been provided for this outbound use case scenario in the following folder of the Application Adapters installation:

<ADAPTER\_HOME>\etc\sample\SIEBEL\_Samples.zip\SIEBEL\_Samples\BPM\BSE\Outbound\_
Project

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

- Oracle Adapter Application Explorer (Application Explorer)
- Oracle JDeveloper BPM Designer (JDeveloper)

This section contains the following topics:

- Section 6.6.1, "Creating an Empty Composite for BPM"
- Section 6.6.2, "Defining a BPM Outbound Process"

#### Prerequisites

Before you design a BPM outbound process, you must generate the respective WSDL file using Application Explorer. For more information, see Section 4.6.1, "Generating a WSDL File for Request and Response Services Using a Web Service," on page 4-75.

## 6.6.1 Creating an Empty Composite for BPM

Perform the following steps to create an empty composite for SOA:

- 1. Create a new BPM application.
- 2. Enter a name for the BPM Application, and click Next.
- 3. Enter a name in the Project Name field, and click Next.
- 4. From the Composite Template list, select Empty Composite and click Finish.

For more information, see Section 4.5.2, "Creating an Empty Composite for SOA" on page 4-41.

## 6.6.2 Defining a BPM Outbound Process

This section describes how to define a BPM outbound process. It contains the following topics:

- Section 6.6.2.1, "Configuring a Web Service Component"
- Section 6.6.2.2, "Configuring a BPM Process Component"
- Section 6.6.2.3, "Creating a File Adapter for the Write Operation"

## 6.6.2.1 Configuring a Web Service Component

Perform the following steps to configure a Web Service component:

- 1. Double-click the created project to load the components.
- **2.** Drag and drop the **Web Service** node from the Technology Adapters pane to the External References pane, as shown in Figure 6–59.

Figure 6–59 Web Service Node

📲 1855_Outbound 🕫			Components	Resources
🗸 मुम् 🌌 🗶 🖏 । 🔯 🖉 ।	4. 4. 🗰 🏨	IBSE_Outbound	Q.e.	
Exposed Services	Components	External References	SOA	
			Technology	
			٨	<b>a</b>
			ACF-BC	AQ
			828	60 SAM 110
			:	8
			Coherence	Database
			8	<u>©</u>
			Direct.	E38
	To create resources, drag and drop an icon		i Galeria de Caleria d	FTP
	from the component palette to the canvas		-	13
	or select one from the right-click context menu		Heathcare	HTTP
			(8	-
		<u>(a)</u>	3%.	LDAP
		~	CO MET	i ang
		$\sim$	6	1
			MSMQ	REST
			8	6
			SOAP	Socket
			R	

- **3.** Enter an appropriate name for the Web Service and click on the **Find existing WSDLs** icon, which is located to the right of the WSDL URL field.
- **4.** In the displayed WSDL Chooser window, navigate to the location where the WSDL is exported from the Application Explorer, and select the WSDL.
- 5. Click OK.
- **6.** In the Web Service pane, click **OK**, as shown in Figure 6–60.

Figure 6–60 Web Service Pane

🕜 Create Web Service		×
SOAP	ervices external to the SOA composite.	Ê
<u>N</u> ame:	SOAPReference	
<u>Т</u> уре:	Reference 💌	
WSDL URL:	$[.2c\_SOA\soa\soa\thirdparty\ApplicationAdapters\wsdls\IBSE\_Outbound.wsdl]$	1
Port Type:	IBSE_OutboundSoap	
<u>C</u> allback Port Type:	No Callback	
✓ copy wsdl and its dependent	ndent artifacts into the project.	
Transaction Participation:	WSDLDriven -	
<u>V</u> ersion:	DEFAULT -	
Help	OK	Cancel

7. In the displayed Localize Files window, click OK.

This will import the WSDL file to the project folder

## 6.6.2.2 Configuring a BPM Process Component

This section describes how to configure an outbound BPM process component.

Perform the following steps to configure a BPM Component:

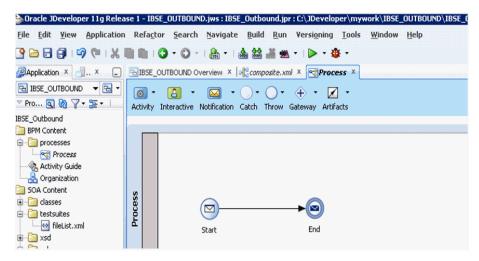
- **1.** Drag and drop the **BPMN Process** component from the Components pane in to the Components pane.
- **2.** Accept the default option that is selected under the Type area (Asynchronous Service) and click **Finish**, as shown in Figure 6–61.

Figure	6–61	Type Area	1
--------	------	-----------	---

🕜 BPMN	2.0 Process Wizar	d		×
BPMN	2.0 Process Wi	zard		-
😡 Def	inition	Name:	Process	٩
u Initi	uments al Implementation anced	Description:		٩
		Directory:	C:\WORK\mywork\BpmApplication3\IBSE_Outbound\SOA\processes	٩
		S Async	hronous Service s a process with an asynchronous interface definition	Î
		Synchro Manual	Start End	_
He	lp	j 🔄 Haridai	< Back Next > Einish Cance	

**3.** Double click on the Start Event component, as shown in Figure 6–62.

Figure 6–62 Start Event Component



- 4. In the displayed Properties-start window, click the Implementation tab.
- 5. Click the Plus (+) icon to the right of the Arguments Definition field.

The Edit Argument window is displayed.

- **6.** Enter a name in the Name field, and then click the Type drop-down list and select **Browse**.
- **7.** Select the **Request** component (for example, queryWithView), and click **OK**, as shown in Figure 6–63.

🕜 Browse Types	×
Find:	<b>1</b>
199E double	-
1999 decimal 1006 dateTime	
999 long	_
C→ duration	
iii base64Binary	
199E float	
999 byte	
399 short	
2 time	
AdapterExceptionFault	
R QueryWithView	
Response QueryWithViewResponse	
Adapterexception	-
Types.UrnIwaysoftwareIbseJul2003QueryWithView.QueryWithView	
Неір ОК Са	incel

Figure 6–63 Request Component

**8.** In the Edit Argument window that is displayed, click **OK**.

The Properties - Start window is displayed.

- **9.** In the Operation Name field, change the default entry from **start** to **operation**.
- **10.** Click the **Data Associations** hyperlink, as shown in Figure 6–64.

Ţype QueryWithView
Гуре
Log Handlers
rties
2

Figure 6–64 Properties - Start Window

**11.** Right-click the **Data Objects** node in the right pane, under Process, and select **New**, as shown in Figure 6–65.

Figure 6–65 Data Objects Node

Output		1. 💀 H
Start  Arguments  Reference  Process	Drag objects here	Predefined Variable Verojectinfo

The Create Data Object window is displayed.

**12.** Enter a name in the Name field, click the Type drop-down list, and select **Browse**.

**13.** Select the **Request** component (for example, queryWithView) and click **OK**, as shown in Figure 6–66.

🕜 Browse Types	×
Find:	<b>1</b>
995 double	-
999 decimal	
🔯 dateTime	
999 long	
←→ duration	
iii base64Binary	
99E float	
999 byte	
999 short	
🖄 date	
🖄 time	
AdapterExceptionFault	
Real QueryWithView	
Real QueryWithViewResponse	
Adapterexception	-
Types.UrnIwaysoftwareIbseJul2003QueryWithView.QueryWithView	
Help OK Can	cel

Figure 6–66 Request Component

14. In the Create Data Object window, click OK.

The Data Associations window is displayed.

- **15.** Select **argument1** under the Arguments node in the left pane and drag and connect it to **dataObject1**, under Data Objects, in the right pane.
- **16.** Click **OK**, as shown in Figure 6–67.

Output		6. e H
©) Start ⊒∵ 🛅 Arguments		Process 🕿 Data Objects 🧰 🖨
rocess		SataObjectI 🥳 🔒 Predefined Variables 🏠 🤤 projectInfo 😪 🖨
Copy From: argument1	To: dataObject1	📆 🕂 🗙 🕆 🤻
From	То	
📄 🖓 argument 1	💏 dataObject1	
7 mildes source - 0		
Validate target after assigning output data assoc	iations	

Figure 6–67 Data Associations

17. In the Properties - Start window that is displayed, click **OK**.

You are returned to the Process workspace area.

- 18. Click the Activity drop-down menu and select Service.
- 19. Drop the Service icon on the wire between the Start and End event components.
- 20. In the displayed Properties ServiceTask window, click the Implementation tab.
- 21. Select Service Call from the Message Exchange Type list.
- 22. Click the Browse icon to the right of the Service field, as shown in Figure 6–68.

🕜 Properties -	ServiceTask		X
Basic Implem	nentation		
Implementation	Type: 📷 Ser	vice task	•
Force comm	it after executio	n	
Message Exch	nange		
Type:	💓 Service (	Tall	•
Conversation	: 💿 Default 🤇	Advanced	
-Service Call			
Service:			٩, 🏈
Operation:			<b></b>
🕅 Data Assoc	iations	DD Correlations	Log Handlers
* Message H	eaders	Service Properties	
Help			OK Cancel

Figure 6–68 Browse Icon

The Service window is displayed.

**23.** Select the Web Service that has been created and click **OK**, as shown in Figure 6–69.

👩 Service	×
Search:	
Crowk Drauker	
Search Results:	
~~ <u>~</u>	
Help	OK Cancel
пар	

Figure 6–69 Created Web Service

**24.** In the Properties - ServiceTask window that is displayed, click the **Data Associations** hyperlink.

The Data Associations window is displayed.

**25.** Create response Data Object by right-clicking the **Data Objects** node in the right pane of the Output tab and selecting **New**, as shown in Figure 6–70.

Figure 6–70 Data Objects Node

	Pred	Data C JataObjec lefined Va E	cess State
ere	Pred	lefined Va E	
	Pred	lefined Va E	
	Pred		xpand All Child Nodes
	Pred		xpand All Child Nodes
		proji	
1 1 1 1 1 1 1 <b>1</b>			

The Create Data Object window is displayed.

- 26. Enter a name in the Name field, click the Type drop-down list, and select Browse.
- **27.** Select the Response component (for example, QueryWithViewResponse) and click **OK**, as shown in Figure 6–71.

🚯 Browse Types	×
Find:	3
39E double	*
999 decimal	
🖄 dateTime	
999 long	
♦ duration	
📓 base64Binary	
99E float	
999 byte	
999 short	
🖄 date	
20 time	
AdapterExceptionFault	
Real QueryWithView	
Real QueryWithViewResponse	
Adapterexception	-
$\label{eq:constraint} Types. Urn Iways of tware Ibse Jul 2003 Query With View Response. Query With View Response Query $	ponse
Неір ОК С	ancel

Figure 6–71 Response Component (QueryWithViewResponse)

**28.** In the Create Data Object window, click **OK**.

The Data Associations window is displayed.

**29.** Select **dataObject1**, under the Data Objects node in the left pane of the Input tab, and drag and connect it to the **queryWithView** node, under the Arguments node in the right pane, as shown in Figure 6–72.

Figure 6–72 Data Associations

😚 Data Associations		×
Input Output		
		🗊. 🔜 N
Process  Duba Objects  Duba Object  Duba Ob	Drag objects here	Ute en tra ServiceTask (g) Argunerts 🔤 🖻
Copy From: dataObject1	To: [queryWithView	<b>0, + ×</b> ⊕ ⊕
From	To reading and the second sec	
Validate target after assigning input data associatio		OK Cancel

- **30.** Click on the **Output** tab and select **queryWithViewResponse** under the Arguments node in the left pane and drag and connect it to **dataObject2** under the Data Objects node.
- **31.** Click **OK**, as shown in Figure 6–73.

Figure 6–73 Output Tab

🍘 Data Associations		×
Input Output		
		D. 🖬 H
ServiceTask □ _ Arguments ⊕	Orag objects here	Process 🕄 Data Objects 🍙 🖶 dataObject 🖓 🕀 Predefined Variables 🍙 🕀 project.Info 😪 🕀
Copy From: queryWithViewResponse	e 💽 To: dataObject2	🖪 🕂 🗙 🕆 🕸
From	То	
🔝 🌠 queryWithViewResponse	ataObject2	
Validate target after assigning output data associations		
Help		OK Cancel

- 32. In the Properties ServiceTask window that is displayed, click OK.
- **33.** Click the **Save All** icon in the menu bar to save the new outbound BPM process component that was configured.
- **34.** Double-click the **composite.xml** node in the left pane.

### 6.6.2.3 Creating a File Adapter for the Write Operation

This section describes how to create a File adapter for the write operation.

Perform the following steps to create a File adapter for the write operation:

- **1.** Drag and drop the **File Adapter** component from the Technology Adapters pane to the External References pane, and provide a name for the File Adapter.
- 2. In the Adapter Interface pane that is displayed, ensure that the **Define from operation and schema (specified later)** option is selected, and click **Next**.
- 3. Click Next.
- **4.** In the Operation pane that is displayed, select **Write File** from the list of Operation Type options, and click **Next**, as shown in Figure 6–74.

Operation		
system, a Write F contents of a file,	supports four operations. There is a Read File operatio File operation that creates outgoing files, a Synchronou , and a List Files operation that lists file names in specifi Only one operation per Adapter Service may be define	s Read File operation that reads the current ed locations. Specify the Operation type and
Operation Type:	○ <u>R</u> ead File	
	Write File	
	Synchronous Read File	
	◯ List Files	
Operation Name:	Write	
Add Qutput H	leader	
Help	< <u>B</u>	ack Next > Finish Cancel

The File Configuration pane is displayed.

- **5.** In the Directory for Outgoing Files (physical path) field, specify a location on your file system where the output file is written.
- 6. In the File Naming Convention field, specify a name for the output file.
- 7. Click Next, as shown in Figure 6–75.

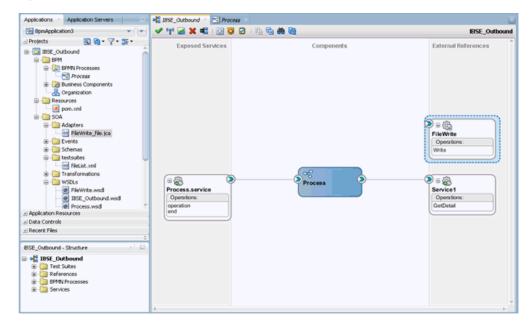
Figure 6–75 File Configuration Pane

FILE Adapter Configuration \			
ile Configuration			*
pecify the parameters for the Wri	ite File operation.		
Virectory specified as <ul> <li>Physic</li> <li>Physic<td>ysical Path Logical Name</td><td></td><td></td></li></ul>	ysical Path Logical Name		
:\output			Browse
Append to existing file			
-Write to output file when any of t V Number of Messages Equals: Elapsed Time Exceeds:	these conditions are met	minutes	<b>•</b>

The Messages pane is displayed.

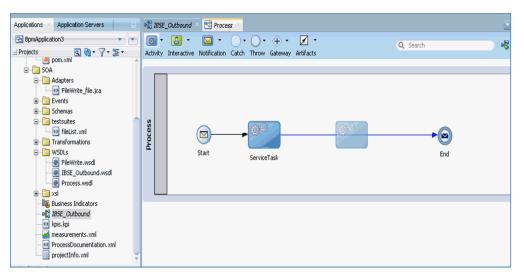
- 8. Click the Browse, which is located to the right of the URL field.
- **9.** In the displayed Type Chooser window, expand **Project WSDL Files**, **IBSE**\_ **Outbound.wsdl**, **Inline Schemas** and then select **SiebelResponse**.
- 10. Click OK.
- 11. In the Messages pane, click Next.
- 12. In the Finish pane that is displayed, click Finish.
- **13.** Double-click the **BPMN Process** component, as shown in Figure 6–76.

Figure 6–76 Composite.xml Tab



- **14.** Click the **Activity** icon.
- **15.** Drop the **Activity** icon on the wire between the **Service Task** and **End** event components, as shown in Figure 6–77.

Figure 6–77 Activity Icon



- 16. In the displayed Properties-ServiceTask1 window, click the Implementation tab
- 17. Select Service Call from the Type drop-down list in the Message Exchange section.
- 18. Click the Browse icon to the right of the Service field.
- **19.** Select the service for write operation that has been created and click **OK**, as shown in Figure 6–78.

Figure 6–78 Service Window

👩 Service	×
Search:	
Search Results:	
Service1	
Help	OK Cancel

**20.** In the Properties - ServiceTask1 window, click the **Data Associations** hyperlink, as shown in Figure 6–79.

Properties - ServiceTas Basic Implementation	k1	
Implementation Type: S S Force commit after execution Message Exchange Type: Service	tion	
Conversation:  Default Service Cal Service: FileWrite Operation: write	Advanced	Q 🏈
Data Associations     Message Headers	Correlations Service Properties	Log Handlers
Help		OK Cancel

Figure 6–79 Data Associations

- **21.** In the Input tab, click the **XSL Transformation** icon in the top right pane.
- **22.** Drag and drop the **XSL Transformation** icon to the **queryWithViewResponse** node, as shown in Figure 6–80.

Figure 6–80 QueryWithView Node

nut Outrut		
nput Output	Drag objects here	টে. টে. টি. ServicēTaski Arguments C QueryW2bView (2) ≘ siebel (2) ⊕
		+ X +

- **23.** In the displayed Create Transformation window, select **dataObject2** in the Sources section and click the right arrow symbol.
- **24.** Accept the default value selected in the Target drop-down list and the default name in the Create field by clicking **OK**.
- **25.** In the Data Associations window, click **OK**, as shown in Figure 6–81.

Data Associations × Input Output 🖪 📾 H Process ServiceTask1 @3 🗟 - 🛅 Data Objects Arguments 🛅 🚊 Image dataObject1
 Image dataObject2 R **-**- 🕀 Predefined Variables 🗟 🚭 SOA + 🗙 🕆 🔅 From То 🛃 da 12 Validate target after assigning input data associations Help OK Cancel

Figure 6–81 Data Associations Window

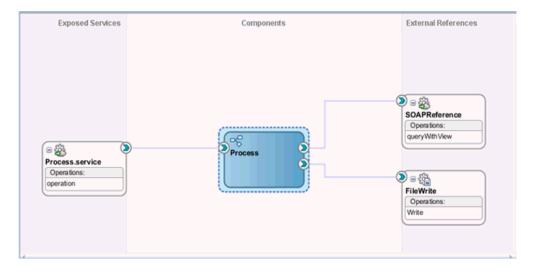
- **26.** In the Properties ServiceTask1 window, click **OK**.
- **27.** In the response\_body.xsl tab, map the **ns0:queryWithViewResponse** source element to the **ns0:queryWithViewResponse** target element.
- **28.** In the displayed Auto Map Preferences window, retain the default values and click **OK**.
- 29. Return to the Process workspace area and double-click the End event component.
- **30.** In the displayed Properties End window, click the **Implementation** tab.
- **31.** Select **None** from the Implementation Type drop-down list.
- **32.** Click **OK**, as shown in Figure 6–82.

Figure 6–82 Implementation Tab

Properties - End	×
Basic Implementation	
Implementation Type: 🚫 None	•
Help	OK Cancel

**33.** Click the **Save All** icon in the menu bar to save the new outbound BPM component that was configured, as shown in Figure 6–83.

Figure 6–83 Save All Icon



You are now ready to deploy the BPM BSE Outbound process. You can follow the same procedure as Section 6.4.4, "Deploying the BPM Outbound Process" on page 6-25.

Once deployed, you can invoke the input XML as defined in Section 6.4.5, "Invoking the Input XML Document in the Oracle Enterprise Manager Console" on page 6-26.

7

## Configuring an Outbound and Inbound Process for Oracle Service Bus Using sbconsole

**Note:** With Release 12*c* (12.2.1.0.0) configuring an outbound and inbound process for Oracle Service Bus using sbconsole has changed.

If you want to create a process for Oracle Service Bus using sbconsole, see *Chapter 2*, *Configuring an Outbound and Inbound Process for Oracle Service Bus Using sbconsole* in the *Oracle Fusion Middleware Application Adapters Release Notes for 12c (12.2.1.0.0)*.

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

This chapter contains the following sections:

- Section 7.1, "Overview of Application Adapter Integration with Oracle Service Bus"
- Section 7.2, "Configuring an Outbound Process Using sbconsole (J2CA Configuration)"
- Section 7.3, "Configuring an Inbound Process Using sbconsole (J2CA Configuration)"
- Section 7.4, "Configuring an Outbound Process Using sbconsole (BSE Configuration)"
- Section 7.5, "Configuring JMS Proxy Services Using Oracle Service Bus (J2CA Configuration)"
- Section 7.6, "Configuring HTTP Proxy Services Using Oracle Service Bus (J2CA Configuration)"

## 7.1 Overview of Application Adapter Integration with Oracle Service Bus

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

# 7.2 Configuring an Outbound Process Using sbconsole (J2CA Configuration)

This section describes how to configure an outbound process using sbconsole for J2CA configurations.

A sample project has been provided for this outbound use case scenario in the following folder of the Application Adapters installation:

<aDAPTER\_HOME>\etc\sample\SIEBEL\_Samples.zip\SIEBEL\_Samples\OSB\J2CA\Siebel\_ Sample\_J2CA\_OSB\_Outbound\_Project

This section includes the following topics:

- Section 7.2.1, "Starting Oracle Service Bus and Creating Project Folders"
- Section 7.2.2, "Setting the Class Path for Application Explorer to Integrate With Oracle Service Bus"
- Section 7.2.3, "Publishing a WSDL From Application Explorer to Oracle Service Bus"
- Section 7.2.4, "Configuring a WSDL-based Business Service"
- Section 7.2.5, "Configuring a File Type Business Service"
- Section 7.2.6, "Configuring a Pipeline With Proxy Service"

## 7.2.1 Starting Oracle Service Bus and Creating Project Folders

This section describes how to start Oracle Service Bus (OSB) and create project folders.

Perform the following steps to start Oracle Service Bus and create project folders:

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

http://hostname:port/sbconsole

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

The Oracle Service Bus Console logon page is displayed.

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

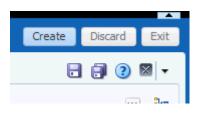
The Oracle Service Bus Console home page is displayed, as shown in Figure 7–1.

Figure 7–1 Oracle Service Bus Console Home Page

DRACLE' Service Bus Console	12c	Links 🔻 Hel	o → weblogic → (
			Create Discard Exit
4	default ×		- 🛛 🕄 🖉 -
Resources Admin  Admin  Admin  A Drojects  Admin  System	Project Definition  General  Description		₩ <del>-</del>
	🖸 default Vew 👻 🔯 🛃 Delach		
		All Types 🔻	
	Name	Туре	Actions
	<b>*</b>	Project	

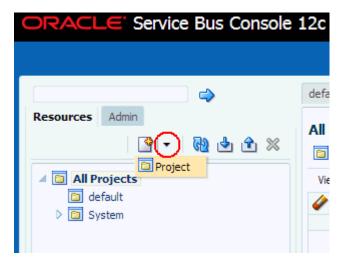
**4.** Click **Create** in the right pane of the Oracle Service Bus session, as shown in Figure 7–2.

Figure 7–2 Oracle Service Bus Session



**5.** Select **All Projects**, click the down arrow in the left pane, and select **Project**, as shown in Figure 7–3.

Figure 7–3 All Projects Folder



The Create a new Project window is displayed, as shown in Figure 7–4.

Figure 7–4 Create New Project Window

Create a new Project			
* Resource Name	J2CA_Outbound		
Description			
			10
?		Create	Cancel

**6.** Provide a valid name for the new project (for example, J2CA\_Outbound) in the Resource Name field, and click **Create**.

The new project is successfully created and listed.

**7.** Right-click the newly created project, select **Create**, and click **Folder**, as shown in Figure 7–5.

Figure 7–5 Create Option

ORACLE' Servic	e Bus Console	12c
		J2CA_Outbound $\times$
All Projects  All Projects  default  J2CA_Outboun	<ul> <li>Popen</li> </ul>	Project Definition General Description
D 🗈 System	Create	Folder
	<ul> <li>Move</li> <li>Rename</li> <li>Delete</li> <li>Clone</li> <li>Import</li> <li>Export</li> <li>Convert to XQ 1.0</li> <li>Convert to XQ 2004</li> <li>Collapse</li> <li>Show as Top</li> </ul>	<ul> <li>Proxy Service</li> <li>Business Service</li> <li>Pipeline</li> <li>WSDL</li> <li>WADL</li> <li>Schema</li> <li>WS Policy</li> <li>JCA Binding</li> <li>XQuery</li> <li>XSLT</li> <li>MFL</li> <li>Service Account</li> <li>Service Key Provider</li> <li>Archive</li> <li>Archive</li> <li>Alert Destination</li> <li>XML Document</li> <li>Throttling Group</li> <li>Cross Reference (XRef)</li> <li>DVM</li> <li>JavaScript</li> </ul>

The Create a new Folder window is displayed.

8. In the Resource Name field, type Business Service and click Create.

9. Repeat steps 7 and 8 to create folders with the names **Proxy Service** and **Wsdls**.

The Business Service, Proxy Service, and Wsdls folders are listed in the left pane below the project node, as shown in Figure 7–6.

Figure 7–6 Project Node



**10.** Click **Activate** in the right pane of the Oracle Service Bus session, as shown in Figure 7–7.

Figure 7–7 Activate Button



**11.** In the Confirm Session Activation page, click **Activate** to save the changes, as shown in Figure 7–8.

Figure 7–8 Confirm Session Activation Window

Confirm Session Activation		
	weblogic weblogic	
Description		
		1
	Activate Cancel	

## 7.2.2 Setting the Class Path for Application Explorer to Integrate With Oracle Service Bus

Before starting and using Application Explorer to publish a WSDL directly to the Oracle Service Bus (OSB) Console (project/folder), OSB users must perform the following steps:

- 1. Open the command prompt window.
- 2. Navigate to the following directory:

<ORACLE\_HOME>\user\_projects\domains\base\_domain\bin

3. Execute setDomainEnv.cmd (Windows) or . ./setDomainEnv.sh (UNIX/Linux).

This command sets the class path for Application Explorer to access the Oracle WebLogic Server APIs to publish the WSDLs to the OSB Console.

- **4.** Do not close the command prompt window.
- 5. Navigate to the following directory:

<ADAPTER\_HOME>\tools\iwae\bin

**6.** Execute **ae.bat** (Windows) or **iwae.sh** (UNIX/Linux) to start Application Explorer. You are now ready to publish WSDLs from Application Explorer to the OSB Console.

## 7.2.3 Publishing a WSDL From Application Explorer to Oracle Service Bus

Perform the following steps to publish a WSDL from Application Explorer to Oracle Service Bus:

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

For more information, see Chapter 2, "Configuring Oracle Application Server Adapter for Siebel" on page 2-1.

- 2. Expand the Siebel target to which you are connected.
- 3. Expand Business Object, Account, and then Account.
- 4. Right-click the **queryWithView** method and then select **Create Outbound JCA Service (Request/Response)** from the menu.

The Export WSDL dialog is displayed, as shown in Figure 7–9.

Name	dapters\tools\iwae\bin\.1.1.\wsdls\J2CA_Outbound_invoke.wsd	Browse
Export to OSB		
Location	J2CA_Outbound/Wsdls	
Host	localhost	
Port	7001	
User	weblogic	
Password	••••••	
	OK Cancel	

Figure 7–9 Export WSDL Dialog

- **5.** In the Name field, a default file name for the WSDL file is provided. You can accept the default or provide your own.
- 6. Select the Export to OSB option.
- **7.** In the Location field, enter the folder name in Oracle Service Bus where you want to publish the WSDL document.

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

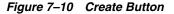
- **8.** In the Host field, enter the name of the machine where Oracle Service Bus is installed.
- 9. In the Port field, enter the port that is being used by Oracle Service Bus.
- **10.** In the User field, enter your username to access Oracle Service Bus.
- **11.** In the Password field, enter your password to access Oracle Service Bus.
- 12. Click OK.

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

## 7.2.4 Configuring a WSDL-based Business Service

Perform the following steps to configure a WSDL-based Proxy Service:

1. Open the Oracle Service Bus Console and click **Create** in the right pane of the Oracle Service Bus session, as shown in Figure 7–10.





**2.** Double-click the created WSDL folder in the left pane (for example, Wsdls) and ensure that the exported WSDL is listed in the right pane, as shown in Figure 7–11.

Figure 7–11 Wsdls Folder

🚞 Wsdls		
View 🗸 🔣 🛃 Detach		
	All Types 🔹	
Name	Туре	Actions
<b>1</b>	Folder	
😭 J2CA_Outbound_invoke	JCA Binding	2
J2CA_Outbound_invoke	WSDL	
J2CA_Outbound_invoke_request	Schema	
32CA_Outbound_invoke_response	Schema	

3. Click the icon that corresponds to the JCA Binding in the Actions column.

The Generate WSDL and Service window is displayed, as shown in Figure 7–12.

Figure 7–12 Generate WSDL and Service Window

Generate Wsdl ar	nd Service			×
JCA Bi	nding Name	J2CA_Outbound_invoke		
*New	WSDL Name	J2CA_Outbound_invoke_wsdl		
* New Business Se	ervice Name	J2CA_Outbound_invoke_BS		
Destination				
View 👻 🖶 🕻	6			
🔺 🛅 All Projects				
🛅 default				
⊿ 🛅 J2CA_O				
	ness Servi			
	y Service			
🛄 Wsd	s			
			Conserts	Canaal
		l	Generate	Cancel

- **4.** Provide a new WSDL name and a new Business Service name in the corresponding fields.
- **5.** In the Destination area, select an available project and the sub-folder that is designated for Business Services.
- 6. Click Generate.
- **7.** Expand **Business Service** under the project folder and check if the generated WSDL and Business Service are listed, as shown in Figure 7–13.

Figure 7–13 Business Service Folder

Resources	Admin			
	🗳 🔻 🔞 🖕 🏠 🗶			
🔺 🛅 All Pro	ojects			
🛅 de	fault			
🔺 🛅 J2	CA_Outbound			
Business Service				
🝃 J2CA_Outbound_invoke_BS				
J2CA_Outbound_invoke_wsdl				
	Proxy Service			
4 🛅	Wsdls			
	😪 J2CA_Outbound_invoke			
J2CA_Outbound_invoke				
	J2CA_Outbound_invoke_request			
	₽ J2CA_Outbound_invoke_response			
D 🖸 Sy	stem			

## 7.2.5 Configuring a File Type Business Service

Perform the following steps to configure a File type Business Service:

**1.** Right-click the **Business Service** folder you created in the left pane, select **Create**, and click **Business Service** as shown in Figure 7–14.

Service Bus Console 12c Proxy Service 🗙 🛛 Wsdl ⇔ Resources Admin Folder Definition - 🖌 Ӿ 📥 한 🎍 🕷 ⊿ General Description 🔺 🛅 All Projects 🗀 default 🔺 🛅 J2CA\_Inbound 🛅 Business Se 🚞 Wsdls 🔁 Open Proxy Service Create Folder D 🛅 Wsdls 👂 🛅 System Move Proxy Service Business Service 👰 Rename Pipeline X Delete 20 Clone WSDL @ WADL 📥 Import Þ 📇 Schema 🟦 Export... ¥. WS Policy Collapse 📆 JCA Binding Show as Top XQuery XQuery KSLT 🖏 MFL

Figure 7–14 Business Service Folder

The Create Business Service window is displayed.

**2.** In the Resource Name field, provide a name for the Business Service, select the **File** option in the Transport section under Service Definition, and click **Next**, as shown in Figure 7–15.

Create Business Service	×
Create Type Transport	
Create Service	
* Resource Name File_Out	
Description	
Service Definition	
O WSDL Based Service	
Name	9
Path	
Port/Binding	
● Transport file ▼	
	Back Next Create Cancel

Figure 7–15 Service Definition

**3.** In the Service Type section, select **Messaging Service**. By default, the Request Type is set to XML, and the Response Type is set to None. Then click **Next**, as shown in Figure 7–16.

Figure 7–16 Service Type Configuration Page

Create Business Service	×
Create Type Transport	
Service Type	
WSDL Based Service	
Any SOAP Service	
Any XML Service	
Messaging Service	
Request Type XML 🔻	
Schema Name	Q
Path	
Element/Type 💌	
Response Type None 🔻	
Back Next Create	Cancel

**4.** Enter the path to a destination folder on your file system in the Endpoint URI field.

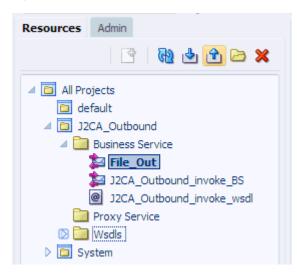
**5.** Click **Create**, as shown in Figure 7–17.

Create Business Service		×
Create Type Transport		
Transport Protocol file	~	
Load Balancing Algorithm Round Robin	J	
* URIs (file:///root-dir/dir 1)		
file:///c:/output		
	Back Next Create Cance	el

Figure 7–17 Transport Page

The Business Service **File\_Out** is created and listed under Business Service, as shown in Figure 7–18.

Figure 7–18 File\_Out Business Service



**6.** Double-click **File\_Out**, click **Transport Detail** in the left pane, and enter the prefix and suffix for the output file to be received, as shown in Figure 7–19.

Business Service Definition					
Configuration SLA Alert Ru	iles				
General Transport	Transport Detail				
Transport Detail	Suffix	outbound			
Message Handling	Request encoding	utf-8			
Performance					

7. Click the Save or Save All icon in the right corner, as shown in Figure 7–20.

Figure 7–20 Save/Save All Icons



## 7.2.6 Configuring a Pipeline With Proxy Service

Perform the following steps to configure a Pipeline:

1. Right-click the Proxy Service folder, select **Create** and click **Pipeline**, as shown in Figure 7–21.

Figure 7–21 Pipeline Option

ORACLE' Service Bus Console 12c				
Resources Admin				
	82 🕁 🔂 🖻	<b>x</b>		
<ul> <li>All Projects</li> <li>default</li> <li>j2CA_Inbound</li> <li>Business Ser</li> <li>File_Out</li> <li>File_Out</li> <li>Proxy Serv</li> <li>j2CA_Int</li> <li>j2CA_Int</li> <li>j2CA_Int</li> <li>j2CA_Int</li> <li>System</li> </ul>	Create Create Move Rename Delete Cone	Folder Folder Proxy Service Business Service Pipeline WSDL WSDL WADL Schema Schema WS Policy CA Binding		

The Create Pipeline window is displayed.

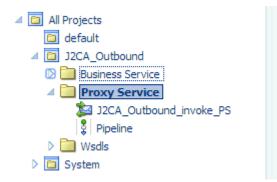
**2.** Enter a name in the Pipeline Name field. By default, **Expose as a Proxy Service** is selected. If you wish to change the Proxy Service Name, change it and set Transport as **file**, and click **Create** as shown in Figure 7–22.

Figure 7–22 Create Pipeline Window

Create Pipeline		×
General		
* Pipeline Name	Pipeline	
Description		1
Service Type		
O WSDL Bas	ed Service	
Any SOAP	Service	
Any XML S	Service	
Messaging	Service	
🖌 Expose as a	Proxy Service	
Name J20	CA_Outbound_invoke_PS	
Location J2	CA_Outbound/Proxy Service 🥒	
Transport file	. •	
		Create Cancel

The created Pipeline and the Proxy Service is listed under Proxy Service, as shown in Figure 7–23.

Figure 7–23 Pipeline Node



**3.** Double-click the created proxy service and click **Transport** in the left pane. Provide the input location in the Endpoint URI field, as shown in Figure 7–24.

Figure 7–24 Transport

Proxy Service Definitio	n 🛛 😼 🕨	
Configuration Security	SLA Alert Rules	
General	Transport	
Transport	Protocol	
Transport Details		file:///c:/input  Format: file:///root-dir/dir1
		Actions - Actions - Contract Detach Header No data to display

**4.** Click **Transport Details** in the left pane and provide the location for the Stage Directory and the Error Directory fields, as shown in Figure 7–25.

2CA_Outbound_invoke_P	×	
roxy Service Definitio	n 🛛 🔯 🕨	
Configuration Security	SLA Alert Rules	
General	Transport Details - F	rotocol: file
Transport	* File Mask	*,*
Transport Details	* Polling Interval	60
	* Read Limit	10
	Sort By Arrival	
	Scan SubDirectories	
	Pass By Reference	
	* Post Read Action	delete 🔻
	* Stage Directory	c:\stage
	Archive Directory	
	* Error Directory	c: \error
	Request encoding	utf-8

Figure 7–25 Transport Details

5. Click the Save All icon in the right corner, as shown in Figure 7–26.

Figure 7–26 Save All Icon



**6.** Double-click the **Pipeline** node and click the **Open Message Flow** icon on the right pane to open the message flow, as shown in Figure 7–27.

Figure 7–27 Open Message Flow Icon

Pipeline Definition		🚯 💭 🔊	<b>1</b> > 1
Configuration SLA Alert Pule	15	Open	Message Flow
	_		
General	General		
Service Type	CANCE PORT		
Message Handing			
	Service Type	Anv 30% Service	

**7.** Click the Proxy Service icon and select **Add Pipeline Pair** from the menu, as shown in Figure 7–28.

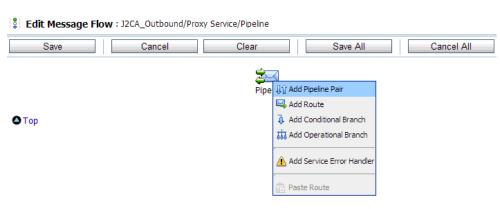


Figure 7–28 Add Pipeline Pair Option

**8.** Click the **PipelinePairNode1** icon and select **Add Route** from the menu, as shown in Figure 7–29.

Pipe	line
PipelinePa	Edit Name and Comments
Request Pipeline	↓ Add Pipeline Pair → Add Route → Add Conditional Branch
	Add Operational Branch

Figure 7–29 Add Route Option

The RouteNode1 icon is added below the PipelinePairNode1 icon.

**9.** Click the RouteNode1 icon and select **Edit Route** from the menu, as shown in Figure 7–30.

#### Figure 7–30 Edit Route Option

<b>P</b> ip	eline
Pipeline	PairNode1
Request Pipeline	Response Pipeline
Route	Edit Route  Edit Name and Comments  Add Route Error Handler  Cut  Copy
	Delete

The Edit Stage Configuration workspace area is displayed.

**10.** Click **Add an Action**, select **Communication** and click **Routing**, as shown in Figure 7–31.



Figure 7–31 Edit Stage Configuration Workspace Area

**11.** Click **<Service>**, as shown in Figure 7–32.

Figure 7–32 Actions



The Select Service dialog is displayed.

**12.** Select the WSDL type Business Service configured for Siebel and click on **Submit**, as shown in Figure 7–33.

Figure 7–33 Select Service Dialog

2	Select Service		
<b>X</b> 9	Search: Name: Path: Path:	Search View All	
		Items 1-4	of 4 🕅 🗐 1 🕨 🕅
	Name 🛆	Path	Resource Type
$\bigcirc$	File_Out	J2CA_Outbound/Business Service	Business Service
۲	J2CA_Outbound_invoke_BS	J2CA_Outbound/Business Service	Business Service
	J2CA_Outbound_invoke_PS	J2CA_Outbound/Proxy Service	Proxy Service
$\bigcirc$	Pipeline	J2CA_Outbound/Proxy Service	Pipeline
		Items 1-4	of 4 🗐 🗐 1 🕨 🕅
	Submit Cancel		

- **13.** Select the name of the Siebel business object (for example, queryWithView) as the operational attribute from the list, and click **Save**.
- **14.** Click the Response Pipeline icon and select **Add Stage** from the menu, as shown in Figure 7–34.

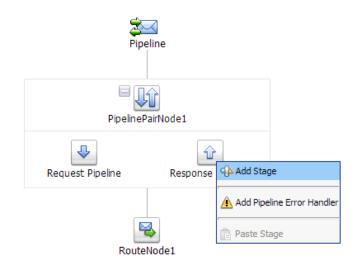
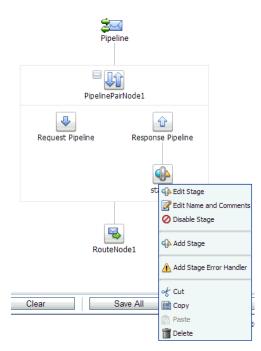


Figure 7–34 Response Pipeline Icon

The Stage1 icon is added below the Response Pipeline icon.

**15.** Click the Stage1 icon and select **Edit Stage** from the menu, as shown in Figure 7–35.





The Edit Stage Configuration workspace area is displayed.

**16.** Click **Add an Action**, select **Communication**, and then click **Publish**, as shown in Figure 7–36.

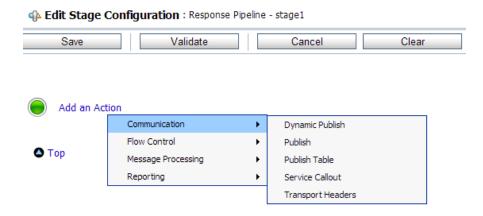


Figure 7–36 Edit Stage Configuration Workspace Area

**17.** Click **<Service>**, as shown in Figure 7–37.

Figure 7–37 <Service> Action

<b>a</b>	Publish to <service>*</service>
	Request Actions:
	Add an Action

**18.** In the Select Service dialog, select a File type Business Service and click **Submit**, as shown in Figure 7–38.

Figure 7–38 Select Service Dialog

2	Select Service			
<b>X</b> 9	Search: Name: Path: Path:	Search	View All	
			Items 1-4 of 4	
	Name 🛆	<u>Path</u>		Resource Type
۲	File_Out	J2CA_Outbound/Business Service		Business Service
$\bigcirc$	J2CA_Outbound_invoke_BS	J2CA_Outbound/Business Service		Business Service
$\bigcirc$	J2CA_Outbound_invoke_PS	J2CA_Outbound/Proxy Service		Proxy Service
$\bigcirc$	Pipeline	J2CA_Outbound/Proxy Service		Pipeline
			Items 1-4 of 4	
	Submit Cancel			

**19.** Click **Save All**, as shown in Figure 7–39.

### Figure 7–39 Save All Button

Save	Validate Cancel Clear Save All	Cancel All
		@ View
@	Publish to File_Out*	
	Request Actions:	
	Add an Action	

**20.** Click **Activate** in the right pane of the Oracle Service Bus session, as shown in Figure 7–40.

Figure 7–40 Activate Button



**21.** Click **Activate** to save the changes, as shown in Figure 7–41.

Confirm Session Activation
Session weblogic
User weblogic
Description
Activate
Cancel

Figure 7–41 Confirm Session Activation

**22.** Copy and paste an input XML file in the input folder you have configured (for example, C:\input). Output is received in the configured output location (for example, C:\output).

## 7.3 Configuring an Inbound Process Using sbconsole (J2CA Configuration)

This section describes how to configure an inbound process using sbconsole for J2CA configurations.

A sample project has been provided for this inbound use case scenario in the following folder of the Application Adapters installation:

```
<ADAPTER_HOME>\etc\sample\SIEBEL_Samples.zip\SIEBEL_Samples\OSB\J2CA\Siebel_
Sample_J2CA_OSB_Inbound_Project
```

This section includes the following topics:

- Section 7.3.1, "Starting Oracle Service Bus and Creating Project Folders"
- Section 7.3.2, "Setting the Class Path for Application Explorer to Integrate With Oracle Service Bus"
- Section 7.3.3, "Publishing a WSDL From Application Explorer to Oracle Service Bus"
- Section 7.3.4, "Configuring a WSDL-based Proxy Service"
- Section 7.3.5, "Configuring a File Type Business Service"
- Section 7.3.6, "Configuring a Pipeline"

### 7.3.1 Starting Oracle Service Bus and Creating Project Folders

For more information on starting Oracle Service Bus and creating project folders, see Section 7.2.1, "Starting Oracle Service Bus and Creating Project Folders" on page 7-2.

### 7.3.2 Setting the Class Path for Application Explorer to Integrate With Oracle Service Bus

For more information on setting the class path for Application Explorer to integrate with Oracle Service Bus, see Section 7.2.2, "Setting the Class Path for Application Explorer to Integrate With Oracle Service Bus" on page 7-6.

### 7.3.3 Publishing a WSDL From Application Explorer to Oracle Service Bus

Perform the following steps to publish a WSDL from Application Explorer to Oracle Service Bus:

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

For more information, see Chapter 2, "Configuring Oracle Application Server Adapter for Siebel" on page 2-1.

2. Create a Siebel channel.

For more information, see Section 4.5.1.1, "Creating a Channel" on page 4-35.

- **3.** Create an Integration Object Node. For more information see Section 4.5.1.2, "Creating an Integration Object Node" on page 4-38.
- 4. Right-click the created Integration node and select **Create Inbound JCA Service(Event)** from the menu.

The Export WSDL dialog is displayed, as shown in Figure 7–42.

Figure 7–42 Export WSDL Dialog

Export WSDL	X
Name	dapters\tools\iwae\bin\.1.1.\wsdls\J2CA_Inbound_receive.wsdl Browse
Channel	NS_ch 🗨
Validation	Root
	Namespace
	Schema
✓ Export to OSB	1
Location	J2CA_Inbound/WsdIs
Host	localhost
Port	7001
User	weblogic
Password	•••••
	OK Cancel
	* You must create a separate channel for each inbound service

- **5.** In the Name field, a default file name for the WSDL file is provided. You can accept the default or provide your own.
- 6. From the Channel list, select the channel you created for this inbound service.
- **7.** Three check boxes for Root, Namespace, and Schema validation are also available. Selection of multiple validation options is allowed.
- 8. Select the Export to OSB option.

**9.** In the Location field, enter the folder name in Oracle Service Bus where you want to publish the WSDL document.

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

- **10.** In the Host field, enter the name of the machine where Oracle Service Bus is installed.
- **11.** In the Port field, enter the port that is being used by Oracle Service Bus.
- 12. In the User field, enter your username to access Oracle Service Bus.
- 13. In the Password field, enter your password to access Oracle Service Bus.
- **14.** Click **OK**.

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

### 7.3.4 Configuring a WSDL-based Proxy Service

Perform the following steps to configure a WSDL-based Proxy Service:

1. Open the Oracle Service Bus Console and click **Create** in the right pane of the Oracle Service Bus session, as shown in Figure 7–43.

Figure 7–43 Create Button



**2.** Double-click the created WSDL folder in the left pane (for example, Wsdls), and ensure that the exported WSDL is listed in the right pane, as shown in Figure 7–44.

Figure 7–44 Exported WSDL

Wsdls		
View 👻 🔛 🚮 Detach		
	All Types 🔻	
Name	Туре	Actions
<b>1</b>	Folder	
😪 J2CA_Inbound_receive	JCA Binding	2
J2CA_Inbound_receive	WSDL	
J2CA_Inbound_receive_request	Schema	

 Click the icon that corresponds to the JCA Binding in the Actions column. The Generate WSDL and Service page is displayed, as shown in Figure 7–45.

JCA Binding Name	J2CA_Inboundreceive	
* New WSDL Name	J2CA_Inboundreceive_wsdl	
New Proxy Service Name	J2CA_Inboundreceive_PS	
Destination		
View 👻 🖶		
All Projects		
🛅 default		
J2CA_Inbound		
Business Servi		
Proxy Servic	e	
🛄 Wsdls		

Figure 7–45 Generate WSDL and Service Page

- **4.** Provide a new WSDL name and a new Proxy Service name in the corresponding fields.
- **5.** In the Destination area, select an available project and the sub-folder that is designated for Proxy Services.
- 6. Click Generate.
- **7.** Expand **Proxy Service** under Project Explorer and check if the generated WSDL and Proxy Service are listed, as shown in Figure 7–46.

Figure 7–46 Generated WSDL



### 7.3.5 Configuring a File Type Business Service

Perform the following steps to configure a File type Business Service:

1. Right-click the Business Service folder you created in the left pane, select **Create**, and click **Business Service**, as shown in Figure 7–47.

Figure 7–47 Business Service Folder

ORACLE' Service Bus Console 12c					
	4		Proxy Service $\mathbf{x}$	Wsd	
Resources Admin	🕲 🕁 🛍 🗁 🎗	×	Folder Definit	ion	
<ul> <li>All Projects</li> <li>default</li> <li>J2CA_Inbound</li> </ul>	1		Description		
Business	Semico		🗋 Wsdls		
▷ 🚞 Wsdls	20	•	Folder		
D 🗈 System	😭 Move	2	Proxy Service		
	👰 Rename	Þ	Business Service		
	🔀 Delete	Ş	Pipeline		
	<u> 1</u> 월 100 Clone	@	WSDL		
	💾 Import 🛛 🛛	@	WADL		
	🟦 Export		Schema		
	Collapse	-	WS Policy		
	Show as Top		JCA Binding		
		- 22	XQuery		

The Create Business Service window is displayed.

**2.** In the Resource Name field, provide a name for the Business Service and select the **File** option from the Transport drop-down list in the Service Definition area, as shown in Figure 7–48.

Figure 7–48 Create Business Service Window

Create Business Service		×
Create Type Transport		
Create Service		
* Resource Name File_Out		
Description	li li	
Service Definition		
WSDL Based Service		
Name	G.	
Path		
Port/Binding 🔍		
Transport file		
	Back Next Create Cancel	
		_

3. Click Next.

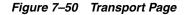
**4.** In the Service Type area, select **Messaging Service** as the service type, as shown in Figure 7–49.

Create Business Service Create Type Transport Service Type WSDL Based Service Any SOAP Service Any XML Service Messaging Service Back Next Create Cancel

Figure 7–49 Service Type Area

5. Click Next.

The Transport page is displayed, as shown in Figure 7–50.



Create Business Service	×
Create Type Transport	
Transport Protocol file	
Load Balancing Algorithm Round Robin	
Endpoint URIs	
+ × ⊙ ⊚	
* URIs (file:///root-dir/dir 1)	
file:///c:/output	
Back Next Create Cance	<u>.</u>

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

The Business Service File\_Out is created and listed under Business Service, as shown in Figure 7–51.

Figure 7–51 File\_Out Business Service

ORACL	E Service	Bus Console 1
		<b>~</b>
Resources	Admin	
	ි 🔂 🛛	🖢 🟦 🗁 🗶
🔺 🛅 All Pro	ojects	
🛅 de	fault	
🔺 🛅 J2	CA_Inbound	
_	Business Service	
	🚰 File_Out	
> 🚞	Proxy Service	
> 🚞	Wsdls	
D 🛅 Sy	stem	

**7.** Double-click **File\_Out**, click **Transport Detail** in the left pane, and enter the prefix and suffix for the output file to be received, as shown in Figure 7–52.

Figure 7–52 Transport Detail Page

File_Out ×					
Business Service Definit	tion				
Configuration SLA Alert Ru	les				
General Transport	Transport Detail	inbound			
Transport Detail	Suffix	.xml			
Message Handling Performance	Request encoding	utf-8			

8. Click the Save or Save All icon in the right corner, as shown in Figure 7–53.



### 7.3.6 Configuring a Pipeline

Perform the following steps to configure a Pipeline:

1. Right-click the proxy service you created and select **Create**, and then click **Pipeline**, as shown in Figure 7–54.

Figure 7–54 Pipeline Option

ORACLE Service Bus Console 12c			
□ □ □ □ □ □	•		
Resources Admin			
🕒 🕶 🖓	🟦 🗁 🗙		
All Projects			
🔯 default			
J2CA_Inbound			
File_Out			
Proxy Service			
J2CA_Int 🖾 Oper			
J2CA_Int Crea			
D 🔄 Wsdls 🔐 Move	e 🔊 Proxy Service		
D 🖸 System	me 🐉 Business Service		
🗙 Delet	e Pipeline		
<del>ଥି</del> ରି ଶୁକ୍ର Clone	e 🛛 🔍 WSDL		
🕒 Impo	rt 🕨 @ WADL		
Expo			
	WS Policy		
	😪 JCA Binding		
	XOuerv		

The Create Pipeline window is displayed.

 In the Pipeline Name field, enter a name and select the Service Type as WSDL Based Service, as shown in Figure 7–55.

Figure 7–55 Create Pipeline Window

Create Pipeline		×
General		
* Pipeline Name		
Description		
		h
Service Type		
💽 WSDL Ba	sed Service	
Nam	e	9
Pat	h	
Bindir	ig (	▼
Any SOAF	P Service	
Any XML:	Service	
O Messagin	g Service	
🕑 Expose as a	Proxy Service	
Name Pi	peline-proxy	
Location J2	CA_Inbound/Proxy Service 🥖	
Transport (ht	tp 🔻	
		Create Cancel

**3.** Click the Search icon, and in the displayed Search and Select: WSDL Resource window, select **J2CA\_Inbound\_receive\_wsdl**, and click **OK**, as shown in Figure 7–56.

Figure 7–56 Search and Select: WSDL Resource Window

Search and Select: WSDL	Resource	×
Name		
Path		
Namespace		
		Search Reset
Name	Path	Namespace
J2CA_Inboundreceive_w		
J2CA_Inboundreceive	J2CA_Inbound/Wsdls	http://xmlns.oracle
		OK Cancel

The Create Pipeline window opens.

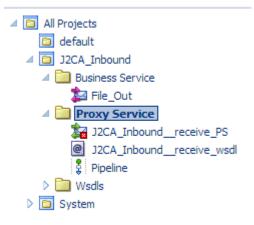
**4.** Clear the check box for **Expose as a Proxy Service**, and click **Create**, as shown in Figure 7–57.

Create Pipeline		×
General		
* Pipeline Name	Pipeline	
Description		li di
Service Type		
WSDL Base		
	a J2CA_Inboundreceive_wsdl	4
	h J2CA_Inbound/Proxy Service	
Binding	g MATMAS01PortType-binding (binding)	•
Any SOAP	Service	
Any XML S	ervice	
Messaging	Service	
📃 Expose as a	Proxy Service	
Name Pip	eline-proxy	
Location J2	CA_Inbound/Proxy Service 🥒	
Transport htt	p ▼	
		Create Cancel

Figure 7–57 Create Pipeline Window

The pipeline is created and listed under Proxy Service, as shown in Figure 7–58.

Figure 7–58 Proxy Service Pipeline



**5.** Double-click the **J2CA\_Inbound\_receive\_PS** node under Proxy Service in the left pane and click the **Search** icon in the Target area in right pane, as shown in Figure 7–59.

Figure 7–59 Proxy Service Definition Window

	Pipeline × J2CA_Inbound_	_receive_P5 ×		
Resources Admin	Proxy Service Definitio	n 🛛 🗟 🕨		
C 🕅 🖢 🖆 🔀	Configuration Security	SLA Alert Rules		
All Projects     default     J2CA_Inbound	General Transport	General Description		
Business Service     Business Service     Bengunt     File_Out     Proxy Service	Transport Details	0000,000		h
J2CA_Inboundreceive_PS J2CA_Inboundreceive_wsdl	Operation Selection		jca WSDL Based Service - SOAP 1.1 J2CA_Inbound/Proxy Service/J2CA_Inbound_receive_wsdl	
§   Pipeline ▷ 📴 Wsdls			MATMAS01PortType-binding	
D 🖸 System		Target		
		Name Path Type		4
		XQuery Processing		
		Version for snippets	1.0 •	

The Search and Select: Service Resource window appears.

**6.** From the Resource Type drop-down list, select **Pipeline** and then click the **Search** button.

The Pipeline is listed, as shown in Figure 7–60.

Figure 7–60 Search and Select: Service Resource Window

Search and Sele	ect: Service Resource	×
⊿ Search		Basic
Name		
Path		
Resource Type	Pipeline	
		Search Reset
Name	Path	Resource Type
Pipeline	J2CA_Inbound/Proxy Service	Pipeline
		OK Cancel

- 7. Select the Pipeline and click **OK**.
- 8. Click the Save or Save All icon in the right corner, as shown in Figure 7–61.

Figure 7–61 Save and Save All Icons



**9.** In the left pane, double-click **Pipeline** under the Proxy Service folder and click the down-pointing icon on the right pane to open the message flow, as shown in Figure 7–62.

Figure 7–62 Message Flow

□ ↓		Pipeline x			<b>-</b> 🗊 💿 🛛 🔻
Resources Admin	) 🗅 X	Pipeline Definit			() 🖓 №
⊿ 🔁 All Projects		General		Service Type	
<ul> <li>✓ 3 J2CA_Inbound</li> <li>&gt; → Business Service</li> <li>✓ → Proxy Service</li> </ul>		Service Type Message Handling		WSDL Based Service     Name J2CA_Inbound_receive_wsdl	
J2CA_Inbound_rece J2CA_Inbound_rece Pipeline		Operation Selection Resequencer	n	Path JZCA_Inbound/Proxy Service Binding (MATMAS01PortType-binding (binding ▼)	
<ul> <li>Wsdls</li> <li>System</li> </ul>				O Any SOAP Service	

**10.** Click the displayed Proxy service icon and select **Add Route** from the menu, as shown in Figure 7–63.

Figure 7–63 Add Route Option

#### ORACLE: Service Bus Console 12c

Shared Variables	Cdit Message Flow : J2CA_Inbound/Proxy Service/Pipeline
Map of Message Flow	Save Cancel Clear Save All Cancel All
\$⊒ Pipeline	Top
	Save Cancel Clear Save All Cancel All Concel All Oracle Save Reis 12: Concrete 6: 2004. 2013. Oracle additions addit

The RouteNode1 icon is added.

**11.** Click the RouteNode1 icon and select **Edit Route** from the menu, as shown in Figure 7–64.

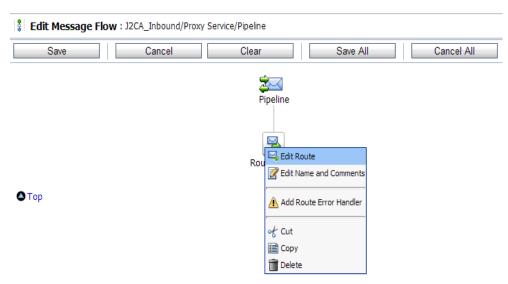


Figure 7–64 Edit Route Option

The Edit Stage Configuration workspace area is displayed.

