SeeBeyond ICAN Suite™

Siebel EAI eWay Intelligent Adapter User's Guide

Release 5.0.1

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Introducing the Siebel EAI eWay

This document describes how to install and configure the Siebel EAI eWay Intelligent Adapter.

This chapter includes:

1.1 Overview

The Siebel EAI eWay Intelligent Adapter enables the SeeBeyond ICAN Suite to exchange messages with the Siebel EAI interface via a Web server using open standards such as HTTP and XML. There are two distinct processes involved in using the Siebel EAI eWay: a "design-time" process, in which you obtain information about the Siebel application, and a "run-time" process, in which you use the Project to control the processing of actual data.

1.1.1 Design-Time Process

The design-time process, which is an integral part of Project development is primarily concerned with extracting metadata from the Siebel application. This metadata is then used to help configure the eWay and format the messages propagated by the eWay.

This process uses the Siebel EAI OTD Wizard, which prompts the Project designer for information to find and connect to the desired Siebel instance. The Wizard then connects to Siebel (see Figure 1) and extracts the business services that are exposed through the Siebel Web Engine. These services are presented to the Project designer for selection of the appropriate service and operation.

Figure 1 Metadata Extraction
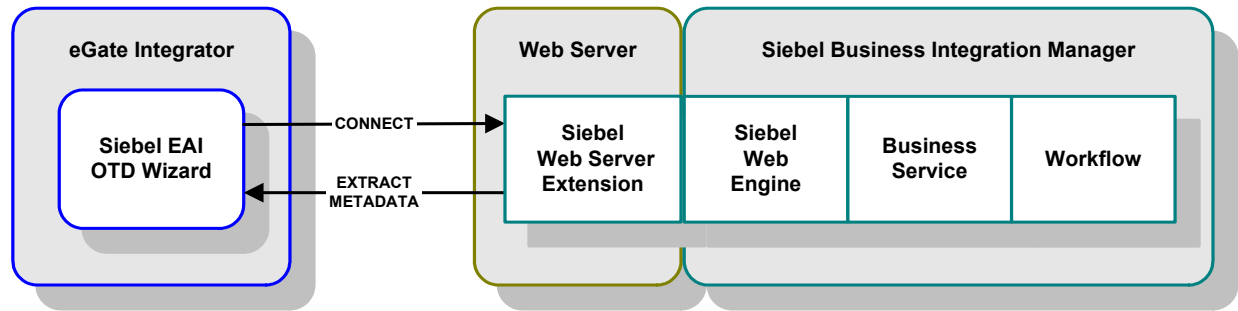
When the service and operation have been selected, an OTD representing the selections is generated and saved in the repository. This OTD also appears in the Enterprise Explorer for incorporation into a Project Connectivity Map. Once the Project design is finished, the action of the eWay in POSTing a message to Siebel is completely specified.

1.1.2 **Run-Time Process**

During run-time, the Siebel EAI eWay's inbound component functions as a HTTP server that relays the contents of web requests to Java Collaborations or Business Processes for further processing and subsequent hand-off to an outbound Siebel EAI eWay.

In routine operation, the Siebel EAI eWay acts as a Web browser and uses HTTP to forward a Siebel XML-formatted message to Siebel. It also specifies one of the following actions to be performed on the XML message:

- Delete

- Upsert (Insert/Update)

- Query

The result is that a corresponding Workflow is executed to process the message. A Siebel Workflow is a customized business application for managing and enforcing business processes.

The Siebel EAI eWay POSTs the message to the Web server. The Siebel Web Server Extension invokes the specified Business Service which, in turn, starts an internal Workflow. **Figure 2** on page 8 illustrates the process.

Figure 2 eGate-to-Siebel Data Flow
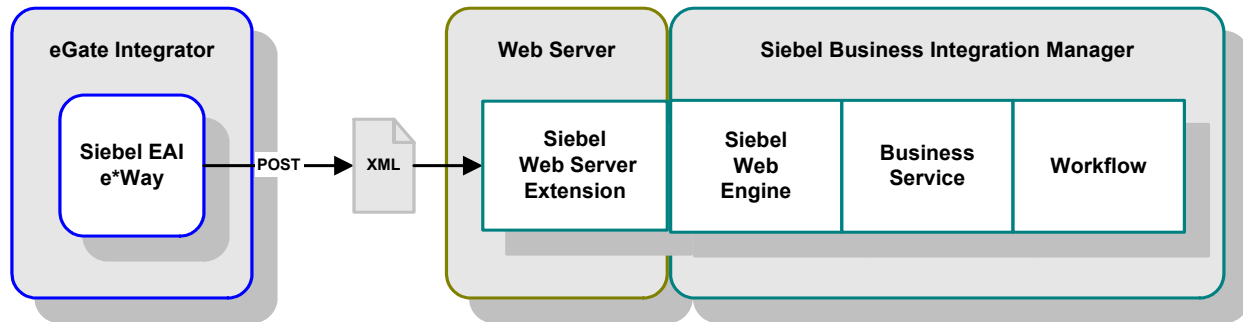
The Workflow invokes the Siebel EAI XML Converter, which converts the information from XML into the Siebel internal format and presents it to the Siebel EAI Adapter. The information is then sent to the Siebel Server via the Siebel Object Manager (see Figure 3).

Figure 3 Siebel Internal Processing - POST
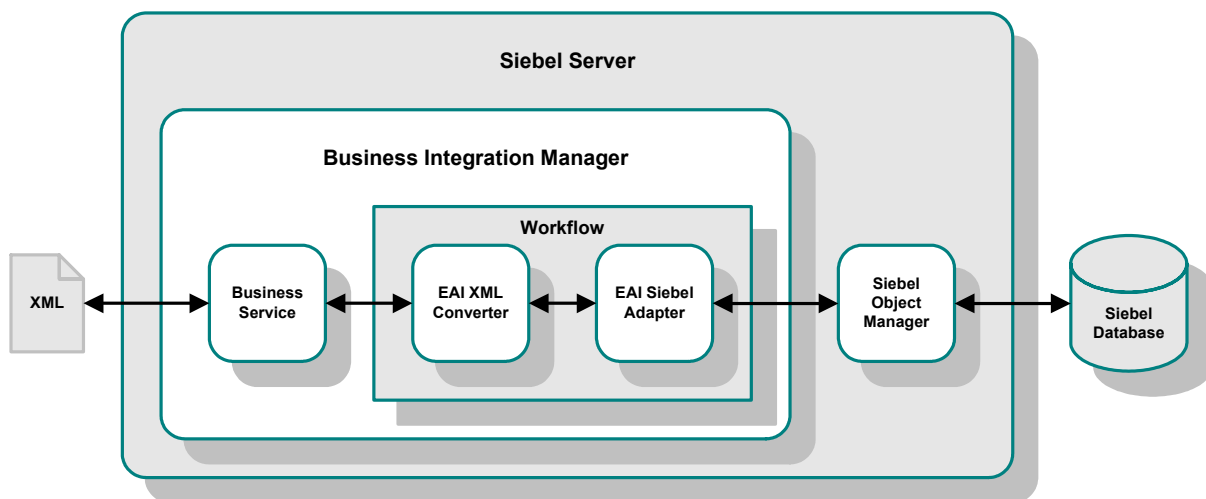
If any data is to be returned, the EAI Siebel Adapter can pass the result to the EAI XML Converter and send the data back to the eWay as a Siebel XML message.