**12.** Click **Add an Action**, select **Communication** from the menu, and then click **Routing**, as shown in Figure 7–65.

Figure 7–65 Edit Stage Configuration Workspace

Edit Stag	Edit Stage Configuration : Route Node					
Save	Validate		Cancel	Clear	Save All	Cancel All
						@ View All Comments
🔵 Add an	Communication	•	Dynamic Routing			
	Flow Control	•	Routing			
🛆 Тор			Routing Table			

**13.** Click **<Service>**, as shown in Figure 7–66.

Figure 7–66 Service Route Actions

1

<b>\$</b>	Route to <service>*</service>
	Request Actions:
	Add an Action
	Response Actions:
	Add an Action

The Select Service dialog is displayed.

14. Select the File\_Out Business service and click Submit as shown in Figure 7–67.

Figure 7–67 Select Service Dialog

23	Search: Name: Path:	Search View All	
		Items 1-3 of 3	3 1 1 1
	Name 🛆	Path	Resource Type
۲	File_Out	J2CA_Inbound/Business Service	Business Service
0	J2CA_Inboundreceive_PS	J2CA_Inbound/Proxy Service	Proxy Service
	Pipeline	J2CA_Inbound/Proxy Service	Pipeline
		Items 1-3 of 3	3 🗐 🗐 1 🕨 🕅

You are returned to the Edit Stage Configuration workspace area.

**15.** Click Save All, as shown inFigure 7–68.

Figure 7–68 Edit Stage Configuration Workspace Area

Save	Validate	Cancel	Clear	Save All	Cancel All
					@ View All Comme
<b>e</b>	Route to File_Out*				
	Request Actions:				
	Add an Action				
	Response Actions:				
	Add an Action				

**16.** Click **Activate** in the right pane of the Oracle Service Bus session, as shown in Figure 7–69.

Figure 7–69 Activate Button

Help - we	blogic 🗸	0
Activate	Discard	Exit
	1 🗐 📀	<b>X</b>

The Confirm Session Activation window appears.

**17.** Click **Activate** to save the changes, as shown in Figure 7–70.



Figure 7–70 Confirm Session Activation Window

**18.** Trigger an event from the Siebel system and check if the output is received in the configured output location.

For more information on triggering an event, see Section 4.5.5, "Triggering an Event in Siebel" on page 4-49.

## 7.4 Configuring an Outbound Process Using sbconsole (BSE Configuration)

This section describes how to configure an outbound process using sbconsole for BSE configurations.

A sample project has been provided for this outbound use case scenario in the following folder of the Application Adapters installation:

<adapter\_HOME>\etc\sample\SIEBEL\_Samples.zip\SIEBEL\_Samples\OSB\BSE\Siebel\_Sample\_ BSE\_OSB\_Outbound\_Project

This section includes the following topics:

- Section 7.4.1, "Starting Oracle Service Bus and Creating Project Folders"
- Section 7.4.2, "Setting the Class Path for Application Explorer to Integrate With Oracle Service Bus"
- Section 7.4.3, "Publishing a WSDL From Application Explorer to Oracle Service Bus"
- Section 7.4.4, "Configuring a File Type Business Service"
- Section 7.4.5, "Configuring a WSDL-based Business Service"
- Section 7.4.6, "Configuring a Pipeline With Proxy Service"

### 7.4.1 Starting Oracle Service Bus and Creating Project Folders

For more information on starting Oracle Service Bus and creating project folders, see Section 7.2.1, "Starting Oracle Service Bus and Creating Project Folders" on page 7-2.

### 7.4.2 Setting the Class Path for Application Explorer to Integrate With Oracle Service Bus

For more information on setting the class path for Application Explorer to integrate with Oracle Service Bus, see Section 7.2.2, "Setting the Class Path for Application Explorer to Integrate With Oracle Service Bus" on page 7-6.

### 7.4.3 Publishing a WSDL From Application Explorer to Oracle Service Bus

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

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

<u>File</u> Options <u>H</u> elp					
Configurations		🔠 Request Sch	ema	🛗 Response Schema	
IP IBSE	· · · · · ·				
←	Business O	bject Repository	BAPI_	COMPANYCODE_GETDET	TAIL
P ■ MySAP	Description		Com	anu Oada Dataila	
∲ 🖵 isdsrv2	Description		Comp	oany Code Details	
🛉 📑 Business Object Reposit	Business O	bject	Comp	anyCode	
- 📑 Cross-Application Co	Duoine ee M	lathad			
Enterprise Portal	Business Method		GetDetail		
- 🔁 SAP NetWeaver Mast - 🔁 Accounting - General					
- E Financial Accounting					
👇 💕 CompanyCode					
- 🦉 GetList					
P GetDetai COM Help		7			
- COM Test Ru	m				
		-			
REI	Schema(s)				
	Web Service				
— 🧭 GetPerio — 💕 BusinessAra ApplyFi	ilter				
Company	1				
Sunctionalârea					

Figure 7–71 Create Web Service Option

- **2.** Expand the **Business Object Repository** node, **Financial Accounting** node, and the **CompanyCode** business object.
- **3.** Right-click the **GetDetail** method and select **Create Web Service** from the menu, as shown in Figure 7–71.

The Create Web Service dialog is displayed, as shown in Figure 7–72.

Figure 7–72 Create Web Service Dialog

📓 Create Web Service		×
Existing Service Names:	<new service=""></new>	-
Service Name:	IBSE_Outbound	
Service Description:		
	Next Cancel	

- 4. Enter a service name and click Next.
- 5. Click **OK** on the next dialog that is displayed.

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

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

The Export WSDL dialog is displayed, as shown in Figure 7–73.

Figure 7–73 Export WSDL Dialog

Name	BSE_Outbound.wsdl
Location	default/wsdls
Host	localhost
Port	7001
User	weblogic
Password	•••••••
	OK Cancel

- **7.** In the Name field, a default file name for the WSDL file is provided. You can accept the default or provide your own.
- **8.** In the Location field, enter the location where you want to publish the WSDL document.

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

- **9.** In the Host field, enter the name of the machine where Oracle WebLogic Server is running.
- **10.** In the Port field, enter the port for the domain you are using.
- **11.** In the User field, enter your username to access Oracle Service Bus.
- **12.** In the Password field, enter your password to access Oracle Service Bus.
- 13. Click OK.

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

### 7.4.4 Configuring a File Type Business Service

For more information on configuring a file type business service, see Section 7.2.5, "Configuring a File Type Business Service" on page 7-9.

### 7.4.5 Configuring a WSDL-based Business Service

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

Perform the following steps to configure a WSDL-based Proxy Service:

1. Right-click on the Business Service folder in the left pane and select **Business** Service.

The Create Business Service window is displayed, as shown in Figure 7–74.

reate Business Se	rvice		×
Create Type	Transport		
create Type	manaport		
Create Service			
* Resource Name	BSE_Outbound_BS		
Description			
Service Definition	on		
💽 WSDL Based S	ervice		
Nam	e		
Pat	_		
Port/Bindin	⊒ 💌		
O Transport	to 🔻		
@	φ)		
		Back Next Create	Cancel

Figure 7–74 Create Business Service Window

**2.** Provide a name for the Business Service, and in Service Definition area, select the WSDL Based Service option and click the search icon.

The Search and Select: WSDL Resource window is displayed, as shown in Figure 7–75.

Figure 7–75 Search and Select: WSDL Resource Window

Search and Select: WSD	L Resource	×
Name		
Path		
Namespace		
		Search Reset
Name	Path	Namespace
BSE_Outbound_invoke	BSE_Outbound/	urn:schemas-iwa
		OK Cancel

**3.** Click the **Search** button, select the BSE Outbound WSDL, and click **OK**.

You are returned to the Create Business Service window.

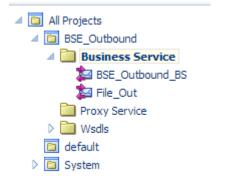
- 4. Click Next.
- 5. Accept the default values and click the Create button, as shown in Figure 7–76.

Create Business Service	×
Create Type Transport	
Transport	
Protocol http	
Load Balancing Algorithm Round Robin	
Endpoint URIs	
<b>+</b> ※ ⊗ ⊘	
* URIs (http://host:port/someService)	
http://localhost:7101/ibse/IBSEServlet/XDSOAPRouter	
Back Next Create Cance	el
	_

Figure 7–76 Create Business Service Window

The created WSDL-based Business Service is listed under the Business Service folder, as shown in Figure 7–77.

Figure 7–77 WSDL-based Business Service



### 7.4.6 Configuring a Pipeline With Proxy Service

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

1. Right-click the Proxy Service folder, select **Create** and click **Pipeline**, as shown in Figure 7–78.

▲ 🔁 All Projects			Description
✓ I BSE_Outbound			
D 🔝 Business Se			
Proxy Sei	Dpen	1	🚞 Wsdls
Vvsdis	Create	Ca.	Folder
🛅 default			loidei
👂 🛅 System	Move	20	Proxy Service
	👰 Rename	20	Business Service
	X Delete	\$ F	Pipeline
	원음 Clone	0	WSDL d
	🔄 Import 🔹 🕨	0	WADL
	🛍 Export 🕨	4	Schema
	Collapse	ه	WS Policy
	Show as Top	<b>R</b>	JCA Binding

Figure 7–78 Pipeline Option

The Create Pipeline window is displayed.

**2.** Enter a name in the Pipeline Name field. By default, **Expose as a Proxy Service** is selected. If you wish to change the Proxy Service Name, change it and set Transport to **file**, and click **Create** as shown in Figure 7–79.

Figure 7–79 Create Pipeline Window

Create Pipeline			×
General			
* Pipeline Name	Pipeline		
Description			
			,
Service Type			
WSDL Bas	ed Service		
Any SOAP	Service		
Any XML S	ervice		
Messaging	Service		
🕑 Expose as a	Proxy Service		
Name BSE	E_Outbound_invoke_PS		
Location BS	E_Outbound/Proxy Service 🥖		
Transport file	<b>•</b>		
		Create	Cancel

The created Pipeline and the Proxy Service is listed under Proxy Service, as shown in Figure 7–80.

Figure 7–80 Pipeline Node

🔺 🛅 All Projects
BSE_Outbound
Business Service
Proxy Service
😹 BSE_Outbound_invoke_PS
🕴 Pipeline
▷ 🚞 Wsdls
🛅 default
System

**3.** Double-click the created proxy service and click **Transport** in the left pane. Provide the input location in the Endpoint URI field, as shown in Figure 7–81.

Figure 7–81 Transport

Proxy Service Definition	n 🛛 😼 🕨	
Configuration Security S	SLA Alert Rules	
General	Transport Protocol	£1_
Transport	Endpoint URI	
Transport Details	Headers	Format: file:///root-dir/dir1
		Get Specified Headers     Actions      Actions

**4.** Click **Transport Details** in the left pane and provide the location for the Stage Directory and the Error Directory fields, as shown in Figure 7–82.

-		
J2CA_Outbound_invoke_PS	×	
Proxy Service Definition	n 🛛 🔯 🕨	
Configuration Security !	SLA Alert Rules	
General	Transport Details - P	rotocol: file
Transport	* File Mask	* *
Transport Details	* Polling Interval	60
	* Read Limit	10
	Sort By Arrival	
	Scan SubDirectories	
	Pass By Reference	
	* Post Read Action	delete 🔻
	* Stage Directory	c:\stage
	Archive Directory	
	* Error Directory	c:\error
	Request encoding	utf-8

Figure 7–82 Transport Details

5. Click the Save All icon in the right corner, as shown in Figure 7–83.

Figure 7–83 Save All Icon



**6.** Double-click the **Pipeline** node and click the **Open Message Flow** icon on the right pane to open the message flow, as shown in Figure 7–84.

Figure 7–84 Open Message Flow Icon

Pipeline Definition		۵ 🚯	a 🛛 💽 🛏 📗
Configuration SLA Alert Rule			Open Message Flow
General	General		
Service Type Message Handling	Unseption		100 100 100 100
	Service Type	Anv 39t. Service	

**7.** Click the Proxy Service icon and select **Add Pipeline Pair** from the menu, as shown in Figure 7–85.

Bdit Message Flow : J2CA_Outbound/Proxy Service/Pipeline	
Save Cancel Clear	Save All Cancel All
₽ipe	Add Pipeline Pair Add Route Add Conditional Branch Add Operational Branch Add Service Error Handler Paste Route

Figure 7–85 Add Pipeline Pair Option

**8.** Click the **PipelinePairNode1** icon and select **Add Route** from the menu, as shown in Figure 7–86.



Pipe	line
PipelinePa	Edit Name and Comments
Request Pipeline	↓ Add Pipeline Pair → Add Route → Add Conditional Branch
	Add Operational Branch Paste Route Delete

The RouteNode1 icon is added below the PipelinePairNode1 icon.

**9.** Click the RouteNode1 icon and select **Edit Route** from the menu, as shown in Figure 7–87.

Pip	eline
Pipelinel	PairNode1
Request Pipeline	Response Pipeline
Route	Edit Route
	Edit Name and Comments     Add Route Error Handler
	o∱ Cut ⊯ Copy ∰ Delete

Figure 7–87 Edit Route Option

The Edit Stage Configuration workspace area is displayed.

**10.** Click **Add an Action**, select **Communication** and click **Routing**, as shown in Figure 7–88.

Figure 7–88 Edit Stage Configuration Workspace Area

Save		Validate		Cancel	C	Clear	Save All		Cancel All
									View All Comm
								(c)	g view All Comm
								(c	g view All Comm
Add an .	Action Communication	1	•	Dynamic Routing		-		L.	g view All Com

**11.** Click **<Service>**, as shown in Figure 7–89.

Figure 7–89 Actions

😪 <sup>@</sup>	Route to <service>*</service>
	Request Actions:
	Add an Action
	Response Actions:
	Add an Action

The Select Service dialog is displayed.

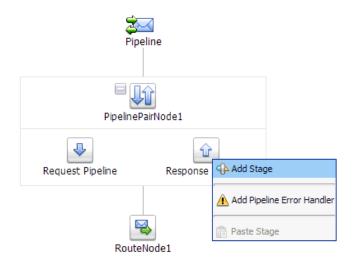
**12.** Select the WSDL type Business Service configured for Siebel and click on **Submit**, as shown in Figure 7–90.

Figure 7–90 Select Service Dialog

2	Select Service			
<u> </u>	Search: Name: Path: Path:	Search	View All	
			Items 1-4 of 4	
	Name 🛆	<u>Path</u>		Resource Type
۲	BSE_Outbound_BS	BSE_Outbound/Business Service		Business Service
0	BSE_Outbound_invoke_PS	BSE_Outbound/Proxy Service		Proxy Service
$\bigcirc$	File_Out	BSE_Outbound/Business Service		Business Service
$\bigcirc$	Pipeline	BSE_Outbound/Proxy Service		Pipeline
			Items 1-4 of 4	
	Submit Cancel			

- **13.** Select the name of the Siebel business object (for example, queryWithView) as the operational attribute from the list, and click **Save**.
- **14.** Click the Response Pipeline icon and select **Add Stage** from the menu, as shown in Figure 7–91.

Figure 7–91 Response Pipeline Icon



The Stage1 icon is added below the Response Pipeline icon.

**15.** Click the Stage1 icon and select **Edit Stage** from the menu, as shown in Figure 7–92.

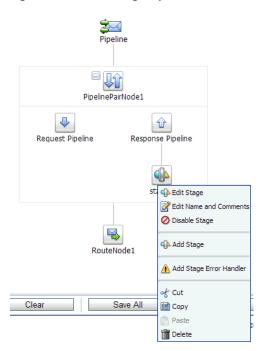
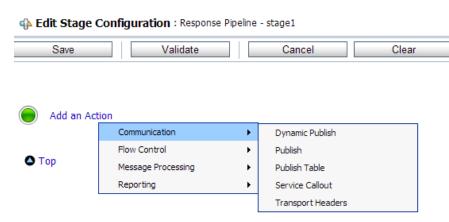


Figure 7–92 Edit Stage Option

The Edit Stage Configuration workspace area is displayed.

**16.** Click **Add an Action**, select **Communication**, and then click **Publish**, as shown in Figure 7–93.

#### Figure 7–93 Edit Stage Configuration Workspace Area



**17.** Click **<Service>**, as shown in Figure 7–94.

Figure 7–94 <Service> Action

@	Publish to <service>*</service>				
	Request Actions:				
	Add an Action				

**18.** In the Select Service dialog, select a File type Business Service and click **Submit**, as shown in Figure 7–95.

Figure 7–95 Select Service Dialog

2	🏂 Select Service						
23 :	Search: Name: Path: Path:	Search	View All				
Items 1-4 of 4 😽 🕯 1							
	Name 🛆	Path		Resource Type			
$\odot$	BSE_Outbound_BS	BSE_Outbound/Business Service		Business Service			
$\odot$	BSE_Outbound_invoke_PS	BSE_Outbound/Proxy Service		Proxy Service			
۲	File_Out	BSE_Outbound/Business Service		Business Service			
$\odot$	Pipeline	BSE_Outbound/Proxy Service		Pipeline			
			Items 1-4 of 4				
	Submit Cancel						

**19.** Click **Save All**, as shown in Figure 7–96.

Figure 7–96 Save All Button

Save	Validate	Cancel	Clear	Save All	Cancel All
					@ View
<b>*</b>	Publish to File_Out*				
	Request Actions:				
	Add an Action				

**20.** Click **Activate** in the right pane of the Oracle Service Bus session, as shown in Figure 7–97.

Figure 7–97 Activate Button



**21.** Click Activate to save the changes, as shown in Figure 7–98.

Confirm Ses	sion Activation	×
Session	weblogic weblogic	
Description		
	Activate Cancel	

Figure 7–98 Confirm Session Activation

**22.** Copy and paste an input XML file in the input folder you have configured (for example, C:\input).

Output is received in the configured output location (for example, C:\output).

# 7.5 Configuring JMS Proxy Services Using Oracle Service Bus (J2CA Configuration)

This section describes how to configure JMS Proxy Services using Oracle Service Bus for a J2CA configuration.

1. Start Oracle Service Bus and create the required project folder.

For more information, see Section 7.2.1, "Starting Oracle Service Bus and Creating Project Folders".

**2.** Generate and publish the WSDL from Application Explorer to the created project folder. Using the published WSDL, create a Business Service.

For more information, see Section 7.2.3, "Publishing a WSDL From Application Explorer to Oracle Service Bus".

**3.** Open the Service Bus Console page, as shown in Figure 7–99.

Figure 7–99 Service Bus Console

ORACLE' Serv	vice Bus 11gR1			^
Change Center	Welcome, weblogic Cor	nnected to : bas	ase_domain Whome   Oracle WLS Console   Logout   Help   Oracle Su	
View Changes     View Al Sessions     Create     Occord     Edt	😂 Adapter/Busines	ssService		
	References	0	Description - no description -	
Project Explorer	Referenced By	0	Edit Description	
Projects Adapter BusinessService	😂 Folders			
ProxyService wsdls	Enter New Folder Na	me:	Add Folder	
🗄- default			I	e Su It
	Name 🛆			
			No Folders to display.	
			I	t
	Delete			
				~

**4.** Select the ProxyService project folder in the left pane, and click **Create**, as shown in Figure 7–100.

Figure 7–100 Proxy Service

View Changes					
View Changes View AI Sessions Create Project Explorer Projects Adapter HousinessService ProxyService	😂 Adapter/ProxyService				
Create Discard Edit	References	0	Description - no description -		
	Referenced By	0	Edit Description		
Projects - Adapter - BusinessService	😂 Folders				
- ProxyService	Enter New Folder Name	me:	Add Folder	n i	
🖻- default			It		
	Name 🛆				
			No Folders to display.		
				It	
	Delete.				
	Resources			It	
	Create Resource: Select Resource Type				
				It	

**5.** In the right pane, select **Proxy Service** from the Create Resource list, as shown in Figure 7–101.

Figure 7–101 Create Resource Menu

Cracle Service Bus : Adapter/Proxy	Service		🛐 👻 🔝 🕤 🖃 👼 👻 Page 👻 Safety 👻 Tools 👻	r 🕜 🕶						
Change Center	recomer memogra	Connected to . pase_dom	and whome i oracle who console i hogoar i help i on	ucic oc						
weblogic session			weblogic session Created 5/5/11 6:25 AM No Conflicts	No C						
No Conflicts				<u> </u>						
View Changes	😂 Adapter/Pr	Carl Adapter/ProxyService								
View All Sessions	References	Select Resource Type Service	tion							
Activate Discard Exit		Proxy Service	cription -							
Project Explorer	Referenced By	Business Service Split-Join	Description							
Projects 3- Adapter	😂 Folders	Interface WSDL XML Schema								
BusinessService ProxyService	Enter New Fold	er I WS-Policy JCA Binding	Add Folder							
wsdls default		Transformation XQuery		II 🔝						
	Name 🛆	XSLT MFL File								
		Security Service Account Service Key Provider	No Folders to display.							
		Utility JAR		It						
	Delete	Alert Destination XML Document								
	Resources	Bulk Resources from URL Zipped Resources								
	Create Resource	ce: Select Resource Type	v	1						

6. Enter an appropriate name in the Service Name field, as shown in Figure 7–102.

weblogic session			weblogic session	Created 5/5/11 9:25 AM	No Conflicts
<ul> <li>No Conflicts</li> </ul>					· · · · ·
<ul> <li>View Changes</li> <li>View All Sessions</li> </ul>	🍃 💱 Create a Proxy S	Service (Adapter/Proxy	Service/)		
	General Configurati	ion			
Activate Discard Exit	Service Name*	Adapter_outbound_PS		]	
Project Explorer	Description			*	
rojects 3- Adapter BusinessService				*	
ProxyService	Service Type*	Create a New Servic	æ	<b></b>	
B- default		O WSDL Web Service			В
		_			(port or l
		C Transport Typed S			
		C Messaging Service			
		C Any SOAP Service	SOAP 1.1	•	
		Any XML Service			
		Create From Existin	g Service		
		C Business Service			В
		C Proxy Service			В
	Next >>	Last >>	Cancel		

Figure 7–102 Service Name

**7.** In the Service Type section, under Create From Existing Service, select the **Business Service** radio button and click **Browse**, as shown in Figure 7–103.

Figure 7–103 Business Service

hanges	🝃 Create a Proxy Servi	ice (Adapter/ProxyService/)		
Discard Exit	General Configuration			
	Service Name*	Adapter_outbound_PS		
Explorer essService	Description			
vService	Service Type*	Create a New Service          WSDL Web Service       Browse         (port or binding)       (port or binding)         Transport Typed Service       Any SOAP Service         Any XML Service       SOAP 1.1 •         Create From Existing Service       Create From Existing Service		
		Business Service     Browse     Browse		
	Next >>	Last >> Cancel		

8. Select the existing business service and click **Submit**, as shown in Figure 7–104.

Figure 7–104 Existing Business Service

Search: Name: Path: Search View All			
		Items 1-4 of 4	
	Name 🗠	Path	Resource Type
۲	adapter_outbound_BS	Adapter/BusinessService	Business Service
0	fileout	default/business service	Business Service
0	isdsrv22_samp_node_call_invoke_bs	default/business service	Business Service
0	isdsrv22_samp_node_invoke_bs	default/business service	Business Service
		Items 1-4 of 4	
	Submit Cancel		

**9.** Click **Next**, as shown in Figure 7–105.

Figure 7–105 Next

hanges	🍃 Create a Proxy Servic	e (Adapter/ProxyService	/)		
Discard Exit	General Configuration				
	Service Name*	Adapter_outbound_PS			
Explorer essService	Description				
yService	Service Type*	Create a New Service WSDL Web Service Transport Typed Service Messaging Service Any SOAP Service Any XML Service Create From Existing Service	SOAP 1.1 •	Browse (port or binding)	
		Business Service     Proxy Service	Adapter/BusinessService/adapter_outbound_8	Browse Browse	
	Next >>	Last >> C	ancel		

10. Select jms from the Protocol list and click Next, as shown in Figure 7–106.

Figure 7–106 Pr	otocol Lisi	t
-----------------	-------------	---

View Changes	🍃 🐉 Edit a Proxy Sei	rvice (Adapter/ProxyService/Adapter_outbound_PS)
View All Sessions  Activate Discard Exit	Transport Configur	ration
	Protocol*	jms 💌
roject Explorer jects	Endpoint URI*	Format: jms://((host:port)(,(host:port))*) ((host:port)?)/FactoryIndName/QueueIn jms://localhost:8001/weblogic.jms.XAConnectionFactory/Adapter_outbound_PSRequest
Adapter BusinessService wsdis default	Get All Headers	C Yes No Header Add
		HEADER ACTION
		There are no headers configured.
	<< Prev.	Next >> Last >> Cancel

- **11.** Provide the following parameters, as shown in Figure 7–107.
  - a. Select Queue in the Destination Type section.
  - **b.** Enable the **Is Response Required** check box.
  - **c.** Select **Text** in the Response Message Type section.
  - **d.** In the Response URI field, provide the Endpoint URI used in the Transport Configuration and change Request to Response.

For example:

jms://localhost:8001/weblogic.jms.XAConnectionFactory/Adap ter\_outbound\_PSResponse

Figure 7–107 Edit a Proxy Service

🏂 Edit a Proxy Service (Adapter/ProxyService/Adapter_outbound_PS)			
JMS Transport Configuration			
Destination Type	C Queue C Topic		
Is Response Required	E		
Response Pattern	<ul> <li>JMSCorrelationID</li> <li>JMSMessageID</li> </ul>		
Response Message Type	C Bytes © Text		
Dispatch Policy	default		
Request Encoding	UTF-8		
Response Encoding	UTF-8		
Client Response Timeout	ient Response Timeout 300		
Response URI	tionFactory/Adapter_outbound_PSResponse		
MS Service Account Browse			
Advanced Settings			
<< Prev. Next >> Last >> Cancel			

# 12. Click Next.

The Operation Selection Configuration pane appears, as shown in Figure 7–108.

	Figure 7–108	Operation	Selection	Configuration	Pane
--	--------------	-----------	-----------	---------------	------

Operation Selection Configuration			
Selection Algorithm	C Transport Header C SOAPAction Header C WS-Addressing C SOAP Header © SOAP Body Type		
C Top	ext>> Last>> Cancel		

- **13.** Ensure the **SOAP Body Type** is selected and click **Next**.
- 14. Enable the Transaction Required box and click Next, as shown in Figure 7–109.

Figure 7–109 Message Handling

Edit a Proxy Service (Adapter/ProxyService/Adapter_outbound_PS)			
Message Handling			
Transaction Required	✓ Enabled		
Same Transaction For Response	Enabled		
Content Streaming	<ul> <li>Enabled</li> <li>Buffer Type         <ul> <li>Memory Buffer</li> <li>Disk Buffer</li> </ul> </li> <li>Compression         <ul> <li>Enabled</li> </ul> </li> </ul>		
<< Prev. Next >>	Last >> Cancel		

**15.** Click **Save**, as shown in Figure 7–110.

Use SSL	Disabled	^
Is Response Required	Enabled	
Request Encoding	UTF-8	
Response Encoding	UTF-8	
Response Pattern	JMSCorrelationID	
JNDI Timeout	0	
Response URI	jms://localhost:8001/weblogic.jms.XAConnectionFactory/Adapter_outbound_BSResponse	
Response Message Type	Text	
Client Response Timeout	300	
Is XA Required	False	
Operation Selection Configuration		[
Selection Algorithm	SOAP Body Type	
Message Handling Configuration		[
Transaction Required	Enabled	
Same Transaction For Response	Disabled	
Content Streaming	Disabled	
<< Prev. Save Cancel		

## Figure 7–110 Save

The created Proxy Service is saved, as shown in Figure 7–111.

Figure 7–111 Proxy Service

Projects	😫 Folders		
	Enter New Folder Name:     Add Folder		
			Items 0-0 of
	Name 🛆		
	No Folders to display.		
			Items 0-0 of
	Delete		
	🌡 Resources		
	Create Resource: Select Resource Type		
			Items 1-1 of 1
		Resource Type	Actions
Operations	Adapter_outbound_PS	Proxy Service	\$ 🎄 🖾
			Items 1-1 of 1
Resource Browser	Delete		
> Project Explorer			

**16.** In the left pane, click **Activate**, and then **Submit**, as shown in Figure 7–112.

Figure 7–112 Activate Session

vehice is session					T
reblogic session			weblogic session	Created 2/11/11 4:52 AM	No C
No Conflicts			·	·	
View Changes	🔳 Activate Sessi	on			
View All Sessions	Session Name	weblogic			
Activate Discard Exit	User	weblogic			
roject Explorer Djects	Description				
· default · JDE					
MYSAP					
ProxyService wsdls					
· PSFT · SIEBEL					
Contraction of the Contraction o					
	Submit	]			

**17.** In the left pane, click **ProxyService** under the Projects folder, as shown in Figure 7–113.

Figure 7–113 Adapter/ProxyService

View Changes										
View All Sessions	😂 Adapter/ProxyServ	՝ Adapter/ProxyService								
Create Discord Exit	References	0	Description - no description -							
Project Explorer	Referenced By	0	Edit Description							
Projects Adapter BusinessService ProxyService wsdls B- default	Folders      Enter New Folder Name:      Add Folder									
	Name 🛆									

**18.** Click the **Launch Test Console** icon for the created Proxy Service, as shown in Figure 7–114.

Figure 7–114 Launch Test Console Icon

🖁 Resources								
Create Resource: Select Resource Type								
			Items 1-1 of 1	1				
	Name 🛆	Resource Type	Actions	Option				
Π	Adapter_outbound_PS	Proxy Service	🕴 🏇 🗳	aje 🔐 💱				
Item[Launch Test Console] 1								
	Delete							

- **19.** Provide the input values for **Payload**, uncheck the **Direct Call** box, and click **Execute**.
- **20.** Review the Response document, and then click **Close**.
- **21.** Click the **Oracle WLS Console** tab, as shown in Figure 7–115.

Figure 7–115	ProxyService
--------------	--------------

E' Servi	ce Bus 11gR1									-	
	Welcome, weblogic Connecte	d to : base	_domain	🟠 Home	Oracle WNS Console	Logout	Help	Oracle Support	About Service Bus	Г	
ons	Gen Oracle WLS Console										
d Exit	References	30 Ref(s)	Description							٦	
er	Referenced By	0	E dit De	escription						•	
	😂 Folders								🕆 Up to MYSAF	•	
	▷ Enter New Folder Name:				Add Folder						
rvice e								Items 0-1	D of 0 🛛 🗐 🖗 🕨		
	Name 🛆								Option	s	
				1	lo Folders to display.						
								Items 0-	D of 0 🖂 🔄 🕨 🖗		
	Delete										
	🔒 Resources										
	> Create Resource: Select Resource Type 💌										

**22.** In the Oracle WLS Console, expand **Services**, expand **Messaging**, and click **JMS Modules**, as shown in Figure 7–116.

Figure 7–116 Oracle WLS Console

ORACLE WebLogic Server® Administration Console											
Change Center		ሰ н	🏦 Home Log Out Preferences 🖾 Record Help								
View changes and restarts		Hom	Home >Summary of Deployments								
Click the Lock & Edit button to modify, add delete items in this domain.	d or	Summ	ary of Deployments								
Lock & Edit		Cont	rol Monitoring								
Release Configuration		app	page displays a list of Jav lications and modules can b using the controls on this p	be started, stopped, up							
base_domain Environment <b>Deployments</b>	1	To install a new application or module for deployment to targets in this domain, click the Install button.									
E-Services			tomize this table								
Store-and-Forward Agents <u>MS Modules</u> Path Services			loyments stall Update Delet	te Start v Stop	Y			Showing 1 to 100	of 112 Previous   Next		
Bridges	G		Name 🐟			State	Health	Туре	Deployment Order		
Data Sources Persistent Stores			madf.oracle.businessed	ditor(1.0,11.1.1.2.0)		Active		Library	100		
Foreign JNDI Providers	-	Г	adf.oracle.domain(1.0	0,11.1.1.2.0)		Active		Library	100		
How do I			et adf.oracle.domain.we	ebapp(1.0,11.1.1.2.0)		Active		Library	100		
Install an Enterprise application			C 🗄 Transport Provider Active 🗸 OK Web Application 161								
Configure an Enterprise application			Maldsp_transport-l10n(	(3.0,3.0)		Active		Library	160 Recorder Panel		

**23.** Click **jmsResources**, as shown in Figure 7–117.

Figure 7–117 JMS Modules

ORACLE WebLogic Server®	Administration Console	Q
Change Center	Home Log Out Preferences Record Help     Home >Summary of Deployments >JMS Modules	Welcome, weblogic Connected to: base_domain
View changes and restarts Click the Lock & Edit button to modify, add or delete items in this domain. Lock & Edit Release Configuration	JMS Modules JMS system resources are configured and stored as modules similar to standard J2EE mo connection factories, templates, destination keys, quota, distributed queues, distributed (SAF) parameters. You can administratively configure and manage JMS system modules.	topics, foreign servers, and JMS store-and-forward
Domain Structure base_domain P Environment	This page summarizes the JMS system modules that have been created for this domain.	
	JMS Modules Click the <i>Lock &amp; Edit</i> button in the Change Center to activate all the buttons on this page	je.
	New Delete	Showing 1 to 2 of 2 Previous   Next
Pridges     Data Sources     Persistent Stores     Foreign JNDI Providers	□     Name ↔       □     jnsResources       □     WseeJnsModule	Type           System           System
How do I	New Delete	Showing 1 to 2 of 2 Previous   Next

**24.** Click Lock & Edit, as shown in Figure 7–118.

Figure 7–118 Configuration Settings

ORACLE WebLogic Server®	Administration Console					õ					
Change Center	A Home Log Out Prefere	🏦 Home Log Out Preferences 🖾 Record Help 📃 🔍 Welcome, weblogic Connected to: base_domain									
View changes and restarts	Home >Summary of Deploy	Home >Summary of Deployments >JMS Modules >jmsResources									
Click the Lock & Edit button to modify, add or delete items in this domain.	Settings for jmsResources										
Lock & Edit	Configuration Subdep	loyments Targets Secu	ity Notes								
Release Configuration	This page displays general information about a JMS system module and its resources. It also allows you to configure new resources and access existing resources.										
base_domain	Name:	jmsResource:		The	name of this JMS system module.	More Info					
⊡Deployments ⊖-Services ⊕-Messaging	Descriptor File Name:	jms/xbusReso	urces-jms.xml	The name of the JMS module descriptor file. More Info							
					e, including queue and topic destin stinations, foreign servers, and s						
Data Sources Persistent Stores	Custon ze this table										
Foreign JNDI Providers     Work Contexts	Summary of Resource	5									
How do I	Click the Lock & Edit but	ton in the Change Center to	activate all the butto	ons on this page.							
Configure JMS system modules	New Delete Showing 1 to 10 of 16 Previous Next										
Configure subdeployments in JMS system	□ Name   Recorder Panel  Recorder Panel										

**25.** Click the appropriate request link, for example, **Adapter\_outbound\_PSRequest**, as shown in Figure 7–119.

How do I	Summary of Resources							
Configure JMS system modules	Ne	Delete	:	Showing 1 to 10 of 14 Previous   Next				
Configure subdeployments in JMS system     modules		Name 🏟	Туре	JNDI Name				
Configure resources for JMS system modules		Adapter outbound PSRequest-1531625329	Queue	Adapter_outbound_PSRequest				
Sustem Status		Adapter_outbound_PSResponse2015668417	Queue	Adapter_outbound_PSResponse				
System Status		QueueIn	Queue	QueueIn				
Health of Running Servers		QueueIn.Quota	Quota	N/A				
Failed (0) Critical (0)		TemporaryTmplt	Template	N/A				
Overloaded (0) Warning (0)		weblogic.wlsb.jms.transporttask.QueueConnectionFactory	Connection Factory	weblogic.wlsb.jms.transporttask.QueueC				
OK (2)		wli.reporting.jmsprovider.ConnectionFactory	Connection Factory	wli.reporting.jmsprovider.ConnectionFact				
		wli.reporting.jmsprovider.queue	Queue	wli.reporting.jmsprovider.queue				
		wli.reporting.jmsprovider_error.queue	Queue	wii.reporting.jmsprovider_error.queue				
		wli.reporting.purge.queue	Queue	wil.reporting.purge.queue				
	Ne	W Delete	1	Showing 1 to 10 of 14 Previous   Next				

Figure 7–119 Adapter\_outbound\_PSRequest

- **26.** Click the **Monitoring** tab, as shown in Figure 7–120.
- Figure 7–120 Monitoring Tab

ORACLE WebLogic Server	Administration Console						
Change Center	🟦 Home Log Out Preferences 📈 Record Help						
View changes and restarts	Welcome, weblogic Connected to: base_dom						
No pending changes exist. Click the Release Configuration button to allow others to edit the domain.	Home >jmsResources >Adapter_outbound_BSRequest412119836 >JMS Modules >jmsResources >placeholder >Adapter_outbound_PSRequest-1531625329 >placeholder >JMS Modules >jmsResources > <b>Adapter_outbound_P5Request-1531625329</b>						
Lock & Edit	Settings for Adapter_outbound_PSRequest-1531625329						
Release Configuration	Configuration Monitoring Control Security Subdeployment Notes						
Domain Structure	General Thresholds Monitoring-Tab Overrides Logging Delivery Failure						
base_domain P Environment	Save						
	Use this page to define the general configuration parameters for this queue, such as selecting a destination key for sorting messages as they arrive on the queue.						
Store-and-Forward Agents JMS Modules Path Services	Name: Adapter_outbound_PSRequest-1531625329     The name of this JMS     queue. More Info						
Pridges     Data Sources     Persistent Stores     Foreign JNDI Providers	JNDI Name: Adapter_outbound_PSRequest The global JNDI name used to look up the destination within the JNDI namespace. More Info						
How do I	Template: None The JMS template from which						

**27.** Enable the check box and click **Show Messages**, as shown in Figure 7–121.

Figure 7–121 Adapter Settings

No pending changes exist. Click the Release Configuration button to allow others to edit the domain.	Home >jmsResources >Adapter_outbound_BSRequest412119836 >JM5 Modules >jmsResources >placeholder >Adapter_outbound_PSRequest-1531625329 >placeholder >JM5 Modules >jmsResources > <b>Adapter_outbound_PSRequest-1531625329</b>									
Lock & Edit	Setting	Settings for Adapter_outbound_PSRequest-1531625329								
Release Configuration	Config	Configuration Monitoring Control Security Subdeployment Notes								
Domain Structure       base_domain       ⊕ "Environment       >> Deployments       ⊕ "Services       ⊕ Messaging       *** 3MS Servers	A JMS destination identifies a queue (Point-To-Point) or a topic (Pub/Sub) that is targeted to a JMS server. This page summarizes the active JMS destinations that have been created for this JMS module.									
Store-and-Forward Agents MS Modules Path Services	_	ow Message	Filtered - More	) Column	15 EXISTJ			Showing 1	Lto 1 of 1 Pre	evious   Next
⊡-Bridges *Data Sources		Name 🙈			Messages Durrent	Messages Pending	Messages Total	Consumers Current	Consumers High	Consumers Total
""Persistent Stores     ""Foreign JNDI Providers     ""Work Contexts     ""	•	jmsResour Adapter_o -15316253	outbound_PSRe	aquest 0	)	0	0	16	16	16
How do I	Sho	ow Messagi	es					Showing 1	Lto 1 of 1 Pro	evious   Next
Manage queue messages     Configure queues	(									
System Status										

**28.** Click **New**, as shown in Figure 7–122.

Figure 7–122 JMS Messages

No pending changes exist. Click the Release Configuration button to allow others to edit the domain.	Summary of JMS Messages						
Lock & Edit Release Configuration Domain Structure	This page summarizes the available messages for a stand-alone queue, a distri message details, create new messages, delete selected messages, move mess format to another file, import XML formatted message contents from another fi Click on a message to view its contents.	ages to another destination, export message contents in XML					
base_domain ⊕ Environment ™Deployments ⊖ Services ↓ Messaging ↓ Messaging	Message Selector:	Apply					
Store-and-Forward Agents JMS Modules	🖗 Customize this table						
Path Services	JMS Messages (Filtered - More Columns Exist)						
Data Sources	New Delete V Move V Import Export V	Showing 1 to 0 of 0 Previous   Next					
Foreign JNDI ProvidersWork Contexts	🔽 ID 🔅 CorrId Time Stamp State String	JMS Delivery Mode Message Size					
	There are no items to display						
• Manage queue messages	New Delete V Move V Import Export V Showing 1 to 0 of 0 Previous   Next Recorder Panel						

**29.** Provide the input payload in the **Body** field and click **OK**.

A Success message appears, as shown in Figure 7–123.

Figure	7–123	JMS	Success	Message
--------	-------	-----	---------	---------

DRACLE WebLogic Server®	Administration Console 📿 🔺
nange Center	🕜 Home Log Out Preferences 🔤 Record Help
iew changes and restarts	Welcome, weblogic Connected to: base_domain
o pending changes exist. Click the Release onfiguration button to allow others to edit he domain.	Home >Adapter_outbound_BSRequest412119836 >JMS Modules >jmsResources >placeholder >Adapter_outbound_PSRequest- 1531625329 >placeholder >JMS Modules >jmsResources >Adapter_outbound_PSRequest-1531625329 > <b>Summary of JMS</b> Messages
Lock & Edit Release Configuration	Messages  Value Message sent successfully.
	Summary of JMS Messages
omain Structure	
se_domain "Environment "Deployments "Services "Intersaging "IMS Servers "Store-and-Forward Agents	This page summarizes the available messages for a stand-alone queue, a distributed queue, or a topic durable subscriber. Use this page to view message details, create new messages, delete selected messages, move messages to another destination, export message contents in XML format to another file, import XML formatted message contents from another file, or drain all the messages from a destination. Click on a message to view its contents.
	Message Selector:

**30.** In the Oracle WLS Console, expand **Services**, expand **Messaging**, and click **JMS Modules**, as shown in Figure 7–124.

Figure 7–124 JMS Modules

	ministration Console	Q
Change Center	🏦 Home Log Out Preferences 🖾 Record Help	to: base_domain
View changes and restarts	Home >Summary of Deployments	
Click the Lock & Edit button to modify, add or delete items in this domain.	Summary of Deployments	
Lock & Edit	Control Monitoring	
Release Configuration	This page displays a list of Java EE applications and stand-alone application modules that have been installed to this domain. Inst applications and modules can be started, stopped, updated (redeployed), or deleted from the domain by first selecting the applic and using the controls on this page.	
base_domain ▲ ⊕ Environment ← Opployments ⊖ Services ⊖ Messaging ↓ → MS Servers	To install a new application or module for deployment to targets in this domain, click the Install button.   Customize this table  Deployments	
Store-and-Forward Agents	Install Update Delete Start Stop Showing 1 to 100 of 112 P	revious   Next
Path Services ⊕-Bridges	□ Name ↔ State Health Type Deploy	ment Order
Data Sources Persistent Stores	T Carlo Control Contro	
Foreign JNDI ProvidersWork Contexts	Image: Control of the state of the	
How do I	C Carlo Content Conten	
Install an Enterprise application	□ 🗄	
Configure an Enterprise application	□         ▲aldsp_transport-110n(3.0,3.0)         Active         Library         160	corder Panel

**31.** Click **jmsResources**, as shown in Figure 7–125.

Figure 7–125 jmsResources

	Administration Console	Ď
Change Center	🏠 Home Log Out Preferences 🚵 Record Help	Welcome, weblogic Connected to: base_domain
View changes and restarts	Home >Summary of Deployments >JMS Modules	
Click the Lock & Edit button to modify, add or delete items in this domain.	JMS Modules	
Lock & Edit	JMS system resources are configured and stored as modules similar to standard J2EE mo connection factories, templates, destination keys, quota, distributed queues, distributed (SAF) parameters. You can administratively configure and manage JMS system modules a This page summarizes the JMS system modules that have been created for this domain.	topics, foreign servers, and JMS store-and-forward
Domain Structure base_domain	This page summarizes the JPD system mounes that have been treated for this domain.	
Environment     Deployments		
D-Services	JM5 Modules	
	Click the Lock & Edit button in the Change Center to activate all the buttons on this page	je.
Store-and-Forward Agents	New Delete	Showing 1 to 2 of 2 Previous   Next
Path Services ⊡rBridges	🗖 Name 🗞	Туре
Data Sources	jmsResources	System
Persistent Stores	WseeJmsModule	System
Work Contexts	New Delete	Showing 1 to 2 of 2 Previous   Next
How do I		
Configure JMS system modules		

**32.** Click the appropriate response link, for example, **Adapter\_outbound\_ PSResponse**, as shown in Figure 7–126.

Figure 7–126 Summary of Resources

🔆 Favorites 🛛 🚖 🏀 Suggested Sites 👻 🙋 Web Slice G	allery 🔻						
Settings for jmsResources - base_domain - WLS Console			📩 • 🖻	🕽 👻 🚍 🔹 Page 🔹 Safety 👻 Tools 🕶 🍕			
Store-and-Forward AgentsJMS ModulesPath Services BBridgesData SourcesPorta SourcesPortigon JNDI ProvidersWork Contexts How do I	file. More Info This page summarizes the JMS resources that have been created for this JMS system module, including queue and topic destinations, connection factories, JMS templates, destination sort keys, destination quota, distributed destinations, foreign servers, and store-and-forward parameters. Customize this table Summary of Resources						
Configure JMS system modules	Ne	Delete	9	Showing 1 to 10 of 14 Previous   Next			
<ul> <li>Configure subdeployments in JMS system modules</li> </ul>		Name 🚕	Туре	JNDI Name			
Configure resources for JMS system modules		Adapter_outbound_PSRequest-1531625329	Queue	Adapter_outbound_PSRequest			
System Status		Adapter outbound PSResponse2015668417	Queue	Adapter_outbound_PSResponse			
System status –		QueueIn	Queue	QueueIn			
Health of Running Servers		QueueIn.Quota	Quota	N/A			
Failed (0) Critical (0)		TemporaryTmplt	Template	N/A			
Overloaded (0) Warning (0)		weblogic.wlsb.jms.transporttask.QueueConnectionFactory	Connection Factory	weblogic.wlsb.jms.transporttask.QueueC			
OK (2)		wil.reporting.jmsprovider.ConnectionFactory	Connection Factory	wii.reporting.jmsprovider.ConnectionFact			
		wil.reporting.jmsprovider.queue	Queue	wli.reporting.jmsprovider.queue			
		wli.reporting.jmsprovider_error.queue	Queue	wli.reporting.jmsprovider_error.queue			
		wil.reporting.purge.queue	Queue	wli.reporting.purge.queue			
	Ne	Delete	(	Showing 1 to 10 of 14 Previous   Next			

**33.** Click the **Monitoring** tab, as shown in Figure 7–127.

Figure	7–127	Monitoring	Tab
--------	-------	------------	-----

No pending changes exist. Click the Release Configuration button to allow others to edit the domain.	Home >placeholder >Adapter_outbound_PSRequest-1531625329 >placeholder >JM5 Modules >imsResources >Adapter_outbound_PSRequest-1531625329 >Summary of JM5 M Modules >imsResources > <b>Adapter_outbound_PSResponse2013668417</b>	essages >JMS
Lock & Edit	Settings for Adapter_outbound_PSResponse2015668417	
Release Configuration	Configuration Monitoring Control Security Subdeployment Notes	
Domain Structure	General Threshold Monitoring-Tab Overrides Logging Delivery Failure	
base_domain ⊡ "Environment	Save	
Deployments     Services     Messaging     Misses     Misses	Use this page to define the general configuration parameters for this queue, su sorting messages as they arrive on the queue.	ch as selecting a destination key for
Store-and-Forward Agents     MS Modules     Path Services	Bame: Adapter_outbound_PSResponse2015668417	The name of this JMS queue. More Info
Bridges     Data Sources     ""Persistent Stores     "Foreign JNDI Providers	JNDI Adapter_outbound_PSResponse	The global JNDI name used to look up the destination within the JNDI namespace. More Info
How do I      Configure queues      Configure (MS templates	Template: None	The JMS template from which the destination is derived. A template provides an efficient means of defining multiple destinations with similar configuration values. More

**34.** Enable the check box and click **Show Messages**, as shown in Figure 7–128.

## Figure 7–128 Destination Messages

Change Center	Home L	og Out Preferenc	es 🚵 Rea	ord Help			Q		
View changes and restarts						Welcon	ne, weblogia	Connected	to: base_dom
No pending changes exist. Click the Release Configuration button to allow others to edit the domain.	Modules >jms	holder >Adapter_out Resources >Adapter Resources > <b>Adapte</b>	_outbound_{	PSRequest-15	531625329 >5	ummary of JM	5 Messages >J	MS	
Lock & Edit	Settings for	Adapter_outbo	und_PSRe	sponse201	5668417				
Release Configuration	Configuratio	n Monitoring	Control	Security	Subdeploy	ment Not	es		
9 Environment **Deployments 9 Services		summarizes the ac	tive JMS de	stinations tł	hat have bee	n created fo	r this JMS m	odule.	
ase_domain = Environment — Deployments = Services — Messaging — JMS Servers — Store-and-Forward Agents — JMS Modules — "Path Services	Customiz	e this table ns (Filtered - Mo			hat have bee	n created fo		odule. L to 1 of 1 Pr	evious   Next
<ul> <li>■ Environment</li> <li>■ Environments</li> <li>■ Services</li> <li>■ Messaging</li> <li>■ Mis Servers</li> <li>■ Store-and-Forward Agents</li> <li>■ MS Modules</li> </ul>	Customize	e this table ns (Filtered - Mo ssages			Messages Current	n created fo Messages Pending			evious   Next Consumers High
<ul> <li>Environment</li> <li>Services</li> <li>Messaing</li> <li>"JMS Servers</li> <li>"Store-and-Forward Agents</li> <li>"JMS Modules</li> <li>"Path Services</li> <li>Bridges</li> <li>Data Sources</li> <li>"Persistent Stores</li> <li>"Foreign JNDI Providers</li> </ul>	Customiz Destinatio Show Mer	e this table ns (Filtered - Mo ssages	re Column	s Exist)	Messages	Messages	Showing 1 Messages	to 1 of 1 Pr	Consumers
Environment     Toppoyments     Services     Messaging     ""JNS Serviers     "Store-and-Forward Agents     "JNS Modules     ""Path Services     E" Bridges     "Data Sources     ""Persistent Stores	Customiz Destinatio Show Mer	e this table ns (Filtered - Mo ssages e & sources! er_outbound_PSF	re Column	s Exist)	Messages	Messages Pending	Showing J Messages Total 1	to 1 of 1 Pr Consumers Current	Consumers High

**35.** Click the **ID** link, as shown in Figure 7–129.

Figure 7–129 JMS Messages

<ul> <li>Environment</li> <li>Deployments</li> </ul>		Click on a me	sage to view its content	s.					
Services     Servers     Servers     Store-and-Forward Agents     '''''''''''''''''''''''''''''''''		Message Selector:						J	
Part de vites Bi-Bridges Data Sources Persistent Stores Foreign JNDI Providers Work Contexts	¥		his table s (Filtered - More Colu tte v Move v Impo		) nt⊻	Show	ing 1 to 1 of 1	Previous   Next	
How do I		🗖 ID 🖚		CorrId	Time Stamp	State String	JMS Delivery Mode	Message Size	
Manage queue messages     Manage distributed queue messages		□ <u>ID:&lt;851</u>	920.1304596143994.0>		Thu May 05 07:49:03 EDT 2011	visible	Persistent	2043	
Manage topic durable subscribers		New Dele	Move 🗸 Impo	Expo	ort 🗸	Show	ing1to1of1 F	Previous   Next	
System Status	Ξ	•						•	

The response document is shown under the Text field.

# 7.6 Configuring HTTP Proxy Services Using Oracle Service Bus (J2CA Configuration)

This section describes how to configure HTTP Proxy Services using Oracle Service Bus for a J2CA configuration.

1. Start the Oracle Service Bus and create the required project folders.

For more information, see Section 7.2.1, "Starting Oracle Service Bus and Creating Project Folders".

**2.** Generate and publish the WSDL from Application Explorer to the created project folder, and create a Business Service using the published WSDL.

For more information, see Section 7.2.3, "Publishing a WSDL From Application Explorer to Oracle Service Bus".

**3.** Open the Service Bus console page, as shown in Figure 7–130.

ORACLE' Serv	vice Bus 11gR1				1
Change Center	Welcome, weblogic Con	nected to : bas	e_domain	Home Oracle WLS Console Logout Help Orac	:le Su
<ul> <li>View Changes</li> <li>View All Sessions</li> </ul>	😂 Adapter/Busines	sService			_
Create Discard Ett.	References	0	Description - no descrip		
Project Explorer	Referenced By	0	Edit De	scription.	_
Projects Adapter BusinessService	😂 Folders				_
ProxyService wsdls	Enter New Folder Nam	ne:		Add Folder	
⊕- default				[	11 (I
	Name 🛆				
				No Folders to display.	
					It
	Delete				
					_

Figure 7–130 Service Bus Console Page

**4.** In the Project Explorer, select the **ProxyService** project folder, and click **Create**, as shown in Figure 7–131.

Figure 7–131 Project Explorer

View Changes			
View All Sessions	😂 Adapter/ProxyS	ervice	
Create Distant Ext.	References	0	Description - no description -
Project Explorer Projects	Referenced By	0	Edit Description.
Adapter     Horizon BusinessService	😂 Folders		
ProxyService	Enter New Folder Na	ime:	Add Folder
🗄- default			11
	Name 🛆		
			No Folders to display.
			R
	Delete		
	🖁 Resources		
	Create Resource:	Select Resource T	ype (M
			n 🗊

**5.** In the Create Resource list on the right pane, select **Proxy Service**, as shown in Figure 7–132.

-	I meleonic/ mebiogie	connected to . base_doma	Mann Minome i orace meo console i cogoar i nelp i	Ordele
eblogic session			weblogic session Created 5/5/11 6:25 AM No Conflic	ts N
No Conflicts				
View Changes	😂 Adapter/Prox	yService		
View All Sessions	Deferment	Select Resource Type	tion	
ctivate Discard Exit	References	Service Proxy Service	ription -	
oject Explorer	Referenced By	Business Service Split-Join	Description	
ects dapter	😂 Folders	Interface WSDL XML Schema		
BusinessService ProxyService	Enter New Folder		Add Folder	
wsdls		Transformation		
efault	Name 🛆	XQuery XSLT MFL File		
		Security Service Account Service Key Provider	No Folders to display.	
		Utility JAR		
	Delete	Alert Destination XML Document		
		Bulk		
	🔒 Resources	Resources from URL Zipped Resources		

Figure 7–132 Proxy Service

6. In the Service Name field, enter an appropriate name, as shown in Figure 7–133.

Figure 7–133 Service Name

weblogic session		weblogic session Created 5/5/11 9:25 AM No	Conflicts N					
No Conflicts		······································						
View Changes	🝃 Create a Proxy Service (Adapter/ProxyService/)							
View All Sessions	General Configuration							
Activate Discard Exit	Service Name*	Adapter_outbound_PS						
Project Explorer Projects  - Adapter - BusinessService	Description	× •						
ProxyService wsdls	Service Type*	Create a New Service						
⊕- default		C WSDL Web Service	(port or bi					
		C Transport Typed Service						
		C Messaging Service						
		C Any SOAP Service SOAP 1.1 -						
		Any XML Service						
		Create From Existing Service						
		O Business Service	Bro					
		O Proxy Service	Bro					
	Next >>	Last >> Cancel	~					

**7.** In the Service Type section, under Create From Existing Service, select the **Business Service** radio button and click **Browse**, as shown in Figure 7–134.

s I I I I I I I I I I I I I I I I I I I	General Configurat	on
Exit	Service Name*	Adapter_outbound_PS
er ce	Description	
	Service Type*	Create a New Service          C       WSDL Web Service       Browse         (port or binding       (port or binding         C       Transport Typed Service         C       Messaging Service         C       Any SOAP Service         SOAP 1.1       Create From Existing Service
		Business Service     Proxy Service     Browse

Figure 7–134 General Configuration

8. Select the existing Business Service and click Submit, as shown in Figure 7–135.

Figure 7–135 Business Service

Orac	le Service Bus : Select Business Service - Windows Inter	net Explorer			
ي 😂	Select Business Service				
💐 S	earch: Name: Path:		Search	View All	
			Items 1-4 of 4	4 1 ▶ №	
	Name 🛆	Path .		Resource Type	
6	Adapter_outbound_BS	Adapter/BusinessService		Business Service	
Ċ.	fileout	default/business service		Business Service	
0	isdsrv22_samp_node_call_invoke_bs	default/business service		Business Service	
Ċ.	isdsrv22_samp_node_invoke_bs	default/business service		Business Service	
			Items 1-4 of 4	4 1 🕨 🕅	
	Submit Cancel				

**9.** Click **Next**, as shown in Figure 7–136.

🞾 Create a Proxy Se	ice (Adapter/ProxyService/)	
General Configuration		
Service Name*	Adapter_outbound_PS	
Description		
Service Type*	Create a New Service       Browse         C       WSDL Web Service       (port or binding)         C       Transport Typed Service       Any SOAP Service         C       Any SOAP Service       SOAP 1.:▼         C       Any XML Service       SOAP 1.:▼	
Next >>	Create From Existing Service         Business Service       Adapter/BusinessService/Adapter_outbd         Proxy Service       Browse         Last >>       Cancel	

Figure 7–136 General Configuration

**10.** Select **http** in the Protocol list and click **Next**, as shown in Figure 7–137.

Figure 7–137 Transport Configuration

Create a Proxy Service (Adapter/ProxyService/Adapter_outbound_PS)							
Transport Configuration							
Protocol*	http 💌						
Endpoint URI*	Format: /someName /Adapter/ProxyService/Adapter_outbound_PS						
Get All Headers	C Yes No Header Add	]					
	HEADER	ACTION					
	There are no headers configured.						
<< Prev.	Last >> Cancel						

**11.** Click **Next**, as shown in Figure 7–138.

Figure 7–138	HTTP	Transport	Configuration
--------------	------	-----------	---------------

View Changes	Create a Proxy Service (Adapter/ProxyService/Adapter_outbound_PS)			
View All Sessions     Activate Discard Exit	HTTP Transport Configuration			
	HTTPS required			
Project Explorer Projects - Adapter - BusinessService - ProxyService - wsdls	Authentication	<ul> <li>None</li> <li>Basic</li> <li>Client Certificate</li> <li>Custom Authentication (See Advanced Settings)</li> </ul>		
⊕- default	Dispatch Policy	default		
	Request Encoding			
	Response Encoding			
	Advanced Settings			
	<< Prev. N	ext>> Last>> Cancel		

**12.** Click **Next**, as shown in Figure 7–139.

Figure 7–139 Operation Selection Configuration

	View Changes	Create a Proxy Service (Adapter/ProxyService/Adapter_outbound_PS)			
View All Sessions	Operation Selection Configuration				
	Activate Discard Exit Project Explorer Projects - Adapter - BusinessService - ProxyService - wsd/s - default	Enforce WS-I Compliance			
		Selection Algorithm	<ul> <li>C Transport Header</li> <li>C SOAPAction Header</li> <li>C WS-Addressing</li> <li>C SOAP Header</li> <li>© SOAP Body Type</li> </ul>		
		<< Prev.	lext >> Cancel		

**13.** Enable the **Transaction Required** check box and click **Next**, as shown in Figure 7–140.

Figure 7–140 Message Handling

<ul> <li>View Changes <ul> <li>View All Sessions</li> </ul> </li> <li>Activate Discard Exit</li> </ul> Project Explorer Projects <ul> <li>Adapter</li> <li>BusinessService</li> <li>WorkyService</li> <li>wsdls</li> <li>default</li> </ul>	Create a Proxy Service (Adapter/ProxyService/Adapter_outbound_PS)			
	Message Handling			
	Transaction Required	Enabled		
	Content Streaming	Enabled  Buffer Type  Memory Buffer  Disk Buffer  Compression  Enabled		
	XOP/MTOM Support	Enabled     C Include Binary Data by Reference     Include Binary Data by Value		
	Attachments	Page Attachments to Disk		
	<< Prev.	Next >> Last >> Cancel		

**14.** Click **Save**, as shown in Figure 7–141.

Figure 7–141 Save

		Ξ.
Protocol	http	
Endpoint URI	/Adapter/ProxyService/Adapter_outbound_PS	
Get All Headers	No	
Headers		
HTTP Transport Configuration		Z
HTTPS required	No	
Authentication	None	
Operation Selection Configuration		Ż
Enforce WS-I Compliance	No	
Selection Algorithm	SOAP Body Type	
Message Handling Configuration		Ż
Transaction Required	Enabled	
Content Streaming	Disabled	
XOP/MTOM Support	Disabled	
Page Attachments to Disk	No	
<< Prev. Save	Cancel	

The created Proxy Service is saved, as shown in Figure 7–142.