1.1.3 Workflow Templates

A set of SeeBeyond Workflow Templates is included with the Siebel EAI eWay. These Workflow Templates invoke the necessary Workflow Processes to map the data directly to or from the Siebel database. See **Setting Up Siebel Workflows** on page 17.

1.1.4 Session vs. Sessionless Mode

You can run Siebel in either session or sessionless mode. When running in the default Sessionless mode, every message posted to Siebel is enveloped with the login method, negating the need for an explicit login. By contrast, when Siebel runs in Session mode,

the collaboration must include both a login method at beginning and a logout method at the end. Session mode allows you to post multiple messages to Siebel within a loop between a single login and logoff statement. Session mode is only supported using the Java Collaboration Editor (JCE) in eGate; you cannot use Session mode when creating business objects in eInsight.

1.1.5 Using the Siebel Message Header

Siebel supports both Siebel integration objects and Application Service Interfaces (ASIs). A Siebel message header is required for most integration objects or ASIs. In an eGate java collaboration, you can include the Siebel Message Header by adding the appropriate prefix and suffix methods at the front and at the end of the Object Type Definition (OTD). When creating business objects in eInsight, the Siebel Message Header is automatically included when the appropriate web service operation (Query, Update, Insert, Delete) is selected. Also, be sure to set the integrationObjectName.

1.2   Supported Operating Systems

The Siebel EAI eWay is available for the following operating systems:

- Windows Server 2003, Windows XP, and Windows 2000
- AIX 5.1
- Solaris 8 and 9

1.3   System Requirements

To use the Siebel EAI eWay, you need:

- An eGate Participating Host
- A TCP/IP network connection

Note: *To enable Web services, you also must install and configure eInsight.*

1.3.1   Logical Host Requirements

to set up and run the Siebel EAI eWay with the eGate Enterprise Designer, you need:

- Windows Server 2003, Windows XP, or Windows 2000 (a requirement for the user interface)
- Microsoft Internet Explorer 6.0 or later
- A TCP/IP network connection

If the GUI host machine is also executing the Siebel EAI eWay, the that machine must also meet the Participating Host requirements listed in the next section.

Note: *You must configure and administer the eWay using the Enterprise Designer.*

1.3.2   Participating Host Requirements

To enable Web services, you must install and configure eInsight Business Process Manager. See the *eInsight Business Process Manager User's Guide* for details.

1.4   External System Requirements

The Siebel EAI eWay supports the following external systems:

- Siebel 7 and later

Note: The Siebel EAI OTD Wizard requires Siebel 7.5 or later.

In the following, please use the appropriate version of Siebel eBusiness and operating system(s) for your installation. For full information on requirements for the Siebel Environment, see the *Siebel System Requirements and Supported Platforms* document for the version of Siebel you are using.

1.4.1   Client

The following software must be installed on all clients prior to installation of the eWay:

- Siebel Client
- Siebel Tools

1.4.2   Server

The following software must be installed on the server prior to installation of the eWay:

- Siebel Database Server
- Siebel Gateway Server
- Siebel Server
- Siebel Tools
- Siebel Web Server Extension

Windows Operating Systems

- Microsoft Internet Information Server 5.0
- Libraries **stdole2.tlb** and **stdole32.tlb**

AIX Operating Systems

- IBM HTTP Server 2.0 Limited Release

Solaris Operating Systems

- iPlanet Web Server 4.1 with SP8 or above

1.5 Installing the Siebel EAI eWay

Procedures for installing eWays like the Siebel EAI eWay are found in the *ICAN Installation Guide*.

The installation process includes:

- Installing the Repository.
- Uploading products to the Repository (including the Siebel EAI eWay).
- Downloading components (including Enterprise Designer and Logical Host).
- Updating products in Enterprise Designer using the Update Center Wizard.

Follow the instructions for installing the eGate Integrator in the *SeeBeyond ICAN Suite Installation Guide*, and include the following steps:

1 During the procedures for uploading files to the eGate Repository using the Enterprise Manager, after uploading the **eGate.sar** file, select and upload the following below as described in the *SeeBeyond ICAN Suite Installation Guide*:

- ◆ **SiebelEAIeWay.sar** (to install the eWay)
- ◆ **FileeWay.sar** (to install the File eWay, used in the sample Projects)
- ◆ **SiebelEAIeWayDocs.sar** (to install the user guide and the sample Projects)

2 In the Enterprise Manager, click the **DOCUMENTATION** tab.

3 Click **Siebel EAI eWay**.

4 In the right-hand pane, click **Download Sample**, and select a location for the .zip file to be saved.

For information about importing and using the sample, refer to **"Importing the Sample Project" on page 51**.

Note: *Please review* **System Requirements** *on page 10 before installing the eWay.*

Setting Up the Web Server

This chapter describes procedures for configuring a Web Server to connect the Siebel application with the Siebel EAI eWay.

2.1   Overview

Communication with the Siebel 7 EAI application involves one of the following Web servers:

- Microsoft Internet Information Server (IIS) for Windows
- iPlanet Web Server for Solaris
- IBM HTTP Server (Limited Release) for AIX

Note: *This is a special release of IBM HTTP Server 2.0. See the Siebel Systems Requirements and Supported Platforms documentation for information.*

Certain components from Siebel must be installed into the Web server to complete the communications link. See **Installing the Siebel Web Server Extension** on page 14

2.1.1 Preliminary Installations

The following software must be in place and operating correctly:

- Siebel 7
- Siebel Tools
- Siebel Server
- Microsoft IIS, iPlanet Web Server, or IBM HTTP Server (see above)

2.2 Installing the Siebel Web Server Extension

The Siebel Web Server Extension (SWSE) is a shared library that runs inside the Web server to direct user requests to the appropriate Application Object Manager service via the Siebel Web Engine (SWE).

To Install Siebel Web Server Extension (SWSE)

1 From the Siebel installation media, run **\eappweb\setup.exe**, which invokes the installation wizard.

2 Follow the instructions presented by the wizard. Use the naming conventions for your Siebel EAI Application Server.

3 For **Connection Protocol**, specify the default port for an HTTP server, which is **80**.

4 Do *not* use any encryption or compression methods.

5 For **Anonymous Employee** and **Anonymous Contact** login and password, use **SADMIN**.

6 For **Error Level for Logging**, enter **All Errors and Warnings**. You can change this once correct system operation has been verified.

7 In the **\bin** directory where you have installed the Siebel Web Server Extension, open the **eapps.cfg** file and note the following (typical values are shown):

```
[defaults]
AnonUserName = SADMIN
AnonPassword = SADMIN
AnonUserPool = 10
StatsPage = _stats.swe

[/eai]
ConnetString = siebel.TCPIP.none.none://MyGatewayServer:2320/
     MyEnterpriseServer/eaiObjMgr/MyAppServer
EnableExtServiceOnly = TRUE
```

8 After modifying these files, stop and then restart the following services:

   ◆ Siebel Server

   ◆ World Wide Web Publishing Service

9 Log in to Siebel 7 and follow the **Screens** menu path:

Ctrl+Shift+A > **Server Administration** > **Enterprise Configuration** > **Enterprise Component Groups**

Figure 4 Enterprise Component Groups

10 Select the following items, and click **Enable**:

- ◆ Enterprise Application Integration
- ◆ Workflow Management
- ◆ Communication Management

11 Open the browser and type:

```
<yourservername>/<module> (for example,10.1.3.135/eai)
```

and then click **Enter**.

Make sure that your Siebel Server ODBC data source is configured. You can verify which one you are using by examining the Siebel Server log directory—it contains a file listing all the parameters.

To Verify SWSE Operation for Siebel 7

1 Verify that the **Server Request Processor** is running correctly. You may need to synchronize the Server Request Components with the Gateway Server—follow the menu/command path:

Enterprise Configuration > Batch Components Admin > Synchronize

2 Verify that the **EAI Object Manager** is running correctly.

A Follow the path:

Server Admin > Servers > Server Components

B Under **Assignment Components**, select **EAI Object Manager**.

3 *For Windows installations only*, verify that the **.swe** file is associated with **sweiis.dll** in the web site. Use the following procedure to set the association:

A Run the IIS 4.0 **Management Console** application.

B Right-click on your Web site entry in the tree display, and select **Properties**.

C Select the **Home Directory** tab.

D In the **Application Settings** box, select **Configuration**.

E On the **App Mappings** tab, select **Add**.

F Type the following line:

```
.make association swe - sweiis.dll
```

G Select **All Siebel apps**.

4 Verify that the configuration files are set up properly. If LDAP is not used, comment out all LDAP-related parameters in the configuration files of the corresponding application:

```
;[SecurityAdapters]
;LDAP = LDAP

;[LDAP]
;DllName = sscfldap.dll
;ServerName =
;Port = 389
;BaseDN =
```

```
;UsernameAttributeType = uid
;PasswordAttributeType = userPassword
;CredentialsAttributeType = credentials
;RolesAttributeType = roles
;SslDatabase =
```

5   After modifying these files, stop and then restart the following services:

- ◆ Siebel Server

- ◆ World Wide Web Publishing Service

Setting Up Siebel Workflows

This chapter describes procedures for setting up the SeeBeyond Workflow Templates.

3.1 Overview

Included with the Siebel EAI eWay are several SeeBeyond Workflow Templates, which furnish pre-defined workflows within the Siebel application. These workflow templates invoke the following workflow processes to map the data directly to or from the Siebel database.

- **SeeBeyond HTTP Delete** (see **Figure 6 on page 18**)
- **SeeBeyond HTTP Query** (see **Figure 7 on page 19**)
- **SeeBeyond HTTP Update** (see **Figure 8 on page 19**)

  Inserts or Updates according to the provided input values.

- **SeeBeyond HTTP Execute** (see **Figure 9 on page 20**)

  The preferred Workflow for receiving Siebel XML messages from eGate; combines **Delete**, **Query** and **Update** functionality into a single Workflow.

- **SeeBeyond HTTP Send** (see **Figure 10 on page 20**)
- **SeeBeyond HTTP Send Receive** (see **Figure 11 on page 21**)
- **SeeBeyond HTTP Post** (see **Figure 12 on page 21**)

  The preferred Workflow for sending Siebel XML messages to eGate; combines **Send** and **Send/Receive** functionality into a single Workflow.

The names entered above are used to set up the Business Service for the sample program supplied with the eWay. You should use them as templates to create new processes corresponding to the Workflows you create for your own system.

Examples of XML messages used with different Workflow templates are given in **Siebel XML Messages** on page 29.

3.2 Viewing the Workflow Templates

Following the Screens menu path shown below displays the installed Workflow templates, as shown in Figure 5.

Siebel Workflow Administration > Workflow Processes > All Processes

Figure 5   SeeBeyond Workflow Processes

Clicking the process name to invoke a Workflow Process Designer display for that process, such as shown in Figures 7-13.