Project Explorer Projects - Adapter - BusinessService - ProxyService - wolds	References Referenced By Control By Referenced By	2 Ref(s) 0	- no description -		
B⊢ default	Enter New Folder Name: <u>Name</u>		Add No Folders to	Folder	🔝 Items 0-0 of (
	Delete			о мариоу.	Items 0-0 of (
	<ul> <li>Resources</li> <li>Create Resource: Select F</li> </ul>	Resource Typ	De 💌		Items 1-1 of 1
Operations	□     Name       □     ★ Adapter_outbound_	PS		Resource Type Proxy Service	Actions
Resource Browser	Delete				Items 1-1 of 1

Figure 7–142 Proxy Service

**15.** Click **Activate** in the left pane, and then **Submit** on the right pane, as shown in Figure 7–143.

Figure 7–143 Activate Session

Change Center 🔗	Welcome, weblogic	onnected to : base_domain	🟠 Home	Ora	cle WLS Console	Logou	t
weblogic session		[	weblogic sessi	ion	Created 5/5/11 10	):45 AM	N
No Conflicts							
View Changes	🔳 Activate Sessio	n					
View All Sessions	Session Name	weblogic					
Activate Discard Exit	User	weblogic					
Project Explorer	Description					*	
Projects ⊖- Adapter → BusinessService → ProxyService → wsdls ⊕- default	Submit	to activate current session				1000	

**16.** Click **ProxyService** in the Projects folder on the left pane, as shown in Figure 7–144.

Figure 7–144 ProxyService

<ul> <li>View Changes</li> <li>View All Sessions</li> </ul>	😂 Adapter/ProxyServ	ice	
Create Discard Extr	References	0	Description - no description -
Project Explorer	Referenced By	0	Edit Description
Projects - Adapter - BusinessService - ProxyService - wsdls - default	<ul> <li>➢ Folders</li> <li>➢ Enter New Folder Name:</li> <li><u>Name</u> △</li> </ul>		Add Folder.

**17.** Click the **Launch Test Console** icon for the created Proxy Service, as shown in Figure 7–145.

Figure 7–145 Launch Test Console

🖁 Resources							
Create Resource: Select Resource Typ							
			Ttems 1-1 of 1	1			
Γ	Name 🗠	Resource Type	Actions	Option			
Γ	adapter_outbound_PS	Proxy Service	🕴 🐝 🗳	ale 🔐 💱			
			Iten[Launch Test C	onsole 1			
	Delete						

- **18.** Uncheck the **Direct Call** check box, provide the input values for **Payload**, and click **Execute**.
- **19.** Review the **Response Document**.

# Configuring an Outbound and Inbound Process for Oracle Service Bus Using JDeveloper

Oracle Application Adapter for Siebel integrates seamlessly with Oracle JDeveloper to facilitate Web service integration.

This chapter contains the following sections:

- Section 8.1, "Configuring an OSB Outbound Process Using JDeveloper (J2CA Configuration)"
- Section 8.2, "Configuring an OSB Inbound Process Using JDeveloper (J2CA Configuration)"
- Section 8.3, "Configuring an OSB Outbound Process Using JDeveloper (BSE Configuration)"
- Section 8.4, "Configuring a JMS Inbound Process Using JDeveloper (J2CA Configuration)"
- Section 8.5, "Configuring a JMS Outbound Process Using JDeveloper (J2CA Configuration)"
- Section 8.6, "Configuring an HTTP Outbound Process Using JDeveloper (J2CA Configuration)"

# 8.1 Configuring an OSB Outbound Process Using JDeveloper (J2CA Configuration)

This section describes how to configure an OSB outbound process to your Siebel system, using Oracle JDeveloper for J2CA configurations.

A sample project has been provided for this outbound use case scenario in the following folder of the Application Adapters installation:

```
<ADAPTER_HOME>\etc\sample\SIEBEL_Samples.zip\SIEBEL_Samples\OSB_
Jdeveloper\J2CA\Siebel_Sample_J2CA_OSB_Outbound_Project
```

This section includes the following topics:

- Section 8.1.1, "Creating a Service Bus Application for OSB"
- Section 8.1.2, "Defining an OSB Outbound Process"
- Section 8.1.3, "Deploying the OSB Outbound Process"

# Prerequisites

Before you design an OSB outbound process, you must generate the respective WSDL file using Application Explorer. For more information, see Section 4.4.1, "Generating WSDL for Request/Response Service" on page 4-8.

# 8.1.1 Creating a Service Bus Application for OSB

Perform the following steps in JDeveloper to create a service bus application for OSB.

- **1.** Create a new OSB application.
- **2.** Enter a name for the OSB Application (for example, J2CA\_Outbound) and click **Finish**, as shown in Figure 8–1.

Figure 8–1 Name Your Application Pane

👩 Create Service Bus Apj	plication - Step 1 of 1	×
Name your application		<b>F</b>
Application Name	Application Name: J2CA_Outbound Directory: C:\soabeta\WORK\mywork\J2CA_Outbound Application Package Prefix:	Browse
Help	< Back Next > Einish	Cancel

**3.** Enter a project name (for example, JCA\_Outbound), and click **Finish**, as shown in Figure 8–2.

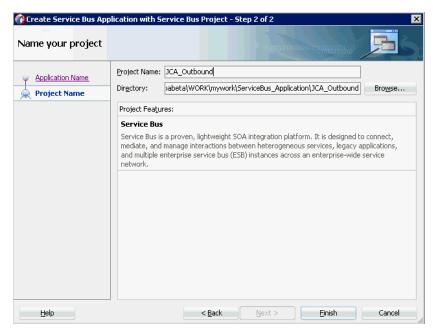


Figure 8–2 Name Your Project Pane

# 8.1.2 Defining an OSB Outbound Process

This section describes how to define an OSB outbound process. The following topics are included:

- Section 8.1.2.1, "Configuring a Third-Party Adapter Service Component"
- Section 8.1.2.2, "Configuring a File Transport Type Business Service"
- Section 8.1.2.3, "Creating a Proxy Service With Pipeline"
- Section 8.1.2.4, "Configuring the Routing Rules"

#### 8.1.2.1 Configuring a Third-Party Adapter Service Component

Perform the following steps to create a third party adapter service component along with the Business Service:

1. Drag and drop the **Third Party Adapter** component from the Service Bus Components pane to the External Services pane, as shown in Figure 8–3.

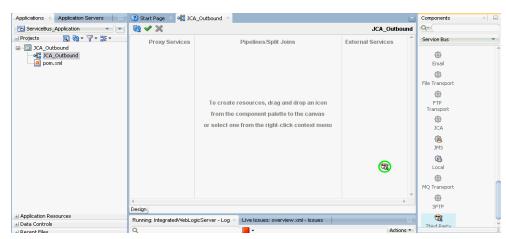


Figure 8–3 Third Party Adapter Component

The Create Third Party Adapter Service dialog is displayed, as shown in Figure 8–4.

Figure 8–4 Create Third Party Adapter Service Pane

🍘 Create Third Party	Adapter Service	×
Third Party Adapter	Service r service for a third party adapter.	4
Name:	Service	]
<u>Type:</u>	Reference 💌	
WSDL URL:		1
Port Type:	<b></b>	)
Operation:		)
<u>C</u> allback Port Type:		]
Operation:	<b></b>	]
JCA File:		1
Help	OK	Cancel

- **2.** Enter an appropriate name for the Third Party Adapter Service which will be used as the Business Service name.
- **3.** Ensure that **Reference** is selected from the Type drop-down list (by default).
- **4.** Click the Find existing WSDLs icon, which is located to the right of the WSDL URL field.

The WSDL Chooser dialog is displayed, as shown in Figure 8–5.

😚 WSDL Chooser	r						×
Application Server	File System	Project Libraries	SOA-MDS		WSIL		
Location:	: 🛅 C:\12c	_SOA\soa\soa\thirdp	arty\ApplicationAc	dapters\wsdls		- 0 0 0	9 🖽 🖽
<b>ê</b> î	🗐 32CA_C	utbound_invoke.ws	l				
Work							
Project							
Application							
Home	Eile Name:	2CA_Outbound_inv	oke.wsdl				
	File Type:	Web Service Definition	on Files (*.wsdl)				•
Selection: file:/C:/	/12c_SOA/soa	/soa/thirdparty/App	icationAdapters/w	sdls/J2CA_Outbo	ound_invoke.wsdl		
Help						OK	Cancel

Figure 8–5 WSDL Chooser Dialog

- **5.** Select the **File System** tab, then browse, and select an outbound WSDL file from the WSDL directory.
- 6. Click OK.

The Import Service Bus Resources dialog is displayed.

7. Click Next, as shown in Figure 8–6.

Figure 8–6 Source Pane

Source			
Source Configuration	Resource Type: Source URL: Resource Name:	d select an import destination. WSDL C:\ApplicationAdapters\wsdls\JCA_OB_invoke.wsdl JCA_OB_invoke.wsdl C:\soabeta\WORK\mywork\ServiceBus_Application\JCA_Outbound\Resources	
Help	1	< Back Next > Einish Can	:el

**8.** In the Configuration pane, click **Finish**.

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

**9.** Click the Find JCA file icon which is located to the right of the JCA File field, as shown in Figure 8–7.

Figure 8–7 Find JCA File Icon

👩 Create Third Party	Adapter Service	×
Third Party Adapter 9 Create a JCA adapter	Service r service for a third party adapter.	÷
<u>N</u> ame:	Service	
<u>Т</u> уре:	Reference 💌	
WSDL URL:	work\SOA_Application\J2CA_Outbound\SOA\WSDLs\J2CA_Outbound_invoke.wsdl	6
Port Type:	queryWithViewPortType	
Operation:	queryWithView 🔹	
<u>C</u> allback Port Type:	No Callback	
Oper <u>a</u> tion:		
<u>J</u> CA File:		2
Help	OK	Cancel

The Transformation Chooser dialog is displayed.

- **10.** Select the JCA properties file from the WSDL directory.
- **11.** Click **OK**. The Copy File message is displayed.
- 12. 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, as shown in Figure 8–8.

Create Third Party hird Party Adapter 9		2
Create a JCA adapte	r service for a third party adapter.	T
<u>N</u> ame:	Service	
<u>T</u> ype:	Reference 💌	
WSDL URL:	work\SOA_Application\J2CA_Outbound\SOA\WSDLs\J2CA_Outbound_invoke.wsdl	6
Port Type:	queryWithViewPortType	
Operation:	queryWithView	
<u>C</u> allback Port Type:	No Callback	
Oper <u>a</u> tion:		
<u>J</u> CA File:	J2CA_Outbound_invoke_3P, jca	6
Help	ОК	Cancel

Figure 8–8 Create Third Party Adapter Service Dialog

#### **13.** Click **OK**.

The Business service component is created in the External Services pane.

## 8.1.2.2 Configuring a File Transport Type Business Service

Perform the following steps to create a File Transport Business Service:

**1.** Drag and drop the **File Transport** component from the Advanced pane to the External Services pane.

The Create Business Service dialog is displayed.

**2.** In the Service Name field, enter any name you wish for the Business Service (for example, FileOut), and click **Next**, as shown in Figure 8–9.

Figure 8–9 Create Service Pane

🕜 Create Business Serv	ice - Step 1 of 3							×
Create Service						0101017191919191919	1	
Create Service	General Service N <u>a</u> me: Location: Description	FileOut  C:\soabeta\W	VORK\mywork\S	jerviceBus_Applic	ation\JCA_Outbourn	d		] 🔍
	••• Definition ••• • Iransport	file					•	]
	Messages:							
Help				< <u>B</u> ack	Next >	Einish	Cance	

The Type pane is displayed. The Any XML option is selected by default.

**3.** Click **Next**, as shown in Figure 8–10.

Figure 8–10 Type Pane

😚 Create Business Serv	vice - Step 2 of 3					×
Туре						
Create Service Type Transport	Service Type: Any 2ML Messaging:					¥
Help			< <u>B</u> ack	<u>N</u> ext >	Einish	Cancel

The Transport pane appears.

**4.** Provide the output location in the Endpoint URI field (for example, c:/output) and click **Finish**, as shown in Figure 8–11.

🕜 Create Business Servic	e - Step 3 of 3		×
Transport			1
🔍 Create Service	Service Type	e: Messaging	
y <u>Type</u>	Transport	file	•
Stransport	Endpoint <u>U</u> RI:	file:///C:/output	
	1	Format: file:///root-dir/dir1	
	]		
Help		< <u>Back</u> <u>N</u> ext > <u>Finish</u>	Cancel

Figure 8–11 Transport Pane

The File Transport Business service Fileout is created and displayed.

**5.** Double-click the created Business service **Fileout** and provide the values for the Prefix and Suffix fields in the Transport Details Tab, as shown in Figure 8–12.

Figure 8–12 Transport Details

Applications × Application Servers	🕐 Start Page 💉 🖓 🖓	CA_Outbound × 😰	FileOut.bix ×	
ServiceBus_Application  Projects  CA_OUtbound  Resources  CA_OB_invoke_3P.jca  CA_OB_invoke_BS.bix  CA_OB_invoke_BS.concrete.wsdl  CA_OB_invoke_request.xsd  CA_OB_invoke_response.xsd  CA_OB_invoke_wsdl  CA_OB_invoke_wsdl  CA_OUtbound  pom.xml	General Transport <b>Transport Details</b> Message Handling Performance	FILE Transpor Use this page to con Prefix Suffix Request encoding	figure the transport information for this service} DCA_Outbound .xml	(2)

# 8.1.2.3 Creating a Proxy Service With Pipeline

Perform the following steps to create a Proxy Service with Pipeline:

1. Drag and drop the File Transport component from the Advanced Components pane to the Proxy Services pane, as shown in Figure 8–13.

3 Start Page A Page A Dutbound Components Resources 🝓 🗸 🗙 J2CA\_Outbound Q.-Service Bus Socket Tuxedo 0 UMS W5 Applications ₽. 9 6 FileOut JDE World Oracle **@** ٠ SAP <u>ې چې</u> Advanced Service -3 **BPEL 10g** Custom 儆 8 DSP E JB 4 Email Fransport

Figure 8–13 File Transport Component

The Create Proxy Service pane is displayed.

- **2.** In the Service Name field, enter any name you wish for the Proxy service (for example, JCA\_Outbound\_PS). By default, **Generate Pipeline** is selected.
- **3.** Click **Next**, as shown in Figure 8–14.

Figure 8–14 Create Service Pane

Create Proxy Service	e - Step 1 of 3					
reate Service						
Create Service <u>Ivpe</u> Transport	General Service N <u>a</u> me: Location: Description	JCA_Outbound_P5  [C:\soabeta\WORK\mywork\S	erviceBus_Applicati	on\JCA_Outbound		Q
	Definition <u>Transport</u>	file				
		JCA_Outbound_PSPipeline				
	Messages:					
<u>H</u> elp			< <u>B</u> ack	<u>N</u> ext >	Einish	Cancel

The Type pane is displayed.

**4.** Select the **Messaging** option, set the Request to **XML** and Response as **None**, and then click **Next**, as shown in Figure 8–15.

🕜 Create Proxy Service	- Step 2 of 3					>
Туре					10101010101010101010101	
Create Service Type	Service Type: Me					•
		Sche	na:type / element:			Q
	Re	sponse: None	•			-
	Messages:					
				~		
Help			< <u>B</u> ac	k <u>N</u> ext >	Einish	Cancel

Figure 8–15 Type Pane

The Transport window is displayed.

**5.** Provide the input location in the Endpoint URI field (for example, c:/input) and click **Finish**, as shown in Figure 8–16.

🍘 Create Proxy Service -	Step 3 of 3					×
Transport						1
Create Service <u>Ivpe</u> Transport	Service Type Iransport Endpoint URI:	rile file file:///C:/Input Format: file:///root-dir/dir1				
Нер			< <u>B</u> ack	Next >	Einish	Cancel

The Proxy service along with the pipeline is created and displayed.

**6.** Double-click the created Proxy Service (for example: JCA\_Outbound\_PS), as shown inFigure 8–17.

Figure 8–17 Proxy Service Edit

3 Start Page 💉 📲 J2CA_Outbound 🚿	
🕲 🗸 🗙	J2CA_Outbound
JCA_Outbound_PS	JCA_Outbound_P

**7.** In the displayed Proxy Service configuration page, select **Transport Details** and provide the values for Stage and Error Directory, as shown in Figure 8–18.

Figure 8–18 File Transport Configuration

ServiceBus_Application Projects Content of the serviceBus_Application Projects Content of the serviceBus_Application Content of the serviceBus_Ap	General Transport Transport Details Security	FILE Transport Configuration           Use this page to configure the transport information for this service}           File Mask*			
		Managed Server Poling Interval* 60 Read Linik* 10 Sort By Arrival Scan SubDirectories Pass By Reference			
<()>		Post Read Action* Delete Stage Directory* C:\stage Archive Directory Error Directory* C:\error Beruect encoding Laf e			

8. Save and close the Proxy Service configuration page.

# 8.1.2.4 Configuring the Routing Rules

Perform the following steps to configure the routing rules:

1. Connect the Pipeline to the Business Service (for example, Service) as shown in Figure 8–19.

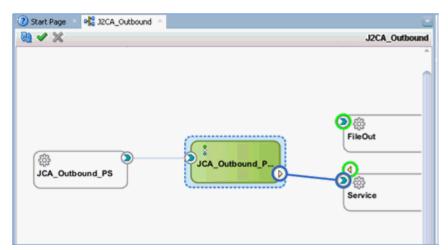


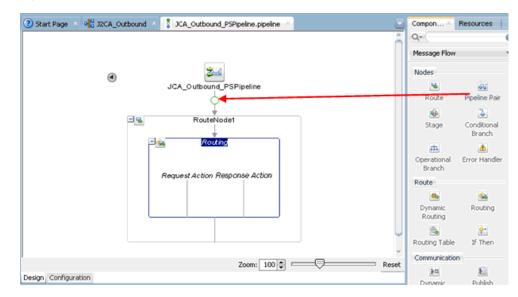
Figure 8–19 Business Service Pipeline

**2.** Double-click on the pipeline (for example, JCA\_Outbound\_PSPipeline) in the Pipelines/Split Joins pane.

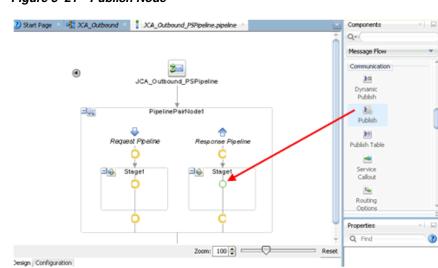
The Pipeline configuration page is displayed.

**3.** Drag and drop the **Pipeline Pair** node from Nodes pane to the area below the Pipeline (for example: JCA\_Outbound\_PSPipeline), as shown in Figure 8–20.

Figure 8–20 Pipeline Pair Node



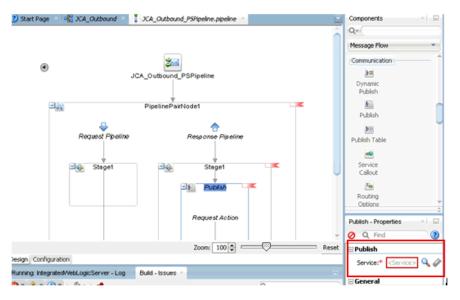
**4.** Drag and drop the **Publish** node from the Communication pane to the area beneath Stage1 of the Response Pipeline, as shown in Figure 8–21.



#### Figure 8–21 Publish Node

**5.** Click on the browse icon to the right of the Service field in the right pane of Publish Properties, as shown in Figure 8–22.

#### Figure 8–22 Browse Icon



**6.** In the displayed Resource Chooser window, select the **Fileout.bix** File Transport Business service and click **OK**, as shown in Figure 8–23.

😚 Resource Chooser	X
Resource Chooser Pipeline Application I2CA_Outbound I2CA_Outbound_PS.proxy I2CA_Outbound_PS.pipeline.pipeline Service.bix	
Selection: File:/C:/Jdeveloper/WORK/mywork/ServiceBusApplication/J2CA_Outbound/fileout.bix	
Help	OK Cancel

Figure 8–23 Resource Chooser

In the right pane, the selected service is configured in the Publish pane, as shown in Figure 8–24.

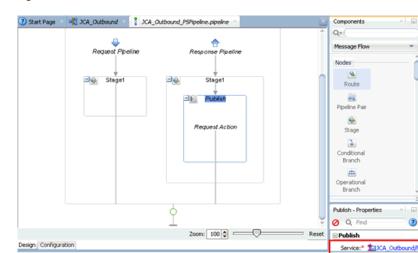


Figure 8–24 Publish Pane

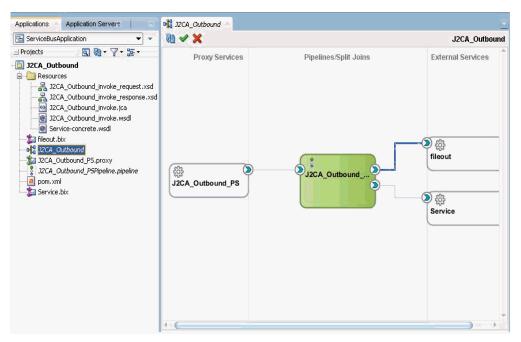
**7.** Click on the Routing to verify the Service is selected properly, as shown in Figure 8–25.

🕐 Start Page × 🖓 JCA_Outbound 🗵 🏅 JCA_Outbound_PSPipeline.pipeline 🚿 📃	Components	× 🗐
	Q+	
	Message Flow	•
	Route	· · · · · · · · · · · · · · · · · · ·
		<u>64</u>
	Dynamic Routing	Routing
RouteNode1	<u>a</u>	2
· · · · · · · · · · · · · · · · · · ·	Routing Table	If Then
Routing	Communication	
	200	Ł
Request Action Response Action	Dynamic Publish	Publish
	<b>MB</b>	-
	Publish Table	Service Callout
	54	
	Routing - Propert	ies × 🗉
96	🥝 Q Find	0
Zoom: 100 🗢 Reset	Routing	
Design Configuration	Service:*	CA_Outbound/JCA_OB
Running: Integrated/VebLogicServer - Log Build - Issues ×	Operation:*	
🔞 n 🕼 n 🕼 + 🖌 🕜	obergoon. (	dou/orde

Figure 8–25 Pipeline Configuration

- 8. Save and Close the Pipeline configuration page.
- **9.** Double-click the overview.xml file (for example: JCA\_Outbound), and click **Save All** in the menu bar to save the OSB process, as shown in Figure 8–26.

Figure 8–26 Save All Icon



## 8.1.3 Deploying the OSB Outbound Process

Perform the following steps to deploy the OSB outbound process.

 Right-click the OSB project, select Deploy, and then select OSB\_Project1\_ ServiceBusProjectProfile..., as shown in Figure 8–27.

----- IB2E\_OUTBOUN New 🕘 BSE\_Outbou Edit Project Source Paths... Fileout.bix X Delete Project BSE\_OUTB 📩 iBSE\_Outbo Service Bus ۶ 8 눌 iBSE\_Outbo  $\mathbf{\Sigma}$ 👸 Find Project Files iBSE Outbound 💈 iBSE\_Outbo Show Classpath a pom.xml Sho<u>w</u> Overview 🗄 🛅 JCA\_Outbound Deploy OSB\_Project1\_ServiceBusProjectProfile... 🚵 Make IBSE\_OUTBOUND.jpr Ctrl-F9 New Deployment Profile... 🕍 Rebuild IBSE\_OUTBOUND.jpr 🛛 Alt-F9

Figure 8–27 Deploy Option

The Deployment Action page is displayed.

2. Click Next, as shown in Figure 8–28.

#### Figure 8–28 Deployment Action Page

Deploy OSB_Project1_9	ServiceBusProjectProfile
Deployment Action	Select a deployment action from the list below. Deploy to Service Bus Server  Deploy a Service Bus project to a Weblogic server which includes a Service Bus runtime.
Help	< Back Next > Finish Cancel

The Select Server page is displayed.

**3.** Select an available application server that was configured and click **Next**, as shown in Figure 8–29.

Figure 8–29 Select Server Page

Osploy OSB_Project1_	ServiceBusProjectPro	ofile			×
Select Server					
Deployment Action	Application Servers: IntegratedWebLogicS	ierver			🕂 🕆 🕂
Summary					
	Overwrite modules	; of the same nam	e		
Help		< <u>B</u> ack	<u>N</u> ext >	<u> </u>	Cancel

The Summary page is displayed, as shown in Figure 8–30.

Figure 8–30 Summary Page

Deploy OSB_Project1_9	ServiceBusProjectPr	ofile			×
Summary					
Deployment Action Select Server Summary	Server Platfo		¢		
Help		< <u>B</u> ack	Next >	Einish	Cancel

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

The process is deployed successfully, as shown in Figure 8–31.

Deployment - Log × Build - Issues Q [10:52:18 AM] ---- Deployment started. ----[10:52:18 AM] Target platform is Standard Java EE. [10:52:18 AM] Elapsed time for deployment: 1 second [10:52:18 AM] ---- Deployment finished. ----

**5.** Copy and paste an input XML file in the input folder you have configured (for example, C:\input).

The output is received in the configured output location (for example, C:\output).

## 8.2 Configuring an OSB Inbound Process Using JDeveloper (J2CA Configuration)

Figure 8–31 Successful Deployment Message

This section describes how to configure an OSB inbound process to your Siebel system, using Oracle JDeveloper for J2CA configurations.

A sample project has been provided for this inbound use case scenario in the following folder of the Application Adapters installation:

```
<ADAPTER_HOME>\etc\sample\SIEBEL_Samples.zip\SIEBEL_Samples\OSB_
Jdeveloper\J2CA\Siebel_Sample_J2CA_OSB_Inbound_Project
```

This section includes the following topics:

- Section 8.2.1, "Creating a Service Bus Application for OSB"
- Section 8.2.2, "Defining an OSB Inbound Process"
- Section 8.2.3, "Deploying the OSB Inbound Process"

#### Prerequisites

Before you design an OSB inbound process, you must generate the respective WSDL file using Application Explorer. For more information, see Section 4.5.1, "Generating WSDL for Event Integration" on page 4-34.

## 8.2.1 Creating a Service Bus Application for OSB

To configure an OSB inbound process, you must create service bus application for OSB. For more information, see Section 8.1.1, "Creating a Service Bus Application for OSB" on page 8-2.

## 8.2.2 Defining an OSB Inbound Process

This section describes how to define an OSB inbound process. The following topics are included:

- Section 8.2.2.1, "Configuring a Third-Party Adapter Service Component"
- Section 8.2.2.2, "Creating a Pipeline"
- Section 8.2.2.3, "Configuring a File Transport Type Business Service"

• Section 8.2.2.4, "Configuring the Routing Rules"

### 8.2.2.1 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 Service Bus Components Pane to the Proxy Services, as shown in Figure 8–32.

Figure 8–32 Third Party Adapter Service Component

🕐 Start Page 👘 📲 JC/	A_Outbound 👋 👯 JCA_Inbound 🐣	<b></b>	Components		.
8a 🗸 🗶		JCA_Inbound	Q.v.(		
Proxy Services	Pipelines/Split Joins	External Services	Service Bus		•
			BPEL 10g	Custom	4
			⊕ DSP	E38	
	To create resources, drag and drop an icon		@ Email	File Transport	
	from the component palette to the canvas or select one from the right-click context menu		FTP Transport	ا الم	
<b>(3)</b>			الله ۲MS	Cocal	1
			- @ MQ Transport	(SFTP)	
		Ļ	Third Party		

The Create Third Party Adapter Service dialog is displayed.

- **2.** Enter any name you wish for the Third Party Adapter Service or leave it to the default value.
- **3.** Ensure that **Service** is selected from the Type drop-down list (by default).
- **4.** Click the Find existing WSDLs icon, which is located to the right of the WSDL URL field, as shown in Figure 8–33.

🚺 Create Third Party	Adapter Service	×
Third Party Adapter	Service er service for a third party adapter.	÷
<u>N</u> ame:	Service	]
Type:	Service	
WSDL URL:		2
Port Type:	-	]
Operation:	-	]
⊆allback Port Type:	-	)
Operation:		]
JCA File:		] 🐿
Help	OK	Cancel

Figure 8–33 Third Party Adapter Service Dialog

The WSDL Chooser dialog is displayed, as shown in Figure 8–34.

Figure 8–34 WSDL Chooser Dialog

🍈 WSDL Chooser							×
Application	Application Server	File System	Oracle Acadia Server	Project Libraries	SOA-MDS	UDDI	WSIL
Location:	C:\Applica	tionAdapters\ws	dls			- 0 0 2	) 🖆 📰 💷
Work Project Application	GetEffectiv		e.wsdl				
Home	Eile Name: JCA	A_IB_receive.wsc	1				
	File <u>T</u> ype: We	b Service Definiti	ion Files (*.wsdl)				•
Selection: file:/C:/	ApplicationAdapt	ters/wsdls/JCA_I	B_receive.wsdl				
Help						ОК	Cancel

- **5.** Select the File system folder, then browse and select an inbound WSDL file from the WSDL directory.
- 6. Click OK.

The Import Service Bus Resources dialog is displayed.

7. Click Next.

**8.** In the Configuration window, click **Finish**.

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

- **9.** Click the Find JCA file icon, which is located to the right of the JCA File field. The Transformation Chooser dialog is displayed.
- **10.** Select the JCA properties file from the WSDL directory.
- **11.** Click **OK**.

The Copy File message is displayed.

12. Click Yes.

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

You are returned to the Create Third Party Adapter Service dialog, as shown in Figure 8–35.

Figure 8–35 Create Third Party Adapter Service Dialog

👩 Create Third Party	Adapter Service	×
Third Party Adapter : Create a JCA adapte	Service r service for a third party adapter.	÷
<u>N</u> ame:	Service	
<u>Т</u> уре:	Service	
WSDL URL:	mywork\SOA_Application\J2CA_Inbound\SOA\WSDLs\J2CA_Inbound_receive.wsdl	1
Port Type:	SampleAccountPortType	
Operation:	SampleAccount	
<u>C</u> allback Port Type:	No Callback	
Oper <u>a</u> tion:		
JCA File:	nywork/SOA_Application/J2CA_Inbound/SOA/Adapters/J2CA_Inbound_receive.jca	1
Help	OK	Cancel

13. Click OK.

The third party adapter service component is created in the Proxy Services pane.

## 8.2.2.2 Creating a Pipeline

Perform the following steps to generate inbound proxy service with Pipeline:

- 1. Under Service Bus, click Resources.
- 2. Drag and drop the Pipeline to the Pipelines/Split Joins pane.
- 3. Provide a name for the Pipeline and click next, as shown in Figure 8–36.

🈚 Create Pipeline Servi Create Service	ce - Step 1 of 2	raisa presidante a construction of the second s	×
Create Service UPP	General Service Name: Location: Description	J2CA_Inbound_Pipeline C:\Jdeveloper_SOA\work\mywork\OS8_Application\JCA_Inbound	٩,
	Definition		2
Help	Messages:	< Back Next > Enish Cancel	

Figure 8–36 Create Service Page

- **4.** In the Create Pipeline Service window, select the **WSDL** option and click on the WSDL URL.
- Select Application in the WSDL chooser window, then select service-concrete.wsdl in the appropriate OSB project, and then click OK, as shown in Figure 8–37.

Figure 8–37 Select WSDL Page

Select WSDL							
Application	Application Server	File System	Project Libraries	SOA-MDS		WSIL	
	on						
Selection: file:/C	:/Jdeveloper_50/	a/work/mywork/OS	8_Application/J	CA_Inbound/Reso	urces/Service-co	ncrete.wsdl	
Help						ок	Cancel

**6.** Clear the Expose as a Proxy Service check box and click **Finish**, as shown in Figure 8–38.

reate Service	Service Type: V			
/pe			ound/Resources/Service-concrete	•
	O Any SOAP:	SOAP 1		
	○ Any XML			
	O Messaging:	Reguest		~
		Respons	e:	-
	Expose as a	Proxy Se	ervice	
	Proxy Name:	J2CA_In	bound_PipelineProxyService	
	Proxy Location:	C:\Jdev	eloper_SOA\work\mywork\OSB_Application\JCA_Inbound	C
	Proxy Transport:			-

Figure 8–38 Type Page

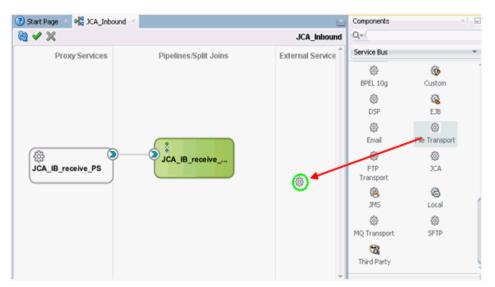
7. Drag and drop the Proxy Service to the Pipelines/Split Joins pane.

## 8.2.2.3 Configuring a File Transport Type Business Service

Perform the following steps to create the File Transport Type Business Service:

1. Drag and drop the **File Transport** component from the Advanced pane to the External Services pane, as shown in Figure 8–39.

Figure 8–39 File Transport Node



The Create Business Service dialog is displayed.

**2.** In the Service Name field, enter any name you wish for the Business Service (for example, FileOut), and click **Next**.

In the displayed Type Window, the Any XML option is selected by default.

- 3. Click Next.
- **4.** In the displayed Transport window, provide the output location in the Endpoint URI field (for example, c:\output), and click **Finish**, as shown in Figure 8–40.

Figure 8–40 Transport Pane

🕜 Create Business Servi	ce - Step 3 of 3					×
Transport						
Create Service Type Transport	Service Type	: Any XML file file:///C:/output Format: file:///root-dir/dir1				
Help			< <u>B</u> ack	Next >	<u>F</u> inish	Cancel

The FileOut Business service is created.

5. Double-click the FileOut Business service, as shown in Figure 8–41.

Figure 8–41 FileOut Business Service

Applications × Application Servers	🕐 Start Page 🔺 📲 JCA_Inbound	×		Components	×	1
🔁 ServiceBus_Application 🔹 💌	🗟 🗸 🗙		JCA_Inbound	Q.		
🖃 Projects 🛛 💽 🗸 🏹 🗸 🔀 🕶	Proxy Services	Pipelines/Split Joins	External Services	Service Bus	•	
CA_Inbound CA_Ishound CA_IB_receive_SP.jca CA_IB_receive_SP.jca CA_IB_receive_Sp.concrete.wsd CA_IB_receive_r		JCA_IB_receive		BPEL 10g BPEL 10g DSP Brail Brail BrTP	Custom Custom E38 File Transport Ø JCA	14
L a pom.xml				Transport JMS MQ Transport Third Party	්ධී Local SFTP	

The Configuration page is displayed.

**6.** Navigate to the Transport Details tab and provide the values for the Prefix and Suffix fields, as shown in Figure 8–42.

		*	
Applications × Application Servers	🕐 Start Page 🔺 🙀 JCA_Int	nbound 🛛 🏂 FileOut.bix 🐣	
🔁 ServiceBus_Application 🔹 💌			?
Projects  Control Con	Transport Use Transport Details Pre Message Handling Performance Sul	FILE Transport Configuration         e this page to configure the transport information for this service         refix       JCA_Inbound         uffix       .xml         equest encoding       utf-8	e}

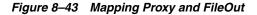
Figure 8–42 File Transport Configuration

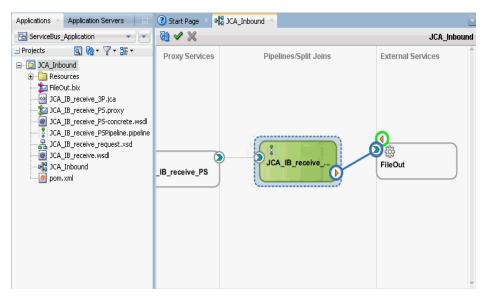
**7.** Save and close the Configuration page.

#### 8.2.2.4 Configuring the Routing Rules

Perform the following steps to configure the routing rules.

 Create a connection between the Pipeline (for example, JCA\_IB\_receive\_ PSPipeline) and the File Type Business Service (for example, FileOut), as shown inFigure 8–43.





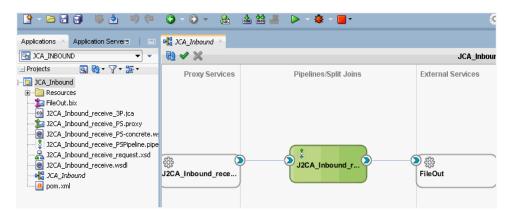
- 2. Double-click the Pipeline (for example, J2CA\_Inbound\_receive\_PSPipeline).
- **3.** Click the Routing pane and ensure that the File Type Business Service (for example, FileOut) is properly configured in the Service field, as shown in Figure 8–44.

۲	-	eceive_PSPipeline			-		Nodes Route	Dipeline Pair	Stage	Î
-		Node1					Conditional Branch Route	coperational Branch	A Error Handler	
	Request Action	Response Action					Dynamic Routing	Routing	A Routing Table	
·   [							If Then			
						Ļ	Communication Provide the second sec	) Publish	) Publish Table	
ration	:	Zoom: 100 🔹 💳	-0-			Reset	Publish			- 2
ng Build - Issa	ues 🐣						Routing - Propert	ies		
) 0   🖉 ד   🏓	•		Q	File	Lo	Pr •	Q C Find			2
					lin for		Service: 📚	UCA_INDOUND/P	ileOut.bix 🔍 🧳	

Figure 8–44 Routing Pane

- 4. Save and close the Pipeline configuration page.
- 5. Double-click on the overview.xml file (for example, JCA\_Inbound) and click **Save** All in the menu bar to save the OSB process, as shown in Figure 8–45.

Figure 8–45 Save All



## 8.2.3 Deploying the OSB Inbound Process

To deploy the created OSB inbound process, see steps 1 - 4 in Section 8.1.3, "Deploying the OSB Outbound Process" on page 8-16.

Once the OSB inbound process is deployed successfully, trigger an event from the Siebel system and check if the output is received in the configured output location (for example, C:\output).

For more information on triggering an event, see Section 4.5.5, "Triggering an Event in Siebel" on page 4-49.

# 8.3 Configuring an OSB Outbound Process Using JDeveloper (BSE Configuration)

This section describes how to configure an OSB outbound process to your Siebel system, using Oracle JDeveloper for BSE configurations.

A sample project has been provided for this outbound use case scenario in the following folder of the Application Adapters installation:

<abr/>
</

This section includes the following topics:

- Section 8.3.1, "Creating a Service Bus Application for OSB"
- Section 8.3.2, "Defining an OSB Outbound Process"
- Section 8.3.3, "Deploying the OSB Outbound Process"

### Prerequisites

Before you design an OSB outbound process, you must generate the respective WSDL file using Application Explorer. For more information, see Section 4.6.1, "Generating a WSDL File for Request and Response Services Using a Web Service" on page 4-75.

## 8.3.1 Creating a Service Bus Application for OSB

To configure an OSB outbound process, you must create a service bus application for OSB. For more information, see Section 8.1.1, "Creating a Service Bus Application for OSB" on page 8-2.

## 8.3.2 Defining an OSB Outbound Process

This section describes how to define an OSB outbound process. The following topics are included:

- Section 8.3.2.1, "Configuring a WSDL-based Business Service"
- Section 8.3.2.2, "Creating a Proxy Service With Pipeline"
- Section 8.3.2.3, "Configuring a File Transport Type Business Service"
- Section 8.3.2.4, "Configuring the Routing Rules"

## 8.3.2.1 Configuring a WSDL-based Business Service

Perform the following steps to configure a WSDL-based Business Service:

1. Drag and drop the **HTTP** component from the Technology Components pane to the External Services area, as shown in Figure 8–46.

Figure 8–46 HTTP Component

UND.jpr			-15
n Teag Jools Window Help 🛓 😫 🚢 🕨 🍅			Q.* ( Search
MUORTUO-			Components
8 🗸 🗙		IBSE-OUTBOUND	Q+(
Proy Services	Pipelines:Split Joins To create resources, drag and drop an icon from the component palette to the canvas or select one from the right-click context menu	External Services	Service Bus Luctocase Direct @ PTP PTP #TTP @ X.0 @ X.0 @ X.0 @ X.0 @ X.0 @ X.0 @ X.0 @ X.0 @ X.0
			~

The Create Business Service window is displayed.

**2.** In the Service Name field, enter any name you wish for the Business Service and click **Next**, as shown in Figure 8–47.

Figure 8–47 Create Business Service

Create Business Servi	ice - Step 1 of 3							2
reate Service							1	
Create Service		iBSE_Outbound_ C:\soabeta\WO	iceBus_Appli	ation\iBSE_Out	oound			] ] Q
	···· Definition ····· () <u>I</u> ransport	http						]
	Messages:							
Help			< <u>B</u> ack	<u>N</u> ext >		Einish	Cance	1

**3.** In the displayed Service Type window, select the WSDL option and click the **Select WSDL** icon, as shown in Figure 8–48.

Create Business Ser /pe	vice - Step 2 of 3		
Create Service	Service Type	WSDL-based service	
Transport		Binding / Port:	
	O Any SOAP:	SOAP 1.1	v
	⊖ Any ½ML		
	O Messaging:	Reguest:	-
		Response:	
	Messages:		
	SA WSDL res	urce must be specified.	
Help		< Back	ext > Enish Cancel

Figure 8–48 Type Pane

The Select WSDL window is displayed.

**4.** Select the File System folder icon, browse to the iBSE WSDL file and select it from the WSDL location, and then click **OK**, as shown in Figure 8–49.

😚 Select WSDL							×
Application	Application Server	File System	Oracle Acadia Server	Project Libraries	SOA-MDS		WSIL
Location:	) C:\Applica	tionAdapters\ws	dls			- 🗘 🗘 🛛	) 😭 📰 🗉
Work Project Application	BAPI_COM	PANYCODE_GET ceive.wsdl woke.wsdl	LIST_invoke.wsdl LIST_receive.wsdl				
Home	File <u>T</u> ype: WS	DL Files (*.wsdl)					
Selection: file:/C://	ApplicationAdap	ters/wsdls/Outbo	und_ibse.wsdl				
Help						ОК	Cancel

Figure 8–49 Select WSDL Window

5. In the displayed Source pane, click Next, as shown in Figure 8–50.

Source			
Source			
Source		nd select an import destination.	
Configuration	Resource Type:	WSDL	<b></b>
	Source URL:	C:\ApplicationAdapters\wsdls\Outbound_ibse.wsdl	(
	Resource Name:	Outbound_ibse.wsdl	
	Import Location:	C:\soabeta\WORK\mywork\ServiceBus_Application\iBSE_Outbound	
Help		< Back Next > Finish	Cancel

Figure 8–50 Source Pane

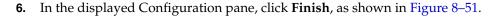


Figure 8–51 Configuration Pane

Import Service bus i	Resources - Step 2 of 2		
Configuration			
Source	Select the resources to import.		
Configuration	_		
	Resource	Operation	URL
	Construction     Construction	Create	file:/C:/ApplicationAdapter
Help		<back next=""></back>	Einish Cancel

You are returned to the Create Business Service window.

7. In the displayed Type pane, click **Next**, as shown in Figure 8–52.

Type Transport	Pgrt:         (Port) BSE_OutboundSoap1           SOAP:         SOAP 1.1	_ @ « ▼ ▼
⊖ Me:	يرمال saging: Reguest: Response:	

Figure 8–52 Type Pane

**8.** In the displayed Transport window, you can modify the Endpoint URI field if the hostname and port number varies, and then click **Finish**, as shown in Figure 8–53.

Figure 8–53 Transport Pane

🕜 Create Business Service	- Step 3 of 3	X
Transport		
🚊 Create Service	Service Type	e: WSDL-based service
UTYPE	Iransport	http 🗸
ight Transport	Endpoint <u>U</u> RI:	http://localhost:7101/ibse/IBSEServlet/XDSOAPRouter
		Format: http://host:port/someService
	Messages:	
Help		< <u>B</u> ack <u>N</u> ext > <u>Fi</u> nish Cancel

The Business Service is created and displayed in the External Services pane, as shown in Figure 8–54.

Figure 8–54 External Services Pane

Applications × Application Servers		and the control of t		
E ServiceBus Applications	• •	R 🗸 🗙		IBSE-OUTBOUND
Projects  Projects Projects Projects  Projects  Projects  Projects  Projects  Projects  Projects Projects Projects Projects Projects Projects Projects Projects Proje	<u>a</u> &• γ• ≌•	Proxy Services	Pipelines/Split Joins	External Services

### 8.3.2.2 Creating a Proxy Service With Pipeline

Perform the following steps to create a Proxy Service with Pipeline:

1. Drag and drop the **File Transport** component from the Advanced Components pane to the Proxy Services pane, as shown in Figure 8–55.

Figure 8–55 File Transport Component

Oracle Developer 12c - ServiceBus_Ap je Edk Yow Application Refactor Se	arch Nevigate Build B	un Tea <u>m I</u> ools <u>Wi</u> ndow <u>H</u> elp				- 8
🧐 🐑 📑 🗊 📢 👘 🤃	O - &	🎄 🖀 🦓 🕨 🌞 📕 •		Qv( Search		
Applications	🕐 Start Page 🛛 🖓 65	E_Outbound		Components		81. I
🗄 ServiceBus_Application 💌 💌	<b>≥</b> < ×		iBSE_Outbound	Q.		
Projects 🚳 🗞 • 🍸 • 🚟 •	Proxy Services	Pipelines/Split Joins	External Services	Service Bus	w1.99979	
KESE_Outbound				Advanced		
ESE_Outbound_BS.bix     Outbound_bse.wsd     pom.xmi				BPEL 10g	Custom	
a server				© DSP	6.3 8.3	
	0		88E_Outbound_BS	(i) Email	Ele Transport	
	· · · ·		IB3E_CONDOUND_B3	0	0	
				FTP Transport	жа	
				8	6	
				3MS	Local	
				() MO Transport	(D) SFTP	
Application Resources				<b>1</b>		
Data Controls			7			
Recent Files	Desim			Properties		

The Create Proxy Service pane is displayed.

- **2.** In the Service Name field, enter any name you wish for the Proxy service (for example, JCA\_Outbound\_PS). By default, **Generate Pipeline** is selected.
- **3.** Click **Next**, as shown in Figure 8–56.

Create Proxy Service Create Service	and the state of t	1
Create Service Ivpe Transport	General           Service Name:         IBSE_Outbound_PS           Location:         C:\soabeta\WORK\mywork\ServiceBus_Application\iBSE_Outbound           Description	Q
	Definition     Iransport file     Generate Pipeline     Pipeline Name: IBSE_Outbound_PSPipeline	
Help	Messages:	Cancel

Figure 8–56 Create Service Pane

The Type pane is displayed.

**4.** Select the **Messaging** option, set the Request to **XML** and Response as **None**, and then click **Next**, as shown in Figure 8–57.

Figure 8–57 Type Pane

ô Create Proxy Service - Step 2 of 3			×
Туре		0101019494949494	1
Create Service Service Type	 : type / element:		
Messages:			

The Transport window is displayed.

**5.** Provide the input location in the Endpoint URI field (for example, c:/input) and click **Finish**, as shown in Figure 8–58.

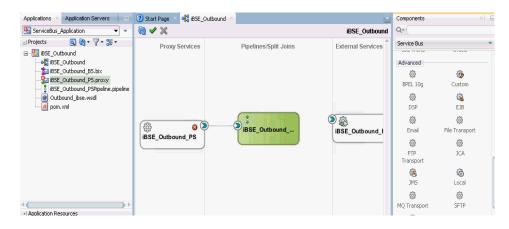
🍘 Create Proxy Servio Transport	e - Step 3 of 3			0101010101010	iloimatevalaalese	
Create Service <u>Type</u> Transport	Endpoint URI:	file				
Help			< <u>B</u> ack	Next >	Ejnish	Cancel

Figure 8–58 Transport Window

The Proxy service along with the pipeline is created and displayed.

**6.** Double-click the created Proxy Service (for example: iBSE\_Outbound\_PS), as shown inFigure 8–59.

Figure 8–59 Proxy Service Edit



**7.** In the displayed Proxy Service configuration page, select **Transport Details** and provide the values for Stage and Error Directory, as shown in Figure 8–60.

ServiceBusApplication3	• •	
SPProjects     SPProjects     SPE_Outbound     SPE_Outbound gis.bix     SPE_Outbound gis.bix     SPE_Outbound gis.bix     SPE_Outbound_SPErgeline.pipeline     Outbound_bee.wsd     Outbound_bee.wsd     SPProject	• 🐲 • General Transpo	Set FILE Transport Configuration         Use this page to configure the transport information for this service)         File Mask*       •.•         Managed Server       •.•         Polling Interval*       60         Read Limit*       10         Sort By Arrival       •.•         Poss by Reference       •.•         Post Read Action*       Delete •         Stage Directory*       C:(stage         Andrive Directory*       C:(strong)

Figure 8–60 File Transport Configuration

- **8.** Save and close the Proxy Service configuration page.
- **9.** Double-click the overview.xml file (for example, iBSE\_Outbound).

The Proxy service is updated and displayed, as shown in Figure 8–61.

Figure 8–61 Proxy Service

Applications × Application Servers	📲 #SE_Outbound 🐣		2	Components	x
🖺 ServiceBusApplication3 💌 💌	🕅 🗸 🗙		iBSE_Outbound	Qv	
∃ Projects 💽 🕅 • 🖓 • 🧝 •	Proxy Services	Pipelines/Split Joins	External Services	Service Bus	
ESE_Outbound     ESE_Outbound     ESE_Outbound     ESE_Outbound		· • · · · · · · · · · · · · · · · · · ·		BPEL 10g	🍪 Custom
- 2 BSE_Outbound_PS.proxy - 2 BSE_Outbound_PSPpeline.pipeline - 0 Outbound_bse.wsd				- DSP	Kanga Kang Kanga Kanga Kang
e collocini_lose.visu 			() en	- 👸 Email	Ø File Transport
🗄 🛅 SEProject	\$	BSE_Outbound	IBSE_Outbound_BS	-	£53
	iBSE_Outbound_PS			FTP Transport	JCA
				🧐 .M5	🙆 Local
				\$	÷
				MQ Transport	SFTP
				Third Party	
	4			Descrition	

## 8.3.2.3 Configuring a File Transport Type Business Service

Perform the following steps to create a File Transport Type Business Service:

1. Drag and drop the File Transport component from the Advanced pane to the External Services pane, as shown in Figure 8–62.

Applications 🔺 Application Servers 🔰 🗉	3 Start Page × 🖧 655_Outbound	x .	2	Components	× 🖬
ServiceBus_Application	8a 🗸 🗙		iBSE_Outbound	Q+(	
Projects  Solution  Solut	Proxy Services	Pipelines/Split Joins	External Services	Advanced	Custom
a pom.xml	BSE_Outbound_PS	BSE_Outbound	BSE_Outbound_BS	DSP Email FTP Transport	E38 File Transport O JCA
			0	<b>88</b> эмс	Ca Local
Application Resources				MQ Transport	SFTP
			*	8	v 1

Figure 8–62 File Transport Component

The Create Business Service dialog is displayed.

**2.** In the Service Name field, enter any name you wish for the Business Service (for example, FileOut), and click **Next**, as shown in Figure 8–63.

Figure 8–63 Create Service Pane

reate Business Serv	ice - Step 1 of 3					
ate Service						14
Create Service	General Service Name: Location: Description	Fileout C:\soabeta\WORK\r	mywork\ServiceBus_Applicat	ion\iBSE_Outbound		
	Definition     Iransport	file				
	Messages:					
Help			< Back	Next >	Einish	Cance

The Type pane is displayed. The Any XML option is selected by default.

3. Click Next.

The Transport pane appears.

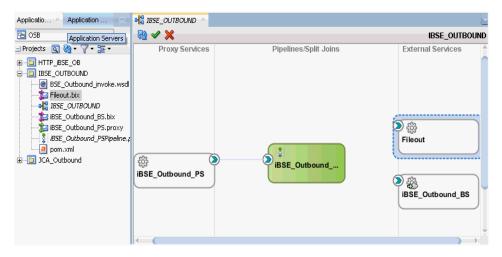
**4.** Provide the output location in the Endpoint URI field (for example, c:/output) and click **Finish**, as shown in Figure 8–64.

🕜 Create Business Servio	e - Step 3 of 3					×
Transport					10101949494949494	
R Create Service	Service Type	: Messaging				
	<u>T</u> ransport	file				•
Transport	Endpoint <u>U</u> RI:	file:///C:/output				
		Format: file:///root-dir/dir1				
Help			< <u>B</u> ack	Next >	Einish	Cancel

Figure 8–64 Transport Pane

The File Transport Business service Fileout is created and displayed, as shown in Figure 8–65.

Figure 8–65 Fileout Business Service



**5.** Double-click the created Business service **Fileout** and provide the values for the Prefix and Suffix fields in the Transport Details Tab, as shown in Figure 8–66.

			(
General Transport		ort Configuration onfigure the transport information for this service}	
Transport Details Message Handling	Prefix	iBSE_Outbound_out	
Performance	Suffix	.xml	
	Request encodin	9 utf-8	

Figure 8–66 Transport Details

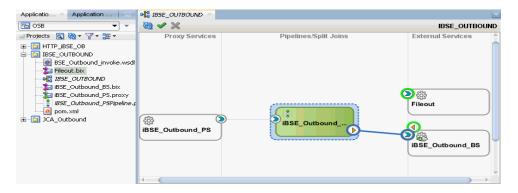
**6.** Save and close the configuration page, and double-click on overview.xml (for example, iBSE\_Outbound).

### 8.3.2.4 Configuring the Routing Rules

Perform the following steps to configure the routing rules:

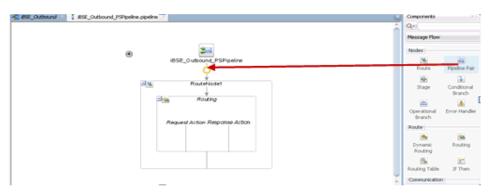
1. Create a connection between the Pipeline Component (for example, iBSE\_ Outbound\_PSPipeline) and the WSDL based Business Service (for example, iBSE\_ Outbound\_BS), as shown in Figure 8–67.

#### Figure 8–67 Pipeline Component



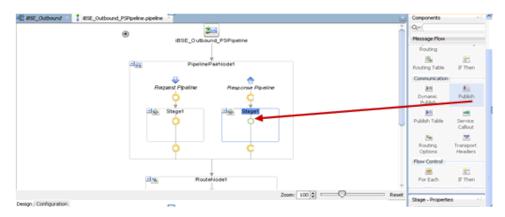
- **2.** Double-click on the **Pipeline** component (for example, iBSE\_Outbound\_ PSPipeline) in the Pipelines/Split Joins pane.
- **3.** Drag and drop the **Pipeline Pair** node from Nodes pane to the area between the Pipeline (for example: iBSE\_Outbound\_PSPipeline) and RouteNode1, as shown in Figure 8–68.