Figure 6   DELETE Workflow Template
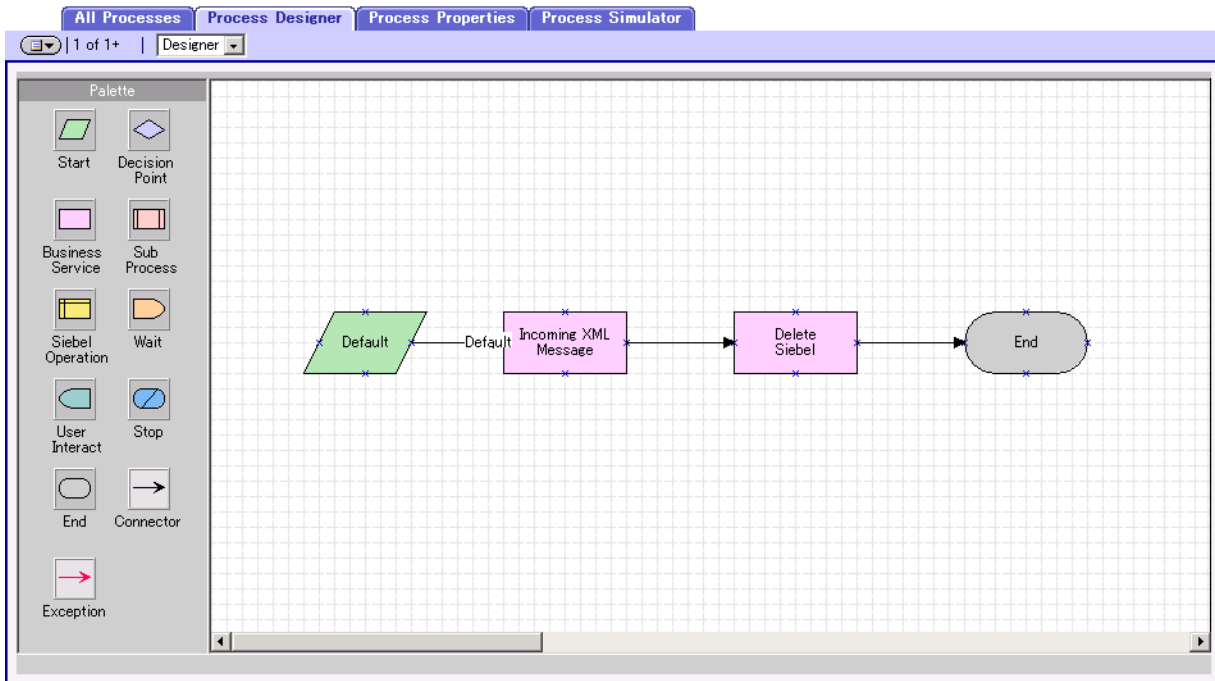
Figure 7   QUERY Workflow Template
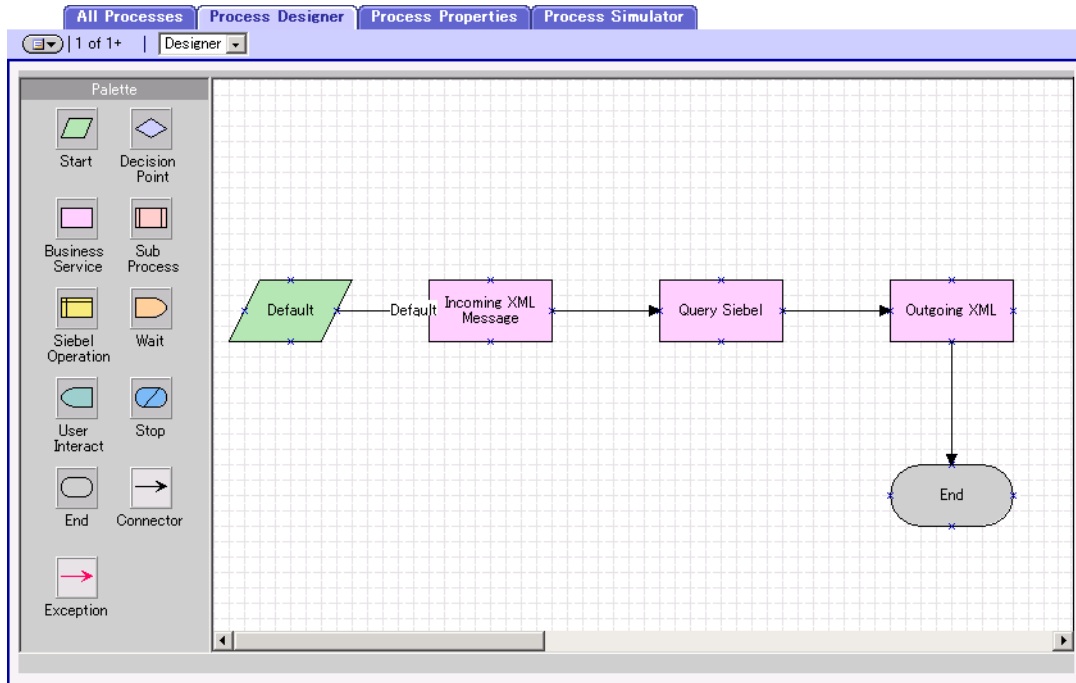
Figure 8   INSERT/UPDATE Workflow Template
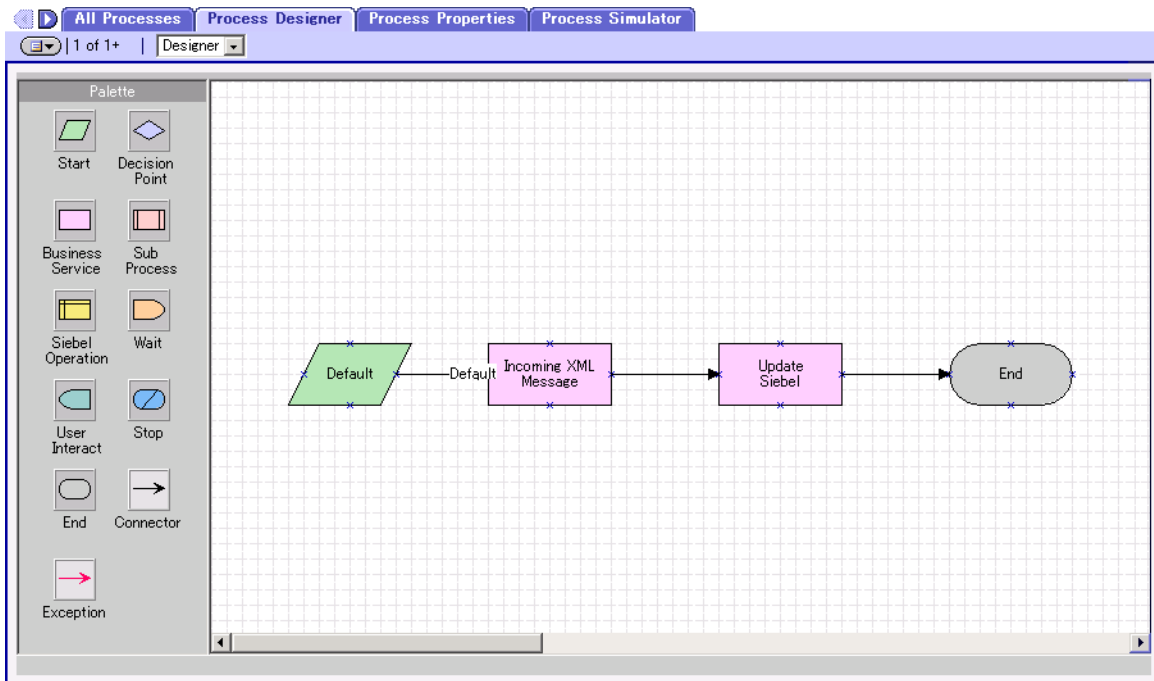
Figure 9   EXECUTE Workflow Template
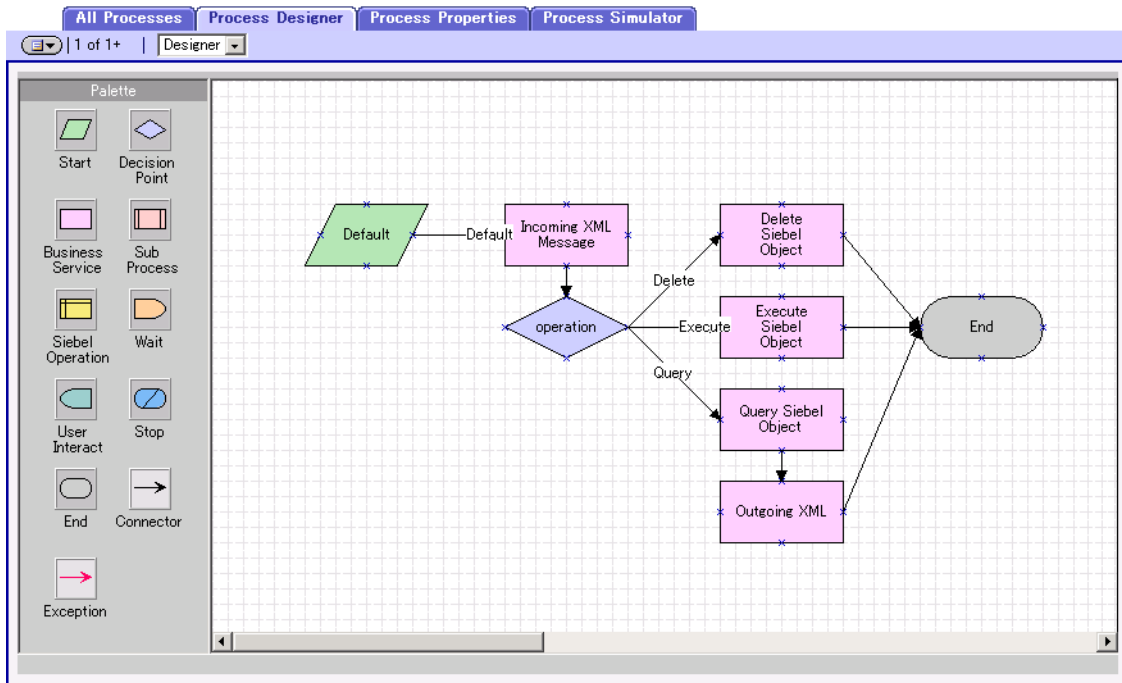
Figure 10   SEND Workflow Template
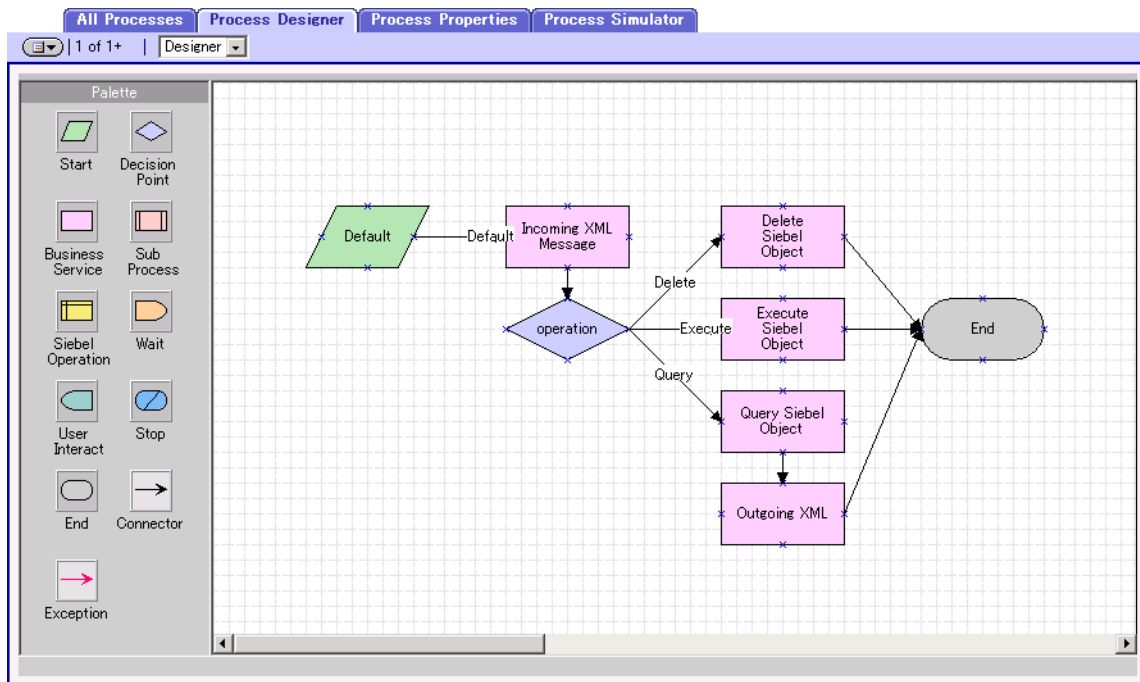
Figure 11   SEND/RECEIVE Workflow Template
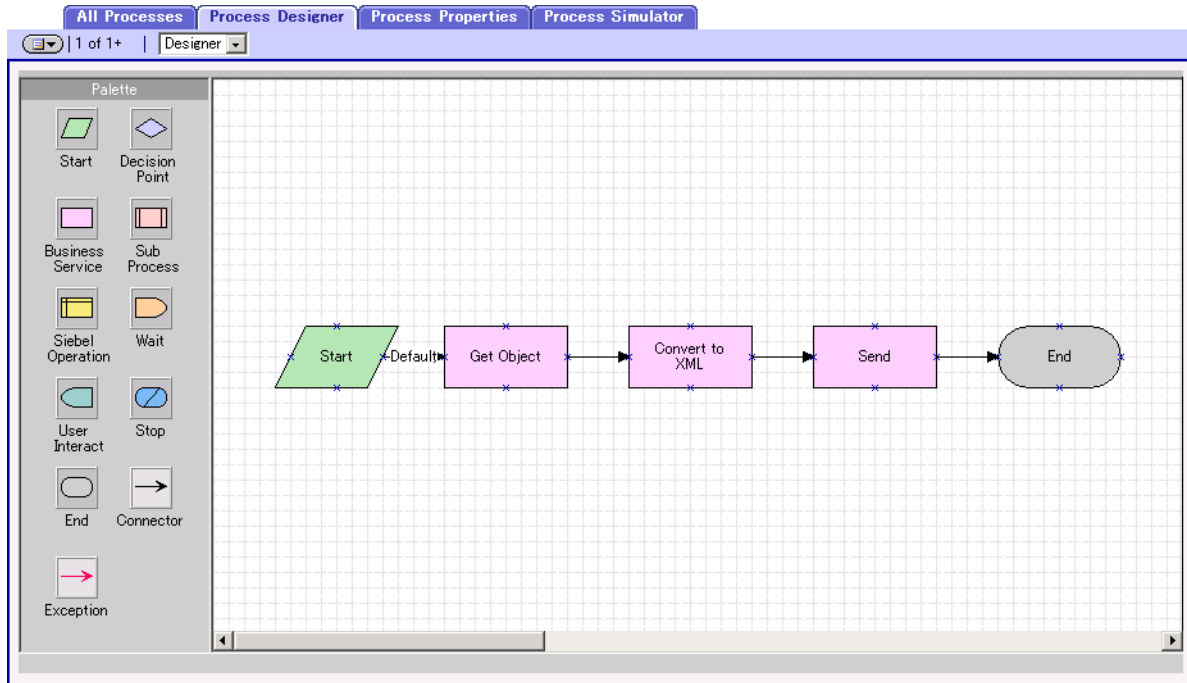
Figure 12   POST Workflow Template
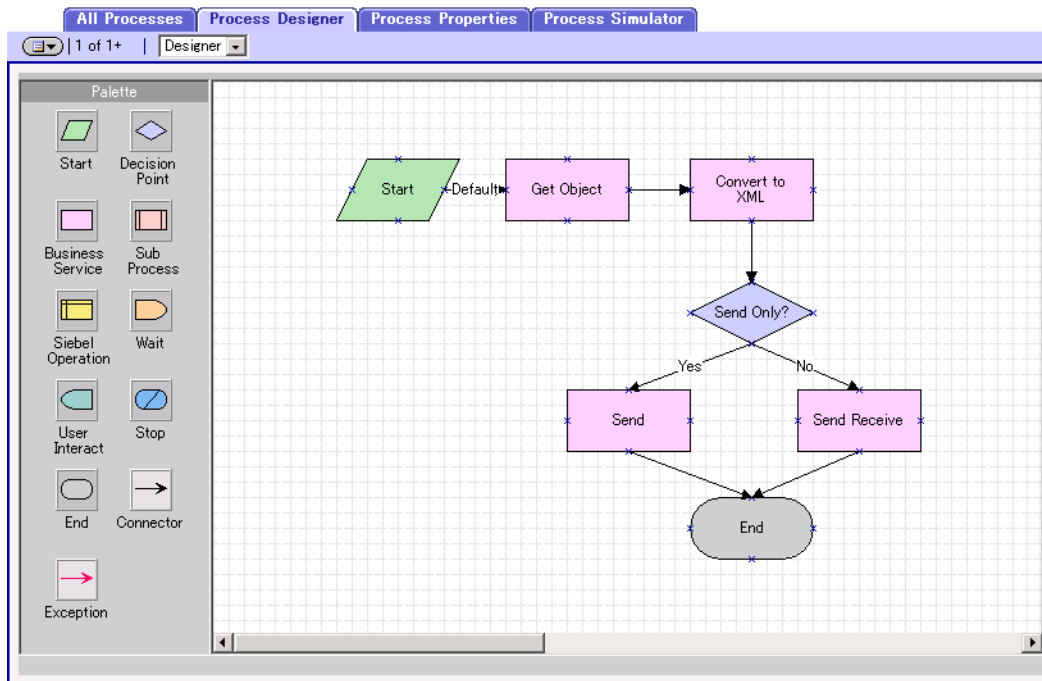
3.3 Importing SeeBeyond Workflow Templates