Figure 8–68 Pipeline Pair Node



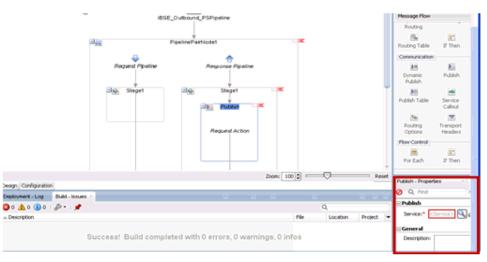
**4.** Drag and drop the **Publish** node from the Communication pane to the area beneath Stage1 of the Response Pipeline, as shown in Figure 8–69.

Figure 8–69 Publish Node



**5.** Click on the browse icon to the right of the Service field in the right pane of Publish Properties, as shown in Figure 8–70.

Figure 8–70 Browse Icon



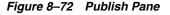
**6.** In the displayed Resource Chooser window, select the **Fileout.bix** File Transport Business service and click **OK**, as shown in Figure 8–71.

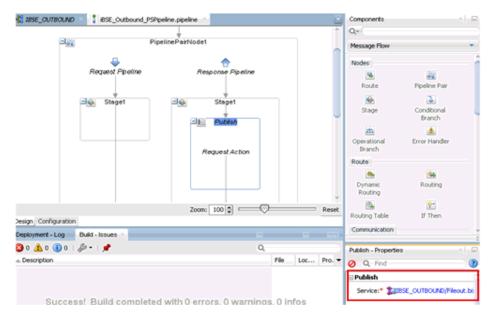
👩 Resource Chooser	×
Q Resource Chooser	
iBSE_Outbound_BS.bix	
BSE_Outbound     BSE_Outbound_BS.bix     BSE_Outbound_PS.proxy     BSE_Outbound_PS.proxy     BSE_Outbound_PS.pipeline.pipeline	
Brein SCA_Outbound	
Be-California	
Help	OK Cancel

Figure 8–71 Resource Chooser

You are returned to the Pipeline configuration page.

In the right pane, the selected service is configured in the Publish pane, as shown in Figure 8–72.





- 7. Save and close the Pipeline configuration page.
- **8.** Double-click the overview.xml file (for example: iBSE\_Outbound), and click **Save All** in the menu bar to save the OSB process, as shown in Figure 8–73.

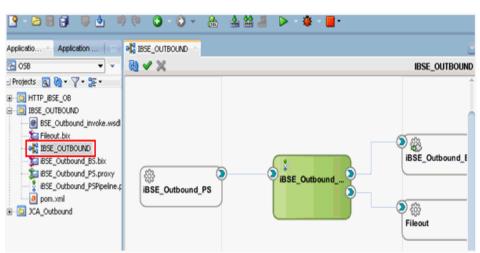


Figure 8–73 Save All Icon

## 8.3.3 Deploying the OSB Outbound Process

To deploy the created OSB outbound process and invoke the input XML document, see Section 8.1.3, "Deploying the OSB Outbound Process".

## 8.4 Configuring a JMS Inbound Process Using JDeveloper (J2CA Configuration)

This section describes how to configure a JMS inbound process to your Siebel system, using Oracle JDeveloper for J2CA configurations.

- 1. Before you design a JMS process, you must generate the respective WSDL file using Application Explorer. For more information, see Section 4.5.1, "Generating WSDL for Event Integration" on page 4-34.
- **2.** Start the Oracle JDeveloper and create a Service Bus Application for OSB. For more information, see Section 8.1.1, "Creating a Service Bus Application for OSB" on page 8-2.
- **3.** Create a Third Party Adapter Service Component. For more information, see Section 8.2.2.1, "Configuring a Third-Party Adapter Service Component" on page 8-20.
- **4.** Create a Proxy Service along with the pipeline from the JCA Binding File. For more information, see Section 8.2.2.2, "Creating a Pipeline" on page 8-22.
- 5. Create a JMS Transport Business Service and perform the following steps:
  - **a.** Drag and drop the **JMS Transport** component from the Technology Components pane to the External Services pane, as shown in Figure 8–74.

The area wellen and the month of the month o			Nesources	Components	
🝓 🗸 🗶		JMS_Inbound	Q.+		
Proxy Services	Pipelines/Split Joins	External Services	Service Bus		
			Resources		
			1	*	
			Pipeline	Split.Join	
			Technology		
			<u>(a</u>		<b>G</b>
(#) (*)			AQ	AS/400	BAM
MATMAS01_PS	MATMAS01_PSPL.		*	6	۲
		· · · · · · · · · · · · · · · · · · ·	Coherence	Database	Direct
			8	<u>6</u>	8
			File	FTP	HTTP
			3E 38	- .MG	CDAP
			36.30	Transport	0.040*
					681
		*	🍓 JMS Tran	sport	
4 Design				8 praxy or busin	
Properties		x), @,	58	Socket	Tuxedo
Q, Find			<b>1</b>	۵	
G, Fina		0	UMS	WS	

Figure 8–74 JMS Transport Component

The Create Business Service dialog is displayed.

**b.** In the Service Name field, enter any name you wish for the Business service (for example, JMS\_BS) and click **Next**, as shown in Figure 8–75.

Figure 8–75 Create Service Pane

👩 Create Business Servi	ice - Step 1 of 3						×
Create Service							
Create Service  Type Transport	General Service N <u>a</u> me: Location: Description	JMS_BS C:\soabeta\w	iork\mywork\OS	B_Application\JM5_	Inbound		Q
	<ul> <li>Definition</li> <li>Iransport</li> </ul>	jms					
Help	Messages:			< <u>B</u> ack	<u>N</u> ext >	Einish	Cancel

c. In the displayed Type window, select Any XML and then click Next.

The Transport window is displayed.

d. Modify the appropriate hostname and port number by replacing DestJndiName with QueueIn in the Endpoint URI field (for example, jms://localhost:7003/weblogic.jms.XAConnectionFactory/Queu eIn), and then click Finish, as shown in Figure 8–76.

🕜 Create Business Ser Transport	vice - Step 3 of 3	
Create Service	Service Type <u>T</u> ransport Endpoint <u>U</u> RI:	e: Any XML
		Format: jms://host:port(,host:port)*/FactoryJndiName/DestJndiName
<u>H</u> elp		< Back Next > Finish Cancel

Figure 8–76 Transport Window

The JMS Business service is created and displayed.

e. Double-click JMS\_BS as shown in Figure 8–77.

Figure 8–77 JMS Business Service

Applications × Application Servers	3 Start Page 🔞 📲 JMS_Inbound 🐣			Resources	Components ×	
CSB_Application			JMS Inbound	Q.		
Projects     Q & ▼ ▼ 5 ▼			-	Service Bus		
B-D JMS Inbound	Proxy Services	Pipelines/Split Joins	External Services	Service Bus		
Gervice Bus Sources				Resources		
Resources				2	*	
🏂 JM5_BS.bix				Pipeline	Split Join	
				Technology -		
📁 MATMASD1_PS.proxy @ MATMASD1_PS-concrete.wsd						ŵ
MATMASO1 PSPipeline.pipeline			۵ 🍇	AQ	A5/400	BAM
MATMASD1_receive_3P. jca	(# <b>&gt;</b>	MATMAS01_PSPI	JMS_BS		â	*
MATMASD1_receive_request.xsd	MATMAS01_PS		_	Cohevanea	van Database	Direct
MATMAS01_receive.wsd			Reference: JMS_BS		(i)	8
⊕ JMS Outbound			Binding: JMS Transport	File	FTP	MCS HTTP
				Contraction (Contraction) JEJB	i 🔞	Contraction 100 Contractio 100 Contraction 100 Contraction 100 Contraction
				JEJB	Transport	LUAP
				-	<b>a</b>	1
A Application Resources				MQ	MSMQ	REST
	4			8	æ	盛
± Recent Files	Design			SB		
2	Properties		×		.63.	
JMS_Inbound - Stru JMS_Inbound - R	Q. Find		0			
			•		115	
					<i>.</i>	
				· ·		
Current selection is not a valid Service Bus resource					Uracle	
Recent Files	Design Properties		× 9	MQ @		

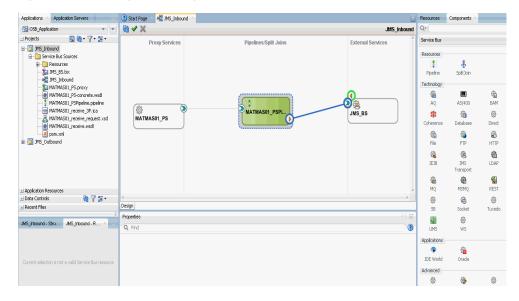
f. In the displayed Business Service configuration page, provide the following parameters in the Transport Details tab, as shown in Figure 8–78.

🕐 Start Page 💉 📲 🔊	M5_Inbound 💉 🏂 JM5_85.bi	<b>x</b> ×
General	눌 JMS Transport Configu	ration
Transport		transport information for this service}
Transport Details		
Message Handling	Destination Type	Queue O Topic
Performance	Message Type	O Bytes () Text
	Response Queues	None ○ One for all Request URIs ○ One per Request URI
	Dispatch Policy	SBDefaultResponseWorkManager
	Request Encoding	UTF-8
	JMS Service Account	<not selected=""> 🔍 🥢</not>
	Advanced Settings	
	Use SSL	
	Expiration	0
	Enable Message Persistence	✓
	Unit Of Order	
	Pass Caller's Subject	
	JNDI Timeout	0

Figure 8–78 JMS Transport Configuration

- g. In the Destination Type section, select Queue.
- h. In the Message Type section, select Text.
- 6. Save and close the Configuration page of the business service.
- **7.** Create a connection between **Pipeline** (for example, xxxx\_PSPipeline) and **JMS Business Service** (for example, JMS\_BS) as shown in figure Figure 8–79.

Figure 8–79 Configuration Page



8. Double-click Pipeline.

The Pipeline Configuration page is displayed as shown in Figure 8–80.

3) Start Page 🐘 🖓 JM5_Inbound 👘 💈 MATMAS01_PSPipeline.pipeline 🐣
Start Page     Matty ASD1_PSPipeline.pipeline     MATMASD1_PSPipeline     MATMASD1_PSPipeline     MATMASD1_PSPipeline     RouteNode1     Request Action Response Action
Zoom: 100 🖨
Design Configuration x (
V Q Find
Routing General Service:* 💯JM5_Inbound/JM5_BS.bix 🔍 🥔

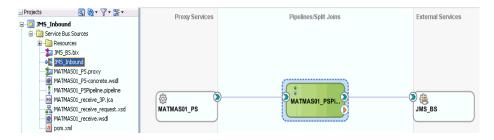
Figure 8–80 Pipeline Configuration

**9.** Check that the details are configured properly, and then save and close the Pipeline configuration page.

You are returned to the composite editor window.

**10.** Click **Save All** in the menu bar to save the OSB JMS process, as shown in Figure 8–81.

Figure 8–81 Save All Icon



- **11.** Deploy the OSB JMS inbound process. For more information, see Section 8.2.3, "Deploying the OSB Inbound Process" on page 8-27.
- **12.** Once the process is deployed successfully, trigger the event messages.

For more information, see Section 4.5.5, "Triggering an Event in Siebel" on page 4-49.

- **13.** Log on to the Oracle WLS console.
- In the Oracle WLS console, expand Services, click Messaging, select JMS Modules, and then click jmsResources.
- **15.** Click the appropriate response link (for example, QueueIn) as shown in Figure 8–82.

Figure 8–82	Queueln Response Link
-------------	-----------------------

Home >Summary of Deployments >Summary of JMS Modules	sjmsResources >Summary of JMS Modules >jmdResources >Summary of JM	S Modules »jmsResources »QueueIn »Summary of JMS Modules » <b>jmsResources</b>
Settings for jmsResources		
Configuration Subdeployments Targets Security	Notes	
This page displays general information about a 3MS system	n module and its resources. It also allows you to configure new resourc	es and access existing resources.
Name:	imsResources	The name of this JMS system module. More Info
Name:	Jinkensources	The fighte of the sets system module. From all others

This page summarizes the JMS resources that have been created for this JMS system module, including queue and topic destinations, connection Factories, JMS templates, destination sort keys, destination quota, distributed destinations, foreign servers, and store-and-forward parameters.

#### © Customize this table

51	um	mary of Resources				
d	lick.	the Lock & Edit button in the Change Center to activate all the	buttons on this page.			
l	Nev	w Delete			Showing 1 to 10 of 15	5 Previous   Next
		Name 🚓	Туре	JNDI Name	Subdeployment	Targets
1	9	3M5_ProxyRequest-2143324722	Queue	JMS_ProxyRequest	3M5_ProxyRequest-2143324722	wlsb3MSServer
E	3	JM5_ProxyResponse230658500	Queue	JMS_ProxyResponse	JMS_ProxyResponse230658500	wisbJMSServer
6	•	QueueIn	Queue	QueueIn	wisbJMSServer	wlsb3MSServer
1	8	QueueIn.Quota	Quota	N/A	N/A	N/A
1	8	TemporaryTmpR	Template	N/A	N/A	NJA.

**16.** Click the Monitoring tab, as shown in Figure 8–83.

### Figure 8–83 Monitoring Tab

" Home >Sum	wary c	if 3MS Module	s >jmsRess	ources >Sum	mary of 3MS Mod	úes >jmsReso,	Summary of IMS'Mbdules »(instresources »Queuelin »Summary of IMS Modules »(instresources »QueueIn
Settings for	Queu	eIn					
Configurat	tion	Monitoring	Control	Security	Subdeployme	nt Notes	
General	Three	holds and Qu	iotas C	overrides	Logging Deliv	ery Failure	
Click the La	ock &	Edit button is	n the Cha	nge Center I	to modify the set	tings on this p	
Save							
Use this pa	age to	define the ge	neral con	figuration pa	arameters for this	queue, such	lecting a destination key for sorting messages as they arrive on the queue.
Settings for QueueIn  Central Security Subdeployment Notes  Central Thresholds and Quotas Overnides Logging Delivery Falure  Colo. the Leack & Edit button in the Change Center to modify the settings on this page.  Serve  Use this page to define the general configuration parameters for this queue, such as selecting a destination key for sorting messages as they arrive on the queue.  We this page to define the general configuration parameters for this queue, such as selecting a destination key for sorting messages as they arrive on the queue.  Note this page to define the general configuration parameters for this queue, such as selecting a destination key for sorting messages as they arrive on the queue.  Note this page to define the general configuration parameters for this queue, such as selecting a destination key for sorting messages as they arrive on the queue.  Note this page to define the general configuration parameters for this queue, such as selecting a destination key for sorting messages as they arrive on the queue.  Note this page to define the general configuration parameters for this queue, such as selecting a destination key for sorting messages as they arrive on the queue.  Note this page to define the general configuration parameters for this queue, such as selecting a destination key for sorting messages.  Note Strongeneral Configuration method the destination within the 2KDI method.  Note Strongeneral Configuration with the destination with sense configuration values.  Note Strongeneral Configuration with the destination with sense configuration values.  Note Strongeneral Configuration with the destination with sense configuration values.  Note Strongeneral Configuration of the sense of the sense of the sense configuration values.  Note Strongeneral Configuration of the sense configuration of the sense of the sense configuration values.  Note Strongeneral Configuration of the sense configuration of the sense configuration values.  Note Strongeneral Configuration of the sense configuration of t							
3ND1 Name	e:	Queue	in				The global JNDI name used to look up the destination within the JNDI namespace. More Info
Template:		None		•			
		5		Chose	enc		The list of potential destination keys for sorting the messages that arrive on a JM destination. More info
Configuration       Control       Security       Subdisployment:       Notes         Concern       Trenholds and Quitat       Override       Logging       Delivery Palare         Odd: the Lock & EddE button in the Change Center to modify the settings on this page.       Image: Center to modify the settings on this page.         Use this page to define the general configuration parameters for this queue, such as selecting a destination key for sorting messages as they arrive on the queue.         Image:       QueueIn       The name of this 3HS queue.         Image:       QueueIn       The global 3EEE name used to look up the destination within the 2EDI name(page).         Image:       None       The 2HS tenglished form-which the destination is addressed. A tenglishe prover difficient means of defining multiple destination set with sealer configuration values.         Promolete:       None       The 2HS tenglished form-which the destination is addressed. A tenglishe prover difficient means of defining multiple destination is sealer configuration.         More Eddo       The list of potential destination keys for sorting the messages that arrive destination.         More Eddo       Secure Eddo							
				3 <b>&gt;</b>			
				4			
				32			

**17.** Select the check box and click the **Show Messages** button, as shown in Figure 8–84.

#### Figure 8–84 Show Messages Button

ttings for Q	eueIn									
onfiguration	Monitoring	Control	Security	Subdeployment	Notes					
				or a topic (Pub/Su it have been creat		eted to a 3MS server. IS module.				
Customize	his table (Filtered - Mo	re Colum	ns Exist)							
	(Filtered - Mo	re Colum	ns Exist)						Showing 1 to	1 of 1 Previous   Ne
estination	(Filtered - Mo		ns Exist) sges Curre	nt Message	es Pending	Messages Total	Consumers Current	Consumers High	Showing 1 to Consumers Total	1 of 1 Previous   Ne Messages High

**18.** Click the ID link with the appropriate time and date.

The response document is shown under the Text field.

# 8.5 Configuring a JMS Outbound Process Using JDeveloper (J2CA Configuration)

This section describes how to configure a JMS outbound process to your Siebel system, using Oracle JDeveloper for J2CA configurations.

- 1. Before you design a JMS process, you must generate the respective WSDL file using Application Explorer. For more information, see Section 4.4.1, "Generating WSDL for Request/Response Service" on page 4-8.
- **2.** Start the Oracle JDeveloper and create a Service Bus Application for OSB. For more information, see Section 8.1.1, "Creating a Service Bus Application for OSB" on page 8-2.
- **3.** Create a Third Party Adapter Service Component. For more information, see Section 8.1.2.1, "Configuring a Third-Party Adapter Service Component" on page 8-3.
- **4.** Create a WSDL-based Business Service from the JCA Binding File. For more information, see Section 8.1.2.2, "Configuring a File Transport Type Business Service" on page 8-7.
- 5. Create a JMS Proxy Service with a Pipeline and perform the following steps:
  - **a.** Drag and drop the **JMS Transport** component from the Technology Components pane to the Proxy Services pane, as shown in Figure 8–85.

Figure 8–85 JMS Transport Component

- & 484 >	• •			Qr( Search	_
at Page 🐘 👫 345_Outbound 🗠			Components -	Resources	
<ul> <li>×</li> </ul>		JMS_Outbound	Qe		
Proxy Services	Pipelines/Split Joins	External Services	Service Bus		
	To create resources, drag and drop an icon from the component palette to the canvas or select one from the right-click context messa		Ppelne	Split.Join	
			Technology		
			() 40	A5(400	đ M
			8 Coherence	(i) Database	- Elitere
			Ca File	Contract of the second	R.
			X.R	R5 Transport	LD4
			345 Trat	nsport	
			Create a JM	S proxy or busin	
				Social	Tuo
			<b>A</b>	۲	

The Create Business Service dialog is displayed.

- **b.** In the Service Name field, enter any name you wish for the Proxy service (for example, JMS\_Proxy). By default, Generate Pipeline is selected.
- **c.** Click **Next**, as shown in Figure 8–86.

🍘 Create Proxy Service Create Service	2 - Step 1 of 3	×
	General         Service Name:       JMS_Proxy          Location:       C:\soabeta\work\mywork\OSB_Application\JMS_Outbound         Description	•
	Definition     Iransport jms     Jms     Enerate Pipeline     Bipeline Name: JMS_ProxyPipeline	
Help	Messages:	

Figure 8–86 Create Proxy Service Pane

d. In the displayed Type window, select Any XML and then click Next.

The Transport window is displayed.

**e.** Modify the appropriate hostname and port number by replacing the Endpoint URI field (for example,

jms://localhost:7003/weblogic.jms.XAConnectionFactory/JMS\_ ProxyRequest), and then click Finish, as shown in Figure 8-87.

Figure 8–87 Transport Window

Create Proxy Servi	ce - Step 3 of 3	
ransport		
ر Create Service	Service Type	ie: Any XML
<u>Type</u>	Transport	jms
Transport	Endpoint URI:	; jms://localhost:7003/weblogic.jms.XAConnectionFactory/JM5_ProxyRequest
		Format: jms://((host:port)(,(host:port))*) ((host:port)?)/FactoryJndiName/QueueJndiName
<u>H</u> elp		< <u>B</u> ack <u>N</u> ext > <u>F</u> inish Cance

The JMS Proxy service along with the pipeline is created and displayed.

f. Double-click the created Proxy Service (for example, JMS\_Proxy), as shown in Figure 8–88.

Figure 8–88 JMS Proxy Service

Applications × Application Servers	🕐 Start Page 🔺 📲 JMS_Outbound		6	
🔁 OSB_Application 🔹 💌	₩ 🗸 🗙		JMS_Outbound	
🖃 Projects 🛛 🔯 🖓 🕶 🍸 🕶	Proxy Services	Pipelines/Split Joins	External Services	
⊡-⊡ JMS_Outbound		- Henrie en en en en e		
E E Service Bus Sources				
E Resources				
GetDetail_B5.bix				
GetDetail_invoke_3P.jca				
GetDetail_invoke_request.xsd				
GetDetail_invoke.wsdl	( <u>8</u> )			
JMS_Cutbound		JMS_ProxyPipeli		
JMS_Proxy.proxy				
pom.xml				
pomoni				
4(C)))				
± Application Resources				
🗄 Data Controls 🛛 🖓 🎏 🕶				
± Recent Files	4			

**g.** In the displayed configuration page of the Proxy Service, provide the following parameters in the Transport Details tab, as shown in Figure 8–89.

Figure 8–89 JMS Transport Configuration

🕄 Start Page 💉 🖣	🖁 JMS_Outbound 🛛 🏂 JMS_I	Proxy.proxy ×		
		3		
General Transport		by JMS Transport Configuration Use this page to configure the transport information for this service}		
Transport Detai				
Security	Destination Type	💿 Queue 🔘 Topic		
	Is Response Required			
	Response Pattern	IMSCorrelationID ○ JMSMessageID		
	Response Message Type	🔿 Bytes 💿 Text		
	Dispatch Policy	default		
	Request Encoding	UTF-8		
	Response Encoding	UTF-8		
	Client Response Timeout	300		
	Response URI	jms://localhost:7003/weblogic.jms.XAConnectionF		
	JMS Service Account	<not selected=""> 🔍 🖉</not>		
	Advanced Settings			
	Use SSL			
	Message Selector			
	Client ID			

- h. In the Destination Type section, select Queue.
- i. Select the Is Response Required check box.
- j. In the Response Message Type section, select Text.
- **k.** In the Response URI field, provide the Endpoint URI used in the JMS Transport Configuration and change Request to Response. For example,

jms://localhost:7003/weblogic.jms.XAConnectionFactory/JMS\_ ProxyResponse

- **6.** Save and close the Configuration page of the Proxy service.
- 7. Configure the Routing Rules and proceed with the following steps:
  - **a.** Double-click on the pipeline (for example, JMS\_ProxyPipeline) in the Pipelines/Split Joins pane.

The Pipeline configuration page is displayed.

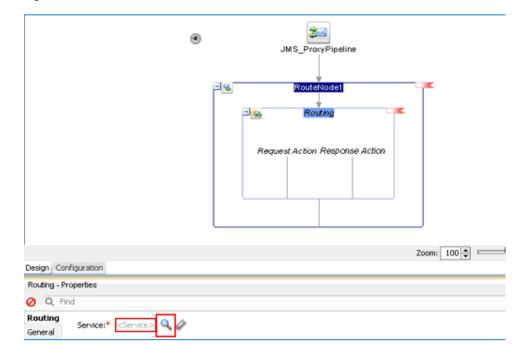
**b.** Drag and drop the **Routing** component from the Route section to the area below the Pipeline (for example, JMS\_ProxyPipeline), as shown in Figure 8–90.

Figure 8–90 Routing Component



**c.** In the Pipeline Configuration page, select **Routing** and click the browse icon to the right of the Service field in the Routing Properties pane, as shown in Figure 8–91.





**d.** In the displayed Resource Chooser window, select the WSDL-based Business service (for example, xxxxx\_BS.bix) and click **OK**.

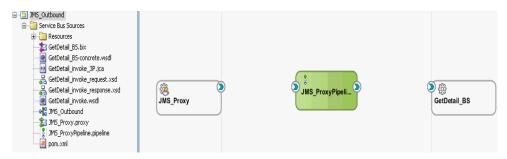
You are returned to the Pipeline configuration page.

e. Save and Close the Pipeline configuration page.

You are returned to the composite editor window.

f. Click **Save All** in the menu bar to save the OSB JMS process, as shown in Figure 8–92.

Figure 8–92 Transport Window



- **8.** Deploy the OSB JMS outbound process. For more information, see Section 8.1.3, "Deploying the OSB Outbound Process" on page 8-16.
- 9. Once the process is deployed successfully, log on to the Oracle WLS Console.
- In the Oracle WLS console, expand Services, click Messaging, select JMS Modules, and then click jmsResources, as shown in Figure 8–93.

Figure 8–93 JMS Resources

Change Center	1 Home Log Out Preferences 🚈 Record Help
View changes and restarts	Home »Summary of Deployments »Summary of JMS Modules
Click the Lock & Edit button to modify, add or delete items in this domain.	Summary of JMS Modules
Lock & Edit Release Configuration Domain Structure	3MS system resources are configured and stored as modules similar to standard 32EE modules. Such resour distributed topics, foreign servers, and 3MS store-and-forward (SAF) parameters. You can administratively This page summarizes the 3MS system modules that have been created for this domain.
base_domain_osb	Customize this table JMS Modules Glick the Lock & Edit button in the Change Center to activate all the buttons on this page. New Delete Name  Testesources OSBAQJMSServer UMSAQJMSSystemResource
How do I 😑	
Configure JMS system modules     Configure resources for JMS system modules	WseeJmsModule New Delete

**11.** Click the appropriate request link (for example, JMS\_ProxyRequest) as shown in Figure 8–94.

	A Preferences 🖂 of Deployments >Sur	nmary of JM	5 Modules » ja	miResource	6				
ttings for jms	Resources								
onfiguration	Subdeployments	Targets	Security	Notes					
This page displa	iys general informati	ion about a l	MS system i	nodule and it	ts resources. It ai	so allows you to configure new resources	and access existing res	ources.	
Same:				jmsResourc	es		The name of this JMS sys	stem module. More Info	
escriptor File	Name:			ms/xbusRe	sources-ins.xml		The name of the IMS mo	dule descriptor file. More Info	
distributed dest	inations, foreign ser	urces that h vers, and st	ave been cre ore-and-fore	sated for this ward parame	s JMS system mod	ule, including queue and topic destination			keys, destination quo
distributed dest Customize th Summary of R	inations, foreign ser is table	vers, and st	ore-and-for	ward parame	s JMS system mod ters.	ule, including queue and topic destination			keys, destination quol
distributed dest Customize th Summary of R	inations, foreign ser is table tesources & <i>Edil</i> button in the	vers, and st	ore-and-for	ward parame	s JMS system mod ters.	ule, including queue and topic destination		3MS templates, destination sort i	
distributed dest Customize th Summary of R Click the <i>Lock I</i>	inations, foreign ser is table tesources & <i>Edil</i> button in the	vers, and st	ore-and-for	word parame	s JMS system mod ters.	ule, including queue and topic destination		3MS templates, destination sort i	eys, destination quot o 10 of 15 Previous Targets
distributed dest Customize th Summary of R Click the <i>Lock 1</i> New Delete Name $\approx$	inations, foreign ser is table tesources & <i>Edil</i> button in the	vers, and st Change Cen	ore-and-for	word parame	s JMS system mod ters.	ule, including queue and topic destination		3HS templates, destination sort i Showing 1 to	a 10 of 15 Previous Targets
distributed dest Customize th iummary of R Click the Lock I Nerw Detects Name © Mare ©	inations, foreign ser is table tesources & <i>Edil</i> button in the b	Change Cen	ore-and-for	ered parame ate all the but	s JMS system mod ters. ttors on this page	ule, including queue and topic destination		2MS templates, destination sort i Showing 1 to Subdeployment	10 of 15 Previous Targets 1722 wisbJMSSer
distributed dest Customize th Summary of R Click the Lock I Nerw Delete Name © Mare ©	inations, foreign ser is table tesources & <i>Edit</i> button in the yRequest-21433247	Change Cen	ore-and-for	ete all the but	s JMS system mod ters. ttors on this page (ype yueue	ule, including queue and topic destination		JHS templates, destination sort i Showing 1 to Subdeployment JHS_ProxyRequest-214332	10 of 15 Previous Targets 1722 wisbJMSSer

Figure 8–94 JMS\_ProxyRequest Link

**12.** Click the Monitoring tab, as shown in Figure 8–95.

## Figure 8–95 Monitoring Tab

in monito Log Co	ut Preferences 🛃	Record Help		Q	Welcome, weblogi
Home >Summary	of Deployments >5	lummary of 3MS M	odules >jmsResource	s >JMS_PressyR	equest-2143324722
ettings for JMS	5_ProxyRequest	-2143324722			
Configuration	Monitoring Co	ontrol Security	Subdeployment	Notes	
General Thre	esholds and Quota	s Overrides	Logging Deliver	y Failure	
Save Use this page to	o define the gener	al configuration p	arameters for this o	ueue, such as s	electing a destination key for sorting messages as they arrive on the queue.
🛃 Name:	JMS_ProxyR	equest-21433247	22		The name of this JMS queue. More Info
🛃 Name: INDI Name:		equest-21433247 xyRequest	22		The name of this JMS queue. More Info The global JNDI name used to look up the destinal namespace. More Info

**13.** Select the check box and click the **Show Messages** button, as shown in Figure 8–96.

#### Figure 8–96 Show Messages Button

A Home	Log Out Preferences	Recor	d Melp		Q			Welcome,	weblogic Connected	to: base_domain
Home >Sk	mmary of Deployments	i >Summary	of 3MS Mod	ules »įmsRasources »J	ts_PresyRequest-21433	24722				
iettings f	or JMS_ProxyRequ	est-21433	24722							
Configura	tion Monitoring	Control	Security	Subdeployment M	otes					
Custon	ize this table tions (Filtered - Mo			t have been created i						
Show I	lessages								Showing 1 to 1 o	f 1 Previous   Ne
8 N	me A			Messages Currer	t Messages Pending	Messages Total	Consumers Current	Consumers High	Consumers Total	Messages High
1 (m)	Resources!.MS_Prox;	Request-2	143324722	0	0	0	16	16	16	0
Show M	Show Messages Showing I to I of 1 Previous   Next									

**14.** Click **New**, as shown in Figure 8–97.

Figure 8–97 JMS Messages

This page summarizes the availabl move messages to another destin	a messages for a stand-alone queue, a o ation, export message contents in XML F	distributed queue, or a topic durable : ormat to another file, import XML for	subscriber. Use this page to view message detai matted message contents from another file, or d	s, create new messages, delete selected messages, rain all the messages from a destination.
Click on a message to view its con	tents.			
Message Selector:			Apply	
© Customize this table			A	
© Customize this table JMS Messages (Filtered - Mor	e Columns Exist)			
JMS Messages (Filtered - Mor	e Columns Exist) import _ Export ~ _			Showing 1 to 0 of 0 Previous   Nex

- **15.** Provide the input payload in the Body field and click **OK**.
- **16.** In the Oracle WLS console, expand **Services**, click **Messaging**, select **JMS Modules**, and then click **jmsResources**.
- 17. Click the appropriate response link (for example, JMS\_ProxyResponse).
- **18.** Click the Monitoring tab.
- 19. Select the check box and click Show Messages, as shown in Figure 8–98.

Figure 8–98 Destination Messages

DRACLE WebLogic Server	Administration Con	isole 12c								ç
hange Center	🔒 Home Log	Out Preferences	; 🔁 Record Help		Q			Welcome,	weblogic Connected	to: base_domain_
liew changes and restarts	Home >Summa	ery of Deployments	s >Summary of JMS	Modules >jmsResources	>JMS_ProxyRequest-21433247	2 >Summary of JMS M	essages »Summary of JMS I	Aodules »jmsResources	» JMS_ProxyResponse	230658500
Lick the Lock & Edit button to modify, add or delete items in this domain.	Settings for J	MS_ProxyResp	onse230658500							
Lock & Edit Release Configuration	Configuration A JMS destin		Control Securi queue (Point-To-Po		Notes ) that is targeted to a JMS se	rver.				
Jomain Structure	This page sur	mmarizes the activ	ve JMS destinations	that have been create	ed for this JMS module.					
ase_domain_losb	Customize	s (Filtered - Mo	re Columns Exis	)					Charine 1 in 1	of 1 Previous   Next
Store-and-Forward Agents		_								
JMS Modules Path Services	Name 🖉	~		Messages Curr	ent Messages Pending	Messages Total	Consumers Current	Consumers High	Consumers Total	Messages High
B-Bridges —Data Sources —Persistent Stores —Foreign JNDI Providers —Work Contexts	Show Mess		yResponse2306585	00 1	0	1	16	16	16 Showing 1 to 1 o	1 of 1 Previous   Next
iow do I E	3									
Manage queue messages Configure queues										
ystem Status	8									
ealth of Running Servers										
Failed (0)										
Critical (0)										

**20.** Click the ID link with the appropriate time and date, as shown in Figure 8–99.

← → C 🗋 localhost:7001/con	nsole/console.portal?JmsJMSMess	sageTablePortl	letreturnT	Fo=JMSQueueMonitorBook&JmsD	estinations.JMSQ	ueueMonitorPortlethandle	=com.bea.consol: ☆
	Administration Console 12c						Q
Change Center	🔒 Home Log Out Preferences 🔤 Reco	ord Help		Q		Welcome, weblogic Co	nnected to: base_domain_os
View changes and restarts	Home >Summary of Deployments >Summar JMS Messages	y of JMS Modules »jms	sResources >.)h	MS_ProxyRequest-2143324722 >Summary of JMS Me	ssages >Summary of JMS M	Aadules >jmsResources >JMS_ProxyRes	ponse230658500 > <b>Summary of</b>
Click the Lock & Edit button to modify, add or delete items in this domain.	Summary of JMS Messages						
Look & Edit Release Configuration	move messages to another destination,			listributed queue, or a topic durable subscriber. U smait to another file, import XML formatted messa			
Domain Structure	Click on a message to view its contents.						
base_domain_gob A Bitswoment —Deployments Displayments	Message Selector:				Арр	<u>N</u>	
i Bridges	JMS Messages (Filtered - More Colu						
Data Sources Persistent Stores	New Delete v Move v Import	Export ~				Showing	1 to 1 of 1 Previous   Next
Foreign JNDI Providers Work Contexts	<b>ID</b> 🔅	Co	errId T	Time Stamp	State String	JMS Delivery Mode	Message Size
How do I 🖂	ID:<357562.1400618107339.0>		Ţ	fue May 20 13:35:07 PDT 2014	visible	Persistent	1914
Manage queue messages	New Delete v Move v Import	Export ~				Showing	1 to 1 of 1 Previous   Next
Manage distributed queue messages							
<ul> <li>Manage topic durable subscribers</li> </ul>							
	1						
System Status							
Health of Running Servers							
Faled (0)							

Figure 8–99 Summary of JMS Messages Window

The response document is shown under the Text field.

# 8.6 Configuring an HTTP Outbound Process Using JDeveloper (J2CA Configuration)

This section describes how to configure HTTP Outbound process to your Siebel system, using Oracle JDeveloper for J2CA configurations.

- Before you design an HTTP Outbound process, you must generate the respective WSDL file using Application Explorer. For more information, see Section 4.4.1, "Generating WSDL for Request/Response Service" on page 4-8.
- Start the Oracle JDeveloper and create a Service Bus Application for OSB. For more information, see Section 8.1.1, "Creating a Service Bus Application for OSB" on page 8-2.
- **3.** Create a Third Party Adapter Service Component. For more information, see Section 8.1.2.1, "Configuring a Third-Party Adapter Service Component" on page 8-3.
- **4.** Create an HTTP Proxy Service with a Pipeline and perform the following steps:
  - **a.** Drag and drop the **HTTP** component from the Technology Components pane to the Proxy Services pane, as shown in Figure 8–100.

Figure 8–100 HTTP Component

Start Page   HTTP_Outbound			Resources	Components ~	
✓ X		HTTP_Outbound	Qe		
Proxy Services	Pipelines:Split Joins	External Services	Service Bus Resources Pipeline Technology AQ	spit.Join AS/400	e Di
8	To create resources, drag and drop an icon		Coherence Coherence	Database	De H
	from the component patette to the canvas or select one from the right-click context menu		828 3636	اللہ MS Transport	LC
			₩Q MQ	MSMQ	R
			@ 58	Contract Socket	( Tu

The Create Proxy Service dialog is displayed.

- **b.** In the Service Name field, enter any name you wish for the Proxy service (for example, HTTP\_Proxy). By default, Generate Pipeline is selected.
- **c.** Click **Next**, as shown in Figure 8–101.

Figure 8–101 Create Proxy Service Pane

😚 Create Proxy Service	e - Step 1 of 3		×
Create Service			
Create Service	General Service N <u>a</u> me: Location: Description	HTTP_Proxy C:\soabeta\work\mywork\OSB_Application\HTTP_Outbound	Q_
	Definition     Iransport	http	-
	✓ Generate Pipeline Name:	Pipeline HTTP_ProxyPipeline	
	Messages:		
<u>H</u> elp		< Back Next > Einish C	ancel

- **d.** In the displayed Type window, select **Any XML** and then click **Next**. The Transport window is displayed.
- e. Leave the default values and then click Finish, as shown in Figure 8–102.

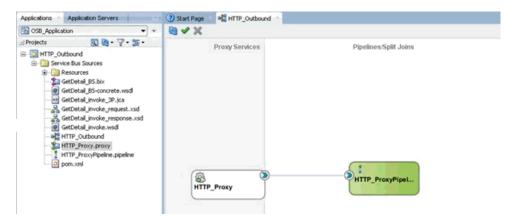
🍘 Create Proxy Service -	Step 3 of 3					×
Transport						
🙊 Create Service	Service Type	: Any XML				
U Type	Transport	http				-
Transport	Endpoint <u>U</u> RI:	/HTTP_Outbound/HTTP_Pro	ху			
		Format: /someName				
Help			< <u>B</u> ack	Next >	Einish	Cancel

Figure 8–102 Transport Window

The HTTP Proxy service along with the pipeline is created and displayed.

f. Double-click the created pipeline (for example, HTTP\_ProxyPipeline) in the Pipelines/Split Joins pane, as shown in Figure 8–103.

Figure 8–103 Proxy Service



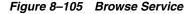
The Pipeline Configuration page is displayed.

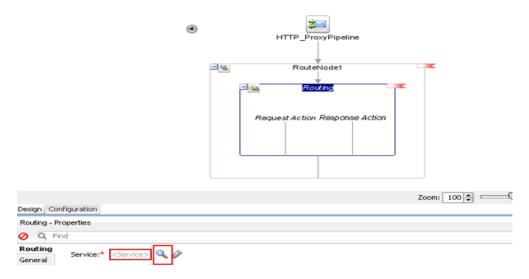
- 5. Configure the Routing Rules and proceed with the following steps:
  - **a.** Drag and drop the **Routing** component from the Route section to the area below the Pipeline (for example, HTTP\_ProxyPipeline), as shown in Figure 8–104.

Figure 8–104 Routing Component

3 Start Page + HTTP_Outbound HTTP_ProxyPipeline.pipe	ine 🚓		Resources	Components >	
		6	Q+(		
			Message Flow		
		1	Nodes Nodes Route	Pipeline Pair	Stage
	TTP_PraxyPipeline		Conditional Branch	Cperational Branch	Error Handler
	♦		Route		
				<u>6</u>	<u>6</u>
	$\perp$		Dynamic Routing	Routing	Routing Table
			E Then		
		1	Communicatio	0	
			34	8	31
			Dynamic Publish	Publish	Publish Table
Design Configuration	Zoom: 100 🗇	Reset	-	2	
Design Configuration					

In the Pipeline Configuration page, select Routing and click the browse icon to the right of the Service field in the Routing Properties pane, as shown in Figure 8–105.





**c.** In the displayed Resource Chooser window, select the WSDL-based Business service (for example, xxxxx\_BS.bix) and click **OK**.

You are returned to the Pipeline configuration page.

d. Save and Close the Pipeline configuration page.

You are returned to the composite editor window.

**e.** Click **Save All** in the menu bar to save the OSB HTTP process, as shown in Figure 8–106.

Figure 8–106 Transport Window

🔁 OSB_Application 🔹	- ₩ < X		HTTP_Outbound
Projects  Proje	Proxy Services	Pipelines/Spift Joins	External Services

- **6.** Deploy the OSB HTTP outbound process. For more information, see Section 8.1.3, "Deploying the OSB Outbound Process" on page 8-16.
- 7. Once the process is deployed successfully, log on to the Service Bus Console.
- **8.** In the Service Bus console, click on the deployed HTTP Outbound project (for example, HTTP\_Outbound), as shown in Figure 8–107.

## Figure 8–107 Service Bus Console

	le 12c	Unia 🛩 🛛 H	top • weblogi	< •
			Greate Disc	card
	HTTP_Outbound ×		8	1 🚯 🛙
aurces Admin C - Q - Q - Q - Q Al Projects G default - MTTP: Duthound	Project Definition demonal beorgian			P
GetDetal_85     GetDetal_85-concrete     GetDetal_invoke	<mark>⊠HTP_Outbound</mark> Ver + ೫ 📴 ⊉Cefach			
🐮 GetDetal_mvska_39	<i>a</i>	AI Types		
💑 GetDetal jirvola jequest 💑 GetDetal jirvola jesponsa	Nare	Type	Actions	
HTTP_Proxy	<b>★</b>	Project		
HTTP_ProxyPpeline	ga GetDetal_BS	Business Service	No. 1	4
🧕 System	GetDetal_55-concrete	WSDK		
	@ GetDetal_invoke	WSDL		
	GetDetal_Invole_3P	XCA Binding		1
	SetDetal_invoke_request	Schema		
	A GetDetail involve response	Schema		
	20HTTP_Proxy	Proxy Service		
	§ HTTP_ProvyPpeine	Pipeline	× 1	

**9.** Click on the Test OSB Console icon for the created pipeline, as shown in Figure 8–108.

All Projects     default     G HTTP_Outbound		SHORE BEARE	h	
GetDetail_BS GetDetail_BS-concrete		HTTP_Outbound		
GetDetal_invoke		View 🛩 🕺 🛃 🛃 Detach		
GetDetal_invoke_3P		4	All Types 🔻	
A GetDetal_invoke_request		Name	Туре	Action
A GetDetall_invoke_response		<b>全</b>	Project	
HTTP_ProxyPipeline		a GetDetail_BS	Business Service	
> 🔯 System	4	GetDetail_B5-concrete	WSDL.	
		@ GetDetal_invoke	WSDL.	
		GetDetail_invoke_3P	JCA Binding	
		SetDetail_invoke_request	Schema	
		🛃 GetDetal_invoke_response	Schema	
		BHTTP_Proxy	Proxy Service	
		HTTP_ProxyPipeline	Pipeline	

Figure 8–108 Test OSB Console Icon

**10.** In the displayed Test OSB Console page, provide the input XML and click the **Execute** button.

In the displayed Test OSB Console page, the response is received.

# 9

## **Key Features**

This chapter describes new features for the Oracle Application Adapter for Siebel. This chapter contains the following sections:

- Section 9.1, "Configuring the Logging Feature"
- Section 9.2, "Configuring the Diagnosibility Feature"
- Section 9.3, "Configuring the SOA Debugging Feature"
- Section 9.4, "Exception Filter"
- Section 9.5, "Credential Mapping for Oracle SOA Suite (BPEL, Mediator, or BPM)"
- Section 9.6, "Credential Mapping for Oracle Service Bus (OSB) Using JDeveloper"

## 9.1 Configuring the Logging Feature

In Oracle 12*c* (12.2.1.0.0), J2CA and BSE adapter logs will be updated in Oracle logs in the *{server-name}*-diagnostic.log file available in the following location:

<ORACLE\_HOME>\user\_projects\domains\base\_domain\servers\<server\_Name>\logs.

**Note:** The Application Explorer log files for J2CA would be created under the <ADAPTER\_HOME>\config\xxxxxxx\log folder where xxxxxxx is the name of the J2CA configuration that was created in Application Explorer. Each J2CA configuration in Application Explorer has a corresponding log folder under the named J2CA configuration folder.

This section describes how to configure the Logging feature. It contains the following topics:

- Section 9.1.1, "Configuring Log File Management for the J2CA Connector Application"
- Section 9.1.2, "Configuring Log File Management for Business Services Engine (BSE)"

## 9.1.1 Configuring Log File Management for the J2CA Connector Application

Log file management for the J2CA Connector Application is governed by the Loggers defined in:

<ORACLE\_HOME>\user\_projects\domains\base\_

domain\config\fmwconfig\servers\\${server-name}\logging.xml

Any new loggers will have to be added to this file if they are to be managed from the em console.

#### For example:

```
<logger name='oracle.soa.adapter.iwaf' level='NOTIFICATION:1'
useParentHandlers='true'/>
<logger name='oracle.soa.adapter.iwaf.classloader' level='NOTIFICATION:1'</pre>
useParentHandlers='true'/>
<logger name='oracle.soa.adapter.iwaf.connection' useParentHandlers='true'/>
<logger name='oracle.soa.adapter.iwaf.connection.IAEAdapter'
useParentHandlers='true'/>
<logger name='oracle.soa.adapter.iwaf.connection.Sample'
useParentHandlers='true'/>
<logger name='oracle.soa.adapter.iwaf.connection.Siebel'
useParentHandlers='true'/>
<logger name='oracle.soa.adapter.iwaf.inbound' useParentHandlers='true'/>
<logger name='oracle.soa.adapter.iwaf.inbound.IAEAdapter'
useParentHandlers='true'/>
<logger name='oracle.soa.adapter.iwaf.inbound.Sample' useParentHandlers='true'/>
<logger name='oracle.soa.adapter.iwaf.inbound.Siebel' useParentHandlers='true'/>
<logger name='oracle.soa.adapter.iwaf.outbound' useParentHandlers='true'/>
<logger name='oracle.soa.adapter.iwaf.outbound.IAEAdapter'
useParentHandlers='true'/>
<logger name='oracle.soa.adapter.iwaf.outbound.Sample' useParentHandlers='true'/>
<logger name='oracle.soa.adapter.iwaf.outbound.Siebel' useParentHandlers='true'/>
<logger name='oracle.soa.adapter.iwaf.transaction' useParentHandlers='true'/>
<logger name='oracle.soa.adapter.iwaf.transaction.IAEAdapter'
useParentHandlers='true'/>
<logger name='oracle.soa.adapter.iwaf.transaction.Sample'
useParentHandlers='true'/>
<logger name='oracle.soa.adapter.iwaf.transaction.Siebel'
useParentHandlers='true'/>
<logger name='oracle.soa.adapter.iwaf.IAEAdapter' useParentHandlers='true'/>
<logger name='oracle.soa.adapter.iwaf.Sample' useParentHandlers='true'/>
<logger name='oracle.soa.adapter.iwaf.Siebel' useParentHandlers='true'/>
```

This sets the logging level of all the loggers under oracle.soa.adapter.iwaf to NOTIFICATION:1 (INFO), which is the default setting level by Oracle.

The logging level of all the loggers can also be configured from the em console with the following steps:

- 1. Start the Oracle WebLogic Server for the Oracle WebLogic Server domain that you configured.
- **2.** Open the Oracle WebLogic Server Enterprise Manager Console in a web browser by entering the following URL:

http://host name:port/em

where host name is the name of the system where Oracle WebLogic Server is running and port is the port for the Oracle WebLogic Server that is running. The default port for the Oracle WebLogic Server is 7001. However, this value can vary between installations.

**3.** Log in to the Oracle WebLogic Server Administrative Console using an account that has administrator privileges.

- **4.** Under the Target Navigation pane, click **Weblogic Domain**, select **Domain Created**, and click the appropriate server (Managed Server or Integrated Server).
- **5.** In the Server pane, expand WebLogic Server, select **Logs**, and then click **Log Configuration**, as shown in Figure 9–1.

CRACLE Enterprise Manager Fu     WebLogic Domain -		
Change Center (2) To Changes - 🔊 Recording -	<pre>     soa_server1 ③     Start Up     WebLogic Server ▼ Start Up     Shut     Home </pre>	Down
View -       > application Deployments	Monitoring  Diagnostics  Control	Tools
<ul> <li>SOA</li> <li>WebLogic Domain</li> <li>Base_domain</li> <li>AdminServer</li> <li>soa_server1</li> <li>Metadata Repositories</li> <li>User Messaging Service</li> </ul>	Logs  Deployments SOA Deployment JDBC Data Sources Messaging Web Services	View Log Messages
	Other Services	EJBs
	Target Information	Bean Acces

Figure 9–1 Log Configuration Option

**6.** Under the **Log Levels** tab, expand the Oracle root logger until oracle.soa.adapter.iwaf is visible, as shown in Figure 9–2.

Figure 9–2 Log Levels Tab

Log Levels	Log Files	QuickTrace					
component is	started. The sed. For exar	log levels for these logo	gers are persi	nt loggers and active runtime logger sted across component restarts. Run er is a runtime logger that becomes	time	oggers are automatical	ly created during runtime and beco
/iew Runtin	ne Loggers		( )				
Search All	Categories	•					
				Oracle Diagnostic Logging Level ()	ava	U.S. Mark	
Logger Nar		oulouptenconcrence		Level)		Log File	Persistent Log Level Stat
	The second second	oa.adapter.db		ERROR:1 (SEVERE) [Inherited f		odl-handler	
		oa.adapter.file		ERROR:1 (SEVERE) [Inherited f		odl-handler	
	> oracle.s	ioa.adapter.ftp		ERROR:1 (SEVERE) [Inherited f	•	odl-handler	
	oracle.s	ioa.adapter.ibse		NOTIFICATION:1 (INFO)	•	odl-handler	NOTIFICATION:1
	⊿ oracle.s	oa.adapter.iwaf		NOTIFICATION:1 (INFO)	•	odl-handler	NOTIFICATION:1
	orac	le.soa.adapter.iwaf.IAE	Adapter	NOTIFICATION:1 (INFO) [Inher	•	odl-handler	
	orac	le.soa.adapter.iwaf.JDE	dwards	NOTIFICATION:1 (INFO) [Inher	•	odl-handler	
	orac	le.soa.adapter.iwaf.MyS	AP	NOTIFICATION:1 (INFO) [Inher	•	odl-handler	
	orac	le.soa.adapter.iwaf.Peo	pleSoft	NOTIFICATION:1 (INFO) [Inher	•	odl-handler	
	orac	le.soa.adapter.iwaf.San	nple	NOTIFICATION:1 (INFO) [Inher	•	odl-handler	
	orac	le.soa.adapter.iwaf.Siet	bel	NOTIFICATION:1 (INFO) [Inher	•	odl-handler	
	> orac	le.soa.adapter.iwaf.con	nection	NOTIFICATION:1 (INFO) [Inher	•	odl-handler	
	A orac	le.soa.adapter.iwaf.inbo	ound	NOTIFICATION:1 (INFO) [Inher		odl-handler	

**7.** In the Oracle Diagnostic Logging Level (Java Level) column, select the required log level from the oracle.soa.adapter.iwaf drop-down list, as shown in Figure 9–3.

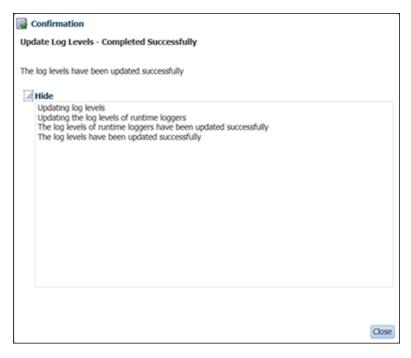
og Levels	Log Files	QuickTrace			
imponent is	started. The sed. For exam	log levels for these loggers are per	tent loggers and active runtime loggers. Pe rsisted across component restarts. Runtime gger is a runtime logger that becomes activ	loggers are automatical	By created during runtime and become a
ew Runtin	ne Loggers	•			
Search All	Categories	····		۲	
Logger Nan			Oracle Diagnostic Logging Level (Java Level)	Log File	Persistent Log Level State
	> oracle.s	ca.adapter.db	ERROR:1 (SEVERE) [Inherited f	odi-handler	
	> oracle.s	oa.adapter.file	ERROR:1 (SEVERE) [Inherited f	odl-handler	
	) oracle.s	oa.adapter.ftp	ERROR:1 (SEVERE) [Inherited f	odi-handler	
	oracle.s	oa.adapter.ibse	NOTIFICATION:1 (INFO)	odl-handler	NOTIFICATION:1
	a oracle.s	oa.adapter.iwaf	NOTIFICATION:1 (INFO)	odl-handler	NOTIFICATION:1
	orad	le.soa.adapter.Jwaf.JAEAdapter	INCIDENT_ERROR:1 (SEVERE+100) ERROR:1 (SEVERE)	odl-handler	
	orad	le.soa.adapter.iwaf.JDEdwards	WARNING:1 (WARNING)	odl-handler	
	orad	le.soa.adapter.iwaf.MySAP	NOTIFICATION:1 (INFO) NOTIFICATION:16 (CONFIG)	odl-handler	
	orad	le.soa.adapter.iwaf.PeopleSoft	NOTIFICATION:32	odl-handler	
	orad	le.soa.adapter.iwaf.Sample	TRACE:1 (FINE) TRACE:16 (FINER)	odl-handler	
	orad	le.soa.adapter.iwaf.Siebel	TRACE:32 (FINEST)	odl-handler	
	5 orad	le.soa.adapter.iwaf.connection	Inherited from parent	odl-handler	
	A crad	le.soa.adapter.iwaf.inbound	NOTIFICATION:1 (INFO) [Inher *	od-handler	

Figure 9–3 Oracle Diagnostic Logging Level (Java Level) Column

## 8. Click Apply.

A confirmation message appears, indicating that the update was completed successfully, as shown in Figure 9–4.

Figure 9–4 Confirmation Message



9. Click Close.

The following table shows how the Log Level property is updated in the *{server-name}*-diagnostic.log based on the corresponding Log Level property settings in the em console.

Log Level Set in Em Console	Log Level Updated in {server-name}-diagnostic.log
ERROR:1	ERROR
WARNING:1	WARNING
NOTIFICATION:1	NOTIFICATION
NOTIFICATION:16	NOTIFICATION
NOTIFICATION:32	NOTIFICATION
TRACE:1	NOTIFICATION
TRACE:16	NOTIFICATION
TRACE:32	TRACE:32

Table 9–1 Log Level Property Settings

**Note:** Setting the LogLevel as TRACE:32 in the em console, displays the FINEST details in the log (displaying the input passed to the adapter, response received from the adapter and other additional details) with the log level displayed as TRACE:32 in the *(server-name)*-diagnostic.log.

For development and test environments, TRACE:32 is the preferred log level, which displays all of the log details. For production environments, ERROR is the preferred log level.

The log messages are written to a disk file, and the file path can be found in the **Log Files** tab. The Handler Name in the Log Files table corresponds to the Log File name in the Log Levels table. All loggers in the hierarchy below oracle.soa.adapter are currently handled by the odl-handler, as shown in Figure 9–5.

Figure 9–5 Log Configuration Pane

	Log Files	QuickTrace				
	at of the log n	nessages, the rot	nfigurations. A log file configural ation policies used, as well as of Edit Configuration 60 View	her parameters depend	ding on the log file of	configuration class.
Second		•	Luc comgaration de rici			
Handler	Name L	.og Path			Log	) File Format
	Name L	.og Path	/servers/\${weblogic.Name}/sysr		Log	
Handler	Name I handler s	og Path {domain.home}		nan/log/emoms.log	Log	) File Format
Handler em-log-h	Name I handler s andler s	og Path {domain.home}; {domain.home};	/servers/\${weblogic.Name}/sysr	nan/log/emoms.log nan/log/emoms.trc	Log Ora Ora	g File Format acle Diagnostics Loggin
Handler em-log-h em-trc-h odl-hand	Name L handler s andler s ller s	og Path {domain.home}; {domain.home}; {domain.home};	/servers/\${weblogic.Name}/sysr /servers/\${weblogic.Name}/sysr	nan/log/emoms.log nan/log/emoms.trc /\${weblogic.Name}-dia	Log Ora Ora Ignostic.log Ora	g File Format acle Diagnostics Loggin acle Diagnostics Loggin

The logs are updated in *{server-name}*-diagnostic.log available in the following location:

<ORACLE\_HOME>\user\_projects\domains\base\_domain\servers\<server\_Name>\logs

**10.** In the Server pane, display the log messages in the em console by clicking the **Weblogic Server** drop-down list, selecting **Logs**, and then clicking **View Log Messages**, as shown in Figure 9–6.

ORACLE <sup>®</sup> Enterprise Manager	Fusion Middleware Control 12c	
📲 WebLogic Domain 👻		
Target Navigation	soa_server1 ④     Busic Server → D Start Up      Home	Shut Down
Application Deployments     SOA     WebLogic Domain     Dase_domain	Monitoring Diagnostics Control	<ul> <li>log configuration settings.</li> </ul>
<ul> <li>AdminServer</li> <li>Soa_server1</li> <li>Metadata Repositories</li> <li>User Messaging Service</li> </ul>	Logs Deployments SOA Deployment JDBC Data Sources Messaging	View Log Messages Log Configuration Irs are not persisted across
	Web Services Other Services Administration System MBean Browser Routing Topology	Oracle Dia Level)     ERROR:1 ERROR:1 ERROR:1 ERROR:1 ERROR:1
	WebLogic Server Administration Console Target Information	ERROR:1

Figure 9–6 View Log Messages Option

**11.** On the Log Messages pane, complete the required search criteria. You can also add the **Module** field to the search criteria, which contains the name of the logger of interest, as shown in Figure 9–7.