To Import the SeeBeyond Workflow Templates

1 On the eGate installation CD-ROM, go to:

```
\setup\addons\ewsiebelhttp\common.taz
```

2 Decompress the **.taz** file and open the **.tar** file contained within.

3 Extract the file **SeeBeyondHTTPWorkflow.xml** to an appropriate directory.

4 Start **Siebel EAI Client** and select **Siebel Sales**.

5 Follow the menu path:

Ctrl+Shift+A > Siebel Workflow Administration > Workflow Processes

6 Click **Import** and browse to the directory that contains **SeeBeyondHTTPWorkflow.xml**.

7 Click **Open** to begin importing the Workflow template.

8 Check or set up the following configuration files:

- In the file **SWEApp\eapps.cfg**, verify that the following section is specified correctly:

```
[/eai]
ConnectString = siebel.TCPIP.none.none://<Your Gateway
Server>:3230/ <Your Enterprise Server>/eaiObjMgr/<Your App
Server>
EnableExtServiceOnly = TRUE
```

- For the **eGate-to-Siebel** sample, add the following sections in the file **siebsrvr\bin\ENU\eai.cfg**:

```
[HTTP Services]
...
SEEBEYOND_HTTP_DELETE = SB_HTTP_DELETE
SEEBEYOND_HTTP_QUERY = SB_HTTP_QUERY
SEEBEYOND_HTTP_UPDATE = SB_HTTP_UPDATE
SEEBEYOND_HTTP_EXECUTE = SB_HTTP_EXECUTE

[SB_HTTP_DELETE]
Mode = Document
Service = SeeBeyond HTTP Delete
Method = RunProcess

[SB_HTTP_QUERY]
Mode = Document
Service = SeeBeyond HTTP Query
Method = RunProcess

[SB_HTTP_UPDATE]
Mode = Document
Service = SeeBeyond HTTP Update
Method = RunProcess
```

```
[SB_HTTP_EXECUTE]
Mode = Document
Service = SeeBeyond HTTP Execute
Method = RunProcess
```

9 The imported Workflow must be in *active* mode before it can be used; this is accomplished by clicking the **active** button.

3.4 Modifying SeeBeyond Workflow Templates

Note: *The SeeBeyond Workflow templates provided with the eWay use* **Account** *as the Business Object—you must modify them for use with a different Business Object.*

To Modify a SeeBeyond Workflow Template

1 Log in to **Siebel Client 7.0**, designating the appropriate Siebel server.

2 Follow the menu path:

Ctrl+Shift+A > Siebel Workflow Administration > Workflow Processes

3 Highlight the SeeBeyond Workflow Process template you want to modify.

4 Right-click and select **Copy Record**.

5 Rename the copied Process.

6 Specify the Business Object to which you want to apply the template, and any other fields that may be necessary (for example, Description).

7 After modifying a Workflow template you must create the Business Service to execute it, using the supplied Workflow processes as templates. This procedure is described in the following section.

8 A new Services section should be added to your **siebsrvr\bin\ENU\eai.cfg** file, as shown in the preceding section.

For example, if you have a Business Service named Employee Execute, you should add the following lines to the **eai.cfg** file:

```
[HTTP Services]
...
EMPLOYEE_EXECUTE = EE

[EE]
Mode = Document
Service = Employee Execute
Method = RunProcess
```

3.5 Setting Up SeeBeyond Workflow Processes

The Workflow processes invoked by the SeeBeyond Workflow Templates must be set up in Siebel Business Services.

Note: *The names entered in step **8** are used to set up the Business Service for the sample program supplied with the eWay. You should use them as templates to create new processes corresponding to the Workflows you create for your own system.*

To set up the Business Service to execute the Workflow

1 Make sure the following services are running:

- ◆ Siebel Gateway Server
- ◆ Siebel Server
- ◆ World Wide Web Publishing Service

2 Log in to Siebel Sales 7.0.

3 Follow the **Screens** menu path:

Server Administration > Servers

Figure 13 Server Component Groups

4 Make sure that **Workflow Management** is **Online** and **Enabled**.

5 Log in to Siebel Tools 7.0 and designate the server as the database by entering **sadmin**, **sadmin**, **server**.

6 In Object Explorer, go to **Siebel Objects > Project** and lock the Project (see Figure 14).

Figure 14 Lock Project

Name	Changed	Inactive	Locked	Locked By Name	Locked Date	Language Locked
EAI						
EAI Account						
EAI Business Services						ENU
EAI Converter Services						ENU
EAI CreditCard						ENU
EAI DTE						ENU
EAI Demo						
EAI Design						
EAI Dispatch Service						ENU
EAI Envelope Services						
EAI Product						
EAI Queue						
EAI Sample Perf Test						ENU
EAI Tax						ENU
EAI Test						ENU
EIM						ENU
EIM Accounts and Quotes						ENU
EIM Activity						ENU
EIM Administrative						ENU
EIM Agreement						ENU
EIM Asset Management						ENU
EIM Auction Item						ENU
EIM Audit Trail						ENU
EIM Bussiness Unit						ENU
EIM CHAMP						ENU
EIM CTI						ENU
EIM Call Script						ENU
EIM Class Systems						ENU
EIM Contact						
EIM Correspondence and Fulfillment						ENU
EIM DNB						ENU
EIM ERM						ENU

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z *

7 In Object Explorer, go to **Business Service**, make a copy of **Workflow Process Manager** (menu path **Edit > Copy Record**).

Figure 15 Business Services View - Workflow Process Manager

8 Type the Process Name into the **Name** and **Display Names** fields, as shown in Figure 16 (this name is specified in the **eai.cfg** file).

For eGate-to-Siebel operation, perform this step for:

- **SeeBeyond HTTP Delete**
- **SeeBeyond HTTP Execute**
- **SeeBeyond HTTP Query**
- **SeeBeyond HTTP Update**

Figure 16 Business Services View - Renamed Fields

9 In Object Explorer, go to **Business Service** > **Business Service Userprops**:

A Type **ProcessName** into the **Name** field.

B Type the actual Process Name into the **Value** field (see Figure 17).

For eGate-to-Siebel operation, perform this step for:

- **SeeBeyond HTTP Delete**
- **SeeBeyond HTTP Execute**
- **SeeBeyond HTTP Query**
- **SeeBeyond HTTP Update**

Figure 17   Business Services User Properties

The Workflow Processes you create in the Business Services are similar to those shown in Figure 16.

3.6 Siebel XML Messages

3.6.1 Format

A Siebel XML Message used by Siebel EAI eWay has the following format:

Header/Prefix

Integration Object (in XML format)

Footer/Suffix

where:

Header =

```
<SiebelMessage MessageId="" MessageType="Integration Object"
    IntObjectName="(Name of Integration Object)"
    operation=(action)>
```

Footer =

```
</SiebelMessage>
```

and (**action**) can be any of the following values:

- ⬥ **delete**
- ⬥ **query**
- ⬥ **upsert**

Note: **operation=(action)** *is used only with the* **EXECUTE** *workflow template.*

3.6.2 Examples

Example 1

The following Siebel XML message specifies that the Integration Object that we are dealing with is **Sample Account**. If we send this message to Siebel EAI using the **INSERT/UPDATE** workflow template, either a new record is generated or an existing record is updated.

```
<SiebelMessage  MessageId=""  MessageType="Integration Object"
    IntObjectName="Sample Account">
<ListofSampleAccount>
<Account>
<Name>A. K. Parker Distribution</Name>
<Location>HQ-Distribution</Location>
<Organization>North American Organization</Organization>
<Division></Division>
<CurrencyCode>USD</CurrencyCode>
<Description>This is THE key account in the AK Parker Family</
    Description>
<HomePage>www.parker.com</HomePage>
```

```
<LineofBusiness>Manufacturing</LineofBusiness>
</Account>
</ListofSampleAccount>
</SiebelMessage>
```

Example 2

The following Siebel XML message specifies that the Integration Object that we are dealing with is **Sample Account**. If we send this message to Siebel EAI using the **QUERY** workflow template, it returns the object that matches the Name **A. K***

```
<SiebelMessage  MessageId=""  MessageType="Integration Object"
    IntObjectName="Sample Account">
<ListofSampleAccount>
<Account>
<Name>A. K*</Name>
</Account>
</ListofSampleAccount>
</SiebelMessage>
```

Example 3

The following Siebel XML message provides an example of how to use the **operation** attribute with the **Execute** workflow. Here we send the message to Siebel EAI using the **EXECUTE** workflow template to perform a **query** operation. The result is the same as in Example 2.

```
<SiebelMessage  MessageId=""  MessageType="Integration Object"
    IntObjectName="Sample Account" operation=query>
<ListofSampleAccount>
<Account>
<Name>A. K*</Name>
</Account>
</ListofSampleAccount>
</SiebelMessage>
```

Setting Properties of the Siebel EAI eWay

This chapter explains how to create and configure the Siebel EAI eWay.