Figure 9–7 Module Field

ORACLE Enterprise Manager Fusion Modewa	are Control 12c	
📲 WebLogic Domain 🕶		
Target Navigation Vere       A application Deployments      Social      Soci	Soa_server1      Soa_server1      Start Up Start Up Start Up Start Up Start Down      //Doman_base_domain/base_domain/base_server1 > Log Messages     Log Messages     // Search     Selected Targets (31)     Date Range Most Recent      10 Days     Selected Targets (31)     Date Range Most Recent      10 Days     Selected Fields     Selected     Selected Fields     Selected     Selected Fields     Selected     Selected	Page Part
	Aar 6, 2013 4:00:10 PM PDT Bree Throwing IllegalArgumentException: Configurati Voue Voue Voue Voue Voue Voue Voue Voue	·

- 12. Click Add.
- **13.** In the Module field, enter the name of the logger of interest, and if required, select the additional Message Types (Warning, Notification, Trace, and so on) and then click **Search**, as shown in Figure 9–8.

Figure 9–8 Log Messages Pane

og Messag	es			🟹 🔻 Target Log Files	Manual Refresh 🔹 🔻
	PIUSE NOLOILE	•	10 Days	. Debug and trace messages	
* Message Types		r 🕑 Error	Warning	🖉 Notification 🖉 Trace 🖉 Unknown	
* Search		ds 💿 Al	l Fields		
	* Match	() IIA (	问 Any		
	Message	contain	s 🔻	Add Fields	
	Module	contain	s 🔻	oracle.soa.adapter.iwaf.outbound	-
	Search	Enter one rch.	or more keywo	rds separated by a comma. If keyword contains comma then prepend the comma with $\backslash$ . Example: weblogic, s	erver weblogic server will
/iew <del>▼</del> Sho	w Messages		▼ Vie	w Related Messages 👻 Export Messages to File 💌	
		Message			Executi
Time	w Messages ▲▽	Message Type Error	▼ Vie Message ID	w Related Messages   Export Messages to File  Message  Target  Target  Target  Target  Torget Type  Throwing IllegalArgumentException: Configuration 'sap3 esdsun  soa-Infra (soa ser	ECID

The messages from the specified logger are displayed in the table below the search criteria, as shown in Figure 9–9.

Figure 9–9 Logger Messages

.og Messages				🟹 🔻	Target Log Files	Manual Refresh
⊿ Search						
Selected Targets (31)	)					
Date Range Most Recent	•	10 Days	•			
* Message 🕢 Incident Erro Types	r 🕑 Error	Warning	✔ Notification ✔ Trace ✔ Unknown			
* Search 💿 Selected Fiel	lds 💿 All	Fields				
* Match	🖲 All 🌘	Any				
Search						
			and a second diversion of the second sector is a second diversion of the secon	the second with \$1.00	and a suble size and	
⊗ sea	: Enter one o irch.	or more keywo	ords separated by a comma. If keyword contains comma then prepend	the comma with \. E	kample: weblogic, server\	, weblogic serve
View - Show Messages		Vi				
		• VI	ew Related Messages 👻 Export Messages to File 💌			
	Message					E
Time	Type	Message ID	Message	Target	Target Type	ECID
Time	Type Notifica		Message IWAFManagedConnection for MySAM:saps_esosuny_tgt has liste	soa-intra (soa_ser	SUA Intrastructure	ECID 06F33720-61
Time  Apr 6, 2015 4:08:10 PM PD1 Apr 6, 2015 4:08:10 PM PDT	Type Notifica Trace		Message IwwarwanageoLonnection for MySAW:Saps_esosumy_tgt nas liste IWAFManagedConnectionFactory:createManagedConnection() ex	soa-intra (soa_ser soa-infra (soa_ser	SOA Infrastructure SOA Infrastructure	ECID 06f33720-61 06f33720-61
Time  APF 6, 2015 4:08:10 PM PDT Apr 6, 2015 4:08:10 PM PDT Apr 6, 2015 4:08:10 PM PDT	Type Notifica Trace Trace		Message IwwarhanageoLonnection for IwySAP:Sap3_e5osuny_tgt nas liste IWAFManagedConnectionFactory:createManagedConnection() ex IWAFManagedConnection.getLocalTransaction()	soa-infra (soa_ser soa-infra (soa_ser soa-infra (soa_ser	SOA Infrastructure SOA Infrastructure SOA Infrastructure	ECID 06f33720-610 06f33720-610
Time  Apr 6, 2015 4:08:10 PM PD1 Apr 6, 2015 4:08:10 PM PD1	Type Notifica Trace		Message IwwarwanageoLonnection for MySAW:Saps_esosumy_tgt nas liste IWAFManagedConnectionFactory:createManagedConnection() ex	soa-intra (soa_ser soa-infra (soa_ser	SOA Infrastructure SOA Infrastructure SOA Infrastructure	ECID U0f33720-610 06f33720-610 06f33720-610 06f33720-610
Time  APF 6, 2015 4:08:10 PM PDT Apr 6, 2015 4:08:10 PM PDT Apr 6, 2015 4:08:10 PM PDT	Type Notifica Trace Trace		Message IwwarhanageoLonnection for IwySAP:Sap3_e5osuny_tgt nas liste IWAFManagedConnectionFactory:createManagedConnection() ex IWAFManagedConnection.getLocalTransaction()	soa-infra (soa_ser soa-infra (soa_ser soa-infra (soa_ser	SOA Infrastructure SOA Infrastructure SOA Infrastructure SOA Infrastructure	ECID 06f33720-610 06f33720-610
Time  APF 6, 2015 4:08:10 PM PDT Apr 6, 2015 4:08:10 PM PDT	Type Notifica Trace Trace Trace		Message IVVAFHanagedLonnection for MySAP:Sap3_esosumy_tgt nas liste IVVAFHanagedConnectionFactory:createHanagedConnection() ex IVVAFHanagedConnection.getLocalTransaction() SPITransactionImpl::dearAdapterTransactions()	soa-infra (soa_ser soa-infra (soa_ser soa-infra (soa_ser soa-infra (soa_ser	SOA Infrastructure SOA Infrastructure SOA Infrastructure SOA Infrastructure SOA Infrastructure	ECID 06f33720-61 06f33720-61 06f33720-61 06f33720-61
Time  Apr 6, 2015 4:08:10 PM PDT	Type Notifica Trace Trace Trace Trace		Message IWAFHanagedConnection Tor MySAP/Sap3_esdSumy_tgt nas liste IWAFHanagedConnectionFactory:createHanagedConnection() ex IWAFHanagedConnection.getLocalTransaction() SPTTransactionImpl::clearAdapterTransactions() SPTTransactionImpl::rollback()	soa-infra (soa_ser soa-infra (soa_ser soa-infra (soa_ser soa-infra (soa_ser soa-infra (soa_ser	SOA Infrastructure SOA Infrastructure SOA Infrastructure SOA Infrastructure SOA Infrastructure SOA Infrastructure	ECID 06f33720-61 06f33720-61 06f33720-61 06f33720-61 06f33720-61 06f33720-61
Time AV Apr 6, 2015 4:08:10 PM PDT Apr 6, 2015 4:08:11 PM PDT Apr 6, 2015 4:08:11 PM PDT	Type Notifica Trace Trace Trace Trace Trace		Message IWAFManagedConnection for MySAP:sap3_esosumy_tgt nas liste IWAFManagedConnectionFactory:createManagedConnection() ex IWAFManagedConnection.getLocalTransaction() SPITransactionImpl::clearAdapterTransactions() SPITransactionImpl::rollback() IWAFManagedConnection.cleanup() for MySAP:sap3_esdsum9_tgt	soa-intra (soa_ser soa-infra (soa_ser soa-infra (soa_ser soa-infra (soa_ser soa-infra (soa_ser soa-infra (soa_ser	SOA Infrastructure SOA Infrastructure SOA Infrastructure SOA Infrastructure SOA Infrastructure SOA Infrastructure	ECID 06f33720-610 06f33720-610 06f33720-610 06f33720-610 06f33720-610 06f33720-610 06f33720-610
Time         Image: Control of the second secon	Type Notifica Trace Trace Trace Trace Trace Trace Trace		Message IWAFManagedConnection for MySAP:sap3_esosumy_tgt nas liste IWAFManagedConnectionfactory:createManagedConnection() ex IWAFManagedConnection.getLocalTransaction() SPTTransactionImpl::rollback() IWAFManagedConnection.cleanup() for MySAP:sap3_esdsun9_tgt IWAFManagedConnection for MySAP:sap3_esdsun9_tgt.end.	soa-intra (soa_ser soa-infra (soa_ser soa-infra (soa_ser soa-infra (soa_ser soa-infra (soa_ser soa-infra (soa_ser soa-infra (soa_ser	SOA Infrastructure SOA Infrastructure SOA Infrastructure SOA Infrastructure SOA Infrastructure SOA Infrastructure SOA Infrastructure	ECID Ub733/20-61 06f33720-61 06f33720-61 06f33720-61 06f33720-61 06f33720-61 06f33720-61 f4534046-db
Time APF 6, 2015 4:08:10 PM PDT Apr 6, 2015 4:08:11 PM PDT Apr 6, 2015 4:08:11 PM PDT	Type Notifica Trace Trace Trace Trace Trace Trace Trace Trace		Message IWAFHanagedConnectionTorPkySAF:SBp3_esdSumy_tgt has Histe IWAFHanagedConnectionFactory:createHanagedConnection() ex IWAFHanagedConnection.getLocalTransaction() SPITransactionImpl::clearAdapterTransactions() SPITransactionImpl::rollback() IWAFHanagedConnection creature() for MySAP:sap3_esdsum9_tgt IWAFHanagedConnection for MeSP:sap3_esdsum9_tgt cleaned. IWAFHAnagedConnection for : destroyed.	soa-infra (soa_ser soa-infra (soa_ser soa-infra (soa_ser soa-infra (soa_ser soa-infra (soa_ser soa-infra (soa_ser soa-infra (soa_ser soa_server1 soa_server1	SUA Infrastructure SOA Infrastructure SOA Infrastructure SOA Infrastructure SOA Infrastructure SOA Infrastructure SOA Infrastructure Oracle WebLogic Server	ECID U0F33720-611 06f33720-611 06f33720-611 06f33720-611 06f33720-611 06f33720-611 06f33720-611 06f33720-614 f4534046-dbt

**14.** Select any row in the table. To get identical details, click the **View Related Messages** drop-down list, and select *ECID* (execution Context ID) as shown in Figure 9–10.

WebLogic Domain +	Mddleware Control 12c	👥 weblogic
Target Navigation		ogged in as weblogicl 🗒 A Apr 6, 2015 4:21:18 PM P
2 Dapplication Deployments 4 Da SOA 4 Sesa-infra (soa_server1) 4 Gib default	/Domain_base_domain/base	Files Manual Refresh
Image: Set	Dute Range Most Recent 10 Days * Message Dindent Error D Error D Warning D Notification D Trace D Unknown Types * Search © Selected Relds * Match © All © Any Search	
	The: Enter one or more keywords separated by a comma. If keyword contains comma then prepend the comma with '\ Example: webly View  Show Messages View Related Messages View Re	ogic, server weblogic serve
	> Message by Time Target Type Execution Context ECID Relationship ID	Archive Log File
	IWAFHanageoLonnection for HysAHIsaps_esosun by ECID (Execution Context ID) SUA Intrastructure Ub133/20-5100-4/	soa_server1-dia
	IWAPMangedConnectionFactory.createManagedConnection() ex. soa-infra (soa_sf_by ECID (Execution Context ID) 3720-6180-47 0:63 IWAPMangedConnection.getLocalTransaction() soa-infra (soa_sfso	soa_server1-dia soa_server1-dia
	TWAPHanagedConnection.getLocilTransaction()         Soa-infra (saa_lef*= soa-infra (saa_lef*= soa-infra soa-infra (saa_lef*= soa-infra soa-infra (saa_lef*= soa-infra soa-infr	soa_server1-di soa_server1-di
	IWAPfanage@Connection.getLocalTransaction()         soa-infra (soa_sterinconnection.getLocalTransaction()         soa-infra (soa_sterinconnection.getLocalTransaction()         soa-infra (soa_sterinconnection)         soa-infra (soa_sterinconnecionnection)         soa-infra (soa_sterinconnection	soa_server1-di soa_server1-di soa_server1-di
	WAPHanage&Connection.getLocalTransaction()         soa-infra (soa_set) (betacution context LI)         yp XLD (becacution context LI)           SPTTransaction(mill:clearAdapteTransaction()         soa-infra (soa_set) Abstransacture         0633726-4516-47063           SPTTransaction(mill:clearAdapteTransaction()         soa-infra (soa_set) Abstransacture         0633726-4516-47063           SPTTransaction(mill:clearAdapteTransaction()         soa-infra (soa_set) Abstransacture         0633726-4516-47063           SPTTransaction()         soa-infra (soa_set) Abstransacture         0633726-4516-47063           TWAPHanage&Connection.cleanup() for MySAPtasp_endurg1_tptsoa-infra (soa_set) Soa Infrastructure         0633726-4516-47063	
	WAPHanape&Connection.getLocalTransaction()         soa-infra (soa_ster	
	WAPHanage&Connection.getLocalTransaction()         soa-infra (soa_set) (betacution context LI)         yp XLD (becacution context LI)           SPTTransaction(mill:clearAdapteTransaction()         soa-infra (soa_set) Abstransacture         0633726-4516-47063           SPTTransaction(mill:clearAdapteTransaction()         soa-infra (soa_set) Abstransacture         0633726-4516-47063           SPTTransaction(mill:clearAdapteTransaction()         soa-infra (soa_set) Abstransacture         0633726-4516-47063           SPTTransaction()         soa-infra (soa_set) Abstransacture         0633726-4516-47063           TWAPHanage&Connection.cleanup() for MySAPtasp_endurg1_tptsoa-infra (soa_set) Soa Infrastructure         0633726-4516-47063	
	IWAPManagedConnection.getLscaTremaction()         soa-infra (soa_ker	

Details are displayed, as shown in Figure 9–11.

Figure 9–11 Message Details

View 🔻	View Related Messag	es 🔻 l	Export Message	s to File 💌 Scope	30 second	ds ▼
Time		Message Type	Message ID	Message Target Type	Archive	Log Fi
Apr 6,	2015 4:08:10 PM PDT	Trace		IWAFManagedConnection.getLocalTransaction() soa-infra (soa_ser SOA Infrastructure	_	soa_s
Apr 6,	2015 4:08:10 PM PDT	Trace		SPITransactionImpl::clearAdapterTransactions() soa-infra (soa_ser SOA Infrastructure	_	soa_s
Apr 6,	2015 4:08:10 PM PDT	Trace		SPITransactionImpl::rollback() soa-infra (soa_ser SOA Infrastructure	_	soa_s
Apr 6,	2015 4:08:11 PM PDT	Trace		IWAFManagedConnection.cleanup() for MySAP:sap3_esdsun9_tgt soa-infra (soa_ser SOA Infrastructure	_	soa_s
Apr 6,	2015 4:08:11 PM PDT	Trace		IWAFManagedConnection for MySAP:sap3_esdsun9_tgt cleaned. soa-infra (soa_ser SOA Infrastructure		soa_s
Apr 6,	2015 4:08:11 PM PDT	Error		JCABinding=> SAP_MED_JCA_CC_GD_OB:Getdetail [ GetDetailP soa-infra (soa_ser SOA Infrastructure	_	soa_s
Apr 6,	2015 4:08:11 PM PDT	Error		JCABinding=> [default/SAP_MED_JCA_CC_GD_OB!1.0*soa_3158 soa-infra (soa_ser SOA Infrastructure		soa_s
Apr 6,	2015 4:08:11 PM PDT	Error		Rolling back transaction due to ORAMED-03303:[Unexpected exc soa-infra (soa_ser SOA Infrastructure		soa_
Apr 6,	2015 4:08:11 PM PDT	Error		Error in rolling back transaction due to ORAMED-03504:[Transacti soa-infra (soa_ser SOA Infrastructure		soa_s
Apr 6,	2015 4:08:11 PM PDT	Error		Updating fault processing DMS metrics soa-infra (soa_ser SOA Infrastructure	-	soa
Apr 6,	2015 4:08:11 PM PDT	Error		Got an exception: oracle.fabric.common.FabricInvocationExceptio soa-infra (soa_ser SOA Infrastructure	-	soa_
			-			
ows Sel	ected 1 Columns H	idden 36			Total	Rows
						e
М	essage Level 32			Java EE soa-infra		
	SRC_CLASS com.ibi.afjci	a.spi.SPITra	nsactionImpl	Application		
Web	Service Port execute_pt			Relationship ID 0:63		
S	ICA Entity ID 340004			Component soa_server1		
SOA	Retry Count SAP_MED_J	CA_CC_GD_	OB!1.0	Module oracle.soa.adapter.iwaf.outbound		
504	Instance ID 320003			Host AXTST168		

## 9.1.2 Configuring Log File Management for Business Services Engine (BSE)

Similar to J2CA for BSE, the Log file management is governed by the Loggers defined in:

<ORACLE\_HOME>\user\_projects\domains\base\_ domain\config\fmwconfig\servers\\${server-name}\logging.xml

The following syntax sets the logging level of all the loggers under oracle.soa.adapter.ibse to NOTIFICATION:1 (INFO) which is the default setting level by oracle.

```
<logger name='oracle.soa.adapter.ibse' level='NOTIFICATION:1'
useParentHandlers='true'/>
```

The logging level of all the loggers can also be configured from the em console with the following steps:

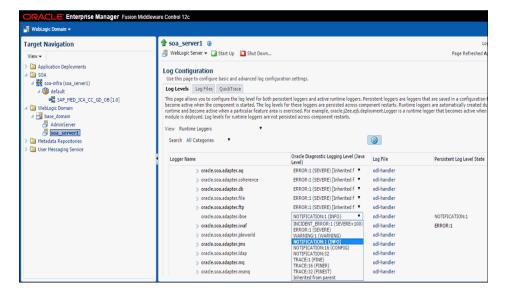
- 1. Repeat steps 1 through 5, as described in Section 9.1.1, "Configuring Log File Management for the J2CA Connector Application".
- **2.** Under the **Log Levels** tab, expand the Oracle root logger until the oracle.soa.adapter.ibse Logger name is visible, as shown in Figure 9–12.

Figure 9–12 Log Levels Tab

Log Levels	Log Files	QuickTrace			
ecome activ untime and b	e when the co become active	omponent is started. The e when a particular feat	both persistent loggers and active runtime loggers. Pe log levels for these loggers are persisted across comp ure area is exercised. For example, oracle.j2ee.ejb.depl are not persisted across component restarts.	onent restarts. Runtim	e loggers are automatically created
/iew Runtir	ne Loggers	•			
Search Al	Categories	¥			
Logger Nar	ne		Oracle Diagnostic Logging Level (Java Level)	Log File	Persistent Log Level Stat
	> oracle.s	oa.adapter.aq	ERROR:1 (SEVERE) [Inherited f 🔻	odl-handler	
	> oracle.s	oa.adapter.coherence	ERROR:1 (SEVERE) [Inherited f 🔻	odl-handler	
	> oracle.s	oa.adapter.db	ERROR:1 (SEVERE) [Inherited f 🔻	odl-handler	
	> oracle.s	oa.adapter.file	ERROR:1 (SEVERE) [Inherited f 🔻	odl-handler	
	> oracle.s	oa.adapter.ftp	ERROR:1 (SEVERE) [Inherited f 🔻	odl-handler	
	oracle.s	oa.adapter.ibse	NOTIFICATION:1 (INFO)	odl-handler	NOTIFICATION:1
	> oracle.s	oa.adapter.iwaf	TRACE:32 (FINEST)	odl-handler	ERROR:1
	> oracle.s	oa.adapter.jdeworld	ERROR:1 (SEVERE) [Inherited f	odl-handler	
	> oracle.s	oa.adapter.jms	ERROR:1 (SEVERE) [Inherited f 🔻	odl-handler	
	> oracle.s	oa.adapter.ldap	ERROR:1 (SEVERE) [Inherited f 🔻	odl-handler	
	a secolaria	oa.adapter.mg	ERROR:1 (SEVERE) [Inherited f	odl-handler	

**3.** In the Oracle Diagnostic Logging Level (Java Level) column, select the required log level from the oracle.soa.adapter.ibse drop-down list, as shown in Figure 9–13.

Figure 9–13 Oracle Diagnostic Logging Level Column



4. Click Apply.

A confirmation message appears, indicating that the update was completed successfully, as shown in Figure 9–14.

Confirmation	
Update Log Levels - Completed Successfully	
The log levels have been updated successfully	
5-15g	
Updating log levels	
Updating the log levels of runtime loggers The log levels of runtime loggers have been updated successfully The log levels have been updated successfully	
	Close

Figure 9–14 Confirmation Message

## 5. Click Close.

The following table shows how the Log Level property is updated in the *{server-name}*-diagnostic.log based on the corresponding Log Level property settings in the em console.

Log Level Set in Em Console	Log Level Updated in {server-name}-diagnostic.log
ERROR:1	ERROR
WARNING:1	WARNING
NOTIFICATION:1	NOTIFICATION
NOTIFICATION:16	NOTIFICATION
NOTIFICATION:32	NOTIFICATION
TRACE:1	NOTIFICATION
TRACE:16	NOTIFICATION
TRACE:32	TRACE:32

Table 9–2 Log Level Property Settings

For verification of logs, see steps 11 to 18 of the J2CA Logging feature, found in Section 9.1.1, "Configuring Log File Management for the J2CA Connector Application".

## 9.2 Configuring the Diagnosibility Feature

This section describes how to configure and use the Diagnosibility feature for the Oracle Fusion Middleware Application Adapters for Oracle WebLogic Server. It contains the following topic:

Section 9.2.1, "Supporting Protocols"

The Diagnosibility feature captures the endpoint health status (where available) of the adapters, and provides a corresponding alert to the Oracle Adapter Framework, so it may be displayed in the EM console.

**Note:** The Diagnosibility feature supports only inbound adapter processes

Make sure that there is an inbound process deployed before moving to the next section

This information can be viewed for the adapters as mentioned in the following steps:

**1.** Start the Oracle WebLogic Servers and open the Oracle WebLogic Server Enterprise Manager Console in a web browser by entering the following URL:

http://host name:port/em

Where *host name* is the name of the system where Oracle WebLogic Server is running, and *port* is the port for the Oracle WebLogic Server that is running.

- **2.** Log in to the Oracle WebLogic Server Administrative Console using an account that has administrator privileges.
- **3.** On the right pane, expand **SOA**, **soa-Infra (server\_name)**, **Default**, and then **Deployed inbound process**.
- **4.** Click the process and then select the service listed in the Services and References Section in the right pane, as shown in Figure 9–15.

Figure 9–15 Services and References Section

SOA Composite 🕶		P	age Refreshed Apr	23, 2015 12:29:57 PM PDT
kcive Retire   Start Up Test V   Settings V    ashboard Composite Definition Flow Instances Unit Tests Policies				P Related Links
∠ Components				
Name				Component Type
≪€Mediator1				Mediator
✓ Services and References	Type TCA Adopter	Usage Service		
	Type JCA Adapter JCA Adapter	Usage Service Reference	Total Messages 0 0	

**5.** In the Adapter Reports tab, select the **Enable reports** check box, and then expand **Snapshot Reports** to view the details of the EIS downtime. Clicking on the Error Summary will show the stack trace, as shown in Figure 9–16.

						Page Refreshe	ed Apr 10, 201	15 5:24:59 AM EDT
😻 👚 SAMPACO	C (Custom Adapte	r)						P Related Lin
Dashboard Policies	Properties Adapt	er Reports						
Diagnosibility R	eports 💌 🗹 Ena	ble reports						
🔉 🖉 Configurati	ion Reports							
⊿ @Monitoring								
		a statistics for this and	point. (If an EIS connect	tion is down click th	a atatus isan far atask	trace details )		
The cable below disp		g statistics for this end	Managed Con		e status iconnor static		ent Time Stamp	
Node	EIS Connection Status	Currently Open	Average Number Used	Currently Free	Maximum Pool Size	Last Message Publicatio	in L	ast Service Activat
⊿ @ Snapshot F	Reports						Write	e to Database 🔲
Snapshot reports agg	regate historical data ov		f time.				Write	e to Database 📃
	regate historical data ov		f time.				Write	e to Database 📃
Snapshot reports agg EIS Connection Do	regate historical data ov	tatistics	f time. urs V 🏓				Write	
Snapshot reports agg EIS Connection Do	regate historical data ov pwntime Message Si	ast* 24 C Ho			Error Summary		Write IS Connection me (Seconds)	e to Database

Figure 9–16 Stack Trace

## 9.2.1 Supporting Protocols

This section describes the supporting protocols for the Oracle Fusion Middleware Application Adapter for Siebel, and consists of the following topic:

 Section 9.2.1.1, "Oracle Fusion Middleware Application Adapter for Siebel Endpoint Status"

#### 9.2.1.1 Oracle Fusion Middleware Application Adapter for Siebel Endpoint Status

The Oracle Fusion Middleware Application Adapter for Siebel (inbound) can use the following protocols:

- HTTP
- MQ
- File (Not Supported)

The HTTP listening protocol adapters listen on a socket. As a result, by their nature, they cannot determine whether there is anything live on the other side until they receive something. Even when receiving a request, it is impossible to determine with certainty where the request originated.

For these protocols, the EIS is regarded and used when a request is being received. EIS determines if the communication error happens while the request is being received. However, this is a very unrefined and rudimentary determination.

However, the MQ inbound listener adapter polls for MQ events, so a communication failure (or successful communication) will be detected while polling occurs using the MQ API.

## 9.3 Configuring the SOA Debugging Feature

This section describes how to configure and use the SOA Debugging feature for the Oracle Application Adapter for Siebel. It contains the following topics:

Section 9.3.1, "Guidelines for Using the SOA Debugger"

- Section 9.3.2, "Prerequisite"
- Section 9.3.3, "Debugging a BPEL Process in Oracle JDeveloper"
- Section 9.3.4, "Debugging an OSB Process in Oracle JDeveloper"

**Note:** The SOA Debugging feature is currently supported only for J2CA configurations and it is not applicable for BSE configurations.

For SOA, this feature is explained using a BPEL process. The same is applicable for Mediator and BPM processes.

## 9.3.1 Guidelines for Using the SOA Debugger

This section describes guidelines for using the SOA Debugger.

- 1. Only one client at a time can connect to the SOA Debugger.
- **2.** Adapter endpoint errors are not displayed in the SOA Debugger in Oracle JDeveloper. These errors are logged in the log file.

**Note:** The SOA Debugger is currently available for BPEL, Mediator, BPM, and OSB processes with Development mode only.

## 9.3.2 Prerequisite

Ensure that the *IntegratedWebLogicServer* domain and a BPEL process are already created in Oracle JDeveloper.

## 9.3.3 Debugging a BPEL Process in Oracle JDeveloper

This section describes how to debug a BPEL process in Oracle JDeveloper. It contains the following topics:

- Section 9.3.3.1, "Debugging an Outbound BPEL Process in Oracle JDeveloper"
- Section 9.3.3.2, "Debugging an Inbound BPEL Process in Oracle JDeveloper"

### 9.3.3.1 Debugging an Outbound BPEL Process in Oracle JDeveloper

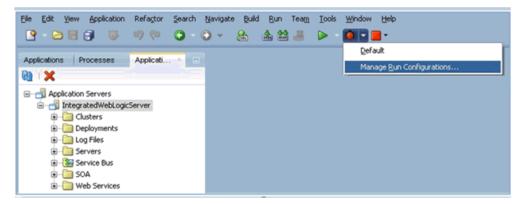
- **1.** Open Oracle JDeveloper.
- 2. Start the *IntegratedWeblogicServer* domain.
  - **a.** Click the **Application Servers** tab in the left pane.
  - **b.** Under the Application Servers node, right-click **IntegratedWeblogicServer** and select **Start Server Instance** from the context menu, as shown in Figure 9–17.

Applications Processes	Applicati ×	
孢 I 🗙		
Application Servers		
IntegratedWebLogi	Server Start Server Instance	
	Debug Server Instance	
	Greate Default Domain Update Default Domain Delete Default Domain	
	Configure Oracle Diagnostic Logging for "IntegratedWebLog	jicServer"
	SAP Adapter Migration Tool	
	🚱 Refresh	Ctrl-R
	Launch Administrative Console	
Structure Sample_MySAP_	JCA_ 🗶 Delete	Delete
	Properties	

Figure 9–17 Start Server Instance

- **3.** Set the Debugging environment.
  - **a.** Click the down arrow next to the Debug icon and select **Manage Run Configurations** from the context menu, as shown in Figure 9–18.

Figure 9–18 Manage Run Configurations



**b.** Or, right-click the project and select **Project Properties**.

The Project Properties dialog is displayed, as shown in Figure 9–19.

2	Run/Debug	
- Project Source Paths	⊖ Use <u>C</u> ustom Settings	Customize Settings
- ADF Business Components	Use Project Settings	
- ADF Model	O Use Shared Settings	Edit Shared Settings
ADF Task Flows ADF View		
- Ant	Run Configurations:	
- Compiler	Default	Edit
- Dependencies		New
Deployment		
EJB Module		Delete
Extension		Restore Defaults
Facelets Tag Libraries		
Features		
- Javadoc		
Java EE Application		
- JPA		
JSP Tag Libraries JSP Visual Editor		
Libraries and Classpath		
Maven		
Resource Bundle		
Run/Debug		

Figure 9–19 Project Properties Dialog

**c.** Select **Run/Debug** in the left pane and then click **Edit** in the Run/Debug pane (Run Configurations area).

The Edit Run Configuration dialog is displayed, as shown in Figure 9–20.

Figure 9–20 Edit Run Configuration Dialog

Edit Run Configuration "Defau	lt"	
Q Search - Launch Settings - XSLT - PL/SQL - Tool Settings - Debugger - Remote - Macro and Variable Definitions - Environment Variables - User-Defined Macros	Remote         Protocol       Attach to SOA         Host       Attach to Service Bus         Port       Listen for JPDA         Time       Attach to SOA         To launch a remote SOA debugee:       Start a Weblogic server with a domain configured for SOA debugging. Then deploy application to that server.         foo       bar         Image: Show Dialog Box Before Connecting Debugger	
Help	ОК	Cancel

- d. Expand Tool Settings, Debugger in the left pane, and then click Remote.
- e. From the Protocol list, select Attach to SOA.
- f. Leave the default values for the Host and Port.
- **g.** Click **OK**.
- 4. Deploy the project.
  - **a.** Right-click the project and select **Deploy**.

The Deployment Action dialog is displayed.

Select the application to deploy and click Next.

The Deploy Configuration dialog is displayed.

**b.** Click **Next**.

The Application Servers dialog is displayed.

- **c.** Select **IntegratedWebLogicServer** and then click **Finish** to complete the deployment.
- **d.** Ensure that the project deployment has completed without any errors or issues before proceeding to the next step.
- 5. Connect a BPEL process to the SOA Debugger.
  - **a.** In the Applications tab on the left pane, right-click a composite XML or project for an existing BPEL process and then select **Debug** from the context menu, as shown in Figure 9–21.

🔁 Debugging_Feature		🧭 👘 🍛 💥
_ Projects	Q & · 7 · 5·	
Siebel_Debugging  Resources  SOA  Adapters  BFL  BFL  Control  Schemas  Control  Co	nl	Delproces
ີ້ Siebel_Debugging	Open Velete Validate XML Explore Dependencies Run Debug	
	Reformat         Refactor         Compare With         Replace With         SAP Adapter Migration To         Generate Config Plan         Validate Config Plan         Create SOA Template	Alt+Shift-F

Figure 9–21 Select BPEL Process to Debug

The SOA Debugger Connection Settings dialog is displayed, as shown in Figure 9–22.

Figure 9–22 SOA Debugger Connection Settings Dialog

👩 50A De	bugger Connection Settings	×
Host:	iwdevora3.ibi.com	
Port:	5004	•
Timeout:	5	•
Skip t	his dialog next time	
Hel	p OK Cancel	

**b.** Click **OK**.

Once the BPEL process is connected to the SOA Debugger, the following messages will be displayed in the Debugging log:

Debugger attempting to connect to remote process at iwdevora3.ibi.com 5004. Debugger connected to remote process at iwdevora3.ibi.com 5004. Debugger process virtual machine is SOA Debugger

- 6. Set the Breakpoints and initiate debugging.
  - **a.** Right-click on the components and select the Breakpoint type to set, as shown in Figure 9–23.

Figure 9–23 Selecting Breakpoints

③ Start Page 👘 🖓 Sieb	el_Debugging 🐣	
🖉 🖓 🚘 🗶 🖏   🖁	2) 🖸 ( 🗄 🖶 🏟 🍓	Siebel_Debugging[Read-only]
Use context menu to initiate WS debugging bpelprocess1_clien Operations: process	Create Breakpoints Pair Create Request Breakpoint Create Reply Breakpoint	Service Operations: query
<u> </u>	🛛 💥 Remove Breakpoints	
	Initiate WS Debugging	
4		Debug Mode 🖕
Design Source History		

**Create Breakpoints Pair** - Set this Breakpoint type for a request-reply (outbound-inbound) interaction. This is useful for scenarios in which both the request and reply are important.

**Create Request Breakpoint** - Set this Breakpoint type for a request (outbound) interaction. This is useful for scenarios in which only the request is important.

**Create Reply Breakpoint** - Set this Breakpoint type for a reply (inbound) interaction. This is useful for scenarios in which only the reply is important.

**Initiate WS Debugging** - Set this Breakpoint type to initiate a debugging session. For example, the debugging session encompasses an initiating SOAP request from a web service to a BPEL process to an adapter reference binding component.

**b.** Once the Breakpoints are set, right-click the right handle and select **Initiate WS Debugging**, as shown in Figure 9–24.

r 🦛 🛪 📭 🖄	1 <mark>9</mark> 2   43 <b>43 48 61</b>	Siebel_Debugging[Read-o
context menu to e WS debugging polprocess1_clien Operations: process	Create Breakpoints Pair Create Request Breakpoint Create Reply Breakpoint	Service Operations: query
	X Remove Breakpoints	
	Initiate WS Debugging	

Figure 9–24 Initiate WS Debugging

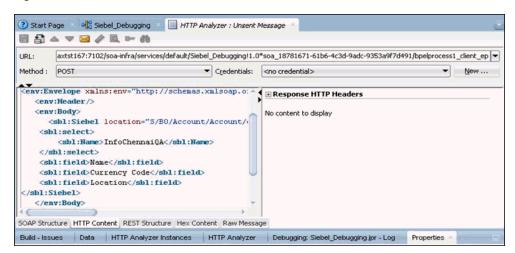
The HTTP Analyzer dialog is displayed, as shown in Figure 9–25.

Figure 9–25 HTTP Analyzer Dialog

URL:	st167:7102/soa-infra/services/default/Siebel_Debugg	ging!1.0*soa_1	8781671-61b6-4c3d-9adc-9353a9	7d491/bpelpr	ocess1_client_ep
WSDL URL:	https://axtst167:7102/soa-infra/servicesebugging!	1.0/bpelproces	s1_client_ep?WSDL		Select WSDL
Operations:	BPELProcess1_pt.process(,)   Credentials:	<no credentia<="" th=""><th>al&gt;</th><th>•</th><th><u>N</u>ew</th></no>	al>	•	<u>N</u> ew
	HTTP Headers 👍 👻	~ () · · · · · · · · · · · · · · · · · ·	sponse HTTP Headers		
SOAP He ⇒ payload	aders		Set is booking outcoa		
E Attribu	ites				
	unt_spcCompetitors : string unt_spcCondition : string				

**c.** Select HTTP content from the below tab. Now, copy and paste the payload into the body, as shown in Figure 9–26.

Figure 9–26 Select HTTP Content



d. Click Send Request.

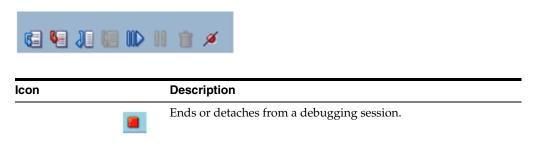
The BPEL Process stops at the designated Breakpoint and blinks in a blue color, as shown in Figure 9–27.

Figure 9–27 BPEL Process Stopped at Breakpoint

· 앱· 📾 💥 📫 1 🕐 🧔 🖸 1 명을 약을 위한 한것	Siebel_Debugging[Read-on]
BPELProcess1 Dperations: process	Service Operations: query
	Debug Mode

**e.** Use the available Step options to step through the Debugging process, as shown in Figure 9–28.

Figure 9–28 Step Options



lcon	Description
(9)	Steps over a frame.
(C)	This places you at the next Breakpoint (for example, the receive activity in the BPEL process on which a Breakpoint was set. If there are no Breakpoints, it steps over all the frames and returns to the first frame.
	You can also press F8 to step over a frame.
	Steps into the next valid location.
<b>6</b>	This can be a new frame or the same frame, but in a different location.
	You can also press F7 to step into a frame.
	Steps out of a frame.
	This option is only used to process a BPEL scope or sequence activity. After completion of scope processing, it pauses at the next scope or activity in the process. You can also press <b>Shift-F7</b> .
805	Resumes a step operation.
012	You can also press <b>F9</b> to resume.

- 7. View the Request payload and header information.
  - a. Click Windows, select Debugger, and then Data.

To view sample header information when a Breakpoint stops at the Request Breakpoint for Oracle Application Adapter for Siebel, see Figure 9–29.

Figure 9–29 Header Information

Build - Issues	Data HTTP A	nalyzer Instar	nces HTTP Analyzer	Debugging: Sieb	el_Debugging.jpr - L	og Proper	ties	
Q							- B	0
Name	Value	Туре	Declared Type	Hex Value	Address	ID	Count	-
(x) masterCo (x) MESH_ME	c92a2b28-7a null null © null Name=[EJB c							

A sample response payload for Oracle Application Adapter for Siebel is shown in Figure 9–30.

Figure 9–30 Sample Response Payload

Name	Value				A data and		
		Туре	Declared Type	Hex Value	Address	ID	Count
🔹 🔻 nati	vePayload 👻						
- body	<siebelrespon< td=""><td>se s</td><td></td><td></td><td></td><td></td><td></td></siebelrespon<>	se s					
		<location> <name>In <id>1-3PA <created></created></id></name></location>	09/23/2010 01:32:56< 09/23/2010 01:32:56				

**Note:** The payload display is limited to the screen size as shown in Figure 9–30. However, the Breakpoint at the BPEL process displays the complete payload, allows scrolling and viewing all elements of the payload.

- 8. Modify the Request payload content.
  - **a.** Expand the SOAP request, select the field to modify, right-click and select **Modify Value** from the context menu, as shown in Figure 9–31.

Figure 9–31 Modify Value

Q	_						🔲 😫	9
Name		⊻iew Whole Value Use toString() for ⊻alue	-	Hex Value	Address	ID	Count	
🖬 📣 field 🛛 🛛 🛛		Modify Value						
E 🔇 field C E 🔇 field L		<u>W</u> atch Inspect						
location		Object Display Preferences						
🛿 🔇 select		⊆ору	Ctrl-C					
		E <u>x</u> port Preference <u>s</u>						
		<u>⊂</u> ollapse All						

- 9. End or detach the Debugging session.
  - **a.** Click **Window** and then **Processes**. Right click on the process in the Processes tab and select **Detach** or **Terminate**, as shown in Figure 9–32.

Figure 9–32 Detach Debugging Session

Processes	× 🗗 🔇 S
	4
Processes     Processes     IntegratedWebLog     Siebel_Debugging.	
Sieber_Debugging.	<u>D</u> etach
	SAP Adapter Migration Tool
	Terminate

**b.** Select one of the following options:

**Detach** - Removes the SOA Debugger without ending the debugging process. **Terminate** - Ends the debugging process.

## 9.3.3.2 Debugging an Inbound BPEL Process in Oracle JDeveloper

- **1.** Deploy the Inbound BPEL process.
  - **a.** Right-click the project and select **Deploy**.

The Deployment Action dialog is displayed.

b. Select Deploy to Application Server and click Next.

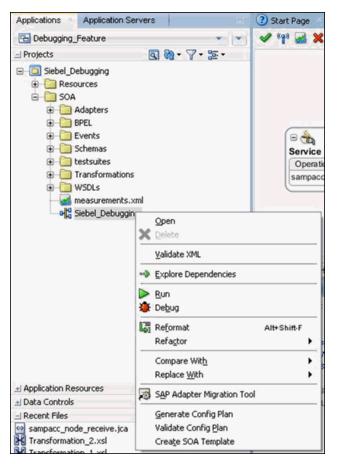
The Deploy Configuration dialog is displayed.

c. Click Next.

The Select Server dialog is displayed.

- d. Select the server to deploy and click Finish.
- **e.** Ensure that the project deployment has completed without any errors or issues before proceeding to the next step.
- 2. Connect a BPEL process to the SOA Debugger.
  - a. Right-click an inbound composite and select Debug, as shown in Figure 9-33.

Figure 9–33 Select BPEL Process to Debug



The SOA Debugger Connection Settings dialog is displayed, as shown in Figure 9–34.

50A De	bugger Connection Settings	×
Host:	wdevora3.ibi.com	
Port:	5004	
Timeout:	5	
Skip ti	is dialog next time	
Help	ОК	Cancel

Figure 9–34 SOA Debugger Connection Settings Dialog

b. Click OK.

Once the BPEL process is connected to the SOA Debugger, the following messages will be displayed in the Debugging log:

Debugger attempting to connect to remote process at iwdevora3.ibi.com 5004. Debugger connected to remote process at iwdevora3.ibi.com 5004. Debugger process virtual machine is SOA Debugger

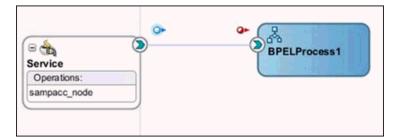
3. Set the Breakpoints, as shown in Figure 9–35.

Figure 9–35 Setting Breakpoints

ervice Kemove Breakpoints	8 🐁	୍ ପ୍ (	0	Create Request Breakpoint	ocess1
Onemtioner	Service		*	Remove Breakpoints	
Operations:	Operations:				

**4.** Once the Breakpoints are set and a message is received through the inbound process (for example, by triggering from Siebel), the process stops at the designated Breakpoints, as shown in Figure 9–36.

Figure 9–36 Stopping the Process at the Breakpoint



- 5. View the Request payload and header information.
  - a. Click Windows, select Debugger, and then Data, as shown in Figure 9–37.

Figure 9–37 Debugger Data

	<type></type>	
64	<listofaccount_organization></listofaccount_organization>	
( B 🚓	<account_organization isprimary="" mvg="Y"></account_organization>	
Service	<integrationid></integrationid>	
Operations:	<organization>SPAs Organization</organization>	
sampacc node		
sampacc_node		
	<listofaccountattachment></listofaccountattachment>	
	<listofbusinessaddress></listofbusinessaddress>	
	<businessaddress></businessaddress>	
	<addressname>1234 North Dallas Pkwy, Dallas,</addressname>	
	TX <city>Dallas</city>	
	<country></country>	Debug Mode 👃
7	<faxnumber></faxnumber>	
	<integrationid></integrationid>	1.1. K <sup>2</sup> L
Design Source History	<phonenumber></phonenumber>	
Della Incorrection Della Inc		Caler I
Build - Issues Data ×	<postalcode>79786</postalcode>	berties
Q	<province></province>	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
5	<state>TX</state>	
Name Value	<streetaddress>1234 North Dallas Pkwy</streetaddress>	Count
🛆 👻 nativePayload 🛪		1
	<businessaddress></businessaddress>	
🖃 body 🛛 <siebeli< td=""><td><addressname>2ND ADDRESS×, Austin, TX</addressname></td><td></td></siebeli<>	<addressname>2ND ADDRESS×, Austin, TX</addressname>	
	<city>Austin</city>	
	<country></country>	
	<faxnumber></faxnumber>	
	<integrationid></integrationid>	
	<phonenumber></phonenumber>	
	<postalcode>78746</postalcode>	
	<province></province>	
	<state>TX</state>	
	<streetaddress>2ND ADDRES5x</streetaddress>	
	<listofcontact></listofcontact>	
		elected: property
	<account></account>	
2 a 🩈	<culture></culture>	
🗲   A9   🍊	<currencycode>USD</currencycode>	
	<description></description>	

**b.** Header information displayed for Inbound Request Breakpoint (SampleAccount) is shown in Figure 9–38.

Figure 9–38 Inbound Request Breakpoint (SampleAccount)

Build - Issues	Data × HTTP Analy	zer Instar	ices HTTP Analyzer	Debugging: Siel	bel_Debugging.jpr -	Log Prop	erties	
Q							🛄 😫	
Name	Value	Туре	Declared Type	Hex Value	Address	ID	Count	•
(x) ecid (x) jca.iwayI	c92a2b28-7a8a-4							
( <b>x</b> ) jca.iwayI	text/*							
(x) jca.iwayI (x) jca.iwayI								
(x) jca.iwayI	13738							
	application/x-www 192.168.128.167:							
(x) jca.iwayI								
(x) jca.iwayI (x) jca.iwayI								
(x) jca.iwayI	0							

- **6.** End or detach the Debugging session.
  - **a.** Click **Window** and then **Processes**. Right click on the process in the Processes tab and select **Detach** or **Terminate**, as shown in Figure 9–39.

Processes	×đ	? Star
Processes	bLogicServer	✓ "1
Siebel_Debugg	ing.jr <u>*</u> Detach	
	SAP Adapter Migration To	ool
	Terminate	
	L	
		( Design

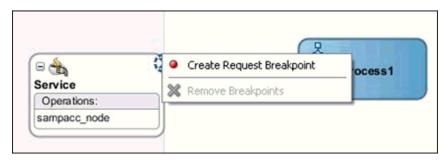
Figure 9–39 Detach Debugging Session

**b.** Select one of the following options:

**Detach** - Removes the SOA Debugger without ending the debugging process. **Terminate** - Ends the debugging process.

The process will be detached and is displayed, as shown in Figure 9–40.

Figure 9–40 BPEL Process Detached



## 9.3.4 Debugging an OSB Process in Oracle JDeveloper

This section describes how to debug an OSB process in Oracle JDeveloper. It contains the following topics:

- Section 9.3.4.1, "Prerequisites"
- Section 9.3.4.2, "Debugging an Outbound OSB Process in Oracle JDeveloper"
- Section 9.3.4.3, "Debugging an Inbound OSB Process in Oracle JDeveloper"

## 9.3.4.1 Prerequisites

Ensure that the *IntegratedWebLogicServer* domain and an OSB process with file output are already created in Oracle JDeveloper.

**Note:** Ensure that the application name and the project name are the same.

- 1. Open Oracle JDeveloper and start *IntegratedWeblogicServer* or *startWebLogic.cmd*.
  - **a.** Click the **Application Servers** tab in the left pane.
  - **b.** Under the Application Servers node, right-click **IntegratedWeblogicServer** and select **Start Server Instance** from the context menu, as shown in Figure 9–41.

Figure 9–41 Start Server Instance

Applications Processes App	olicati	
R I 🗙		
Application Servers     IntegratedWebLogicServe		
	🔯 Configure Oracle Diagnostic Logging for "IntegratedWebLogicServer"	
	SAP Adapter Migration Tool	
	🔞 <u>R</u> efresh	Ctrl-R
	Launch Administrative Console	
Structure Sample_MySAP_JCA_	X Delete	Delete
	Properties	

- **c.** Or, start Oracle WebLogic server from the command prompt using *startWebLogic.cmd*.
- **2.** Set the Debugging environment.
  - **a.** Click the down arrow next to the Debug icon and select **Manage Run Configurations** from the context menu, as shown in Figure 9–42.

Figure 9–42 Manage Run Configurations

Ele Edit Yew Application	Refactor Search	Navigate Build	Run Team	Iools	Window Help
Applications Processes	Applicati ×				Default
	Appacou				Manage Run Configurations
B X					
Application Servers	-				
IntegratedWebLogic      Definition	Server				
Deployments					
E Log Files					
B Servers					
Service Bus					
B - SOA B - B Web Services					

**b.** Or, right-click the project and select **Project Properties**.

The Project Properties dialog is displayed, as shown in Figure 9–43.

	Run/Debug	
- Project Source Paths	Use Custom Settings	Customize Settings
<ul> <li>ADF Business Components</li> </ul>	Use Project Settings	
- ADF Model		Edit Shared Settings
- ADF Task Flows	Use Shared Settings	Edic oBared becongs
ADF View	Run Configurations:	
Ant	Default	Edit
- Compiler	<b>Derduit</b>	<u>E</u> 0k
<ul> <li>Dependencies</li> </ul>		<u>N</u> ew
<ul> <li>Deployment</li> </ul>		Delete
- EJB Module		Delece
- Extension		Restore Defaults
<ul> <li>Facelets Tag Libraries</li> </ul>		· · · · · · · · · · · · · · · · · · ·
- Features		
- Javadoc		
<ul> <li>Java EE Application</li> </ul>		
- JPA		
- JSP Tag Libraries		
- JSP Visual Editor		
<ul> <li>Libraries and Classpath</li> </ul>		
- Maven		
Resource Bundle		
Run/Debug		

Figure 9–43 Project Properties Dialog

**c.** Select **Run/Debug** in the left pane and then click **Edit** in the Run/Debug pane (Run Configurations area).

The Edit Run Configuration dialog is displayed, as shown in Figure 9–44.

Figure 9–44 Edit Run Configuration Dialog

Edit Run Configuration "Defau	ilt"
Q, Search	Remote
- Launch Settings - XSLT - PL/SQL - Tool Settings - Debugger - Remote - Macro and Variable Definitions - Environment Variables - User-Defined Macros	Protocol Attach to Service Bus  Host Attach to JPDA Attach to Service Bus Port Listen for JPDA Time Attach to SOA To launch a remote Service Bus debugee: Start a Weblogic server with a domain configured for Service Bus debugging. Then deploy you Service Bus application to that server. Show Dialog Box Before Connecting Debugger
Help	OK Cancel

- d. Expand Tool Settings, Debugger in the left pane, and then click Remote.
- e. From the Protocol list, select Attach to Service Bus.
- f. Leave the default values for the Host and Port.
- g. Click OK.

#### 9.3.4.2 Debugging an Outbound OSB Process in Oracle JDeveloper

- **1.** Deploy the project.
  - a. Right-click the project and select Deploy.

The Deployment Action dialog is displayed.

**b.** Select the application to deploy and click Next.

The Deploy Configuration dialog is displayed.

**c.** Click **Next**.

The Application Servers dialog is displayed.

- **d.** Select **IntegratedWebLogicServer** and then click **Finish** to complete the deployment.
- **e.** Ensure that the project deployment has completed without any errors or issues before proceeding to the next step.
- 2. Connect an OSB process to the SOA Debugger.
  - **a.** In the Applications tab on the left pane, right-click a composite XML or project for an existing OSB process and then select **Debug** from the context menu, as shown in Figure 9–45.

Applications × Applica	tion Servers	Istart Page 1
🔁 siebel_debugging	•	- 69 - 2
- Projects	Q & - 7 - 5 -	-11
· · · · · · · · · · · · · · · · · · ·	proxy ipeline.pipeline	Prox
Service.bix		
- IKI SICECI_GCEGGG	Open X Delete	
	<u>V</u> alidate XML	
	Deploy	•
	•• Explore Dependencies	
	Make	Ctrl+Shift-F9
	Rebuild	Alt+Shift-F9
	Run	
	🎒 Debug	
	Reformat	Alt+Shift-F
	Refa <u>c</u> tor	• • •
	Replace <u>W</u> ith	•
± Application Resources	SAP Adapter Migration Tool	
± Data Controls	Import	
- Recent Files	Export	

Figure 9–45 Select OSB Process to Debug

The SOA Debugger Connection Settings dialog is displayed, as shown in Figure 9–46.

Figure 9–46 SOA Debugger Connection Settings Dialog

🍘 50A De	bugger Connection Settings	×
Host:	iwdevora3.ibi.com	-
Port:	5004	
Timeout:	5	-
	nis dialog next time	
Help	OK Ca	ncel

**b.** Click **OK**.

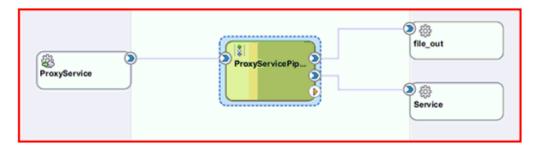
Once the OSB process is connected to the SOA Debugger, the following messages will be displayed in the Debugging log:

Debugger attempting to connect to remote process at iwdevora3.ibi.com 5004. Debugger connected to remote process at iwdevora3.ibi.com 5004.

Debugger process virtual machine is SOA Debugger

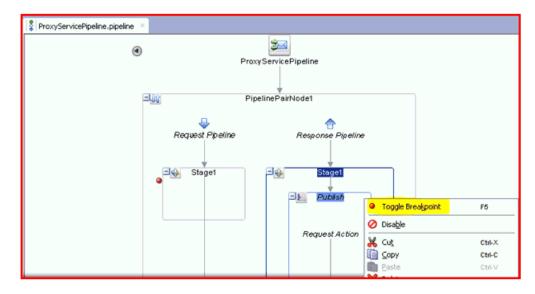
- 3. Set the Breakpoints.
  - **a.** Open the pipeline in its editor by double-clicking on the pipeline, as shown in Figure 9–47.

Figure 9–47 ProxyServicePipeline



Expand the actions until you reach the node where the Breakpoint must be added. In this case, expand PipelinePairNode1, right-click the Stage1 node (under Request Pipeline), and select Toggle Breakpoint from the context menu, as shown in Figure 9–48.

Figure 9–48 Toggle Breakpoint



Repeat this step for the Publish node (under Response Pipeline).

A red icon appears next to the node to indicate that a Breakpoint has been set.

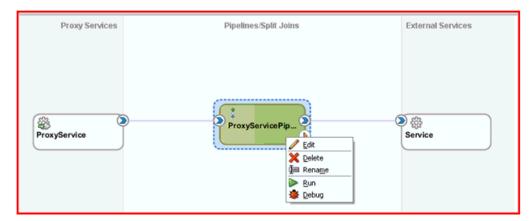
**Note:** To disable a Breakpoint, right-click the node and select **Disable Breakpoint**.

To remove a Breakpoint, right-click the node and select **Toggle Breakpoint** again.

4. Initiate Debugging.

**a.** Right-click the pipeline in the Application Navigator, and select **Debug**, as shown in Figure 9–49.

Figure 9–49 Select Debug



The process is deployed to the integrated server and the Test Configuration pane will be displayed, as shown in Figure 9–50.

#### Figure 9–50 Test Configuration Pane

sap_test_ob 🛛 💈 ProxyServicePipeline.pipeline 🛸 📃 Oracle Service Bus Consol	
Pipeline Testing - ProxyServicePipeline	slp
Execute Execute-Save Reset Close	
🌣 Test Configuration	
Include Tracing:	
Request Document	
Payload: Choose File No file selected	

**Note:** If there is no domain currently running, then the Create Default Domain dialog will be displayed. Enter the connection information for the integrated server and then click **OK**. This process may take several minutes.

**b.** In the Test Configuration pane, enter the test data in the Request Document area, and configure any additional input as required, as shown in Figure 9–51.

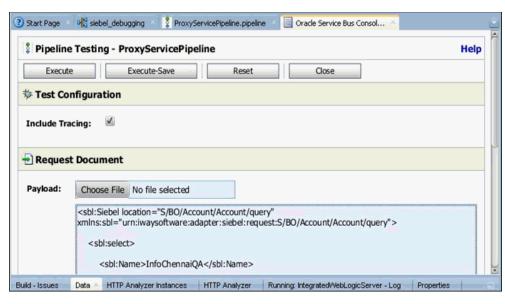
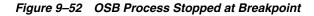
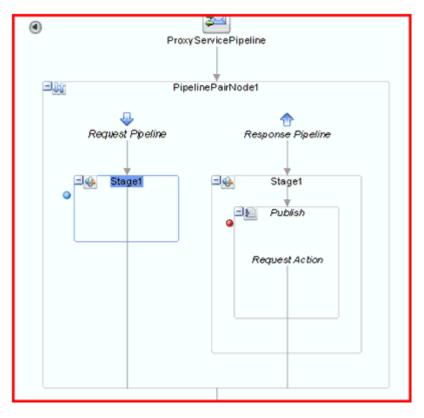


Figure 9–51 Test Request Document

c. Click Execute.

The Test Configuration pane executes the command, but the OSB process stops at the designated Breakpoint and blinks in a blue color, as shown in Figure 9–52.





**d.** Check the Data tab at the bottom to verify that the input has passed, as shown in Figure 9–53.

Figure 9–53 Data Tab

Name	Value	Туре	Declared Type	Hex Value	Address	ID	Count	
sbod	y - Siebel -					A DATE		
🗄 🔇 field	Name	2						
🗉 🔇 field	Currency Code							
🗄 🍪 field	Location	1						
E Incation								

**e.** Use the available Step options to step through the Debugging process, as shown in Figure 9–54.

Figure 9–54 Step Options



lcon		Description
		Ends or detaches from a debugging session.
	-	Steps over a frame.
	6	This places you at the next Breakpoint (for example, the receive activity in the OSB process on which a Breakpoint was set. If there are no Breakpoints, it steps over all the frames and returns to the first frame.
		You can also press F8 to step over a frame.
<b>6</b>	-	Steps into the next valid location.
	<b>N</b>	This can be a new frame or the same frame, but in a different location.
		You can also press F7 to step into a frame.
		Steps out of a frame.
	18	This option is only used to process an OSB scope or sequence activity. After completion of scope processing, it pauses at the next scope or activity in the process. You can also press <b>Shift-F7</b> .
	ans.	Resumes a step operation.
	012	You can also press <b>F9</b> to resume.

f. Use **Step Over** to go to the next Breakpoint (Response Pipeline in this example).