Chapter Topics Include:

- **Configuring the Siebel EAI eWay** on page 31
- **Configuring the eWay Connectivity Map Properties** on page 32
- **Configuring the Environment Properties** on page 38

4.1   Configuring the Siebel EAI eWay

All eWays contain a unique set of default configuration parameters. After the eWays are established and a Siebel EAI External System is created in the Project's Environment, the eWay parameters are modified for your specific system. The Siebel EAI eWay configuration parameters are modified from two locations:

- From the **Connectivity Map**—which contains parameters specific to the Siebel EAI eWay, and may vary from other eWays (of the same type) in the Project.
- From the **Environment Explorer tree**—which contains global parameters that commonly apply to all eWays (of the same type) in the Project. Saved parameters are shared by all eWays in the Siebel EAI External System window.

The configuration parameters for the Siebel EAI eWay must be set in both locations.

4.2 Configuring the eWay Connectivity Map Properties

When you link an external application with a Collaboration, Enterprise Designer automatically assigns an appropriate eWay to the link. Each eWay is supplied with a template containing the default configuration properties for the eWay.

4.2.1 Siebel EAI Outbound eWay Properties

The Siebel EAI DB eWay contains outbound parameters accessible via the Configuration Editor.

To configure the eWay properties:

1 On the Enterprise Designer's Connectivity Map (see Figure 18), double-click the Siebel EAI eWay icon.

Figure 18 Connectivity Map With Components
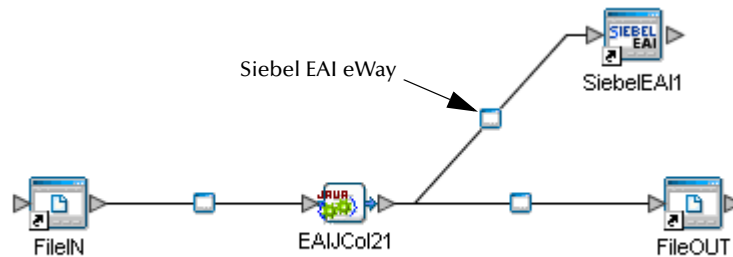
2 The Templates window appears, asking you to choose if the eWay is inbound or outbound. Select the Siebel EAI Outbound eWay and click the **OK** button.

3 The Configuration properties window opens, displaying the default properties for the outbound eWay (see Figure 19).

Figure 19   Configuration Editor: Siebel EAI outbound eWay
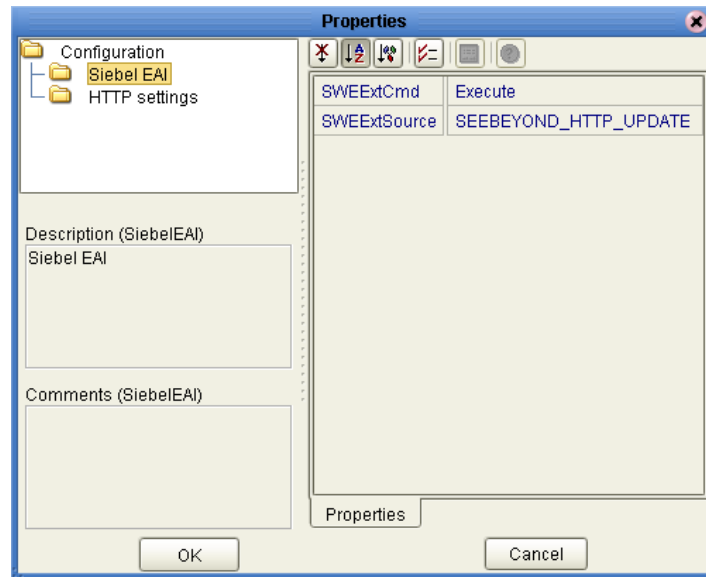
4   Click on any folder to display the default configuration properties for that section.

5   Click on any property field to make it editable.

6   After modifying the configuration properties, click **OK** to save the changes.

7   The modifications you have made are now applied to this specific eWay instance only.

4.2.2 Outbound eWay Property Settings

The eWay property settings define how the properties are used to interact with the Siebel application.

Settings under the Siebel EAI folder include:

- **SWEExtCmd**
- **SWEExtSource**

Settings under the HTTP folder include:

- **Accept type**
- **Allow cookies**
- **Content type**
- **Encoding**

SWEExtCmd

Description

Specifies the external command

Required Values

The default value is Execute

SWEExtSource

Description

Specifies the service the Siebel Web Engine calls

Required Values

The default is: SEEBEYOND_HTTP_UPDATE

Other values may include:

- SEEBEYOND_HTTP_DELETE
- SEEBEYOND_HTTP_EXECUTE
- SEEBEYOND_HTTP_QUERY
- SEEBEYOND_HTTP_UPDATE

Accept type

Description

Specifies the parameters for the Accept Type request header.

Required Values

A string; for example: text/html, text/plain, text/xml

Allow cookies

Description

Specifies whether or not cookies sent from servers is stored and sent on subsequent requests. If cookies are not allowed, then sessions are not supported.

Required Values

True or false; the default is **true.**

Content type

Description

The default Content-Type header value to include when sending a request to the server

Required Values

Encoding

Description

The default encoding used when reading or writing textual data.

Required Values

ASCII

4.2.3 Siebel EAI Inbound eWay Properties

The Siebel EAI DB eWay contains inbound parameters accessible via the Configuration Editor.

To configure the eWay properties:

1   On the Enterprise Designer's Connectivity Map (see **Figure 18 on page 32**), double-click the inbound Siebel EAI eWay icon.

2   The Templates window appears, asking you to choose if the eWay is inbound or outbound. Select the Siebel EAI Inbound eWay and click the **OK** button.