You will be able to see the output in the Data tab, as shown in Figure 9–55.

Figure 9–55 Data Tab Output

Q								- E E	0
	Name	Value	Туре	Declared Type	Hex Value	Address	ID	Count	•
	- \$body -	SiebelRespons	e 🔹 rec	ord 👻					
Ð	🔇 Created	09/23/2010 0	E.						
Ð	🔇 Currency	USD [	al.						
Ð	🐼 Id	1-3PA9K	a.						
Ð	🐼 Location	NewYork	2						
	🐼 Name		E.						
Ŧ	20 Inguic								

You will also be able to see the response in the Oracle Service Bus Console, as shown in Figure 9–56.

Figure 9–56 Oracle Service Bus Console

Pipeline Testing - ProxyServicePipeline	Help
Back Close	
Request Document	۲
Response Document	8
<siebelresponse_status="success" xmlns="urn:iwaysoftware:adapter:siebel:response:S/BO/Accour&lt;/td&gt;&lt;td&gt;nt/Account/query"></siebelresponse_status="success">	
<record></record>	
<currency_spccode>USD</currency_spccode>	
<location>NewYork</location>	
<name>InfoChennaiQA</name>	
<id>1-3PA9K</id>	
<created>09/23/2010 01:32:56</created>	
<updated>09/23/2010 01:32:56</updated>	

- **5.** End or detach the Debugging session.
  - **a.** Click **Window** and then **Processes**. Right click on the process in the Processes tab and select **Detach** or **Terminate**, as shown in Figure 9–57.

Figure 9–57 Detach Debugging Session

Processes		
		/er
Siebel_debugging.jp Siebel_debugging (R	*	Detach
•	3	SAP Adapter Migration Tool
		Terminate
		View Log
		Import
		Export

**b.** Select one of the following options:

**Detach** - Removes the SOA debugger without ending the debugging process. **Terminate** - Ends the debugging process.

## 9.3.4.3 Debugging an Inbound OSB Process in Oracle JDeveloper

**1.** Create an inbound OSB process.

Ensure that the application name and the project name are the same.

- **2.** Deploy the project.
  - **a.** Right-click the project and select **Deploy**.

The Deployment Action dialog is displayed.

**b.** Select the application to deploy and click Next.

The Deploy Configuration dialog is displayed.

c. Click Next.

The Application Servers dialog is displayed.

- **d.** Select **IntegratedWebLogicServer** and then click **Finish** to complete the deployment.
- **e.** Ensure that the project deployment has completed without any errors or issues before proceeding to the next step.
- **3.** Connect an OSB process to the SOA Debugger.
  - **a.** In the Applications tab on the left pane, right-click a composite XML or project for an existing OSB process and then select **Debug** from the context menu, as shown in Figure 9–58.

Applications 👋 Applie	cation Servers		<li>Start  </li>
🔁 osb_siebel_ib		•	ন্দ্র 🖌
- Projects	g & - 7	• 25 •	
osb_siebel_ib     osb_siebel_ib     esources     file_out.bix     osb_siebel	17.17.00 m	2" "	
Pipeline.pipe	<b>A</b>		a
a pom.xml	💥 Delete		
	<u>V</u> alidate XML		
	Deploy		×
	Explore Dependencie	es	
	💑 Make	Ctrl+S	Shift-F9
	Rebuild	Alt+S	hift-F9
	Nun		
	🐠 De <u>b</u> ug		
	🔙 Reformat	Alt+S	hift-F
	Refactor		, E
	Replace <u>W</u> ith		×.
	SAP Adapter Migrati	on Tool	
	Import		
	Export		

Figure 9–58 Select OSB Process to Debug

The SOA Debugger Connection Settings dialog is displayed, as shown in Figure 9–59.

	bugger Connection Settings	
Host:	iwdevora3.ibi.com	
Port:	5004	
Timeout:	5	
🔄 <u>S</u> kip ti	his dialog next time	

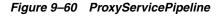
Figure 9–59 SOA Debugger Connection Settings Dialog

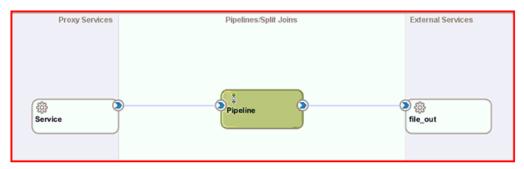
b. Click OK.

Once the OSB process is connected to the SOA Debugger, the following messages will be displayed in the Debugging log:

Debugger attempting to connect to remote process at iwdevora3.ibi.com 5004. Debugger connected to remote process at iwdevora3.ibi.com 5004. Debugger process virtual machine is SOA Debugger

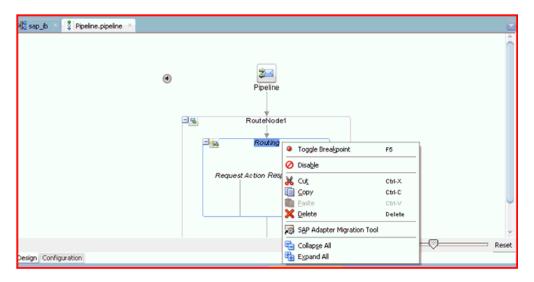
- **4.** Set the Breakpoints.
  - **a.** Open the pipeline in its editor by double-clicking on the pipeline, as shown in Figure 9–60.





**b.** Expand the actions until you reach the node where the Breakpoint must be added. In this case, expand until you reach **Routing**. Right-click the **Routing** node and select **Toggle Breakpoint** from the context menu, as shown in Figure 9–61.

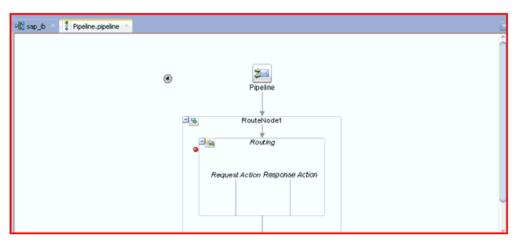
Figure 9–61 Toggle Breakpoint



Repeat the above step for each node to which you want to add a Breakpoint. In this example, a Breakpoint is set only for the **Routing** node.

A red icon appears next to the node to indicate that a Breakpoint has been set, as shown in Figure 9–62.

Figure 9–62 Red Icon for Set Breakpoint

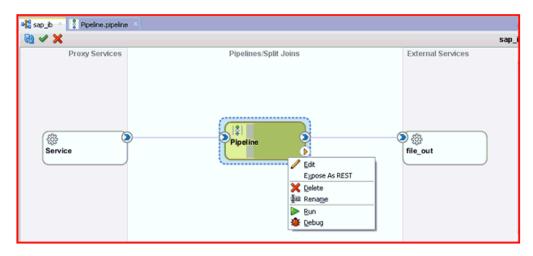


**Note:** To disable a Breakpoint, right-click the node and select **Disable Breakpoint**.

To remove a Breakpoint, right-click the node and select **Toggle Breakpoint** again.

- **5.** Initiate Debugging.
  - **a.** Right-click the pipeline in the Application Navigator, and select **Debug**, as shown in Figure 9–63.

Figure 9–63 Select Debug



The process is deployed to the integrated server and the Test Configuration pane will be displayed, as shown in Figure 9–64.

Execute	Execute-S	ave	Reset		Close		
•> Service Ope	ation						
Operation:	sampacc_node*						
🌣 Test Configu	ration						
Include Tracing:	×						
Request Doc	ument						
For	n	XML					
SOAP Header:	<soap:header td="" xr<=""><td>mIns:soap="h</td><td>ttp://schemas.&gt;</td><td>mlsoap.org</td><th>/soap/envelo</th><td>pe/"&gt;</td><td></td></soap:header>	mIns:soap="h	ttp://schemas.>	mlsoap.org	/soap/envelo	pe/">	

Figure 9–64 Test Configuration Pane

**Note:** If there is no domain currently running, then the Create Default Domain dialog will be displayed. Enter the connection information for the integrated server and then click **OK**. This process may take several minutes.

**b.** In the Test Configuration pane, enter the test data in the Request Document area, and configure any additional input as required, as shown in Figure 9–65.

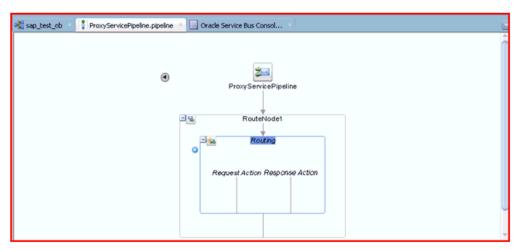
Figure 9–65 Test Request Document

) Start Page × 9	osb_siebel_b × 🟅 Pipeline.pipeline × 📮 Oracle Service Bus Consol *
Request Do	cument
For	m XML
SOAP Header:	<soap:header xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"> </soap:header>
* Рауюас:	Choose File No file selected <siebelmessage <br="" intobjectformat="Siebel Hierarchical" intobjectname="Sample Account">MessageId="1-7Q3" MessageType="Integration Object" xmlns="http://www.iwaysoftware.com/xml/Sample%20Account" xmlns:soap- env="http://schemas.xmlsoap.org/soap/envelope/"&gt;</siebelmessage>

c. Click Execute.

The Test Configuration pane executes the command, but the OSB process stops at the designated Breakpoint and blinks in a blue color, as shown in Figure 9–66.





**d.** Use the available Step options to step through the Debugging process, as shown in Figure 9–67.

Figure 9–67 Step Options



Icon		Description
		Ends or detaches from a debugging session.
	<b>(</b>	Steps over a frame. This places you at the next Breakpoint (for example, the receive activity in the OSB process on which a Breakpoint was set. If there are no Breakpoints, it steps over all the frames and returns to the first frame.
	<b>8</b> 3	You can also press <b>F8</b> to step over a frame. Steps into the next valid location. This can be a new frame or the same frame, but in a different location. You can also press <b>F7</b> to step into a frame.
	8	Steps out of a frame. This option is only used to process an OSB scope or sequence activity. After completion of scope processing, it pauses at the next scope or activity in the process. You can also press <b>Shift-F7</b> .
		Resumes a step operation. You can also press <b>F9</b> to resume.

e. Use Step Over to complete the process execution

**Note:** Since there is only one Breakpoint in this example, using **Step Over** completes the process execution.

You will be able to see the response document displayed in the Data tab, as shown in Figure 9–68.

Figure 9–68 Data Tab Output

③ Start Page · · · · · · · · · · · · · · · · · · ·	Pipeline.pipeline 🔧 📃	Oracle Service Bus Consol.				
	0	Pipeline				Î
	•	tion Response Action				0
Design Configuration			Zoom: 100 🜩			Reset
Build - Issues Data × HTTP Anal	yzer Instances HTTP Analy	zer Running: Integrated	avvebLogicServe	r   Kouti	ng - Properties	
Name Value	Type Declared Type	Hex Value	Address	ID	Count	<u>a</u> -
🛆 👻 \$body 🗸 SiebelMessage	ListOfSampleAccount					×
	<u>R</u> R R R R					
	a					
	1 R R					1

You will also be able to see the response in the Oracle Service Bus Console, as shown in Figure 9–69.

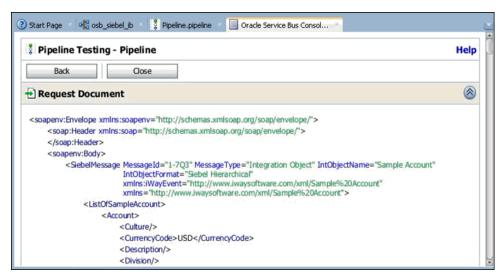


Figure 9–69 Oracle Service Bus Console

The output will also be available in the configured output location, as show in Figure 9–70.

Figure 9–70 Configured Output Location

📕 output				
🚱 🗇 🕨 - Compu	ter - Local Disk (C:) - output			
Organize 👻 Include in I	ibrary 👻 Share with 👻 New folder			
🗆 妏 Favorites	Name	Date modified ~	Туре	Size
Desktop	esiebel_bN3f577f59.6cb97f43.0.14dd8e1668	6/10/2015 4:16 AM	XML Document	13 KB

- 6. End or detach the Debugging session.
  - **a.** Click **Window** and then **Processes**. Right click on the process in the Processes tab and select **Detach** or **Terminate**, as shown in Figure 9–71.

Figure 9–71 Detach Debugging Session

Processes	× 5
Processes IntegratedWebL Sob_siebel_ib.jp Sob_siebel_ib (R	Detret
	Ierminate View Log Import Export

**b.** Select one of the following options:

Detach - Removes the SOA debugger without ending the debugging process.

Terminate - Ends the debugging process.

# 9.4 Exception Filter

This section describes how to configure exception filter functionality for the Oracle Application Adapter for Siebel and includes a sample testing scenario.

This section contains the following topic:

• Section 9.4.1, "Configuring the Exception Filter"

The exception filter is supported only for outbound processes that use J2CA configurations. This feature is not supported for BSE configurations and inbound processes that use J2CA configurations.

The exception filter uses the com.ibi.afjca.oracle.AdapterExceptionFilter class to filter the generated exceptions. This class filters the exceptions and categorizes them into the following categories:

- PCRetriableResourceException
- PCResourceException

The following exceptions are represented in the fault policies file:

- PCRetriableResourceException A remote fault.
- PCResourceException A binding fault.

## 9.4.1 Configuring the Exception Filter

Exception filter configuration consists of the following steps and topics:

- 1. Section 9.4.1.1, "Generating a WSDL File"
- 2. Section 9.4.1.2, "Creating a BPEL process With Exception Filter Functionality"
- 3. Section 9.4.1.3, "Creating Fault Policies and Fault Binding Files"
- 4. Section 9.4.1.4, "Adjusting for Known Deployment Issues With 12c"
- **5.** Section 9.4.1.5, "Deploying and Testing the BPEL Process With Exception Filter Functionality"

## 9.4.1.1 Generating a WSDL File

To generate a WSDL file:

**1.** Open Application Explorer and create a J2CA configuration.

For more information, see "Creating a Configuration for J2CA" on page 2-4.

2. Create a target for the Siebel adapter and then connect to the target.

For more information, see "Establishing a Connection (Target) for Siebel" on page 2-5.

**3.** Generate a WSDL for the appropriate object.

For more information, see "Generating WSDL (J2CA Configurations Only)" on page 2-27.

## 9.4.1.2 Creating a BPEL process With Exception Filter Functionality

To create a BPEL process with exception filter functionality:

1. Open JDeveloper and create a new SOA application.

For more information, see "Creating an Empty Composite for SOA" on page 4-9.

- 2. Create a new SOA project (for example, Exception\_Filter).
- 3. Create a third party adapter service component.

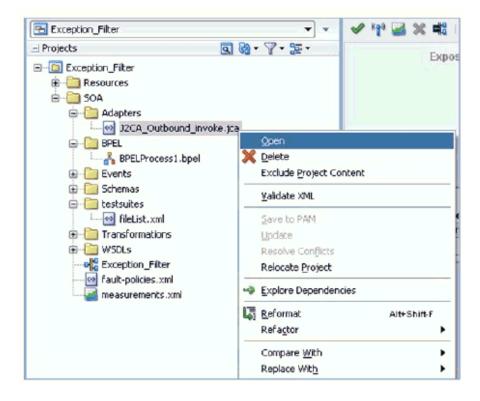
For more information, see "Configuring a Third Party Adapter Service Component" on page 4-11.

Once the third party adapter service component is created, the WSDL file (with corresponding schemas and JCA file) is imported to the JDeveloper project.

For more information, see "Defining a BPEL Outbound Process" on page 4-11.

- 4. Modify the imported JCA file.
  - **a.** Right-click the imported JCA file and select **Open** from the menu, as shown in Figure 9–72.

Figure 9–72 Application Navigator Tab



**b.** In the <interaction-spec> element, add the ExceptionFilter property. For example:

```
<interaction-spec className="com.ibi.afjca.cci.IWAFInteractionSpec">
<property name="FunctionName" value="PROCESS"/><property
name="ExceptionFilter"
value="com.ibi.afjca.oracle.AdapterExceptionFilter"/></interaction-spec>
```

- **c.** Save the modified JCA file.
- **5.** Once the third party adapter service component is created and the JCA file is modified, continue with the remainder of the BPEL process creation.

For more information, see "Defining a BPEL Outbound Process" on page 4-11.

## 9.4.1.3 Creating Fault Policies and Fault Binding Files

To create fault binding files:

1. Right-click the created SOA project (for example, Exception\_Filter), select New, and then click From Gallery, as shown in Figure 9–73.

Applications × App	licat	ion Servers		3 Start Page 🐣
Exception_Filter			• •	
- Projects		New	•	BPEL 2.0 Subprocess
E-Cale Exception_Filte		Edit Project Source Paths		& BPEL Process
🖻 🛅 Resources	- <b>W</b>	Delete Project		Business Rules
		Version Project		Composite Test
B- D SOA	-	SOA	•	Cross Reference(XREF)
😑 🛅 Adapt		-		Domain Value Map(DVM)
	60	<u>.</u> . ,		Event Definition
😑 – 🧰 BPEL		Show Classpath		🟠 Human Task
💑 BF		Show Overview		Maven POM for Project
Events		Deploy	•	Mediator
B-Can Scherr		Save to PAM		Spring Context
		Update		XML Schema
E - California de la construi		Resolve Conflicts		XQuery Elle ver 1.0
esisu Martin		Relocate Project		XQuery Library ver 1.0
E-C Transf		Relocate Project		BK ZSL Map
B-C WSDL		Find Usages	Ctrl+Alt-U	ML Document
- @ BF	A	Make Exception_Filter.jpr	Ctrl-F9	Fault Policy Document
		Rebuild Exception_Filter.jpr	Alt-F9	From Gallery Ctrl-N
- <mark></mark> 12 . 22		Run		
Application Resource	٠	Deprid		
Application Resource     Data Controls		Refactor	•	
		Compare With	•	16
		Replace With	•	Messages - Log X Simulations Doc
Exception_Filter.jpr - F	_	Restore from Local History		
	10	SAP Adapter Migration Tool		
Current selec	٩	Project Properties		
		Create SOA Template		Messages Extensions ×

Figure 9–73 Applications Tab

The New Gallery dialog is displayed. Under the General category, click **XML**, as shown in Figure 9–74.

ategories:	Items:	Show All Description		
General	RXSD Schema			
Applications	ML Document			
Connections Deployment Descriptors Deployment Profiles Diagrams	Opens the Create XML File dialog, in which you a new XML file that includes only the 7xml vers enable this option, you must select a project of Application Navigator.	sion="1.0"?> line at the top. To		
Java	ML Document from XML Schema			
Maven Projects	ML Localization File (XLIFF) 응 XML Schema			
UML				
	옯 XML Schema from XML Document			
Activity Guide Business Components	XQuery File       XQuery File ver 1.0			
-Case Management				
Simulation Business Tier	XQuery Library ver 1.0			
-ADF Business Components	🔀 XSL Map			
-Business Rules Contexts and Dependency Injectic	XSL Map From XSL Stylesheet			
	(a) XSI Style Sheet			

Figure 9–74 New Gallery Dialog

2. Select XML Document under Items and then click OK.

The Create XML File dialog is displayed, as shown in Figure 9–75.

Figure 9–75 Create XML File Dialog

Create XML File	×
Enter the details of your new file.	<>>
Eile Name: fault-bindings.xml	
Directory:	
C:\12c_Jdeveloper_SOABPM\WORK\mywork\Exception_Filter\Exception_Filter	r B <u>r</u> owse
Help	Cancel

- 3. In the File Name field, type **fault-bindings.xml** and click **OK**.
- 4. Add the appropriate fault binding functions in the **fault-bindings.xml** file.

To view a sample **fault-bindings.xml** file, see "Sample Fault-Bindings.xml File" on page 9-48.

**Note:** The parameter in the <name> element is the name of the created BPEL process.

5. Save the fault-bindings.xml file.

### Sample Fault-Bindings.xml File

```
<?xml version="1.0" encoding="UTF-8" ?>
<faultPolicyBindings version="2.0.1"
xmlns="http://schemas.oracle.com/bpel/faultpolicy"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
<component faultPolicy="bpelFaultHandling">
<component faultPolicy="bpelFaultHandling">
</component faultPolicy="bpelFaultHandling">
</component</pre>
```

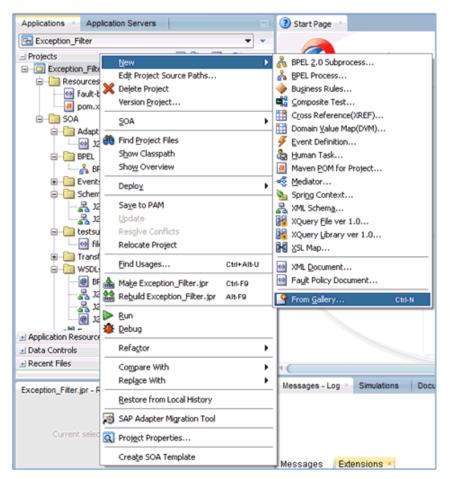
```
</faultPolicyBindings>
```

### **Creating Fault Policies Files**

To create fault policies files:

 Right-click the created SOA project (for example, Exception\_Filter), select New, and then click From Gallery, as shown in Figure 9–76.

Figure 9–76 Applications Tab



The New Gallery dialog is displayed. Under the SOA Tier category, select **Faults**, as shown in Figure 9–77.

⊆ategories:	Items:	Show All Description
Database Files     Database Objects     Offline Database Objects     OEP Tier     OEP Files     Service Bus Tier     Services     Interfaces     Transformations/Translations     Socurity     Utility     System     Transformations     SoA Tier     Faults     Interfaces     Service Components     Tests     Transformations/Translations     Web Tier     HTML	Fault Policy Document     Creates new fault-policies.xml do	cument.

Figure 9–77 New Gallery Dialog

- 2. Select Fault Policy Document under Items and then click OK.
- **3.** In the fault-policies.xml tab, select **bpelx:bindingFault** from the Fault Name drop-down list and **[retry] default-retry** from the Default Action drop-down list, as shown in Figure 9–78.

Figure 9–78 Fault-policies.xml Tab

Fault Handlers			4
bpelx:bindingFault	:		
Fault Name:	A bpelx:bindingFault		
Description:			
Default Action	🖄 [retry] default-retry		▼ <u>A</u> (0) -
Default Action	얼 [retry] default-retry		▼ ① (0) -
Default Action	[retry] default-retry		▼ <u>A</u> (0) -
	(retry) default-retry Properties		▲ (0) × 4
		Туре	- <u>∩</u> (0) - •
Alerts Actions	Properties	Туре	
Alerts Actions	Properties	Туре	
Alerts Actions	Properties	Туре	

4. Click the Actions tab and then double-click default-retry.

The Retry Properties dialog box is displayed, as shown in Figure 9–79.

fault-policies.xml ×			
×			
bpelx:bindingFault			
Fault Name: A bpelx:binding	Fault		• •
Default Action (retry) defau	t-retry	▼	<u>(</u> 0) • 🔶
Alerts Actions Properties	Retry Properties	×	
	ID *:	default-retry	<b>∔</b> -∥X
ID	Retry Count *:	3	<b>T</b> / A
default-termination	Retry Interval *:	2	
default-human	Exponential Backoff:		
default-java	Retry Success Action:	[abort] default-termination	
default-replay			
default-rethrow	Retry Failure Action:	🐍 [humanIntervention] default-human 💌	
default-ws			
default-enqueue	Help	Ok Cancel	
default-file			
default-retry		interv intervention in the second sec	
sign Source History			

Figure 9–79 Retry Properties Dialog Box

- **5.** Select **[abort] default-termination** from the Retry Success Action drop-down list and **[humanIntervention] default-human** from the Retry Failure Action drop-down list.
- 6. Click OK.
- 7. Click Add to create another fault handler, as shown in Figure 9–80.

Figure 9–80 Fault-policies.xml Tab

• ×	
ault Policy: policy1	
E Fault Handlers	🖶 🗶
bpelx:bindingFault	Creates
Fault Name: A bpelx:bindingFault	▼ Q
Description:	
	tion 💌 🥼 (0) • 💠
	tion • (0)• •
Alerts Actions Properties	+·/×
Alerts Actions Properties	Туре
Alerts Actions Properties ID default-termination default-human	Type
Alerts Actions Properties ID default-termination default-human default-java	Type
Alerts Actions Properties ID default-termination default-human default-java default-replay	Type  Type  Abort  Abort Abort Abort  Abort  Abort  Abort  Abort Abort Abort Abort Abort Abort Abort Abort Abort Abort Abort Abort Abort Abort Abort Abort Abort Abort Abort Abor
Alerts Actions Properties	Type abort humanIntervention javaAction replayScope

- 8. In the fault-policies.xml tab, select **bpelx:remoteFault** from the Fault Name drop-down list and **[abort] default-termination** from the Default Action drop-down list.
- 9. In the Actions tab, click Add and then select retry, as shown in Figure 9–81.

Figure 9–81 Actions Tab

fault-policies.xm/ ×			Compo
F X			Q(
Fault Policy: policy1			Fault
- Fault Handlers		+ x	1
to the second second second second			al
bpelx:bindingFault bpelx:remoteFault			
Fault Name: 🙆 bpelx:remoteFault		- 🤍	A
Description:			
-			Con
Default Action [33] [abort] default-termin	nation 👻	<u>(0)</u> - 🛖	
Consid on our country	· · · · · · · · · · · · · · · · · · ·		
			expon
Alerts Actions Properties			expon
		<b>•</b> • / X	expon
	Туре	💠 🗸 💥	expon
Alerts Actions Properties	Type	abort	expon faultF
Alerts Actions Properties		🔛 abort	expon faultF
Alerts Actions Properties	abort	abort humanIntervent javaAction freplayScope	expon faultF
Alerts Actions Properties ID default-termination default-human	abort abort	abort     a	expon faultF
Alerts Actions Properties ID default-termination default-human default-java	Cabort burnanIntervention baveAction	abort abort brunnanIntervent brunnanInt	expon faultF
Alerts Actions Properties ID default-termination default-human default-java default-replay	Call abort ઢ humanIntervention ⓒ javaAction 에 replayScope	abort abort brunnantervent brunnant	expon faultF
Alerts Actions Properties ID default-termination default-raplay default-replay default-rethrow	abort abort abort brainfervention brainferven	abort abort brunnanintervent brunnanint	expon faultF faultF

The Retry Properties dialog is displayed, as shown in Figure 9–82.

Figure 9–82 Retry Properties Dialog Box

Retry Properties	×
ID *:	remote_retry
Retry Count *:	5
Retry Interval *:	2
Exponential Backoff:	
Retry Success Action:	Cabort] default-termination
Retry Failure Action:	lhumanIntervention] default-human
Help	Ok Cancel

- 10. Provide values for the ID, Retry Count, and Retry Interval fields.
- **11.** Select **[abort] default-termination** from the Retry Success Action drop-down list and **[humanIntervention] default-human** from the Retry Failure Action drop-down list.
- **12.** Click **OK**.

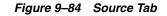
The created Retry ID will be listed under the Actions tab.

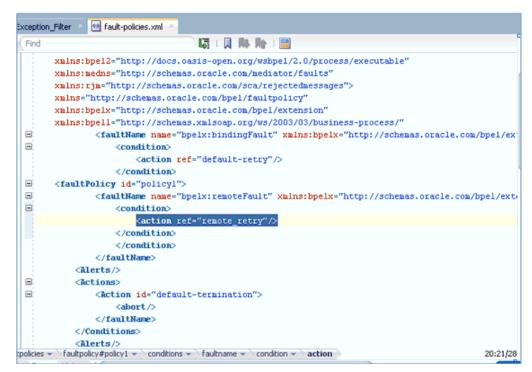
From the Default Action drop-down list, select the newly created Retry ID (for example, remote\_retry) as shown in Figure 9–83.

Figure 9–83 Fault-policies.xml Tab

ult Policy: policy1	
Fault Handlers	+ ×
bpelx:bindingFault bpelx:remot	eFault
Fault Name: 🙆 bpelx:remo	teFault 👻 🔍
Description:	
Default Antine	
Default Action (retry) rem	ote_retry  ① (0) •
Verts Actions Properties	ote_retry • <u>M</u> (0) • •
Verts Actions Properties	
Alerts Actions Properties	ф - 🖉 💥 Туре
Alerts Actions Properties ID Jefault-enqueue	Type

- 13. Click Save All.
- **14.** Click the **Source** tab to verify that the fault polices are added properly, as shown in Figure 9–84.





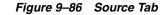
**15.** Double-click the **Exception\_Filter** project and then click **Edit Composite Fault Policies**.

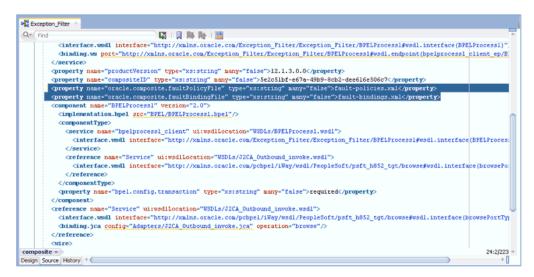
The Composite Fault Policies window is displayed. Ensure that the Fault Policy and the fault-bindings are selected properly, as shown in Figure 9–85.

_	Composite Fau	t Policies		
			ual policies to composite artif ose at higher levels	acts.
	Fault Policy File:	ilter\Exception_f	Filter\SOA\fault-policies.xml	Q
	Fault Binding File:	ter\Exception_Fi	lter\SOA\fault-bindings.xml	
	Artifact		Policy	
□ ∰	Composite			
	Components			
Operations: process	BPELProcess1			
(	References			
	Service Service			
	Services			
	bpelprocess1_	client_ep		
sign_Source_History				

Figure 9–85 Composite Fault Policies Window

- 16. Click Save All.
- Click the Source tab to verify that the *fault-bindings.xml* and *fault-policies.xml* files are added properly, as shown in Figure 9–86.





## 9.4.1.4 Adjusting for Known Deployment Issues With 12c

For more information on how to adjust for known deployment issues with 12c, see Section 4.4.3.3, "Adjusting for Known Deployment Issues With 12c" on page 4-26.

## 9.4.1.5 Deploying and Testing the BPEL Process With Exception Filter Functionality

To deploy and test the BPEL process with exception filter functionality:

1. Deploy the created BPEL process.

For more information, see "Deploying the BPEL Outbound Process" on page 4-28.

- **2.** Simulate a communication error by disconnecting the system (where the servers are running) from the network.
- 3. Invoke the deployed BPEL process with a valid input.

For more information, see "Invoking the Input XML Document in the Oracle Enterprise Manager Console" on page 4-31.

4. Select the process ID.

You can observe the BPEL process being retried or aborted based on the configuration of the **fault-policies.xml** file.

# 9.5 Credential Mapping for Oracle SOA Suite (BPEL, Mediator, or BPM)

This section describes how to configure credential mapping functionality for the Oracle Application Adapter for Siebel in a configuration that uses Oracle SOA Suite (BPEL, Mediator, or BPM). A sample testing scenario is also included. This section contains the following topic:

Section 9.5.1, "Configuring Credential Mapping"

Credential mapping is supported only for outbound processes that use J2CA configurations. This feature is not supported for BSE configurations and inbound processes that use J2CA configurations.

**Note:** The J2CA connector is common to all four application adapters (SAP R/3, PeopleSoft, Siebel, and J.D. Edwards OneWorld). If credential mapping is required, then ensure that only one application adapter is used in a particular instance. For example, in one adapter instance only the Siebel application adapter can be used. Credential mapping cannot be configured at the individual adapter level. If you require the use of credential mapping for two adapters, then both adapters must be running in two independent adapter instances.

To pass user credentials to the J2CA resource adapter, create a credential map from the Oracle WebLogic Server user credentials to the EIS user credentials (Siebel adapter). Then associate a credential policy with a BPEL, Mediator, or BPM Web service and invoke the Web service using Oracle WebLogic Server user credentials. These credentials are mapped to the EIS user credentials and then passed to the J2CA container, which uses them to connect with the EIS adapter (Siebel).

## 9.5.1 Configuring Credential Mapping

This section discusses configuring credential mapping, and consists of the following steps and topics:

**1.** Deploy the adapter.

For more information, see Chapter 3, "Oracle WebLogic Server Deployment and Integration".

2. Associate Oracle WebLogic Server credentials with EIS credentials.

For more information, see Section 9.5.1.1, "Associating Oracle WebLogic Server Credentials With EIS Credentials" on page 9-56.

3. Generate a WSDL file.

For more information, see Section 9.5.1.2, "Generating a WSDL File" on page 9-59.

4. Create and deploy an outbound process.

For more information, see Section 9.5.1.3, "Creating and Deploying an Outbound Process" on page 9-59.

5. Invoke and verify that the EIS credentials have passed.

For more information, see Section 9.5.1.4, "Verifying the EIS Credentials" on page 9-60.

## 9.5.1.1 Associating Oracle WebLogic Server Credentials With EIS Credentials

To associate Oracle WebLogic Server credentials with EIS credentials:

- 1. Log in to the Oracle WebLogic Server Administration Console.
- **2.** In the Domain Structure section in the left pane, click **Deployments**, as shown in Figure 9–87.

		ыенарter
System Status 😑		
Health of Running Servers		
Failed (0) Critical (0)		🗈 🦲 bse
Overloaded (0) Warning (0)		<u> iwafica</u>
OK (2)		🛨 🧃 iwafjca, Level 1, 13 of 33
		🐼 JmsAdapter
		MQSeriesAdapter
	П	🛱 Oracle Apps Adapter

Figure 9–87 Deployments Page

**3.** Click the **iwafjca** resource adapter.

The Settings for iwafjca page is displayed, as shown in Figure 9–88.

Figure 9–88 Settings for iwafjca Page

ttings	for iwafj	ca																		
Overviev	v Deplo	oyment Plan	Configuration	Security	Targets	Control	Testing	Monitoring	Notes											
Roles	Policies	Outbound	Credential Ma	ppings 1	Inbound Prine	cipal Mappi	ings Prin	cipals												
outbou	nd creder	itial mappings	s let you map We s for all outbound s for this resource	connection																
	mize this																			
	ind Cred	ential Mappi													Show	ving 0	to 0 of	0	Previo	15   Ne
Outbou	und Cred	ential Mappi			EIS User			Out	bound Co	inection	Pool				Show	ving O	to 0 of	:0	Previo	us   Ne
Outbou	Ind Cred	ential Mappi			EIS User		T	Out!	-17 51 N W	10010	Pool				Show	ving O	to 0 of	:0	Previo	us   Ne

**4.** Click the **Outbound Credential Mappings** tab under the Security tab, and then click **New**.

The Create a New Security Credential Mapping page is displayed, as shown in Figure 9–89.

Create	a New Security Credential Mapping
Back	K Next Finish Cancel
Out	bound Connection Pool
	ch Outbound Connection Pool would you like the credential map to be associated w resource adapter. Each Outbound Connection Pool can then configure themselves
🖗 Cus	tomize this table
Crea	ite a New Security Credential Map Entry for:
	Outbound Connection Pool 🗞
	eis/OracleJCAAdapter/DefaultConnection
	Resource Adapter Default
Back	k Next Finish Cancel

Figure 9–89 Create a New Security Credential Mapping Page

**5.** Select the outbound connection pool.

For example:

eis/OracleJCAAdapter/DefaultConnection

6. Click Next.

The WebLogic Server User page is displayed, as shown in Figure 9–90.

Figure 9–90 WebLogic Server User Page

Create a New Security Credential Happing
Back Next [Frink] Cancel
WebLogic Server User
Select the WebLopic Server User that you would like to map an EIS user to. Selecting 'User for creating initial connections' will configure the user that will be used for creating the initial connections when the resource adapter is first tasted. Selecting Default User' will configure the user that will be used as the default for any authenticated WebLopic Server user that does not have a credential mapping specifically for them. Selecting User for unsubtracted user 'will configure the user that will be used for an unauthenticated WebLopic Server user. If you select 'Configured User' you must type in the WebLopic Server user that you are configured. This user must be a configured WebLopic Server user.
◎ User for creating initial connections
Default User
◎ Unauthenticated WLS User
© Configured User Name
WebLogic Server User Name:
Back Next Frein Cancel

**7.** Select **Default User**, enter a valid Oracle WebLogic Server user name, and then click **Next**.

The EIS User Name and Password page is displayed, as shown in Figure 9–91.

Create a New Security Credential Mapping	
Back Next Finish Cancel	
EIS User Name and Password	
Configure the EIS User Name and Password that you would * Indicates required fields	d like to map the WebLogic Server User to:
Enter the EIS User Name:	
* EIS User Name::	iwayqa.
Enter the EIS Password:	
* EIS Password::	•••••
* Confirm Password::	•••••
Back Next Finish Cancel	

Figure 9–91 EIS User Name and Password Page

8. Enter the user name and password for the EIS and click Finish.

The credentials for an Oracle WebLogic Server user are now mapped with an EIS user (Siebel). The mapping is invoked automatically before invoking the J2CA service.

### 9.5.1.2 Generating a WSDL File

To generate a WSDL file:

1. Open Application Explorer and create a J2CA configuration.

For more information, see Section 2.3.2, "Creating a Configuration for J2CA" on page 2-4.

2. Create a target for the Siebel adapter and then connect to the target.

For more information, see Section 2.4, "Establishing a Connection (Target) for Siebel" on page 2-5.

**3.** Generate a WSDL for the appropriate object.

For more information, see Section 2.12, "Generating WSDL (J2CA Configurations Only)" on page 2-27.

## 9.5.1.3 Creating and Deploying an Outbound Process

This section describes how to configure an outbound process. For demonstration purposes, specific references to the BPEL outbound process are made. However, the same steps apply to Mediator and BPM outbound processes.

For more information about creating a Mediator outbound process, see Chapter 5, "Integration With Mediator Service Components in the Oracle SOA Suite".

For more information about creating a BPM outbound process, see Chapter 6, "Integration With BPM Service Components in the Oracle SOA Suite".

To create a BPEL outbound process, see the following sections:

Section 4.4.2, "Creating an Empty Composite for SOA"

- Section 4.4.3, "Defining a BPEL Outbound Process"
- Section 4.4.4, "Deploying the BPEL Outbound Process"

## 9.5.1.4 Verifying the EIS Credentials

Invoke the input XML and ensure that the EIS target credentials are overridden with the credentials configured in the WebLogic Administration Console for the Default User as described in this section.

1. Invoke the deployed BPEL outbound process with a valid input.

For more information, see Section 4.4.5, "Invoking the Input XML Document in the Oracle Enterprise Manager Console" on page 4-31.

**2.** Check the J2CA log files and locate the encrypted password, which shows that the user credentials have been passed to the EIS through Oracle WebLogic Server.

For example:

```
FINEST IWAFManagedConnectionFactory com.ibi.afjca.Util
getPasswordCredential(78) InLoop:
User-iwayqa:Password-ENCR(310931173183113182333215315332323192322731773172)
FINEST IWAFManagedConnectionFactory com.ibi.afjca.Util
getPasswordCredential(90) Use the system PasswordCredential:
User-iwayqa:Password-ENCR(310931173183113182333215315332323192322731773172)
```

# 9.6 Credential Mapping for Oracle Service Bus (OSB) Using JDeveloper

This section describes how to configure credential mapping functionality for the Oracle Application Adapter for Siebel in a configuration that uses Oracle Service Bus (OSB). A sample testing scenario is also included. This section contains the following topic:

Section 9.6.1, "Configuring Credential Mapping"

Credential mapping is supported only for outbound processes that use J2CA configurations. This feature is not supported for BSE configurations and inbound processes that use J2CA configurations.

**Note:** The J2CA connector is common to all four application adapters (SAP R/3, PeopleSoft, Siebel, and J.D. Edwards OneWorld). If credential mapping is required, then ensure that only one application adapter is used in a particular instance. For example, in one adapter instance only the Siebel application adapter can be used. Credential mapping cannot be configured at the individual adapter level. If you require the use of credential mapping for two adapters, then both adapters must be running in two independent adapter instances.

To pass user credentials to the J2CA resource adapter, create a credential map from the Oracle WebLogic Server user credentials to the EIS user credentials (Siebel adapter). Then associate a credential policy with a Web service and invoke the Web service using Oracle WebLogic Server user credentials. These credentials are mapped to the EIS user credentials and then passed to the J2CA container, which uses them to connect with the EIS adapter (Siebel).

## 9.6.1 Configuring Credential Mapping

Configuring credential mapping consists of the following steps and topics:

**1.** Deploy the adapter.

For more information, see Chapter 3, "Oracle WebLogic Server Deployment and Integration".

- 2. Section 9.6.1.1, "Associating Oracle WebLogic Server Credentials With EIS Credentials"
- 3. Section 9.6.1.2, "Generating a WSDL File"
- 4. Section 9.6.1.3, "Creating an Oracle Service Bus (OSB) Outbound Process"

## 9.6.1.1 Associating Oracle WebLogic Server Credentials With EIS Credentials

To associate Oracle WebLogic Server credentials with EIS credentials:

- 1. Log in to the Oracle WebLogic Server Administration Console.
- **2.** In the Domain Structure section in the left pane, click **Deployments**, as shown in Figure 9–92.

Figure 9–92 Domain Structure Section

Change Center	🛍 Home Log Out Preferences 🚵 Record Help						
View changes and restarts	Home >Summary of Deployments						
Click the Lock & Edit button to modify, add or delete items in this domain.	Summary of Deployments						
Lock & Edit	Control Monitoring						
Release Configuration Domain Structure	This page displays a list of Java EE applications and : applications and modules can be started, stopped, u and using the controls on this page.						
pase_domain ===Environment ===Deployments	To install a new application or module for deploymen						
E-Services Security Realms	Customize this table						
Interoperability     Discussion	Deployments						
Diagnostics	Install Illocate Delete Start Ston						

The Deployments page is displayed, as shown in Figure 9–93.

		Interconduction
System Status 😑		E FMW Welcome Page Application (11.1.0.0.0)
Health of Running Servers		<b>FtpAdapter</b>
Failed (0)	_	
Critical (0)		
Overloaded (0) Warning (0)		<mark>⊘iwafica</mark>
OK (2)		🛨 🧃 iwafica, Level 1, 13 of 33
		🐼 JmsAdapter
		MQSeriesAdapter
		CracleAppsAdapter

Figure 9–93 Deployments Page

**3.** Click the **iwafjca** resource adapter.

The Settings for iwafjca page is displayed, as shown in Figure 9–94.

Figure 9–94 Settings for iwafjca Page

Settings	for iwafj	ta												
Overvie	Overview Deployment Plan		Configuration	Security	Targets	Control	Testing	Monitoring	Notes					
Roles	Policies	Credentia	l Mappings	Principals										
creden mappir	Credential mappings let you map WebLogic Server usernames to usernames in the Enterprise Information System (EIS) to which you want i credential mappings for all outbound connection pools in the resource adapter, or specify particular credential mappings for individual conne mappings for this resource adapter. Credential Mappings													
New Delete														
	VLS User	â		EI	S User			Outbound	Connectio	n Pool				
	There are no items to display													
New	Delete													

4. Click the Credential Mappings tab under the Security tab, and then click New.

The Create a New Security Credential Mapping page is displayed, as shown in Figure 9–95.

Outbound Connection Pool Which Outbound Connection Pool would you like the credential map to be associated w		e a New Security Credential Mapping
Create a New Security Credential Map Entry for:           Outbound Connection Pool            eis/OracleJCAAdapter/DefaultConnection		
Customize this table Create a New Security Credential Map Entry for:  Dutbound Connection Pool  eis/OracleJCAAdapter/DefaultConnection		
Create a New Security Credential Map Entry for:           Outbound Connection Pool            eis/OracleJCAAdapter/DefaultConnection		
Outbound Connection Pool        eis/OracleJCAAdapter/DefaultConnection	Cus	comize this cable
eis/OracleJCAAdapter/DefaultConnection		
	Crea	ate a New Security Credential Map Entry for:
Resource Adapter Default	Crea	
		Outbound Connection Pool 🔅
		Outbound Connection Pool 🗠 eis/OracleJCAAdapter/DefaultConnection

#### Figure 9–95 Create a New Security Credential Mapping Page

**5.** Select the outbound connection pool.

For example:

eis/OracleJCAAdapter/DefaultConnection

6. Click Next.

The WebLogic Server User page is displayed, as shown in Figure 9–96.



Create a New Security Credential Mapping	
Back Next Finish Cancel	
WebLogic Server User	
Select the WebLogic Server User that you would like to map an EIS user to. Sel the resource adapter is first started. Selecting 'Default User' will configure the specifically for them. Selecting 'User for unauthenticated user' will configure the WebLogic Server user that you are configuring. This user must be a configured	user that will be used as the default for any a e user that will be used for an unauthenticate
○ User for creating initial connections	
C Default User	
C Unauthenticated WLS User	
Configured User Name	
WebLogic Server User Name:	weblogic
Back Next Finish Cancel	

**7.** Select Configured User Name, enter a valid Oracle WebLogic Server user name, and then click **Next**.

The EIS User Name and Password page is displayed, as shown in Figure 9–97.

reate a New Security Credential Mapping	
Back Next Finish Cancel	
EIS User Name and Password	
Configure the EIS User Name and Password that ye	ou would like to map the WebLogic Server User to:
* Indicates required fields	
Enter the EIS User Name:	
* EIS User Name::	iwayqa
Enter the EIS Password:	
* EIS Password::	
* EIS Password:: * Confirm Password::	•••••

Figure 9–97 EIS User Name and Password Page

8. Enter the user name and password for the EIS and click Finish.

The credentials for an Oracle WebLogic Server user are now mapped with an EIS user (Siebel). The mapping is invoked automatically before invoking the J2CA service.

#### 9.6.1.2 Generating a WSDL File

To generate a WSDL file:

**1.** Set the class path for Application Explorer to integrate with Oracle Service Bus (OSB).

For more information, see "Setting the Class Path for Application Explorer to Integrate With Oracle Service Bus" on page 7-6.

2. Open Application Explorer and create a J2CA configuration.

For more information, see "Creating a Configuration for J2CA" on page 2-4.

**3.** Create a target for the Siebel adapter and then connect to the target.

For more information, see "Establishing a Connection (Target) for Siebel" on page 2-5.

**4.** Generate a WSDL for the appropriate object.

For more information, see Section 4.4.1, "Generating WSDL for Request/Response Service" on page 4-8.

#### 9.6.1.3 Creating an Oracle Service Bus (OSB) Outbound Process

For more information on creating an Oracle Service Bus (OSB) outbound process, see Section 8.1.2, "Defining an OSB Outbound Process" on page 8-3.

1. Configure a Service account by right-clicking the OSB Project, selecting **New**, and then clicking **Service Account**, as shown in Figure 9–98.

I Project      I Project      I HTTP_Outbound     I jde_lca_geteffadd     I jde_lca_geteffadd     I jMS_Unbound     I jMS_Outbound     I jMS_Outbound     I jMS_Credential     I MS_GetDeta     GetDeta     GetDeta	tart Page 🔺 📲 OSB_Credential 🐣
Image: HTTP_Outbound         ide_jca_geteffadd         ide_jca_geteffadd         image: JMS_Outbound         image: JMS_Outbound<	<ul> <li>×</li> </ul>
jde_jca_geteffadd     JMS_Inbound     JMS_Outbound     GetCredential     GetDeta     GetDeta	
Image: Current select       Image: Current select         Image: Current select       Image: Current select	
Edit Project Source Paths         GetDeta         Deploy         Paplacation Resou         PlabaControls         Paplac Controls         Paplac Controls         Paplac Controls         Paplace With         Refactor         Compare With         Replace With         Restore from Local History         Project Properties         Import         Export	Alert Destination
OSB_Credential.jor       Refactor         Compare With       Image: Current select         Current select       Import         Export       Image: Current select	MPL MQ Connection Mayen POM for Project MYSD Schema I Pipeline I Pipeline Implate Proxy Server
OSB_Credential.jpr - Compare With Replace With Restore from Local History	SMTP Service
	Service Account     Service Key Provider     Split-Join     Throttling Group <u>UDDI Registry     WS-Policy File     WSDL Document     XML Schema     XQuery File ver 1.0 </u>
ા સિ	XQuery Library ver 1.0 XSL Map From Gallery Ctrl-N

Figure 9–98 Select Service Account Option

The Create Service Account pane is displayed, as shown in Figure 9–99.

Figure 9–99 Create Service Account Pane

🗊 Create 9	Service Accour	nt - Step 1 of	F1				
Create S	ervice Acco	unt				0101010101010101010101	1
General							
<u>N</u> ame:	OSB_static						
Location:	C:\soabeta\wo	rk\mywork\OS	B_Application	OSB_Credenti	al		Q
Description							
<u>M</u> essages:							
<u>H</u> ossages.							
<u>H</u> elp				< <u>B</u> ack	[ <u>N</u> ext >	Einish	Cancel

2. Provide a name for the Service Account and click Finish.

The configuration page of Service Account is displayed.

- **3.** In the Resource Type section, select **Static**.
- **4.** Provide a valid user name and password for the Oracle WebLogic Server, as shown in Figure 9–100.

Figure 9–100 Servic	e Account Configuration Page
---------------------	------------------------------

Applications 🔗 Application Servers	⑦ Start Page × alt OSB_Credential × ♣ OSB_static.sa >
🔁 OSB_Application 🔹 👻	
Projects  Projects  Difference D	Service Account Create a Service Account Resource  Description:  Resource Type: Pass Ihrough  Static  Mapping
GetDetail_PS.proxy	Static User Configuration
\$ GetDetail_PSPipeline.pipeline <mark>}</mark> OSB_Credential	/ Liser Name: weblogic
	Password: ••••••
Application Resources	Confirm Password:
🗉 Data Controls 🛛 🖓 🐄 🗸	

- **5.** Save and close the configuration page.
- **6.** In the composite Editor window, double-click the created WSDL-based Business Service from step 3.

The configuration page of the WSDL-based Business Service is displayed.

**7.** Select the Transport Details tab, as shown in Figure 9–101.

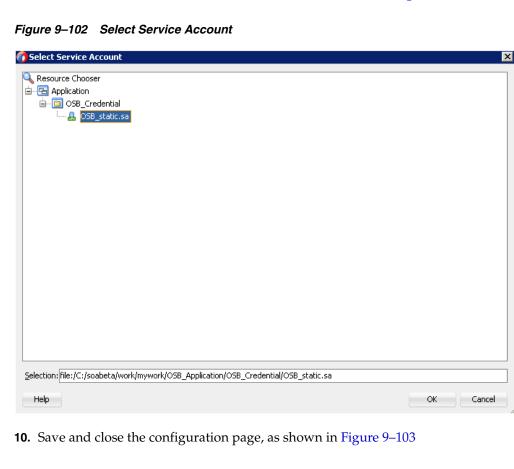
ieneral iransport	JCA Transport Configurati Use this page to configure the transport			
ransport Details				
lessage Handling	JCA File	Credential/GetDet	il_invoke_3P.jca 🔍 🥜	
erformance	Adapter Name	Way ERP Adapter		
blicies	Adapter Type	iway		
	Dispatch Policy	58DefaultResponseWork	lanager	
	JNDI Service Account	<not selected=""> 🔍 🖉</not>		
	EndPoint Properties			+ ×
		property	value	
	Dynamic EndPoint Properties			
		property	value	<b>T A</b>

Figure 9–101 Transport Details Tab

8. In the JNDI Service Account section, click the Browse icon.

The Select Service Account window is displayed.

9. Select the created service account and click OK, as shown in Figure 9–102.



እ 🚵 🚵 🚜 🕨 ② Start Page × 여끊 OS	58_Credential 🔺 🝃 GetDet	il_85.bix ≫		
General Transport <b>Transport Details</b> Message Handling Performance Policies	<ul> <li>JCA Transport Configu Use this page to configure the JCA File</li> <li>Adapter Name</li> <li>Adapter Type</li> <li>Dispatch Policy</li> <li>JNDI Service Account</li> <li>EndPoint Properties</li> </ul>	Iration transport information for this service CSB_Credential/GetDet Way ERP Adapter Way SBDefaultResponseWork CSB_Credential/OSB_st property	tail_invoke_3P.jca 🔍 🏈	* ×

Figure 9–103 Business Service Configuration Page

**11.** Deploy the OSB process.

For more information, see Section 8.1.3, "Deploying the OSB Outbound Process" on page 8-16.

- **12.** Once the process is deployed successfully, copy and paste a valid input XML file in the input folder you configured, and check to see that the output is received in the configured output location.
- **13.** Check the J2CA log files and locate the encrypted password, which shows that the user credentials have been passed to the EIS through Oracle WebLogic Server.

For example:

```
FINEST IWAFManagedConnectionFactory com.ibi.afjca.Util
getPasswordCredential(78) InLoop:
User-iwayqa:Password-ENCR(318931973183113218233321532332323192322731773252)
FINEST IWAFManagedConnectionFactory com.ibi.afjca.Util
getPasswordCredential(90) Use the system PasswordCredential:
User-iwayqa:Password-ENCR(3109313331831131702333215320132323192322731773236)
```

# **Troubleshooting and Error Messages**

This chapter explains the limitations and workarounds when connecting to Siebel. It contains the following topics:

- Section 10.1, "Troubleshooting"
- Section 10.2, "BSE Error Messages"

## 10.1 Troubleshooting

This topic provides troubleshooting information for Siebel, separated into four categories:

- Section 10.1.1, "General Usage Notes for the Oracle Application Adapter for Siebel"
- Section 10.1.2, "Application Explorer"
- Section 10.1.3, "Siebel"
- Section 10.1.4, "Oracle Adapter J2CA"

Log file information that can be relevant in troubleshooting can be found in the following locations based on your adapter installation:

The Oracle Adapter J2CA trace information can be found under the following directory:

<ADAPTER\_HOME>\config\configuration\_name\log

BSE trace information can be found under the following directory:

```
<ORACLE_HOME>\user_projects\domains\base_domain\servers\soa_
server1\stage\ibse.war\ibselogs
```

The log file for Application Explorer can be found under the following directory:
 <adapter HOME>\tools\iwae\bin

## **10.1.1 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.

## 10.1.2 Application Explorer

This topic discusses the different types of errors that can occur when using Application Explorer.

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 <adapter_home>\Oracle_ SOA1\soa\thirdparty\ApplicationAda pters\lib directory. For example, for Siebel 7.03 environments, the SiebelJI_ Common.jar and SiebelJI_enu.jar should be placed in this directory.</adapter_home>	
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,	Ensure that the name of the Siebel Gateway server is correctly defined for the target you are using.	
Problem activating adapter ( <server_name>). Check logs for more information.</server_name>		
You receive the following error when trying to connect to a Siebel target:	Ensure that the User ID and password parameter values to connect to your Siebel	
Problem activating adapter. (You have entered an invalid set of logon parameters. Please type in your logon parameters again.). Check logs for more information.	system are correct.	
You receive the following error when trying to connect to a Siebel target:	Check on network connectivity to Siebel environment. Correct networking problem	
Problem activating adapter. (Couldn't get nameserver connection). Check logs for more information.	and retry connection.	
You receive the following error when attempting to connect to a Siebel target:	Ensure that the values defined for Siebel Server, Enterprise Name, and Object Manager	
Problem activating adapter. (NSReadKey request failed (no error information)). Check logs for more information.	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:	Ensure that the value of the Language parameter on the Advanced tab is defined	
Problem activating adapter. (Error loading translatable messages: com.siebel.locale.enux.messages.SS AMessages_enux). Check logs for more information	correctly for the target you are using to connect to your Siebel system (for example, enu for English).	

Error	Solution
A successful connection is made to Siebel environment but no values are available in Business Object, Business Service, and Integration Object nodes in Application Explorer tree.	The Repository Name specified on the Advanced tab in the Siebel target configuration is either void or empty of any components in the targeted Siebel environment or that Repository Name is not valid for the targeted Siebel environment. Verify that the Repository Name is valid and contains components for interrogation then re-connect.
Logon failure error at run-time.	If the password for connecting to your Siebel system is not specified when creating a target or with the Edit option in Application Explorer, then 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):	This is a benign exception. It does not affect adapter functionality. Download BouncyCastle files from:
java.lang.ClassNotFoundException: org.bouncycastle.jce.provider.Boun cyCastleProvider	<pre>ftp://ftp.bouncycastle.org/pub</pre>
Unable to start Application Explorer in a Solaris environment. The following exception is thrown in the console:	JAVACMD is not set on the user system. Before starting Application Explorer, export JAVACMD as follows:
<pre>javax.resource.ResourceException: IWAFManagedConnectionFactory: License violation.at com.ibi.afjca.spi.IWAFManagedConne ctionFactory.createConnectionFacto ry(IWAFManagedConnectionFactory.ja va:98)at com.iwaysoftware.iwae.common.JCATr ansport.getConnectionFactory(JCATr ansport.java:133) at com.iwaysoftware.iwae.common.JCATr ansport.initJCA(JCATransport.java: 69)at com.iwaysoftware.iwae.common.JCATr ansport.<init>(JCATransport.java: 69)at com.iwaysoftware.iwae.common.JCATr ansport.<init>(JCATransport.java: 62)at com.iwaysoftware.iwae.common.Adapt erClient.<init>(AdapterClient.java :85)at com.ibi.bse.ConfigWorker.run(Confi gWorker.java:41)at java.lang.Thread.run(Thread.java:5 34)</init></init></init></pre>	JAVACMD=/ <jdk_home>/bin/java, where <jdk_home> is the directory where JDK is installed on your system.</jdk_home></jdk_home>
Could not create the connection factory.	

## 10.1.3 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:	Verify that method is available for specific request by verifying schema.	
AdapterException: Unsupported Action: {0} Tquery		
When executing a request, the following error message appears:	Ensure that field names are valid within request document by referring to schema for that specific object and then re-submit the	
AdapterException: Field 'NFame' does not exist in definition for business component 'Account'. Please ask your systems administrator to check your application configuration.	that specific object, and then re-submit the request.	
When connecting to releases before Siebel 7.7 using the Java Data Bean Interface, you cannot reconnect after initial connection loss. This might occur when Application Explorer experiences a brief loss of network connection or if the Siebel Server or Gateway Service is restarted while Application Explorer is logged into the Siebel application.	Restart Oracle WebLogic Server and Application Explorer to log in successfully to the Siebel application. This is a known Siebel API issue. For more information, see Siebel Alert 984.	
The following error may occur when adding a service node for a Business Service that includes methods containing method arguments having hierarchy data types.	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, then the following error is received:		
Invocation of Service failed.		

## 10.1.4 Oracle Adapter J2CA

Error	Solution
In Application Explorer, the following error message appears when you attempt to connect to an Oracle Adapter J2CA configuration:	In the Details tab in the right pane, ensure that the directory specified in the Home field points to the correct directory, for example:
Could not initialize JCA	<adapter_home>\tools\iwae\bin\\\</adapter_home>

# 10.2 BSE Error Messages

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

This section contains the following topics:

- Section 10.2.1, "General Error Handling in BSE"
- Section 10.2.2, "Adapter-Specific Error Handling"

## 10.2.1 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, then 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.

## 10.2.2 Adapter-Specific Error Handling

This section contains the following topics:

- Section 10.2.2.1, "Oracle Application Adapter for Siebel Invalid SOAP Request"
- Section 10.2.2.2, "Empty Result From Siebel Request"
- Section 10.2.2.3, "Oracle WebLogic Server Integration Adapters"
- Section 10.2.2.4, "Invalid SOAP Request"
- Section 10.2.2.5, "Empty Result From Oracle WebLogic Server Adapter Request"

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, then 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.

#### 10.2.2.1 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:Fault>
</SOAP-ENV:Body>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

#### 10.2.2.2 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:Fault>
</SOAP-ENV:Fault>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

#### 10.2.2.3 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.

#### 10.2.2.4 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>
```

#### 10.2.2.5 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">
<RunDBQueryResponse xmlns:m="urn:schemas-iwaysoftware-com:iwse"
cid="2A3CB42703EB20203F91951B89F3C5AF">
<RunDBQueryResponse>
</SOAP-ENV:Body>
</SOAP-ENV:Body>
```

# **Using Siebel Workflows**

When using Siebel XML to integrate with Siebel Integration Objects, the interface uses a Siebel Workflow.

**Note:** This appendix 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.

This appendix contains the following sections:

- Section A.1, "Overview"
- Section A.2, "Creating a Siebel Workflow"

# 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. This section contains the following topics that describe the use and creation of workflows that employ the supported transport services:

- Section A.1.1, "Siebel Workflows"
- Section A.1.2, "Using a Policy to Invoke a Siebel EAI Workflow"
- Section A.1.3, "Siebel Workflow Outbound"
- Section A.1.4, "Siebel Workflow Inbound"

#### 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, as shown in Figure A–1.

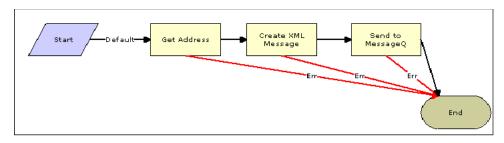


Figure A–1 How to Create a Siebel Workflow That Exports Siebel Update Data

## A.1.4 Siebel Workflow - Inbound

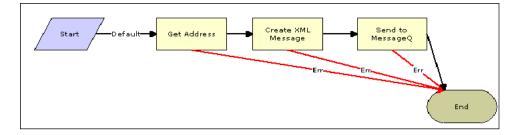
A Siebel Workflow that is triggered by an external event begins by receiving a Siebel XML document placed on one of its transports. The result might be the update of a Siebel record using the XML as input, for example, when a new account is added in another CRM system but also must be updated in the 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, as shown in Figure A–2.

Figure A–2 Sample Workflow Process



# A.2 Creating a Siebel Workflow

This section contains the following topics that include procedures for creating Siebel Workflows in the Siebel Workflow Administration window:

- Section A.2.1, "Creating a Siebel Workflow for an Event Using MQSeries Transport"
- Section A.2.2, "Creating a Siebel Workflow for an Event Using File Transport"
- Section A.2.3, "Creating a Siebel Workflow for an Event Using HTTP Transport"
- Section A.2.4, "Creating a Siebel Workflow for a Service Using MQSeries Transport"

- Section A.2.5, "Creating a Siebel Workflow for a Service Using File Transport"
- Section A.2.6, "Creating a Siebel Workflow for a Service Using HTTP Transport"

## 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, as shown in Figure A–3.

🚳 http://ariba01/callcenter/start.swe?5W	'EFrame=topswesweapp&SWECount	=1&_sn=!1.a44.4d1a.3d47fc - Microsoft Int	ernet Explorer	_ 8 ×
Address 🗃 http://ariba01/callcenter/start.swe				🝷 🔗 Go  🏭
File Edit View Favorites Tools Help		0, 1 3 5 5 9 7 9 8		Links »
File Edit View Help			( por	
Home Accounts Contacts Househo	lds Employees Service Assets	Orders Campaigns Opportunities Q		Scripts Products
	tory:- ←→ 🏄	orders campaigns opportunities Q	Queries: All Processes	
			Quertes. Mirriocesses	
Workflow Process				
	<b>^</b>	P	0	_
*Name: Export Account - MQSeries	Group: Sample	Persistence Frequency:	Created By: SADMIN	_
Business Object:	Activation Date/Time:	Persistence Level:	*Created:	_
Account	6/19/2002 3:20:00 PM		6/25/2002 7:35:49 PM	_
*Status:	Expiration Date/Time:	Error Process Name:	Version:	
In Progress	H	54	2	
Description:				
This is a sample workflow				
string of an account record to				
	~			
All Processes Process Designer Pro	ocess Properties   Process Simulator			
Uesigner				
Palette				· · · ·
Start Decision Point				
Business Sub Service Process		* * * * * * * * * *	*	
Sta	art Default Get New C	onvert to 🗾 Send to Q	End x	
	←_/ <u>k</u> /L		*	
Siebel Wait		+ + + + + + + + + + + + + + + + + + +		
Ø			<b>2</b>	D of O
				ocal intranet
Start 🚺 💽 Inbox - Microsoft O 🥔 http:	p://ariba01/c 💁 C:\SiebelWorkflows	🗐 WinZip - paint shop 🖉 Paint Shop Pro	📲 Paint Shop Pro - [C 🤇 🥰	J 🌾 🔏 🛛 2:49 PM

Figure A–3 Siebel Workflow Administration Window

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, as shown in Figure A–4.

File Edit Vie		ls Help			a (j b- 5)				Convered by S	Lir
		louseholds Emp	lauran Cantan	Assets Order				in diama Ca	powered by S	·
lome Account: Show: Workflow		History:	loyees   Service	Assets Order	rs Campaigns O	pportunities   C		nications Sr	nartScripts	) Produ
rocess:							quonoon	1		
Workflow Proc										
(IIV) Query		19								
*Name:		Group:			Persistence Freque	ncv:	Created B	iv:		
Export Account -	MQSeries	Sample		•		-	SADMIN			
, Business Object	t:	Activati	on Date/Time:		, Persistence Level:		*Created:			
[	20	6/19/20	02 3:20:00 PM	20		-	6/25/2002	7:35:49 PM		
Account										
Account		,	on Date/Time:		Error Process Name	:	Version:			
*Status: In Progress	workflow	,		H	Error Process Name	9: 14	Version:			
*Status: In Progress Description: This is a sample v process that sem string of an accor All Processes	workflow ds an XML unt record to	Expirati	on Date/Time:	E Simulator	Error Process Name					
*Status: In Progress Description: This is a sample v process that sen- string of an accor All Processes	workflow ds an XML unt record to	Expirati Process Pro of 6	on Date/Time:	s Simulator	Error Process Name	5				P
*Status: In Progress Description: This is a sample \ process that sen Istrina of an accor All Processes ↓ @uery Name ♣	workflow ds an XML unt record to Process Design	Expirati Process Pro of 6	on Date/Time: perties TProcess	s Simulator		5	2			Ð
*Status: In Progress Description: This is a sample v process that sen Istrina of an accor All Processes The Court Advery Iame	workflow       ds an XML       unt record to       Process Design         ( ) ) 1 - 6       Data Type	Expirati Process Pro of 6	on Date/Time: perties TProcess	s Simulator		5	2			Ŧ
*Status: In Progress Description: This is a sample v process that sen string of an account All Processes (I) (Query) Hame C Account ML strong Cale	vorkflow ds an XML unt record to Process Design   ↓ ↓ 1 - 6 Data Type Hierarchy	Expirati Process Pro of 6	on Date/Time: perties TProcess	s Simulator		5	2			Ŧ
Status: In Progress Description: This is a sample process that sen strina of an accor All Processes () (Query Name Account Message Account XML Error Message	vorkflow ds an XML unt record to Process Design   ( ) 1 - 6 Data Type Hierarchy String String	Expirati Expirati Of 6	on Date/Time: perties TProcess	s Simulator		5	2			P
*Status: In Progress Description: This is a sample v process that sem string of an accor All Processes	vorkflow ds an XML ant record to Process Design I a 1 - 6 Data Type Hierarchy String String String String	Expirati Process Pro of 6	on Date/Time: perties TProcess	s Simulator		5	2			P

Figure A–4 Process Properties Tab of the Workflow Process Window

- 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, as shown in Figure A–5.

fdress 🥻 bitter 🖉	/ariba01/callcenter/st	tart cime							▼ 🔗 Go
,	Favorites Tools			A      A					
File Eult view	Pavonites 1008	з пер				) B E A			] <b>u</b> n
File Edit Vie	ew Help							power	eBusiness
ome Accounts	s Contacts H	ouseholds Emp	loyees Service	Assets Order	s Campaigns	Opportunities	Quotes Communica	ations SmartS	cripts Produ
Show: Workflow	Processes 💌	History:+ 🔶	·⇒   ≝				Queries: All	Processes	
Business Servi (IIV) Query	(Return To Desig	oner) 2 of 2+							
		_	s Object:		Business Service		Created By:		
Name: Get New Account	t	Account	-		EAI Siebel Adapter		SADMIN		-
Vorkflow Proce		*Type:			Method:		*Created:		
Export Account -			s Service	•	Query	<b>1</b>	7/22/2002 11:	24:21 AM	
lescription:		,		_	,		,		
nput Argumer	nts				1				7
nput Argumer	1-20	of 2 Value 🔶	Property Name 🗧	Property Data Typ	Business Compo	) Business Compo	Comments $\stackrel{ riangle}{\bigtriangledown}$		Ŧ
Query put Argument utput Integration C	Type 😄				Business Compo	) Business Compo	Comments $\stackrel{ riangle}{\bigtriangledown}$		đ
Query)	<b>Type</b> ⊖	Value $\Leftrightarrow$	Property Name	Property Data Typ String	Business Compo	) Business Compo	Comments $\stackrel{ riangle}{ o}$		Ŧ
Query     Query     put Argument utput Integration C	Type 😄	Value $\Leftrightarrow$			Business Compo	Business Compo	Comments 😓		Ð
Query     Query     put Argument utput Integration C	Type 🔶	Value $\Leftrightarrow$			Business Compo	Business Compo	Comments ⇔		Ţ
Query put Argument utput Integration C	Type 🔶	Value $\Leftrightarrow$			Business Compo	Business Compo	Comments ⇔		Ð
Query	Type D Literal Process Property	Value $\Leftrightarrow$			Business Compo	Business Compo	Comments 🔶		Ð
Query	Type D Literal Process Property	Value 🔶 Sample Account			Business Compo	Business Compo	Comments 🔶		
Query     Integration C     bject Id     Output Argum     Query     Query     Query     Query	I the second secon	Value Sample Account	Object Id	String			Comments 😓		Ŧ
Query	Image: Constraint of the second se	Value 🔶 Sample Account	Object Id Output Argumen				Comments 😓		
put Argument utput Integration C bject Id	I the second secon	Value Sample Account	Object Id	String			Comments ⇔		
put Argument utput Integration C bject Id	Image: Constraint of the second se	Value Sample Account	Object Id Output Argumen	String			Comments ⇔		œ,
Query     put Argument     dtput Integration C     oject Id     Output Argum     Query     Query     operty Name	Image: Constraint of the second se	Value Sample Account	Object Id Output Argumen	String			Comments 😔		

Figure A–5 Output From Business Service Generated From a Hierachical Format

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, as shown in Figure A–6.

ile Edit View Pavorites Tools Help       Image: Contracts Households Employees Service       Image: Contracts Householdsemployees Service       Image: Contrac			start.swe						▼ 🔗 Go
Intel Accounts Contacts Households Employees Service Assets Orders Campaigns Opportunities Queries: All Processes   Intel Contacts History Image: Contacts All Processes Image: Contacts All Processes Image: Contacts All Processes   Image: Contacts History Image: Contacts Business Object: Business Service: Created By:   Convert to XM Account Sacount Sacount Sacount   *Type: Business Service Property Set to XM Sacount   Property Set to XM Image: Contacts Sacount Sacount   *Type: Business Service Property Set to XM Sacount   Property Set to XM Image: Contact Sacount Sacount Sacount   Property Set to XM Image: Contact Sacount Sacount Sacount   Property Set to XM Image: Contact Sacount Sacount Sacount   Property Arguments Image: Contact Massage Property Data Typ Business Compo Comments Image: Contact Massage   Process Property Account Message Hierarchy Image: Contact Account Message Hierarchy				] ⇔ • ⇒ -	o 🗈 🖄 🔕	🖻 🧭 🗳 🖬	z 🗉 🕱		_
Intel Accounts Contacts Households Employees Service Assets Orders Campaigns Opportunities Queries: All Processes   Intel Contacts History Image: Contacts All Processes Image: Contacts All Processes Image: Contacts All Processes   Image: Contacts History Image: Contacts Business Object: Business Service: Created By:   Convert to XM Account Sacount Sacount Sacount   *Type: Business Service Property Set to XM Sacount   Property Set to XM Image: Contacts Sacount Sacount   *Type: Business Service Property Set to XM Sacount   Property Set to XM Image: Contact Sacount Sacount Sacount   Property Set to XM Image: Contact Sacount Sacount Sacount   Property Set to XM Image: Contact Sacount Sacount Sacount   Property Arguments Image: Contact Massage Property Data Typ Business Compo Comments Image: Contact Massage   Process Property Account Message Hierarchy Image: Contact Account Message Hierarchy	File Edit V	(iew Heln						power	ad by SIEBE
how: Workflow Processes     Histopy-     Business Service     Corvert to XMA.     Name:   Corvert to XMA.     Property Set to XMA.     Property Set to XMA.     Property Set to XMA.     Property Basiness Compo     Comments     Property Name        Process Property     Value              Property Name                                Property Name   Type   Value   Output Arguments   Corvert Name   Type   Value   Property Data Type Business Compo   Comments   Convert Name   Type   Value   Output Arguments   Convert Name   Type   Value   Output Arguments   Convert Name   Type   Value   Output Argument   Business Compo   Comments   Convert Name   Type   Value   Output Argument   Value   Output Argument   Value   Output Argument   Value   Output Argument			louseholds ) Fm	plovees Service	Assets	Campaigns Or	nortunities ) Qu		
Subiness Service     Image: Cuery     Rescription:     Property Set to XML     Property Name     Property Name        Property Name        Property Name        Property Name <b>Property Name Property Name Proper</b>					100000 0100	o campaigno or			
Curvey Return To Designery 1 of 1+     Name: Convert to XML     Convert to XML     Norkflow Process:     Epud Account     Property Set to XML     Norkflow Process:     Epud Account     Property Set to XML     Norkflow Process:     Epud Account     Property Set to XML     Norkflow Process:     Property Set to XML     Property Set to XML     Norkflow Process:     Property Netter:     Norkflow:     Norkflow:     Property Netter:     Property Nette								,	_
Business Object: Account     Convert to XML     Morkflow Process:     *Type:     Business Service:     *Type:			igner) 1 of 1+						
Convert to XML Account				ee Object:		Rueinaee Saruica		Created Bic	
Export Account - MaSeries       Business Service     Property Set to XML     Image: Control of Control	Convert to XML						54		_
elescription:	Vorkflow Proc	ess:	*Type:			, Method:		*Created:	
Imput Arguments       Imput Argument       Type Imput Argument       Imput Argument       Property Name       Property Data Typ Business Compo       Business Compo       Comments Imput Arguments         Imput Arguments       Imput Arguments       Imput Argument       Imput Argument Business Compo       Business Compo       Comments Imput Arguments         Imput Arguments       Imput Argument Business Compo       Imput Argument Business Compo       Comments Imput Argument Business Compo       Imput Argument Business Compo         Imput Argument XML       Output Argument       XML Document       Imput Argument Business Compo       Comments Imput Argument Business Compo       Imput Argument Imput Argument Business Compo	Export Account	- MQSeries	Busine	ess Service	-	Property Set to XML		6/25/2002 7:35:49 PM	
Cuery I I 1 t or 1     Cuery I I 1 t or 1     Cuery I I I t or 1     Cuery I I I I I I I I I I I I I I I I I I I	escription:								
Image: Type									
Courry I I I 1 or 1     Type      Value      Property Name Property Data Typ Business Compo Business Compo Comments      Account Message Hierarchy									
Courry I I I 1 or 1     Type      Value      Property Name Property Data Typ Business Compo Business Compo Comments      Account Message Hierarchy									
Uppt Argument       Type        Value        Property Name       Property Data Typ Business Compo       Business Compo       Comments          ebel Message       Process Property       Account Message       Hierarchy         Dutput Arguments       Image: Compo       Image: Compo       Image: Compo       Image: Compo         Image: Compo       Image: Compo       Image: Compo       Image: Compo       Image: Compo       Image: Compo         Image: Compo       Image: Compo       Image: Compo       Image: Compo       Image: Compo       Image: Compo       Image: Compo         Image: Compo       Image: Comp       Image: Comp       Im									
ebel Message Process Property Account Message Hierarchy		)   🕢 🕩 1-1	of 1						e
Dutput Arguments Type Courput Argument Business Compo Business Compo Comments Compo Co	put Argument	Туре 🔶	Value $\stackrel{\bigtriangleup}{\bigtriangledown}$	Property Name	Property Data Ty	p Business Compo Bu	siness Compo Co	omments $\stackrel{ riangle}{ o}$	
Courry Name      Type      Value      V	ebel Message	Process Property		Account Message	Hierarchy				
Courry Name      Type      Value      V									
Courry Name      Type      Value      Value      Value      Value      XML Document     XML Document     XML Document									
Courry Hame      Type      Value      V									
Courry Hame      Type      Value      V									
Courry Hame Curry Hame Value Output Argument Business Compo Business Compo Comments Compo Comments Court XML Output Argument XML Document									
Courry Hame      Type      Value      V									
roperty Name 🗧 type 😓 Value 😄 Output Argument Business Compo Business Compo Comments 😄									
ccount XML Output Argument XML Document			of 1						G
	Query Query	) 🔳 🕩 1-1		Output Arguman	f Pupingan Comp	Pusingan Compa Co			G
	Image: Control of the second seco	)   <b>( )</b> 1-1			t Business Comp	o Business Compo Ca	mments $\stackrel{ riangle}{ arrow}$		E
	operty Name	)   <b>( )</b> 1-1			t Business Comp	o Business Compo Co	mments $\stackrel{ riangle}{ arrow}$		E
置 Local intranet	Image: Control of the second seco	)   <b>( )</b> 1-1			t Business Comp	o Business Compo Co	mments 🚔		(
	Count XML	)   <b>( )</b> 1-1			t Business Compo	o Business Compo Co	mments $\stackrel{\triangle}{\bigtriangledown}$		

Figure A–6 EAI XML Converter Business Service

**5.** Define an EAI MQSeries server transport Business Service step and call it Send to Q, as shown in Figure A–7.

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.

	ariba01/callcenter/sl	tart.swe						- @	G0
File Edit View	Favorites Tools	s Help	_ ↓ • • •		🖻 🎯 🖪- 🥔 🖬 🗒	2			Lir
File Edit Vie	w Help						(	powered by SIE	BEL
ome Accounts	Contacts H	ouseholds   Em	ployees Service	e Assets Order	s Campaigns Opportunit	ies Quotes	s Communications Sn	nartScripts	Produ
how: Workflow P	Processes 🗾	History:+ 👍	-⇒   ≝				Queries: All Processes		-
ep:									
Business Servi (Ev) Query) *Name:	Ce (Return To Desi	_	ss Object:		Business Service:		Created By:		
Send to Q		Accou	-		EAI MQSeries Server Transport	2	SADMIN		
Norkflow Proces	ss:	*Type:			Method:		*Created:		
Export Account - I	MQSeries		ss Service	•	Send		6/25/2002 7:35:51 PM		
lescription:		,							
nput Argumen	nts		Property Name	Property Data Typ	Business Compo Business	Compo Comr	nents 🚔		•
nput Argumen (Query) put Argument	ts ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓	of 3 Value 🚔			Business Compo Business G	Compo Comr	nents 🔶		9
nput Argumen Toput Argument essage Text	ts ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓		Property Name Account XML	Property Data Typ	Business Compo Business (	Compo Comr	nents 🔶		Ŧ
Argument Control of the second second and the second sec	ts Type Process Property Literal	Value 🚔			Business Compo Business (	Compo Comr	nents \ominus		Ŧ
nput Argumen www.argument essage Text hysical Queue Name	ts Type ⊖ Process Property Literal Literal	Value 🔶 ARIBA01 JN QM_ARIBA01			Business Compo Business (	Compo Comr	nents 🚔		<b>T</b>
nput Argumen put Argument put Argument essage Text hysical Queue Nan ueue Manager Nan Dutput Argument	ts Type $\Leftrightarrow$ Process Property Literal Literal Literal No Re	Value 🔶 ARIBA01 JN QM_ARIBA01	Account XML	String	Business Compo Business Compo		nents 🔶		
put Argumen To Corry put Argument essage Text rysical Gueue Nan ueue Manager Nan Dutput Argume To Corry	ts Type $\Leftrightarrow$ Process Property Literal Literal Literal No Re	Value 😓 ARIBA01 JN GM_ARIBA01	Account XML	String			nents 🔶		

Figure A–7 EAI MQ Series Server Transport Business Server Send to Q

## 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, as shown in Figure A–8.

ddress 🙋 http://ariba01/callcenter/s			Microsoft Internet Explorer	_
	tart.swe			▼ (ềGo
File Edit View Favorites Tool	s Help	) 🖞 🖓 🔍 🎯 🗳 🗳 🖼 !	9 2	J
File Edit View Help			6	owered by SIEBEI
· · · · · · · · · · · · · · · · · · ·	ouseholds Employees Service	Assets Orders Campaigns Oppor		artScripts Pro
how: Workflow Processes	History:- <	Assets Orders Campaigns Oppor	Queries: All Processes	
,			Queries. All Processes	
Vorkflow Process	0			
Name: Export Account ( File Transport)	Group: Sample	Persistence Frequency:	Created By:     SADMIN	
usiness Object:	Activation Date/Time:	Persistence Level:	*Created:	
Account	6/19/2002 3:20:00 PM		▼ 7/17/2002 4:54:21 PM	
Status:	Expiration Date/Time:	Error Process Name:	Version:	
Progress 🗸		8	5 0	
_				
escription:				
This is a sample workflow				
account Record XML string				
Il Processes 🎽 Process Design	er 🎽 Process Properties 🎽 Process S	Simulator		
	er   Process Properties   Process S	Simulator		
□▼   1 of 1+   Designer ▼	er   Process Properties   Process S	Simulator		
	er Y Process Properties Y Process S	Simulator		
💌   1 of 1+   Designer 💌	er <sup>Y</sup> Process Properties <sup>Y</sup> Process S			· · · · · · · · · · · · · · · · · · ·
I of 1+   Designer      Palette      O	er   Process Properties   Process S	Simulator		×
💌   1 of 1+   Designer 💌	er   Process Properties   Process S	Simulator		<u>*</u>
Palette Start Decision	Process Properties Process S			<u>*</u>
Palette Start Decision	Process Properties Process S			
Palete  Palete  Start Decision Point  Business Sub	Process Properties Process S			Ě
Palette Palette Statt Decision Point	State Data Get New	Convert Convert	JAccount Find	
Polete Polete Poletion Point Business Sub		Convert Convert	Account Data	
Control Contr	State Data Get New	Convert Serie		Ă
Polete Polete Poletion Point Business Sub	State Data Get New	Convert Serie		-
I to ft+     I Designer     Polatte	State Data Get New	Convert Serie		
Palette Polette Start Decision Point Butiness Sub Service Siebel Walt	Start Default Get New Account	Convert Serie		Local intranet

Figure A–8 Siebel Workflow Administration Window

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:

File Edit Vie ome Accounts Show: Workflow P							power	
Show: Workflow F		Households ) Em	ployees Service	Assets	rs Campaigns Opportu	nities Quot		
,		History: 🗸 🔇				ففنادا الطفنين	Queries: All Processes	
OCESS:							,	
Workflow Proc								
		of 9						
Name:		Group			Persistence Frequency:		Created By:	
Export Account (1	File Transport)	Sampl		•	- crostence rrequency:	-	SADMIN	-
usiness Object:		, <u> </u>	tion Date/Time:	_	Persistence Level:		*Created:	
Account	:		002 3:20:00 PM			•	7/17/2002 4:54:21 PM	-
Status:		,			1			
status:					Frror Process Name			
escription: This is a sample w process that conv	/enta 🦷	Expira	ion Date/Time:	H	Error Process Name:	b.	Version: 0	
Description: This is a sample w process that conv account Record X	vorkflow vert a (ML string Process Desig	ner Process Pr		E Simulator	Error Process Name:	1		
In the second se	vorkflow ▲ /ert a ▼ ML string ▼	ner Process Pr 7 of 7+		Simulator	Error Process Name:			•
escription: This is a sample w process that conv account Record X II Processes II Query ame	vorkflow A vert a ML string Process Desig	ner Process Pr 7 of 7+	operties <mark>Y Process</mark>	Simulator			0	-
It is a sample we process that conv account Record X Il Processes I Query arme ccount Message	vorkflow /ert a ML strina Process Desig I I I - Data Type $\rightleftharpoons$	ner Process Pr 7 of 7+	operties <mark>Y Process</mark>	Simulator			0	-
escription: This is a sample w process that conv account Record X II Processes II (Query) ame ccount Message ccount XML	vorkflow vert a ML strina Process Desig 1 - Data Type Hierarchy	ner Process Pr 7 of 7+	operties <mark>Y Process</mark>	Simulator			0	2
Description: This is a sample we process that convergences that c	vorkflow vert a ML strina Process Design I I I I I I Data Type Hierarchy String	ner Process Pr 7 of 7+	operties <mark>Y Process</mark>	Simulator			0	-
Description: This is a sample we process that conv account Record X III Processes (Query) arme (Query) arme (Query) arme (Count XML) ror Code ror Message	vorkflow vert a ML strina Process Desig I I I I I I Data Type Hierarchy String	ner) Process Pr 7 of 7+ Default String true	operties <mark>Y Process</mark>	Simulator			0	Ŧ
In Progress Description: This is a sample we process that count Record X III Processes Count Record X III Processes Count Message Count XML mor Code Count XML mor Code ScapeNames tipict Id Idebel Operation Ob	vorkflow ert a ML string Process Design I I I I I I I I I I I I I I I I I I I	ner Process Pr 7 of 7+ Default String	operties <mark>Y Process</mark>	Simulator			0	7

Figure A–9 Process Properties Tab of the Workflow Process Window

1. On the Process Properties tab of the Workflow Process window, define the Account message and Account XML process properties, as shown in Figure A–9.

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.

As shown in Figure A–10, the following is an example of a Siebel Workflow Administration window.

http://ariba01/o	callcenter/start	swe?SWEFrame=t	obswcswcapp	erstreeoune-ree_a					
Address 🙋 http://	ariba01/callcenter/	start.swe						•	rd Go 🔳
File Edit View	Favorites Too	ols Help	$   \Leftarrow \bullet \Rightarrow \cdot$	🛛 🔄 🖄 🔍	🖻 🎯 🕹 🖨				Link
File Edit Vie	w Help							powered by S	
ome Accounts		louseholds Emp	Invees Service	Assets Order	s Campaigns	Opportunities	Quotes Communicat	tions ) SmartScripts	-
Show: Workflow F		History: 🗸 🖕		House or us	o cumpugno	opportunities	Queries: All F		
,		1 1	· ] <u> </u>				· ,		
Business Servi									
	(Return To Des								
*Name:			ss Object:		Business Service:		Created By: SADMIN		
Get New Account		Accoun	π		EAI Siebel Adapter		1		
Workflow Proces Export Account (1		*Type:	ss Service	-	Query		*Created: 7/17/2002 4:54	21 PM	
,	nie transport)	Dusines	SS GELAICE	<u> </u>	( add y		1/1//2002 4.34	.21 PM 🔤	
Description:									
Input Argumen									
Input Argumen	nts								Ð
Query)	1.2	of 2 Value ⇔	Property Name (	Property Data Typ	Business Compo	Business Compo	o Comments $\stackrel{ riangle}{ oldsymbol{ abla}}$		Ŧ
Det Argument	<b>(1)</b> 1-2 Туре ⊖		Property Name 3	Property Data Ty	Business Compo	Business Comp	o Comments $\Leftrightarrow$		<b>P</b>
Query Input Argument Output Integration O	<b>(1)</b> 1-2 Туре ⊖	Value 🚔 Sample Account	Property Name	Property Data Typ	Business Compo	Business Comp	o Comments $\ominus$		8
Query Input Argument Output Integration O	Type 🔶	Value 🚔 Sample Account			a Business Compo	Business Comp	o Comments 🔶		•
Query nput Argument Dutput Integration O	Type 🔶	Value 🚔 Sample Account			a Business Compo	Business Comp	o Comments 🔶		•
Query nput Argument Dutput Integration O	Type 🔶	Value 🚔 Sample Account			1 Business Compo	Business Comp	o Comments \ominus		<b>()</b>
Query nput Argument Dutput Integration O	Type 🔶	Value 🚔 Sample Account			Business Compo	Business Compe	o Comments \ominus		<b>(</b>
Query nput Argument Dutput Integration O	Type 🔶	Value 🚔 Sample Account			Business Compo	Business Compo	o Comments 🤤		<b>(</b>
Query nput Argument Dutput Integration O Object Id	Type Literal Process Property	Value 🚔 Sample Account			Business Compo	Business Comp	Comments ⇔		<b>(</b>
Query nput Argument Dutput Integration O Object Id	Type Literal Process Property	Value ⇔ Sample Account			Business Compo	Business Comp	o Comments ⇔		•
Query nput Argument Duput Integration O Dipiect Id	Type Literal Process Property ents	Value ⇔ Sample Account	Object Id				o Comments ⇔		
Query nput Argument Dutput Integration O Diplect Id  Output Argum  Query Property Name	Type $\Leftrightarrow$ Literal Process Property	Value Sample Account	Object Id	String			o Comments \ominus		
Cutput Argument Cutput Integration O Disject Id Cutput Argum Cutput A	Type $\Leftrightarrow$ Literal Process Property	Value Sample Account	Object Id Output Argumen	String			Comments ⇔		
Curry Input Argument Output Integration O Dipiect Id Curry Curry Property Name Account Message	Type $\Leftrightarrow$ Literal Process Property	Value Sample Account	Object Id Output Argumen	String			Comments ⇔		<b>(</b>
Cutput Argument Output Integration O Object Id  Output Argum Cutput Argum Cutput Argum Cutput Argum Argum Argum Cutput Ar	Type $\Leftrightarrow$ Literal Process Property	Value Sample Account	Object Id Output Argumen	String			o Comments \ominus		(F)
Cutput Argument Cutput Integration O Object Id Output Argume Cutput Argume Cutput Argume Account Message Done	Type $\ominus$ Literal Process Property ants Type $\ominus$ Output Argument	Value Sample Account	Object Id Output Argumen Siebel Message	String			o Comments \ominus	で で し に に し に に し に に し に に し で に し で し で し で し で し で し で し で し で し で し で し で し つ し で し つ し で し つ つ つ し つ つ つ つ つ し つ つ つ つ つ つ つ つ つ つ つ つ つ	C of Inst

Figure A–10 Siebel Workflow Administration Window

**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.

Address	
File Edit View Favorites Tools Help 🛛 🖓 🖓 🔇	▼ ∂ <sup>2</sup> G0
File Edit View Help	powarad by SIEBEL aBusiness
lome Accounts Contacts Households Employees Service Assets Order	rs Campaigns Opportunities Quotes Communications SmartScripts Product
Show: Workflow Processes 💌 History: 🗸 🔶 🔬	Queries: All Processes
Business Service	
Query (Return To Designer) 1 of 1+	
*Name: Business Object:	Business Service: Created By:
Convert Account Data to XML Account	EAI XML Converter SADMIN
Workflow Process: *Type:	Method: *Created:
Export Account (File Transport) Business Service	Integration Object Hierarchy to ) 🔤 7/17/2002 5:01:11 PM 🗮
Description:	
Input Arguments	( <del>)</del>
Input Argument Type 🚔 Value 🚔 Property Name 🗧 Property Data Typ	p Business Compo Business Compo Comments 😓
Siebel Message Process Property Account Message Hierarchy	
Siebel Message Process Property Account Message Hierarchy	
Slebel Message Process Property Account Message Hierarchy	
Slebel Message Process Property Account Message Hierarchy	
Slebel Message Process Property Account Message Hierarchy	
Slebel Message Process Property Account Message Hierarchy	
Output Arguments	
Output Arguments	
Output Arguments       Image: Cuery Image: C	
Output Arguments       Image: Comparison of the second	
Output Arguments       Image: Course of the second sec	o Business Compo Comments 🚔
Output Arguments         Image: Cuery I	o Business Compo Comments 🔶
Output Arguments       Image: Cuery Image: C	o Business Compo Comments 🚔

Figure A–11 Creation of an EAI XML Converter

4. As shown in Figure A-11, 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=to	pswesweapp	&SWECount=1&_	sn=!1.a44.4d1a.3d4	7fc - Microsoft Inte	ernet Explorer		_ 8
Address 🙋 http://	/ariba01/callcenter/s	tart.swe						- 0	Go 📑
File Edit View	Favorites Too	ls Help	$   \Leftarrow \star \Rightarrow \star$	o 🗈 🖆 🔕	🖻 🚳 🖏 🎒	I 8 8			Links
File Edit Vie	sw Help							powered by SI	EBEL Business
lome Account	s Contacts H	louseholds Empl	oyees Service	Assets Orde	rs Campaigns	Opportunities Qu	otes Communications S	martScripts	Product
Show: Workflow	Processes 💌	History: 🗸 😓	⇒   🍝				Queries: All Processes		- J #
	_								
Business Servi	Return To Des	ioner) 3 of 3+							
*Name:		Busines	s Object:		Business Service:		Created By:		
Send Account Da	ta	Account			EAI File Transport		SADMIN		
, Workflow Proce	ss:	*Type:			Method:		, *Created:		
Export Account (		Busines:	s Service	•	Send		7/17/2002 4:54:21 PM	8	
Description:		,			,		,		
1									
Input Argumer	nts								
C Query		of 2							3
Input Argument	Туре 🚔	Value $\stackrel{ riangle}{\bigtriangledown}$	Property Name	Property Data Ty	p Business Compo	Business Compo C	omments $\stackrel{ riangle}{\bigtriangledown}$		
Message Text	Process Property		Account XML	String					
ile Name	Literal	E: VFileTransportFile:	5						
	_								
Output Argum		ecords							
						^			Ð
Property Name 🗧	Туре ⇔	Value 🚔	Output Argumen	t Business Comp	o Business Compo	Comments 🚔			
									🗋 0 of (
Done								🔠 Local intrane	
	to://ariba01/call	en 🚟 Paint Shop	Pro I	Paint Shop Pro	1		, , , ,		3:09 PM
iscare je nee	cp.//aribao1/can	Chine Shop		and shop the				-0 A	3.09 FI

Figure A–12 File Transport for the EAI XML Converter Business Service

5. As shown in Figure A-12, 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:

File Edit Vie Iome Accounts Show: Workflow P rocess:								
Show: Workflow F	s Contacts H							powered by SIEBEL eBusiness
			loyees Service	Assets Orde	ers Campaigns Opp	ortunities	Quotes Communications	SmartScripts Produ
ocess:	Processes 🗾	History:+ 🔶	-⇒ ] ≝				Queries: All Process	ies 🔽
Workflow Proc	cess							
	- I 💽 🗋 1 d	if 4						
Name:		Group:			Persistence Frequenc	y:	Created By:	
Export Account - I	HTTP	Sample		•		•	SADMIN	
usiness Object:		Activati	on Date/Time:		Persistence Level:		*Created:	
Account	1	6/19/20	IO2 3:20:00 PM	<b>3</b>		•	7/18/2002 2:12:01 PM	
Status:		Expirati	on Date/Time:		Error Process Name:		Version:	
In Progress								
This is a sample v process that send	ds an XML 🔤			23		E	0	
This is a sample w process that send string for an emplo III Processes	workflow ds an XML ovee to an Process Design		perties <sup>*</sup> Process	E Simulator	[	6	0	P
This is a sample w process that send string for an emplo <b>III Processes</b>	workflow ds an XML ovee to an Process Design	of 6	perties Process		Susiness Compo Virt		0 Comments 🚔	3
This is a sample w process that send string for an emplo string for an emplo string for an employ ane ane	vorkflow ds an XML lovee to an Process Design   ( ) ▶ 1 - 6	of 6		Simulator	Business Compo Virt			Ŧ
This is a sample w process that send string for an emplo ill Processes ill Processes ill Query arme ccount Message	workflow ds an XML lovee to an Process Design Coress Design 1 - E Data Type $\stackrel{\frown}{\hookrightarrow}$	of 6		Simulator	Business Compo Virt			Ŧ
This is a sample w process that send string for an emolo II Processes II (Query) arme ccount Message ccount XML ror Code	Averkflow ds an XML ovee to an Process Design I I I - E Data Type Hierarchy String	of 6		Simulator	Business Compo Virt			Ð
This is a sample w process that send string for an emolo II Processes (II) Query arme coount Message coount XML ror Code ror Message	workflow ds an XML voree to an Process Design () ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) )	Default String		Simulator	Business Compo Virt			9
∎▼   Query ame 🚔	vorkflow ds an XML vovee to an Process Design I I I - € Data Type Hierarchy String String String	of 6		Simulator	Business Compo Virt			Ţ

Figure A–13 Process Properties Tab of the Siebel Workflow Process Window

**1.** As shown in Figure A–13, 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.

ddress 🙋 http://ariba01/callcente								- 4	r∂ Go
File Edit View Favorites T	oois Help	$] \leftarrow \cdot \rightarrow \cdot$		🖻 🎯 🖪• 🖉					Ju
File Edit View Help								powered by S	eBusines
ome Accounts Contacts	Households Emp	oloyees Service	Assets Order	rs Campaigns	Opportunities	Quotes Comn	nunications () S	SmartScripts	Prod
Show: Workflow Processes	📔 🛛 History: 🗸 👍					Queries	S: All Processes	:	•
Business Service									
	esigner) 2 of 2+								
Name:	Busine	ss Object:		Business Service:		Created	1 Bv:		
Get New Account	Accour			EAI Siebel Adapter		SADMIN			
Vorkflow Process:	*Туре:			Method:		*Create	ed:		
Export Account - HTTP	Busine	ss Service	-	Query		7/18/20	02 2:12:02 PM		
escription:									
nput Arguments									
	2 of 2								Œ
	2 of 2 Value 🚔	Property Name (	Property Data Ty	p Business Compo	Business Compo	o Comments 🚔			G
Query     Image: Description       put Argument     Type $\Leftrightarrow$		Property Name	Property Data Ty	p Business Compo	Business Compo	o Comments 🔶		-	G
Image: Constraint of the second sec	Value 🚔 Sample Account	Property Name 3	Property Data Ty	p Business Compo	Business Compo	o Comments 🚔			G
Image: Constraint of the second sec	Value 🚔 Sample Account			p Business Compo	Business Compo	o Comments 🚔			E
Image: Constraint of the second sec	Value 🚔 Sample Account			p Business Compo	Business Compo	o Comments 🚔			Ŧ
Image: Constraint of the second se	Value 🚔 Sample Account			p Business Compo	Business Compo	D Comments 🚔			E
Image: Constraint of the second se	Value 🚔 Sample Account			p Business Compo	Business Compo	o Comments ⇔			Ŧ
Image: Constraint of the second se	Value 🚔 Sample Account			p Business Compo	Business Compo	Comments 🤤			E
put Argument Type utput Integration O Literal bject ld Process Proper Dutput Arguments	Value ⊖ Sample Account Y			p Business Compo	Business Compo	Comments 🤤			
	Value 🚔 Sample Account			p Business Compo	Business Compo	D Comments 🔶			
	Value ⊖ Sample Account Y	Object Id	String	p Business Compo		Comments 🚔			
	Value $\ominus$ Sample Account y 1 of 1 Value $\ominus$	Object Id Output Argumer	String			Commente 🤤			G
	Value $\ominus$ Sample Account y 1 of 1 Value $\ominus$	Object Id	String			o Commente 🤤			
	Value $\ominus$ Sample Account y 1 of 1 Value $\ominus$	Object Id Output Argumer	String			Comments 🤤			

Figure A–14 Siebel Workflow Administration Window

**3.** As shown in Figure A–14, 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.

	ariba01/callcenter/s	car crowe						▼ (∂°G0
ile Edit View	Favorites Tool	s Help	+ - + -	🔊 🔹 🖓	Q 🖬 🧭 🗳 🗗 🤅	3 8		Li
File Edit Vie	ew Help						C	iowared by SIEBEL
me Accounts	s Contacts H	ouseholds Em	ployees Service	Assets O	rders Campaigns Oppor	tunities Qu	otes Communications Sma	artScripts Prod
how: Workflow	Processes 💌	History: 🗸 🤞	⊨⇒   <u>‰</u>				Queries: All Processes	•
,	_						,	
lusiness Servi	ice							
💷 (Query)	(Return To Desi	gner) 3 of 3+						
Name:		Busine	ess Object:		Business Service:		Created By:	
Send - HTTP		Accou	unt .		EAI HTTP Transport		SADMIN	
orkflow Proce	ss:	*Type:			, Method:		*Created:	
Export Account -			ess Service	-	Send	1	7/18/2002 2:12:02 PM	
		,			,		,	
his sample work ITTP Transport fo communication w	or ith BEA							
This sample work HTTP Transport for communication w nput Argumen	or ith BEA		Property Name	<sup>2</sup> Property Data	a Tar Rusiness Compo Busin	ess Compo C	amments $ riangle$	Ŧ
This sample work HTTP Transport for communication w <b>put Argumen</b> <b>I</b> Query <b>put Argument</b>	or ith BEA 1-3 Type	of 3 Value 🚔		Y	a Typ Business Compo Busin	ess Compo C	omments 🚔	7
This sample work HTTP Transport for communication w <b>put Argumen</b> <b>I</b> Query <b>put Argument</b> essage Text	or ith BEA 1-3 Type Process Property	Value 🚔	Property Name Account XML	Property Data	a Typ Business Compo Busin	ess Compo C	omments $\stackrel{\triangle}{\bigtriangledown}$	Ŧ
It is sample work ITTP Transport for communication work ITTP Transport for communication work It Query Put Argument assage Text aquest Method equest URL Temple	nts Type $\Leftrightarrow$ Process Property Literal		Account XML	Y	a Typ Business Compo Busini	ess Compo C	omments 🔶	7
This sample work ITTP Transport for communication wo opput Argument intervention work and the second put Argument sesage Text inquest Wethod inquest URL Temple	r th BEA 1-3 Type Process Property Literal	Value 🔶 POST	Account XML	Y	a Typ Business Compo Busin	ess Compo C	omments 🔶	Ŧ
This sample work HTTP Transport for communication w mput Argument event Argument essage Text equest Method	r th BEA 1-3 Type Process Property Literal	Value 🔶 POST	Account XML	Y	a Typ Business Compo Busini	ess Compo C	omments 🔶	Ŧ
This sample work TTP Transport froormunication w put Argument (Query) but Argument ssage Text quest Method quest URL Templ utput Argum	or the BEA.	Value POST http://172.19.250	Account XML	String	a Typ Business Compo Busine mpo Business Compo Comm		omments 🔶	

Figure A–15 EAI XML Converter Business Converter Business Service

**5.** Define an EAI HTTP Transport Business Service step and call it Send - HTTP, as shown in Figure A-15.

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.

Figure A–16 shows a sample Siebel Workflow Administration window.

		=1&_sn=!1.a44.4d1a.3d47fc - Microsoft Inte	rnet Explorer	_ 8
Address 🙋 http://ariba01/callcenter/sta			•	
File Edit View Favorites Tools	Help $  \leftarrow \bullet \rightarrow \odot \bigcirc \bigcirc $	Q B 3 B- 3 I B 2		Links
File Edit View Help			powered b	
	useholds Employees Service Assets	Orders Campaigns Opportunities Qu	otes Communications SmartScri	
Show: Workflow Processes	History:- ↓ ↓	errerer compagne opportanties da	Queries: All Processes	
Workflow Process			· .	
Query 6 of 2	0+			
*Name:	Group:	Persistence Frequency:	Created By:	
Import Account - MQSeries	Sample		SADMIN	
Business Object:	Activation Date/Time:	Persistence Level:	*Created:	
Account	10/17/2001 11:28:00 AM		6/25/2002 11:11:59 AM	
*Status:	Expiration Date/Time:	Error Process Name:	Version:	
In Progress		<b>E</b>	2	
Description:				
This is a sample workflow				
process that receives an XML string from an IBM MQSeries				
All Processes Process Designer	Process Properties Process Simulator			
I of 1+ Designer ▼				
Palette				-
Palette				
Palette				
Palette				
Polette				
Palette				
Palette		GetXML tom Update	End D	
Polette Start Decision Point Business Sub Service Process	Start - Default - Receive	Get XML from Update to Internation	End	
Palette	Start -Default - Receive	MQ & Convert X Account		
Palette	Start H Default K Receive	MQ & Convert X Account		▲ ● ● ● ● ●
Palette		MQ & Convert X Account	End End	tranet

Figure A–16 Siebel Workflow Administration Window

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:

File Edit Vie ome Accounts Show: Workflow P							pew	
Show: Workflow F	s 🛛 Contacts 🗍 I	louseholds Emp	lovees Service	Assets Orde	ers Campaigns Opp	ortunities		Scripts Prod
,		History: 🗸 🤞					Queries: All Processes	-
ocess:		1					,	
Workflow Proc								
Cuery)		if 20+						
<u> </u>					Dereistopee Frequence		Created Da	
Name: Import Account - N	MOSeries	Group: Sample		-	Persistence Frequency	<u>,</u> ▼	Created By: SADMIN	_
		,	on Date/Time:		Persistence Level:	-		
usiness Object: Account	:		001 11:28:00 AM		F CI SISICIICE LEVEI:	-	*Created: 6/25/2002 11:11:59 AM	_
		,	on Date/Time:		Error Process Name:	-	,	
Status:		Explian					Version:	
escription: This is a sample w						E.	2	
Description: This is a sample w process that rece strinα from an IBM II Processes	vorkflow eives an XML 1 MQSeries Process Design		perties <sup>(</sup> Process	E Simulator		2	2	
lescription: This is a sample w process that rece strinα from an IBM III Processes	workflow eives an XML 1 MQSeries	of 7+	perties Process	Simulator	Business Compo Virte		2 Comments 🚔	<b>P</b>
escription: This is a sample w process that rece string from an IBM II Processes IV Query ame	workflow ives an XML 1 MQSeries Process Design 1 - 7	of 7+		Simulator				Ŧ
Itescription: This is a sample we process that recession from an IBM III Processes III Query IIII Query IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	workflow eives an XML MQSeries Process Design T - 7 Data Type	of 7+		Simulator				7
arne 🚔	workflow ives an XML 1 MQSeries Process Design 1 1 - 7 Data Type Hierarchy	of 7+		Simulator				7
In the secret process that rece process that rece string from an IBM III Processes (Query) arme (Query) arme (Query) arme (Count XML roor Code roor Message	vorkflow itves an XML MQSeries ♥ Process Design I ♥ I - 7 Data Type ↔ Hierarchy String	of 7+		Simulator				Ŧ
Description: This is a sample we process that recess that recess that recess that recessing from an IBM III Processes (III) (Query) arme	workflow wes an XML MQSeries Process Design ( ) 1 - 7 Data Type Hierarchy String String String	of 7+		Simulator				P
Description: This is a sample we process that recession from an IBM III Processes III Processes III (Query) arme ♠ ccount ML ror Code ror Message	workflow ivves an XML MQSeries Process Design () ) 1-7 Data Type Hierarchy String String	of 7+ Default String 🗧		Simulator				P

Figure A–17 Process Properties Tab of the Siebel Workflow Process Window

1. In the Process Properties tab of the Workflow Process window, define the Account message and Account XML process properties, as shown in Figure A–17.

Account message contains the Siebel Account data in hierarchical format.

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

idress 🙋 http://ariba01/callcenter/s	start cuia							- 6	Go
File Edit View Favorites Too				🖻 🎯 🖏 🕘 🛙				<u> </u>	- GO
nie Eulit view Pavorites 100	iis Help		<u>n</u> n n n		yez				Ju
File Edit View Help								(powered by SI	eBusiness
ome Accounts Contacts H	louseholds Em	ployees Service	Assets Order	s Campaigns O	pportunities	Quotes Comm	unications Sr	martScripts	Prod
ihow: Workflow Processes 💌	History: 🗸 🤞	⊨⇒   🔏				Queries:	All Processes		•
Business Service		-							
(IT) Query) (Return To Des	igner) 2 of 2+								
Name:	Busine	ss Object:		Business Service:		Created	Bec		
Receive	Accou			EAI MQSeries Server	Transport 🔛	SADMIN	.,.		
forkflow Process:	*Type:			, Method:		*Create	j:		
nport Account - MQSeries	Busine	iss Service	•	Receive	2	6/25/200	2 11:11:59 AM	8	
escription:									
put Arguments									
	of 2								Ŧ
💽   Query   💽 1-2	of 2 Value 🚔	Property Name	Property Data Typ	p Business Compo B	usiness Compo	Comments 🚔			Ŧ
Image: Output Argument     Type		Property Name	Property Data Ty	p Business Compo B	usiness Compo	Comments 🚔			Ŧ
Query     Query     I     Type     sical Queue Narr Literal	Value 🚔	Property Name	Property Data Ty	p Business Compo B	usiness Compo	Comments 🚔			E
Query     Query     I     Type     sical Queue Narr Literal	Value 🔶 ARIBA01.IN	Property Name	e Property Data Ty	p Business Compo B	usiness Compo	Comments 🚔			Ŧ
Query     Query     I     Type     sical Queue Narr Literal	Value 🔶 ARIBA01.IN	Property Name	Property Data Ty	p Business Compo B	usiness Compc	Comments ᇢ			G
Query     Query     Type     Scal Queue Narr Literal	Value 🔶 ARIBA01.IN	Property Name	Property Data Ty	p Business Compo B	usiness Compo	Comments ᇢ			E
Query     Query     I     Type     sical Queue Narr Literal	Value 🔶 ARIBA01.IN	Property Name	Property Data Ty	p Business Compo B	usiness Compo	Comments 🚔			Ŧ
Query     Query     I     Type     sical Queue Narr Literal	Value 🔶 ARIBA01.IN	Property Name	Property Data Ty	p Business Compo B	usiness Compo	Comments 🚔			Ŧ
	Value 🔶 ARIBA01.IN	Property Name	Property Data Ty	p Business Compo B	usiness Compo	Comments ᇢ			T
	Value 🔶 ARIBA01 IN GM_ARIBA01	Property Name	Property Data Ty	p Business Compo B	usiness Compo	Comments 🔶			
	Value ARIBA01.IN GM_ARIBA01					Comments 🚔			
	Value 🔶 ARIBA01 IN GM_ARIBA01	Output Argumer		p Business Compo B		Comments 🔶			
	Value ARIBA01.IN GM_ARIBA01					Comments 🔶			
	Value ARIBA01.IN GM_ARIBA01	Output Argumer				Comments \ominus			
	Value ARIBA01.IN GM_ARIBA01	Output Argumer				Comments 🔶			

Figure A–18 Creation of an EAI MQ Series Server Transport Business Service

2. Define an EAI MQSeries Server Transport Business Service step and call it Receive, as shown in Figure A–18.

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 d	use2SWEErame1	top. swe. sweapp	8.SWECoupt=18.	sn=11 a44 4d1a 3d	17fc - Microsoft In	ternet Evolorer	_ 8
	ariba01/callcenter/s		-copswesweapp	KSWECOUNC-IK_S	sn-:1.a44.4u1a.Ju	Friciosoft In	icemec capiorei	- @Go
,	Favorites Tool		(+ • ⇒ •	A      A	n 3 B- 2			
File Edit Vie			ju s s				(	powered by SIEBEL eBusiness
lome Accounts		ouseholds ) Err	ployees Service	Assets Order	s Campaigns	Opportunities 0	Quotes Communications Sn	nartScripts Produc
Show: Workflow		History: - <		Theorem of the	o outipaigno	opportantido	Queries: All Processes	
Business Servi	ice (Return To Desi	anar) 1 of 1+						
<u> </u>	(Retain to besi	_	ess Object:		Business Service		Created By:	
*Name: Get XML from MQ	& Convert to Inte	Accou			EAI XML Converter		SADMIN	
, Workflow Proce:	ss:	*Туре	:		, Method:		*Created:	
Import Account - I	MQSeries	Busin	ess Service	-	XML to Property Se	t 🖬	6/25/2002 11:11:59 AM	<b>H</b>
Input Argumer								
	1-1			4			Â	<b>a</b>
nput Argument	v	Value $\stackrel{\bigtriangleup}{\bigtriangledown}$	Property Name	1	p Business Compo	Business Compo		
KML Document	Process Property		ReceiveXML	String				
0								
Output Argum	ents							Ŧ
	I 🗶 🕨 1-1	of 1 Value 😓	Output Argumer	nt Business Compo	o Business Compo	Comments $\stackrel{\triangle}{\bigtriangledown}$		Ŧ
Correction (Query)	I 🗶 🕨 1-1		Output Argumer Siebel Message	nt Business Compo	o Business Compo	Comments $\stackrel{\triangle}{\bigtriangledown}$		7
Correction (Query)	Type ⊖			tt Business Compo	o Business Compa	Comments $\stackrel{\triangle}{\bigtriangledown}$		
Courty Name	Type ⊖			rt Business Compo	o Business Compa	Comments 🚔	(	0 of
Count Message	Type ⊖	Value	Siebel Message	tt Business Compo	o Business Compa	Comments ⇔		

Figure A–19 Configuration of an EAI XML Converter Business Service

3. Define an EAI XML Converter Business Service step and call it Get XML from MQ & Convert to XML, as shown in Figure A-19.

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, Address 🙋 http:/	/callcenter/start.	and a CHIEF.						
Address 🤌 http:/			opswesweapp	&SWECount=1&_sn	=!1.a44.4d1a.3d4	7fc - Microsoft Inter	net Explorer	
	//ariba01/callcenter/s	start.swe	10					▼ 🖓 Go
File Edit View	v Favorites Too	ls Help		o 🗈 🖓 🕯	a 🎯 🗗 🎒	e e s		Lin
File Edit Vi	iew Help						C	owared by SIEBEL eBusiness
ome Account	ts Contacts H	louseholds Emp	loyees Service	Assets Orders	Campaigns	Opportunities Quo	tes Communications Sma	artScripts Produ
how: Workflow	Processes 💌	History:• 👍	•=>   💰				Queries: All Processes	
ep:								
Business Serv (IV) (Query)		igner) 3 of 3+						
Name:			ss Object:		Business Service:		Created By:	
Update Account		Accour	ıt		EAI Siebel Adapter	2	SADMIN	
Vorkflow Proce Import Account -		*Type:	ss Service		Method: Insert or Update		*Created: 6/25/2002 11:12:00 AM	
	waseries	Dusine:	ss Service		insert of opdate		0/25/2002 11.12.00 AM	
Description:								
	un to							
		of 1						Ð
Query Query	) 🔳 💽 1-1		Property Name	Property Data Typ	Rusiness Compo	Business Compo Cr	mments 🚔	Ŧ
Deut Argument	)   <b>( )</b> 1-1 Type ⊖	of 1 Value 🚔		Property Data Typ	Business Compo I	Business Compo Co	mments $\stackrel{\triangle}{\bigtriangledown}$	7
Deut Argument	) 🔳 💽 1-1		Property Name	M	Business Compo I	Business Compo Ca	mments $\stackrel{ riangle}{\bigtriangledown}$	•
Deut Argument	)   <b>( )</b> 1-1 Type ⊖			M	Business Compo	Business Compo Cc	mments $\stackrel{\triangle}{\bigtriangledown}$	<b>(</b>
Dut Argument	)   <b>( )</b> 1-1 Type ⊖			M	Business Compo	Business Compo Co	mments $\bigtriangledown$	<b>(7)</b>
Dut Argument	)   <b>( )</b> 1-1 Type ⊖			M	Business Compo	Business Compo Co	mments $\stackrel{\triangle}{\bigtriangledown}$	9
I Query Query put Argument	)   <b>( )</b> 1-1 Type ⊖			M	Business Compo	Business Compo Co	omments ⇔	<b>(7)</b>
Deut Argument	)   <b>( )</b> 1-1 Type ⊖			M	Business Compo	Business Compo Co	mments	<b>(7)</b>
Query     Query     put Argument iebel Message	Process Property			M	Business Compo	Business Compo Cc	mments $\bigtriangledown$	
The second secon	Process Property			M	Business Compo	Business Compo Cc	µnments ⇔	(T)
Query put Argument iebel Message Output Argum Qutput Argum Query Query	Type Process Property	Value	Account Message	M			mments ⇔	
Query put Argument iebel Message	Type Process Property	Value 🔶	Account Message	Hierarchy			mments	
Query put Argument iebel Message Output Argum Query roperty Name	Type Process Property	Value 🔶	Account Message	Hierarchy			mments	(7)
Query aput Argument iebel Message Output Argum     Query roperty Name	Type Process Property	Value 🔶	Account Message	Hierarchy				(P) 001
Property Name	Internet Type Process Property	Value 🔶	Account Message	Hierarchy				(7)

Figure A–20 Update Account Configuration for the EAI XML Converter that Uses MQ Series Transport

4. Define an EAI Siebel Adapter Business Service step and call it Update Account, as shown in Figure A-20.

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, as shown in Figure A–21.

<pre>tess @ http://arbaDil/calcenter/start.owe</pre>	<pre>res @ http://arbotl/addente/start.swe</pre>	http://ariba01/callcenter/start.swe	?SWEFrame=top. swe. sweapp&SWECount=	18: sn=11.a44.4d1a.3d47fr - Microsoft Inte	rnet Explorer
In Edit Wew Pervintes Tools Help     In Edit Wew Help     In Accounts     Contracts     History:     In History:     In Processes     In Processes     In Processes     In Processes     In Processes        In Processes        In Processes        In Processes              In Processes                 In Processes                 In Processes             In Processes             In Processes                 In Processes <th>e Edt Wew Pavorites Tools Help +++++ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @</th> <th></th> <th></th> <th></th> <th></th>	e Edt Wew Pavorites Tools Help +++++ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @				
The Edit View Help The Edit View Help The Accounts Contacts Households Employees Service Assets Orders Campaigns Opportunities Quotes Communications SmartScript Process Workflow Processes I History. I I of 22 Name: Service Name: Service Nam	ie Edt Vew Help (Monthow Processes ) History, ) ) est: Created By: Sample workflow Processes ) 10/2 Kanne: Sample workflow a service Manage workflow a courd Record Mill, and ) Processes Process Decimient Process Simulator Process Decimient Courd Laborator Data (Time: Sample workflow a Sample workflow a			0 6 3 5, 4 7 7 9 9	
Accounts Contacts Householdis Employees Service Assets Orders Campaigns Opportunities Outoits Communications ShartScripts Processes   Cess Isitory + + + + + + + + + + + + + + + + + + +	Recounts Contacts Households Employees Service Assets Orders Campaigns Opportunities Outries: StantScripts Producesses   Workflow Processes InstantScripts Producesses InstantScripts Producesses InstantScripts Producesses   Service Total Forsonous Instant Instant InstantScripts Producesses   Service Service Stat Persistence Instant InstantScripts Producesses   Processes Processes Processes Producess InstantScripts Producesses   Processes Processes Processes Processes Instant   Processes Processes Processes Processes Instant   Processes Processes Processes Processes Instant   Processes Processes Processes Processes Processes   Processes Process Processes Processes Processes   Stat Default Processes Processes Processes   Stat Default Record Record Mark Account Instant   Burness Sub Stat Default Convert from Update or   Stat Default Record Record Mark Account Convert from Update or   One Note Note Account Account Account				
Nove: Witchflow Processes     Image:     Image: <td>Www.futur.flow.Processes History.   dest   Outries: Al Processes   created By:   Sample     Persistence Frequency:   Created By:   SaDNN   Created By:   Persistence Level:   SaDNN   Created By: SaDNN Created By: Created By: SaDNN Persistence Level:   Triflaooze Statis Am   Processes Process Designer:   Process Simulator   Status:   Process Designer:   Process Designer:   Process Designer:   Process Simulator   Difference: Satistic Default:   Status:   Process Designer: Process Simulator Difference: <p< td=""><td>File Edit View Help</td><td></td><td></td><td>powered by SIEBEI aBusines</td></p<></td>	Www.futur.flow.Processes History.   dest   Outries: Al Processes   created By:   Sample     Persistence Frequency:   Created By:   SaDNN   Created By:   Persistence Level:   SaDNN   Created By: SaDNN Created By: Created By: SaDNN Persistence Level:   Triflaooze Statis Am   Processes Process Designer:   Process Simulator   Status:   Process Designer:   Process Designer:   Process Designer:   Process Simulator   Difference: Satistic Default:   Status:   Process Designer: Process Simulator Difference: <p< td=""><td>File Edit View Help</td><td></td><td></td><td>powered by SIEBEI aBusines</td></p<>	File Edit View Help			powered by SIEBEI aBusines
ces: VarKitow Process Workflow Process Workflow Process Workflow Process Warkflow Process Warkflow Process Warkflow Process Sample Control (Fie Transport) usiness Object: Account I I Sample Activation Date/Time: Status: Inforgress I I For Process Name: Status: Process Designer Process Properties Process Simulator Process Designer Process Properties Process Simulator Inforgers: Status: Process Designer Process Properties Process Simulator Process Designer Process Designer Process Simulator Status: St	cees: torkflow Process atame: atame: atame: bis as asople workflow regers: ccourt : ccourt : ccou	ome Accounts Contacts Hou	eholds Employees Service Assets (	Orders Campaigns Opportunities Que	otes Communications SmartScripts Pro
Number   Import Account (File Transport)   Name:   mort Account (File Transport)   Name:   Name: <td>Image: Stat: Stat:</td> <td>how: Workflow Processes 💌 📗</td> <td>History: 🗸 🔶 🗎 🕍</td> <td></td> <td>Queries: All Processes 🗾</td>	Image: Stat:	how: Workflow Processes 💌 📗	History: 🗸 🔶 🗎 🕍		Queries: All Processes 🗾
Image: Source   Image: Source   Sarrale   Sarrale   Status:   In Progress   In Progress   Image: Source   Bit source   Bit source   Image: Source   Image: Source   Status: In Progress   In Progress   Image: Source	Image: mont Account (File Transport)         issiness Object:         Sample         Branss Object:         Service:         Brinder Count (File Transport)         Status:         Brinder Count         Big a sample workflow         Secretion:         Big a sample workflow         Incount Record XML and         Process Designer         Process Designer         Process Designer         Process Designer         Process Designer         Point         Business Subs         Status:         Process Designer         Process Designer         Process Designer         Process Designer         Process Designer         Process Subs         Status:         Business Subs         Status:         Process         Status:	ocess:			
Name:   mport Account (File Transport)   usinese Object:   Account   Satus:   n Progress   In Progress	Iame:   mport Accourt (File Transport)   isness Object:   isocourt   isocourt<	Norkflow Process			
mport Account (File Transport) usinese Object: Activation Date/Time: Brif9/2002 32:0:00 PM Bit Status: n Progress scription: This is a sample workflow rocess that recives an Account Record XML and Processes Process Designer Process Properties Process Simulator Process Properties Process Simulator Process Properties Process Properties Process Properties Process Properties Process Properties Process Properties Process Properties Stat Process Properties Process Properties Process Process Properties Process Properties Process Process Properties Process Process Properties Process Process Properties Process Process Properties Process Process Process Properties Process Process Properties Process Process Properties Process Process Process Process Process Properties Process Process Process Process Properties Process Process Process Process Properties Process Process Proce	port Accourt (File Transport) sinese Object: accourt Activation Date/Time: Fror Process Name: Persistence Level: Fror Process Name: Biseription: biseription: bises sample workflow Fror Process Name: Differences	💷   Query)   < Ď 1 of 22			
Activation Date/Time:   Status:   n Progress   scount	Issiness Object:   account   is   iscount   is   is as sample workflow   is as sample workflow   is   is as sample workflow   is   is as sample workflow    Process Designer Process Designer Process Simulator  Process Designer Process Simulator  Process Designer I to fit    Process Designer Process Designer Convert from Update or Update o	Name:			
Account State: Progress State: Process Designer Process Properties Process Simulator Process Designer Process Designer Process Properties Process Simulator Processes Designer Process Designer Process Simulator Process Designer State Designer Process Properties Process Simulator Process Designer Converties Process Properties Process Simulator Process Designer Converties Process Properties Process Simulator Process Designer Converties Process Properties Process Simulator Process Designer Convert from Con	ccount is frighted to a second base of the second b				
Status: Expiration Date/Time:   Bill   Progress   escription:   This is a sample workflow:   occount Record XML and    Il Processe Designer Process Properties Process Simulator  Into 11 Designer Transport Process Properties Process Simulator  Stat:  Decision  Stat:  Decision  Forcess Designer Process Properties Process Simulator  The set of t	Construction				
n Progress	IProgress	_		,	,
escription: This is a sample workflow The review of the r	seription: This is a sample workflow Trocess that recives an Court Record XIL and Processes Process Designer Process Properties Process Simulator Platte Platte Platte Stat Decision Stat Deci				
This is a sample workflow arccess that recives an arccess that recives an arccess that recives an arccess Designer Process Properties Process Simulator Paleter Paleter Stat Designer Business Sub Service Process Stat Default Receive Account Data Account Data Done	his is a sample workflow rocess that recives an court Record XLB and Processes Process Designer Process Properties Process Simulator Point Designer T Stat Decision Business Sub Service Process Stat Default Receive Stat Default Receive Account Data Account Data MLL Account Court Record XLB ACCOUNT Account Data MLL ACCOUNT Convert from MLL ACCOUNT MLL ACCOUNT Convert from MLL ACCOUNT CONVERT CO	- <b>-</b>	,	1	
vocesses the recives an Account Record XML and IProcesses Process Designer Process Properties Process Simulator I 1 of 1+ Designer Palete Palete Stat Decision Business Sub Service Process Stat Update or Up	rocess that recives an coccourt Record XML and				
II Processes Percess Designer Process Properties Process Simulator  I 1 of 1   Point Point Business Sub Service Process Stat Defaul Account Data Account Data Convent from Update or Insett New End Convent from VML Account Data One Convent from VML Convent from V	Process Designer Process Designer Process Simulator  Process Designer Process Designer Process Simulator  Point Po	process that recives an 🔤			
I tott+       Designer ▼         Poletic       Image: Convert from Point Po	Palette Palette Point	Account Record XML and			
Palette       Image: Converting the system         Start       Decision Point         Business       Sub         Service       Process         Image: Convert from With a cocount       Image: Convert from With a cocount         None       Image: Convert from With a cocount	Pedete  Pedete  Stat  Decision  Point  Stat  Default  Receive  Account Data  Convert from  Vind  Convert f	Il Processes Process Designer	Process Properties Process Simulator		
Start Decision Point Business Sub Service Process Start Default Receive Account Data The Convert from Update or NML Account The Inset New Account Data The Convert from Update or NML Account The Convert from Update or Account Data The Convert from Update or Convert from Update or NML Account The Convert from Update or Convert from Update or Co	Stat Decision Point Business Sub Service Process Stat Default Receive Account Data Convert from ML Account Muset New Account Data Convert from ML Account Muset New Account Data				
Start Decision Point Business Sub Service Process Start Default Receive Account Data Tone	Stat Decision Point Business Sub Service Process Stat Default Receive Account Data Convert from ML Account Muset New Account Data Convert from ML Account Muset New Account Data				
Point Point Business Sub Service Process Start Default Receive Convert from Update or Insert New Account Data Torne Convert from Update or Convert from Update o	Point Point Business Sub Service Process Start Defaulte Receive Account Data Account Muture Account Ac	Palette			<b>_</b>
Point Point Business Sub Service Process Start Default Receive Convert from Update or Insert New Account Data Torne Convert from Update or Convert from Update o	Point Point Business Sub Service Process Start Defaulte Receive Account Data Account Muture Account Ac				
Business Sub Service Phocess Stat Default Account Data Onne	Business Sub Service Process Stat Default Account Data One				
Service Process	Service Process Start Default Account Data Multiple or Multiple or	Point			+++++++++++++++++++++++++++++++++++++++
Service Process	Service Process Start Default Account Data Multiple or Multiple or				
Service Process	Service Process Start Default Account Data Multiple or Multiple or	Business Sub			┼┽┽┽╷┽┽┽┽┽┽┽┽┽┽┽┽┽┿┿ <b>╌</b> ┛
Done	one	Service Process	Beceive		
Done Cocal intranet	one 🗮 Local intranet			XMI Insert New X	End
Done Cocal intranet	one 🗮 Local intranet		<del></del> /	<b>****</b>	
		lone			
	tarc     @ http://ariba01/calicen  = vaint Snop Pro	0.7			, , , , , , , , , , , , , , , , , , , ,

Figure A–21 Siebel Workflow Admininstration Window

To create a Siebel Workflow:

Figure A–22 Process Properties Tab of the Workflow Process Window

Address 🛃 http://ariba01/calkenter/sl File Edit View Favorites Tools File Edit View Help Home Accounts Contacts H Show: Workflow Processes		▌▟▎▓▆▝▓▏▙▖ᢖ▆▐▐		ିତେ 🚺
File Edit View Help forme Accounts Contacts H	s Help	0 4 Q 2 3 5 3 5 3 5 5	3	Links
ome Accounts Contacts H				LING
ome Accounts Contacts H			powered by S	SIEBEL
how: Workflow Processes 🔹		ssets Orders Campaigns Opportuniti		
	History:+ 😓 🗎 🛣		Queries: All Processes	- I (H
rocess:				
Workflow Process				
(IT) (Query) ((I)) 1 of	22			
*Name:	Group:	Persistence Frequency:	Created By:	
Import Account ( File Transport )	Sample	- , -	SADMIN	
Business Object:	Activation Date/Time: 6/19/2002 3:20:00 PM	Persistence Level:	*Created: 7/18/2002 8:41:15 AM	
Account 🔛				
Status:	Expiration Date/Time:	Error Process Name:	Version:	
In Progress 🔹				
Description: This is a sample workflow			0	
Description: This is a sample workflow A process that recives an Account Record XML and X All Processes Process Designment	er Process Properties Process Sim	8		
Description: This is a sample workflow A process that recives an A Account Record XML and A All Processes Process Design (UMERY) (UMERY) 1 - 7 (	er Process Properties Process Sim	B I I I I I I I I I I I I I I I I I I I	a. o	Ŧ
Image: Constraint of the second records that recives an executive constraint of the second records with and the second records with and the second records with and the second records with an executive constraint of the second records with a second	er Process Properties Process Sim of 7+ Default String $\Leftrightarrow$ Default Date $\Leftrightarrow$ Def	8	a. o	Ŧ
It is a sample workflow process that recives an Account Record XML and II Processes II Process Design Cuery C D 1 - 7 i ane ← Data Type ← ccount Message Hierarchy	er Process Properties Process Sim	B I I I I I I I I I I I I I I I I I I I	a. o	Ŧ
Description:     ▲       This is a sample workflow process that recives an Account Record XML and Account Record XML and .     ▲       II Processes     Process Design       II Processes     Data Type       Ccount Messege     Hierarchy       Ccount XML     String	er Process Properties Process Sim of 7+ Default String $\Leftrightarrow$ Default Date $\Leftrightarrow$ Def	B I I I I I I I I I I I I I I I I I I I	a. o	<b>P</b>
Il Processes Court Kesses Court Kesses Court Kesses Court Kesses Court Kesses Court Kall Court Court	er Process Properties Process Sim of 7+ Default String $\Leftrightarrow$ Default Date $\Leftrightarrow$ Def	B I I I I I I I I I I I I I I I I I I I	a. o	•
Description: This is a sample workflow process that recives an Account Record XML and II Processes Process Design III Processes Process Design IIII Processes Process Design IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	er Process Properties Process Sim of 7+ Default String ${}{\begin{smallmatrix}{c} \label{eq:process} Default Date \\ \end{smallmatrix} Default Date \\ smallmatri$	B I I I I I I I I I I I I I I I I I I I	a. o	7
Description: This is a sample workflow process that recives an Account Record XML and All Process Design (Wery) (Wery) 1-71 Harne Data Type ( bata Type (	er Process Properties Process Sin of 7+ Default String $\stackrel{<}{\frown}$ Default Date $\stackrel{<}{\bigcirc}$ Def	B I I I I I I I I I I I I I I I I I I I	a. o	<b></b>

1. In the Process Properties tab of the Workflow Process window, define the Account message and Account XML process properties, as shown in Figure A–22.

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 \_ 8 × ▼ @Go 🌆 Address 🛃 http://ariba01/callcenter/start.swe File Edit View Favorites Tools Help  $|++++\otimes \emptyset \land (Q) \cong (G) \square_{2} \oplus \boxtimes \square \square \square$ Links × powered by SIEBEL File Edit View Help Home Accounts Contacts Households Employees Service Assets Orders Campaigns SmartScripts Products Onnortunities Ouotes Communications Show: Workflow Processes 💽 | History:▼ 🔶 ➡ | 🛣 Queries: All Processes I 🛛 s Servic (Return To Designer) 2 of 2+ Business Object: Business Service: Created By: SADMIN \*Name: Account Receive Account Data EAI File Transport 1. Workflow Process: \*Type: Method: \*Created: 7/18/2002 8:41:18 AM Business Service 20 -Receive Description: Value 🚔 Property Name 🗧 Property Data Typ Business Compo Business Compo Comments 🚔 Input Argument Type 🗧 File Name Literal E:\FileTransportFiles\Account.xml 💷 | Query | 🚺 🕨 ;₽ Property Name 🗐 Type 🚔 Value 🚔 Output Argument Business Compo Business Compo Comments 🖨 Account XML Output Argum Message Text ▼ 🔳 🗋 0 of 0 🔠 Local intranet Done Start Dirbox - Microsoft Outlook 🔯 C:\bea 🖉 Siebel Call Center - Mi... 🔍 💓 🍕 🤱 🦷 7:17 PM

Figure A–23 EAI File Transport Business Service Step

2. Define an EAI FileTransport Business Service step and call it Receive Account Data, as shown in Figure A-23.

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.

ddress 🙆 http://	ariba01/callcenter/st	art.swe						• 6	ir Go
	Favorites Tools				🖻 🚳 🖪- 🎒				Lir
			- Dr						
File Edit Vie	w Help							powered by S	eBusiness
ome Account	s Contacts Ho		oloyees Service	Assets Order	rs Campaigns	Opportunities (	Quotes Communication	ns SmartScripts	Produ
how: Workflow	Processes 💌	History:+ 🔶	-⇒   ≝				Queries: All Proc	cesses	•
Business Serv	ice								
	(Return To Desig	mer) 1 of 1+							
Name:		Busine	ss Object:		Business Service:		Created By:		
Convert from XML	-	Accour	nt		EAI XML Converter	24	SADMIN		
/orkflow Proce	ss:	*Type:			Method:		*Created:		
nport Account (	File Transport )	Busines	ss Service	•	XML Document to In	tegration Ok 🔛	7/18/2002 8:41:15	AM 🔳	
escription:									
		1f 1							e
nput Argumer Ev (Query) put Argument	1-10	of 1 Value 🚔	Property Name 3	-Property Data Ty	p Business Compo	Business Compo	Comments $\stackrel{ riangle}{ op}$		9
🖃 (Query)	1-10		Property Name	Property Data Ty String	p Business Compo	Business Compo	Comments $\stackrel{\bigtriangleup}{\bigtriangledown}$		7
UR Argument	( ▲ ● 1-10 Type ⇔			×	p Business Compo	Business Compo	Comments $\stackrel{\triangle}{\bigtriangledown}$		Ŧ
ut Argument	( ▲ ● 1-10 Type ⇔			×	p Business Compo	Business Compo	Comments 🔶	_	Ŧ
ut Argument	( ▲ ● 1-10 Type ⇔			×	p Business Compo	Business Compo	Comments 🖧	-	7
ut Argument	( ▲ ● 1-10 Type ⇔			×	p Business Compo	Business Compo	Comments 🚔		Ŧ
Query     Query     Argument	Type       Process Property			×	r Business Compo	Business Compo	Comments 🚔		Ŧ
Query put Argument AL Document	Process Property	Value		×	r Business Compo	Business Compo	Comments 😅		
Query	Type Process Property	Value 😓	Account XML	String			Comments ⇔		•
Utput Argument	I to the second	Value	Account XML	String	p Business Compo o Business Compo		Comments 🔶		
Utput Argument	Type Process Property	Value 😓	Account XML	String			Comments 🔶		
Utput Argument	I to the second	Value 😓	Account XML	String			Comments		
Utput Argument	I to the second	Value 😓	Account XML	String			Comments ⇔		

Figure A–24 EAI XML Converter Business Service Step

**3.** Define an EAI XML Converter Business Service step and call it Convert from XML, as shown in Figure A-24.

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=I	:opswesweapp8	&SWECount <u>=18</u>	k_sn=!1.a44.4d1a.3d47fc	- Microsoft <u>Inte</u>	rnet Explor <u>er</u>			_ 8
Address 🙋 http://	/ariba01/callcenter/s	tart.swe							- (	⇒Go 🚺
File Edit View	Favorites Tool	ls Help	$4 \cdot \Rightarrow \cdot$	🛛 🕼 🕼 🔇	d 🖬 🧭 🖪 🗃 🖻	8				Link
			12						powered by S	IFREL)
File Edit Vi										eBusiness J
ome 🛾 Account				Assets Ord	ters Campaigns Opp	ortunities Qu			SmartScripts	Produc
Show: Workflow	Processes 🗾	History:• 🤞	-⇒   ≝				Queries:	All Processes		
	_									
Business Serv	ice (Return To Desi	inner) 3 of 3+								
<u> </u>	(Return To Desi									
*Name: Update or Insert I	laur Arraut	Accour	ss Object:		Business Service: EAI Siebel Adapter		SADMIN	iy:		
		,	n		Method:		*Created			
Workflow Proce		*Type:	ss Service	<b>T</b>	Insert or Update			8:41:17 AM		
Description:	rile fransport)	J Dusine.	55 361 1106	<u> </u>	Insert or opdate		1//10/2002	0.91.17 AW		
(IT) Query)							<u>^</u>			3
nput Argument	Туре 😓	Value $\rightleftharpoons$	Property Name	Property Data	Typ Business Compo Bus	iness Compo Co	omments $\rightleftharpoons$			
OutputIntObjectNan		Sample Account								
Siebel Message	Process Property		Account Message	Hierarchy						
Output Argum		ecords								Ŧ
						. ^				
roperty Name 🗧	lype ⇒	Value $\stackrel{\bigtriangleup}{\bigtriangledown}$	Output Argumen	t Business Corr	npo Business Compo Con	nments 😓				
									21a	D of
0.1									🔠 Local intrar	iet
Start 🍯 🏉 ht		c <b>en</b> 🚆 Paint Sho							Q 🕅 🌾	

Figure A–25 Creation of the EAI Adapter Business Service Step Called Update

4. Define an EAI Siebel Adapter Business Service step and call it Update or Insert New Account, as shown in Figure A-25.

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, as shown in Figure A–26. The Workflow was designed for importing Siebel Account record information through the HTTP transport, as shown in .

address Intro://arbabil.loalenther/start.swe     File Edit      File Edit File Edit File Edit File Edit File File Edit File File Edit File File File Edit File Fil	Siebel Call Center - Microsoft Inter	rnet Evolorer			_ 8 >
File Edit Vew Pavorites Tools Help Intervent   File Edit Vew Help   File Edit Vew Help   File Edit Vew Help   Contracts Contracts HouseHolds   Enclose   Accounts Contracts HouseHolds   Enclose   History:   Persistence Frequency:   File Edit Vew Help   Created By:   State:   Persistence Frequency: Fire Process Designer   Designer   State   Contracts Designer Decision Forder Designer Decision State Contracts Designer Decision Forder Designer Decision Forder Designer Decision Decision State Contracts Designer Decision Decision<					
File Edit   Veriet Contracts   Households Employees   Server History-   Workflow Processes History-   Importance Corup:   Importance Corup:   Importance Saruf   Server Saruf   Persistence Frequency:   Created By:   Importance   Importance   Activation Date/Time:   Activation Date/Time:   Bits a sample for inporting   account   Status:   Activation Date/Time:   Bits a sample for inporting   account Soled LisentTre   Bits a sample for inporting   Saccount data from DEA Subel   Status:   Coress Desciper   Process Process Properties   Process Simulator   If Process Process Properties   Process Simulator   If Process Simulator	)=				
accounts Contacts Households Employees Service Assets Orders Compaigns Opportunities Quotes Communications ShartScripts Product   Show: Workflow Processes Itistory- Itistory- Itistory- Itistory- Itistory- Itistory-   Workflow Processes Itistory- Itistory- Itistory- Itistory- Itistory- Itistory-   Workflow Processes Itistory- Itistory- Itistory- Itistory- Itistory-   Improtector Itistory- Itistory- Itistory- Itistory-   Recourt Itistory- Itistory- Itistory- <t< td=""><td></td><td></td><td></td><td></td><td>j</td></t<>					j
Show: Workflow Processes  History:  Show: Workflow Processes History:  Show:  Created By:	File Edit View Help			(*	eBusiness
Workflow Process   Importaceount (HTTP Inhound)   Businees Object:   Activation Date/Time:   Paccount   Activation Date/Time:   Paccount   Status:   Activation Date/Time:   Paccount   Importaceount (HTTP Inhound)   Activation Date/Time:   Paccount   Status:   Activation Date/Time:   Paccount   Status:   Active   Status:   Active   Status:   Active   This is a sample for importing   account data from EAS Stelel   account data from EAS Stelel   Status:   Processes   Process Designer   Process Designer   Process Designer   Process Designer   Process Studie   Status:   S	Home Accounts Contacts Ho	useholds Employees Service Assets Or	lers Campaigns Opportunities	Quotes Communications Sma	rtScripts Products
Cuery Importance   Importance Group:   Importance Sample   Descines Object: Active   Active: T/28/2002 1:35.01 PM   Patriation Date/Time: T/28/2002 3:46.59 PM   Version: T/28/2002 3:46.59 PM   Process Designer Process Properties   Process Designer Process Properties   Process Designer Process Properties   Process Designer Process Properties   Stat Description:   Stat Cecision   Cecision Side of the side o	Show: Workflow Processes	History:+ 😓 🚽 🕍		Queries: All Processes	J 🖌
Cuery Importance   Importance Group:   Importance Sample   Descines Object: Active   Active: T/28/2002 1:35.01 PM   Patriation Date/Time: T/28/2002 3:46.59 PM   Version: T/28/2002 3:46.59 PM   Process Designer Process Properties   Process Designer Process Properties   Process Designer Process Properties   Process Designer Process Properties   Stat Description:   Stat Cecision   Cecision Side of the side o	W-I.G. D.				
Name: Group:   Importaccount (HTTP Inbound)   Business Object:   Account   Account   Account   T7282002 1:35 01 PM   Bit   Persistence Level:   Activation Date/Time:   Trapping   Activation Date/Time:   Trapping   Activation Date/Time:   Trapping   Activation Date/Time:   Persistence Level:   Activation Date/Time:   Process Name:   Bit   Process Name:   Importance   Importance   Activation Date/Time:   Process Name:   Importance   Activation Date/Time:   Process State   Process State   Importance					
Importaccount ( HTTP Inbound)   Business Object:   Activation Date/Time:   T/28/2002 13:501 PM   W   Persistence Level:   T/28/2002 3:46:59 PM   Version:   Activation Date/Time:   Fror Process Name:   Importaccount ( HTTP Inbound)   Activation Date/Time:   Fror Process Name:   Importance Level:   Activation Date/Time:   Expiration Date/Time:   Expiration Date/Time:   Business   Activation Date/Time:   Importance Level:   Activation Date/Time:   Expiration Date/Time:   Business   Process Designer   Process Properties   Process Simulator     Importance Level:     Activation Date/Time:     Business     Process Designer     Process Designer     Process Simulator     Importance Level:     Activation Date/Time:     Business     Statt     Persistence Level:     Importance Level:     Process Designer     Process Designer     Process Designer     Process Designer     Statt     Desite     Statt     Desite     Value     Business   Subel     Va			Dessister of Freedom	Created De	
Business Object: Account Account Account Active Active Expiration Date/Time: Active Expiration Date/Time: Active Expiration Date/Time: All Steps Fror Process Name: Version: This is a sample for importing account data tran BEA, Stebel State into Stebel Composed using HTT All Process Properties Process Designer Process Properties Process Simulator Process Designer Process Designer Process Properties Stat Decision Font Stat Conte Decision Conte					
Account Translate information in the information information in the				*Created:	_
Actve     Description:   This is a sample for importing a constraint of the sample for importing the sample for impo	Account	7/28/2002 1:35:01 PM	All Steps	7/28/2002 3:46:59 PM	
Description: This is a sample for importing account data from EEA. Stelet account data from EEA. Stelet account data from EEA. Stelet All Processos Process Designer Process Properties Process Simulator Platter Platte Stat Designer Stat Designer Stat Designer Stat default YML to Property Set Update Stat Designer Content Stat Des					
This is a sample for importing a account data from BEA Stebel All Processes Process Designer Process Simulator All Processes Process Designer Process Simulator Platte Platte Stat Platte Stat Platte Stat Content Content Decision Point Stat Conten	Active 💌			1	
Palette         Statt         Decision         Point         Business         Statt         John	account data from BEA Siebel adapter into Siebel using HTTP				
Stat Decision Point Business Sub Service Process Sebel Wat Done		Process Properties Process Simulator			
Service Process Start default Property Set Siebel End	Start Decision				<u> </u>
Done de Local intranet	Service Process			End	0.40
, , , , , , , , , , , , , , , , , , ,	Done				
	0.5			, , ,	

Figure A–26 Siebel Workflow Administration Window

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:

File Edit Vie ome Accounts Show: Workflow P					🖻 🎯 🗳 🗃			
								powered by SIEBE
Show: Workflow P	s Contacts I	Households Emp	oloyees Service	Assets Order	rs Campaigns O	pportunities )	Quotes Communications S	martScripts Pro
	Processes 💌	History: 🗸 🦂					Queries: All Processes	
ocess:		• .					,	
Norkflow Proc	000							
(IV) Query		of 4						
Name:		Group:			Persistence Freque	nene	Created By:	
mportaccount ( H	TTP Inbound )	Sample		•	Every Step	<b>▼</b>	SADMIN	
usiness Object:		, · ·	ion Date/Time:		Persistence Level:	_	*Created:	
Account	•		02 1:35:01 PM		All Steps	•	7/28/2002 3:46:59 PM	
Status:	_	,			, ·		1	
		Expirati	ion Bate/Time:					
Active escription: This is a sample for account data from	n BEA Siebel 📃	Expirati	ion Date/Time:	H	Error Process Name	1	Version:  1	
Active escription: This is a sample for account data from adapter into Siebe II Processes	or importing n BEA Siebel el usina HTTP Process Desig	ner Process Pro		E Simulator	Error Process Name	·		
Active escription: This is a sample for account data from adapter into Siebe II Processes IV (Query)	or importing n BEA Siebel el usina HTTP Process Desig	ner Process Pro		s Simulator	Business Compo Vi			(3
Active escription: This is a sample fr account data from adapter into Siebe I Processes I Processes I Query me $\stackrel{\frown}{\Rightarrow}$	or importing A n BEA Siebel el usina HTTP Process Design T - 7 Data Type Data Type	ner Process Pro	perties <sup>Y</sup> Process	s Simulator			1	(5
Active escription: This is a sample for account data from addacter into Siebe Il Processes Il Query me value>	or importing  In DEA Siebel I usina HTTP Process Design I I I - 7	ner Process Pro	perties <sup>Y</sup> Process	s Simulator			1	6
Active escription: This is a sample for account data from adapter into Siebe II Processes II (Query) III (Query) I	or importing n BEA Siebel el usina HTTP Process Design 1 - 7 Data Type String	ner Process Pro	perties <sup>Y</sup> Process	s Simulator			1	G
Active description: This is a sample for account data from addater into Siebe II Processes II (Query) arme /alue> ccount Message ror Code	or importing A BEA Slebel el usina HTTP V I I I I I I I I I I I Data Type String Hierarchy	ner Process Pro	perties <sup>Y</sup> Process	s Simulator			1	G
Active escription: This is a sample for account data from adapter into Siebe II Processes II Processes II Query arme Alue> arcount Message ror Code ror Message	or importing n BEA Slebel It using HTTP Process Design Process Design 1 1 1 Data Type String Hierarchy String	ner Process Pro	perties <sup>Y</sup> Process	s Simulator			1	6
Active lescription: This is a sample for account data from adapter into Siebe II Processes II (Query) arme /alue>	or importing n EEA. Sleebel et using HTTP Process Design Process Design 1 cm Data Type String String String	ner Process Pro 7 of 7+ Default String 🗧	perties <sup>Y</sup> Process	s Simulator			1	G

Figure A–27 Process Properties Tab of the Workflow Process Window

1. In the Process Properties tab of the Workflow Process window, define the Account message and Account XML process properties, as shown in Figure A–27.

Account message contains the Siebel Account data in hierarchical format.

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

uress 💽 nccp://-	ariba01/callcenter/st	art.swe							- 6	i≩Go
ile Edit View	Favorites Tool	s Help	] ⇐ ▪ ⇒ ·	o 🕼 🖓	🖻 🎯 🖏 🖨	2 2 2				Li
File Edit Vie	w Help								powered by S	IEBEL eBusiness
me Accounts	s Contacts H	ouseholds Emp	loyees Service	Assets Order	s Campaigns	Opportunities	Quotes Comm	unications S	SmartScripts	Prod
now: Workflow F	Processes 💌	History: 🗸 🖕	•⇒   ≝				Queries:	All Processes	:	-
usiness Servi		-								
Query)	(Return To Desi	aner) 2 of 2+								
Name:			ss Object:		Business Service:		Created	D -		
Marrie: (ML to Property S	iet	Accour			EAI XML Converter		SADMIN	by:		
orkflow Proces		*Type:			Method:		*Create	d:		
nportaccount ( H			ss Service	•	XML Document to In	tegration Ok 😼		2 3:47:00 PM		
escription:		,		_	,		,			
put Argumen										
nput Argumen SV (Query)	1ts 	of 1 Value 🚔	Property Name 🗧	Property Data Ty	p Business Compo	Business Compo	Comments 🚔			9
nput Argumen ∎▼) (Query) Dut Argument	1-10		Property Name (	Property Data Typ String	p Business Compo	Business Compo	Comments 🚔			Ŧ
put Argumen ■♥  (Query) put Argument	Туре ⊖			M	p Business Compo	Business Compo	Comments 🚔			7
put Argumen ■♥  (Query) put Argument	Туре ⊖			M	p Business Compo	Business Compo	Comments ⇔			Ŧ
put Argumen ■♥  (Query) put Argument	Туре ⊖			M	p Business Compo	Business Compo	Comments 🚔			7
put Argumen ■♥  (Query) put Argument	Туре ⊖			M	p Business Compo	Business Compo	Comments 🚔	-	-	Ŧ
Deut Argument	I € D 1-10 Type ⊖ Process Property			M	p Business Compo	Business Compo	Comments 🚔			<b>(</b>
Input Argument Input Argument Input Argument Inutput Argument	Process Property	Value ⇔		M	p Business Compo	Business Compo	Comments 🤤			
Deut Argumen Query out Argument 1L Document Utput Argument Query Query	Type Process Property	Value 🕁	IncomingXML	String			Comments \ominus			Ŧ
put Argument I Query but Argument IL Document utput Argum I Query opperty Hame $\in$	I to the second	Value ⇔	IncomingXML	String	p Business Compo D Business Compo		Comments 🔿			
put Argument I Query ut Argument L Document utput Argum Query Query	Type Process Property	Value 🕁	IncomingXML	String			Comments 🔶			
put Argument I Query ut Argument L Document utput Argum Query Query Hame	I to the second	Value 🕁	IncomingXML	String			Comments 🔶			

Figure A–28 EAI XML Converter Business Service Step

2. Define an EAI XML Converter Business Service step and call it XML to Property Set, as shown in Figure A-28.

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.

te Edit Yeer Pavorites Tods Help     File Edit Yeer Pavorites Tods Help    File Edit Yeer Pavorites Tods Help   File Edit Yeer Pavorites Tods Help   File Edit Yeer Pavorites Tods Help   File Edit Yeer Pavorites Tods Help   File File Edit Yeer Pavorites Tods Help   File Edit Yeer Pavorites Tods Help   File Fi	ddress 🙋 http://		ernet Explorer							_
File Edit Vew Help				1.					• @@	
International and the second seco	ile Edit View	Favorites Tool	s Help	$\Rightarrow \rightarrow -$	o 🗗 🖆 🔕	🖻 🎯 🖪- 🖨	9 🖻 🖻 🙎			
ustiness Service	file Edit Vie	ew Help							powered by SIE	BE
Usiness Service     Ivalues     Update Sebel     Marce:   Laddate Sebel   Vorkfow Process:   importaccourt (HTIP Inbound)   Business Service:   Exciption:     Property Isine Service:     Import Arguments     Import	me Account	s Contacts H	ouseholds Empl	oyees Service	Assets Order	s Campaigns	Opportunities (	Quotes Communications Sm	artScripts	Pro
Image: State   Name: Update Side!   Account   Process: Importancount (HTTP Inbound)   Itescription:	how: Workflow	Processes 💌	History: 🗸 🖕	⇒   🚣				Queries: All Processes		-
Image: State   Name: Update State   Account   Account   *Type:   Type:   Business Service   Importancount (HTTP inbound)   escription:			-							
Name: Business Object:   Lipdate Sebel   Vorkflow Processe:   Importaccourt (HTTP Inbound)   Business Service   Business Service     Method:   Insert or Update     T/28/2002 346:59 PM     Property Bate     Property Bate     Update     Value        Property Mane     Type:        Process Property     Value              Putput Arguments                           Putput Arguments                     Putput Arguments                          Process Property   Account Message                Property Bate Type Business Compo Business Compo Comments Implements  Putput Arguments  Putput Argument Business Compo Business Compo Comments Implements  Putput Argument Implement Putput Argument Business Compo Business Compo Comments Implement Putput										
lpdate Sebel forkflow Process: mportaccount (HTTP Inbound) escription: Business Service ▼ Business Service ▼ Business Service ▼ Business Service ▼ Business Compo Business Compo Comments ⊖ bel Message Process Property Account Message Hierarchy Business Compo Business Compo Comments ⊖ butput Arguments C Type ⊖ Value ⊖ Property Name Property Data Typ Business Compo Business Compo Comments ⊖ butput Arguments C Type ⊖ Value ⊖ Output Argument Business Compo Business Compo Comments ⊖ business Lteral <hr/> Value → Output Argument Business Compo Business Compo Comments ⊖	Query Query	(Return To Desi	gner) 1 of 1+							
Type:       Method:       *Created:         mportaccount (HTTP Inbound)       Business Service       Insert or Update       If Z88/2002 3:46:59 PM       If         escription:       Insert or Update       Insert or Update       If       If       If       If         output Arguments       Insert or Update       If       If <td>Name:</td> <td></td> <td>Busines</td> <td>s Object:</td> <td></td> <td>Business Service:</td> <td></td> <td>Created By:</td> <td></td> <td></td>	Name:		Busines	s Object:		Business Service:		Created By:		
portaccourt (HTP hbound) secription: Put Arguments	lpdate Siebel		Account			EAI Siebel Adapter	<u>1</u>	SADMIN		
secription: Put Arguments			*Туре:							
put Arguments         Image: Common to the state of	nportaccount ( H	ITTP Inbound )	Business	s Service	<b>•</b>	Insert or Update	10 A	7/28/2002 3:46:59 PM		
I Define the second	escription:									
I Dut Argument Type  Value  Property Name  Property Data Type Business Compo Business Compo Comments  Account Message Hierarchy Utput Arguments I Difference of the second se										
Cuery     I 1-1 or1      Value     Property Name     Property Data Type Business Compo     Business Compo     Comments     Account Message     Hierarchy      Account Message     Hierarchy      Ulput Arguments     I 1-1 or1      Output Argument Business Compo     Business Compo     Comments     I 1-1 or1      Output Argument Business Compo     Business Compo     Comments     I I - 1 or1      I I - 1 or1      I I I I I I I I I I I I I I I I I										
Cuery     I 1-1 of 1     I vot Argument     Type     Value     Property Name     Property Data Type Business Compo     Business Compo     Comments     Account Message     Hierarchy      I vot Arguments     I vot Argument     I vot Argument     I vot Arguments     I vot Arguments     I vot Argument     I vot Arguments     I vot Argument     I										
Image: State of the state	nnut Araumei	nts								
abel Message Process Property Account Message Hierarchy			of 1							9
utput Arguments			~		4					
Cuery Composition     Compared      Composition     Compared      Composition     Compared     Composition     Comments	out Argument	Туре 🚔	Value 🚔	Property Name	Property Data Typ	Business Compo	Business Compo	Comments $\stackrel{ riangle}{\Rightarrow}$		
Courry Name      Type      Value      Output Argument Business Compo Business Compo Comments      Alue> Literal      Ant>Update Comple      Comple      Comments	-	v	Value $\rightleftharpoons$		1	Business Compo	Business Compo	Comments \ominus		
Courry Name      Type      Value      Output Argument Business Compo Business Compo Comments      Alue> Literal      Ant>Update Comple      Comple      Comments	-	v	Value 🚔		1	Business Compo	Business Compo	Comments ⇔		
Courry Name Cype Competence     Value Comple     Value Comple	-	v	Value 🚔		1	a Business Compo	Business Compo	Comments ⇔		
Cuery Composition     Compared      Composition     Compared      Composition     Compared     Composition     Comments	-	v	Value 🚔		1	Business Compo	Business Compo	Comments ⇔		
Cuery I I I 1 of 1     Output Argument Business Compo Business Compo Comments      Alue> Literal <hr/> the state of the state	-	v	Value		1	a Business Compo	Business Compo	Comments 😓		
Cuery Composition     Compared      Composition     Compared      Composition     Compared     Composition     Comments	-	v	Value 🕁		1	a Business Compo	Business Compo	Comments ⇔		
operty Name Type Literal Value Literal Value Utput Argument Business Compo Business Compo Comments Literal Comments	bel Message	Process Property			1	a Business Compo	Business Compa	Comments 🔶		
Yalue> Literal <h1>Update Comple</h1>	ebel Message	Process Property			1	a Business Compo	Business Compa	Comments 🔶		
) 選 Local intranet	utput Argum	Process Property	of 1	Account Message	Hierarchy			Comments 🔶		<b></b>
🛛 🖉 Local intranet	utput Argum	Process Property	of 1	Account Message	Hierarchy			Comments 🔶		6
Local intranet	utput Argum	Process Property	of 1 Value 🔶	Account Message Output Argumen	Hierarchy			Comments 🔶		6
🛛 🖉 Local intranet	utput Argum	Process Property	of 1 Value 🔶	Account Message Output Argumen	Hierarchy			Comments 🔶		(=
	abel Message Dutput Argum	Process Property	of 1 Value 🔶	Account Message Output Argumen	Hierarchy			Comments 🔶		
	abel Message Dutput Argum	Process Property	of 1 Value 🔶	Account Message Output Argumen	Hierarchy					0
	tiput Argum (Query) perty Name ( lue>	Process Property	of 1 Value ⊖ ⊲h1>Update Comple	Account Message Output Argumen	Hierarchy					

Figure A–29 EAI Adapter Business Service Update Step

**3.** Define an EAI Siebel Adapter Business Service step and call it Update Siebel, as shown in Figure A-29.

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.

# Index

### Α

adapter configuration updating, 3-3 adapter exceptions, 10-4 adapter types resource, 3-3 adapters, 1-1 configuring, 3-3 deploying, 3-1 to 3-3, 4-2 integrating with BPEL Process Manager, 4-1, 6-1 troubleshooting, 10-1 to 10-7 Adapters node, 4-38, 4-40 Add Channel dialog box, 2-29, 4-35 Add Target dialog box, 2-6 Advanced tab, 2-7, 2-33, 2-35 ae batch script, 10-2 application adapters configuring, 3-3 deploying, 3-1 to 3-3, 4-2 integrating with BPEL Process Manager, 4-1, 6-1 troubleshooting, 10-1 to 10-7 Application Explorer, 1-2, 1-5, 2-10 to 2-12, 4-7 debugging and, 10-2 to 10-3 J2CA configuration and, 3-3 OracleAS Adapter J2CA and, 10-4 targets and, 4-40 testing and, 10-2 to 10-3 troubleshooting, 10-2 to 10-3 WSDL files and, 4-34, 4-35 application system objects viewing, 2-10

### В

BPEL Designer, 4-1, 6-1
BPEL Process Manager integrating with adapters, 4-1, 6-1 OracleAS Adapter for Siebel and, 4-1
browsing metadata, 2-9
BSE (OracleAS Adapter Business Services Engine) configuring, 2-3 troubleshooting, 10-4
BSE URL field, 2-4
Business Components, 1-2 to 1-6, 2-13, 2-24
business events, 1-2 Business Integration Manager, 1-5 Business Objects, 1-4, 2-24 browsing, 2-9 Business Service list, 2-18 business services, 1-2 to 1-6, 2-13, A-1 to A-3 browsing, 2-9 creating, 2-24 to 2-25 testing, 2-25 to 2-26

#### С

CCI (Common Client Interface), 3-1 CCI calls, 3-1 channel configuration parameters Document type XML, 2-32 Error Directory, 2-33, 2-35 File Mask, 2-34 Message wait interval, 2-33 Mode of operation, 2-33 MQ server channel, 2-32 MQ server host, 2-32 MQ server port, 2-32 Poll interval, 2-35 Polling Location, 2-34 Port, 2-30, 4-37 Processing Mode, 2-35 Queue manager name, 2-32 Request queue name, 2-33 Response/Ack Directory, 2-35 Server port, 2-30, 4-37 Synchronization Type, 2-30, 2-33, 2-35, 4-37 Thread limit, 2-33, 2-35 Channel field, 4-41 channel types File, 2-34 HTTP, 2-29, 4-35 to 4-38 MQSeries, 2-32 channels creating, 1-2, 2-29 to 2-35, 4-35 to 4-38 deleting, 2-36 editing, 2-35 starting, 2-32 to 2-35, 4-38 stopping, 2-32 to 2-35, 4-38 testing and debugging, 4-38 Channels node, 2-29, 4-35 channels. See also listeners

closing connections, 2-9 COM environment, 10-2 Common Client Interface (CCI), 3-1 configuration parameters, 3-4 IWayConfig, 3-4 IWavHome, 3-4 IWayRepoPassword, 3-4 IWayRepoURL, 3-4 IWayRepoUser, 3-4 Loglevel, 3-4 configurations connecting to, 2-5 defining, 2-3 to 2-4 overwriting, 3-4 Configurations node, 2-4 configuring adapters, 3-3 configuring events, 2-28 to 2-35 connecting to OracleAS Adapter J2CA, 10-4 connecting to Siebel, 2-5 to 2-9, 4-38, 4-40, 10-2 to 10-4, 10-6 Connection dialog box, 4-38 connection parameters, 10-2 Language, 2-7 Object Manager, 2-7 Repository Manager, 2-7 connection types, 10-2 connections closing, 2-9 deleting, 2-10 establishing, 2-5 to 2-9, 2-19, 4-38 Connector deploying to Oracle Application Server, 3-1 connector factories, 3-3 connector factory objects, 3-3 multiple, 3-5 Create Web Service dialog box, 2-24 creating channels, 4-35 to 4-38 creating events, 4-40 to 4-41 creating repository projects, 2-3 to 2-4 creating schemas, 2-12 to 2-14 creating Web services, 2-24 to 2-25

### D

database connections opening, 3-4 databases connecting to, 3-4 Oracle, 3-4 defining targets to Siebel, 2-6 deleting channels, 2-36 deleting targets, 2-10 deploying adapters, 3-1 to 3-3, 4-2 Description field, 2-24 design time, 2-3, 4-1, 4-34 configuring, 4-7 disconnecting from Siebel, 2-9 Document type XML parameter, 2-32

# Ε

EAI (Enterprise Application Integration), 1-5 Eclipse. See JDeveloper editing channels, 2-35 editing targets, 2-10 EJB (Enterprise Java Beans), 3-1 Enterprise Application Integration (EAI), 1-5 Enterprise Connector for J2EE Connector Architecture (J2CA), 1-1 Enterprise Java Beans (EJB), 3-1 Envelope type list, 2-18 Error Directory parameter, 2-33, 2-35 error messages, 10-2 to 10-7 target systems and, 10-5 eScript script, A-1 event adapters, 2-28 to 2-35 event integration, 4-34 event messages, 4-34, 4-35 event ports creating, 4-40 to 4-41 event schemas, 2-16 events, 1-2 configuring, 2-28 to 2-35 creating, 4-40 to 4-41 triggering, 4-49 to 4-53 workflows and, A-4 to A-16 Events node, 2-29 Existing Service Names list, 2-24 Export WSDL dialog box, 4-8

### F

fault code elements, 10-5 fault string elements, 10-5 File channel, 2-34 File Mask parameter, 2-34 File transport, A-8 to A-13, A-21

## G

Generate XML Schema wizard, 2-18

# Η

Hostname parameter, 2-4 HTTP channel, 2-29, 4-35 to 4-38 HTTP transport, A-13, A-25

# I

inbound J2CA services, 4-34, 4-35
inbound processing, 1-1 to 1-5, A-3
input arguments, 4-52
Input Arguments tab, 4-52
installation directories, 3-4
integration access methods
OracleAS Adapter for Siebel and, 1-5
Integration Object (IO) node, 2-20
creating, 4-39
Integration Objects, 1-2, 2-17

browsing, 2-9 IO (Integration Object) node, 2-20 creating, 4-39 IWayConfig parameter, 3-4 IWayHome parameter, 3-4 IWayRepoPassword parameter, 3-4 IWayRepoURL parameter, 3-4 IWayRepoUser parameter, 3-4

### J

J2CA (Enterprise Connector for J2EE Connector Architecture), 1-1 J2CA architecture Oracle Application Server Adapter and, 3-1 J2CA configuration Application Explorer and, 3-3 J2CA resource adapters, 1-1, 3-1 J2CA services, 4-34, 4-35 JAR files, 10-2 Java Data Bean, 1-5 Java program clients, 3-1 JDeveloper, 6-1

### L

Language parameter, 2-7, 10-2 License and Method dialog box, 2-24 License field, 2-24 licenses, 2-24 list of nodes, 10-2 listeners. *See also* channels log files, 10-1 log levels overwriting, 3-4 Loglevel parameter, 3-4 logon parameters, 10-2

### Μ

managed connector factories, 3-3 managed connector factory objects, 3-3 multiple, 3-5 ManagedConnectionFactory parameter, 3-4 Mediator Inbound Process, 5-11 Mediator Outbound Process, 5-2 message interactions asynchronous, 1-2 synchronous, 1-2 message types event, 4-34, 4-35 Message wait interval parameter, 2-33 messages, 1-2 metadata browsing, 2-9 viewing, 2-10 metadata tables, 2-11 Method Name field, 2-24 Methods node, 2-25 Mode of operation parameter, 2-33 MQ server channel parameter, 2-32

MQ server host parameter, 2-32 MQ server port parameter, 2-32 MQSeries channel, 2-32 MQSeries transport, A-4, A-16

### Ν

navigation paths, 1-4 New Configuration dialog box, 2-3 to 2-4 Node list, 10-2 Node name field, 4-39 nodes Adapters, 4-38, 4-40 Channels, 2-29, 4-35 Configurations, 2-4 connected, 2-9, 4-38 disconnected, 2-9 Events, 2-29 Integration Object, 2-20, 4-39 Methods, 2-25 Ports, 4-35 Sample Account, 2-20, 4-39 Services, 2-25 Siebel, 4-38 to 4-40

# 0

Object Manager, 1-2 Object Manager parameter, 2-7 Oracle Application Server deployment of Connector to, 3-1 Oracle Application Server Adapter J2CA architecture and, 3-1 troubleshooting, 10-6 Oracle databases, 3-4 Oracle JDeveloper, 6-1 Oracle JDeveloper BPEL Designer. See BPEL Designer, JDeveloper, or Oracle JDeveloper Oracle's Unified Method (OUM), ix OracleAS Adapter installation directory and, 3-4 OracleAS Adapter Application Explorer. See Application Explorer OracleAS Adapter Business Services Engine (BSE), 1-1, 2-3 troubleshooting, 10-4 OracleAS Adapter for Siebel BPEL Process Manager and, 4-1 deploying, 1-1, 4-2 integration access methods and, 1-5 troubleshooting, 10-1 to 10-7 OracleAS Adapter J2CA, 2-3 to 2-4 Application Explorer and, 10-4 connecting to, 10-4 outbound processing, 1-1 to 1-5, A-2

### Ρ

parameter types channel configuration, 2-30 to 2-35, 4-37 configuration, 3-4

connection, 2-7, 10-2 Password parameter, 10-2 passwords, 3-4 Poll interval parameter, 2-35 Polling Location parameter, 2-34 Port Number parameter, 2-4 Port parameter, 2-30, 4-37 ports creating, 2-28, 4-40 to 4-41 Ports node, 4-35 Process Designer tab, 4-52 Process Manager. See BPEL Process Manager Process Properties tab, A-4, A-23, A-27 Process Simulator tab, 4-53 Processing Mode parameter, 2-35 projects repository, 2-3 to 2-4 properties, 3-4 Protocol list, 2-20, 4-36, 4-39

# Q

Query method, A-11 Queue manager name parameter, 2-32

### R

Repository Manager parameter, 2-7 Repository Name parameter, 10-3 to 10-4 repository projects creating, 2-3 to 2-4 Web services and, 2-3 REQUEST option, 2-33 Request queue name parameter, 2-33 request schemas, 2-13 Request tab, 2-32, 2-34 REQUEST\_ACK option, 2-33 REQUEST\_RESPONSE option, 2-33 requests executing, 10-4 response schemas, 2-13 Response tab, 2-33 to 2-35 Response/Ack Directory parameter, 2-35 runtime, 2-3, 4-38 to 4-41 runtime events (Siebel Events), A-1 runtime integration, 4-49

# S

Sample Account node, 2-20, 4-39 schema considerations, 2-13 Schema location field, 4-39 schemas creating, 2-12 to 2-14, 2-16 scripts, A-1 Server port parameter, 2-30, 4-37 service names, 2-24 Service Provider list, 2-3 to 2-4 service schemas creating, 2-12 to 2-14 Service-Oriented Architecture (SOA), 4-1 services, 1-2 creating, 2-24 to 2-25 testing, 2-25 to 2-26 workflows and, A-16 to A-29 Services node, 2-25 servlets, 3-1 Siebel connecting to, 1-4, 2-5 to 2-9, 4-38, 10-2 to 10-4, 10-6disconnecting from, 2-9 Siebel Business Components, 1-2 to 1-6, 2-13, 2-24 Siebel Business Objects, 1-4, 2-24 browsing, 2-9 Siebel business processes invoking, 1-4 Siebel Business Services, 1-2 to 1-6, 2-13, A-1 to A-3 browsing, 2-9 Siebel Call Center starting, 4-49 Siebel Client Workflow Administration screens, A-1 Siebel COM Data Interface, 1-5 Siebel Events (run-time events), A-1 Siebel Gateway server, 10-2 Siebel Integration Objects, 1-2, 2-17 browsing, 2-9 Siebel Java Data Bean, 1-5 Siebel node, 4-38 to 4-40 Siebel Object Manager, 1-2 Siebel Tools Schema Wizard, 2-16, 2-19 Siebel Tools window, 2-17 Siebel transports, 1-5 Siebel VB script, A-1 Siebel Workflow Administration window, 4-50 Siebel workflow policies, A-2 Siebel Workflows, 1-5, A-1 to A-29 creating, A-3 SiebelJI\_Common.jar file, 10-2 SiebelJI\_enu.jar file, 10-2 SOA (Service-Oriented Architecture), 4-1 SOAP agents, 10-5 SOAP faults, 10-5 SOAP requests, 10-5 to 10-7 errors and, 10-5 to 10-7 SOAP responses, 10-5 to 10-7 starting the Siebel Call Center, 4-49 Synchronization Type parameter, 2-30, 2-33 to 2-35, 4 - 37system objects viewing, 2-10

## Т

target systems errors and, 10-5 Target Type list, 2-7 targets connecting to, 2-5 to 2-9, 4-38, 4-40, 10-2 to 10-4 defining, 2-6 deleting, 2-10 disconnecting from, 2-9 editing, 2-10 testing Web services, 2-25 to 2-26 thin clients, 10-2 Thread limit parameter, 2-33, 2-35 trace information, 10-1 transaction processing, 1-2 transports, 1-5 File, A-8 to A-13, A-21 HTTP, A-13, A-25 MQSeries, A-4, A-16 triggering an event, 4-49 to 4-53 troubleshooting, 10-1 to 10-7 Application Explorer, 10-2 to 10-3 BSE, 10-4 Web services, 10-4 to 10-7

### U

updating adapter configuration, 3-3 UserName parameter, 10-2

### V

viewing system objects, 2-10

#### W

Web Service Definition Language (WSDL), 2-27 to 2-28 Web service names, 2-24 Web services, 1-1 to 1-2, 1-6, 2-3 creating, 2-24 to 2-25 integrating, 4-1 repository projects and, 2-3 testing, 2-25 to 2-26 troubleshooting, 10-4 to 10-7 workflow elements, 4-52 workflow policies, A-2 Workflow Process window, A-4 to A-23, A-27 Workflow Processes window, 4-50 Workflows, A-1 to A-29 creating, A-3 WSDL (Web Service Definition Language), 2-27 to 2-28 WSDL documents, 4-1 WSDL File Name field, 4-41 WSDL files, 4-1, 6-1 Application Explorer and, 4-34, 4-35 creating, 4-35

### Х

XDR schemas creating, 2-16 XML documents, 1-4, A-2 XML messages, 1-2, A-2 to A-3 XML schemas, 1-2, 1-6 creating, 2-12 to 2-14, 2-16