3   The Configuration properties window opens, displaying the default properties for the inbound eWay (see Figure 19).

Figure 20   Configuration Editor: Siebel EAI inbound eWay
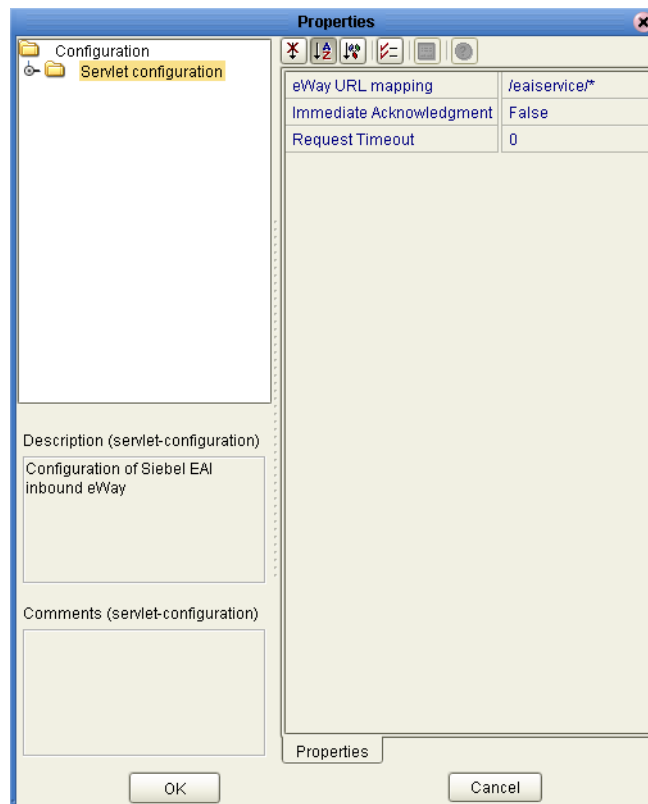
4.2.4 **Inbound eWay Property Settings**

The eWay property settings define how the properties are used to interact with the Siebel application.

Settings in the Servlet Configuration folder include:

- **eWay URL mapping**
- **Immediate Acknowledgment**
- **Request Timeout**

eWay URL mapping

Description

Determines the set of URIs (Universal Rescource Identifier) that the servlet handles. This parameter value is supplied to the eGate Integration Server's web container as this eWay's url-pattern specification, and must follow the rules specified in Section 10 of the Servlet API specification.

Required Values

The default value that the servlet responds to is **/eaiservice/***

Note: *In order for the SeeBeyond Workflow Templates to connect to an inbound Siebel EAI eWay, they must be configured*

http://<hostname>:<port number>/<Siebel EAI Inbound eWay Name>_<EAI Service Name>/ <eaiService>

- **hostname**—the machine name or IP address where the eGate repository is running.
- **port number**—the web container Connector Port in the Environment, located in the Environment properties under:

  Integration Server > Configuration > Sections > Web Container Configuration > Web Server Configurations > Default Web Server
- **Siebel EAI Inbound eWay Name**—as listed on the connectivity map.
- **EAI Service Name**—as listed on the connectivity map.

Immediate Acknowledgment

Description

Determines the responsibility of composing responses to each request. When set to True, the eWay responds to each request itself, instead of waiting for the outcome of the service invocation. The return generated by the service call (if any) is discarded in this case. When set to False, the responsibility of composing an appropriate response is left to the service.

Required Values

True or False; the default is **False.**

Request Timeout

Description

Measured in units of milliseconds, this parameter determines how long the eWay waits for a service invocation to complete, before abandoning the request. A value equal to or less than zero (0) causes the eWay to wait indefinitely.

If the Immediate Acknowledgement parameter is set to False, then this parameter is disregarded.

Required Values

A number that is equal to or greater than zero.

4.3   Configuring the Environment Properties

The eWay Environment Configuration properties contain the parameters that define how the eWay connects to and interacts with other eGate components within the Environment.

4.3.1 Siebel EAI External System Outbound Properties

The Siebel Environment contains outbound properties which are accessible via the Environment Explorer.

To Configure the Environment Properties:

1 In Enterprise Explorer, click the Environment Explorer tab.

2 Expand the Environment created for the Siebel EAI Project and locate the SiebelEAI External System.

Note: For more information on creating an Environment, see the eGate Tutorial.

3 Right-click the SiebelEAI External System and select Properties from the list box. The Environment Configuration Properties window appears.

Figure 21   Environment Configuration Properties window
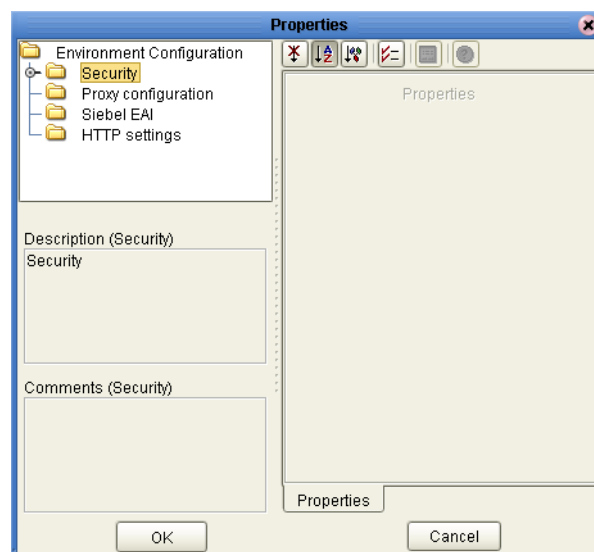
4 Click on any folder to display the default configuration properties for that section.

5 Click on any property field to make it editable.

6 After modifying the configuration properties, click **OK** to save the changes.

4.3.2 **Environment Property Properties**

Configure your Environment properties to match the properties listed below.

Settings Include:

- **Keystore**
- **Keystore Password**
- **Keystore Type**
- **Keystore Username**
- **Protocol SSL**
- **TrustStore**
- **TrustStore Password**
- **TrustStore Type**
- **Use SSL**
- **Verify Hostname**

Settings under the Security - Authentication folder include:

- **HTTP Password**
- **HTTP Username**

Settings under the Proxy Configuration folder include:

- **Proxy Host**
- **Proxy Password**
- **Proxy Port**
- **Proxy Username**

Settings under the Siebel EAI folder include:

- **Password**
- **User Name**

Settings under the HTTP folder include:

- **URL**

Keystore

Description

Specifies the keystore used for key/certificate management when establishing SSL connections.

Required Values

No default value.

Keystore Password

Description

Specifies the password for accessing the keystore used for key/certificate management when establishing SSL connections.

Required Values

No default value.

Keystore Type

Description

Specifies the keystore type of the keystore used for key/certificate management when establishing SSL connections.

Required Values

JKS

Keystore Username

Description

Specifies the username for accessing the keystore used for key/certificate management when establishing SSL connections.

Required Values

No default value.

Protocol SSL

Description

Specifies the SSL protocol to use when establishing an SSL connection with the server.

Required Values

TLS

TrustStore

Description

Specifies the truststore used for CA certificate management when establishing SSL connections.

Required Values

c:\temp\httpts.jks

TrustStore Password

Description

Specifies the password for accessing the truststore used for CA certificate management when establishing SSL connections.

Required Values

seebeyond

TrustStore Type

Description

Specifies the type of truststore used for CA certificate management when establishing SSL connections.

Required Values

JSK

Use SSL

Description

Determines whether HTTPS connections are used.

Required Values

False or True; the default is False

Verify Hostname

Description

Determines whether HTTPS connections are used.

Required Values

False or True; the default is False

HTTP Password

Description

Specifies the password for authenticating to the web site specified by the URL.

Required Values

No default value

HTTP Username

Description

Specifies the username for authenticating to the web site specified by the URL.

Required Values

No default value

Proxy Host

Description

Specifies the hostname of the HTTP proxy.

Required Values

No default value

Proxy Password

Description

Specifies the password required to access the HTTP proxy.

Required Values

No default value

Proxy Port

Description

Specifies the HTTP proxy port.

Required Values

8080

Proxy Username

Description

Specifies the username used to access the HTTP proxy. Enter the URL user name that requires HTTP authentication to access the site.

Required Values

No default value

Password

Description

Specifies the user password.

Required Values

No default value

User Name

Description

Specifies the user name.

Required Values

No default value

URL

Description

Specifies the default URL used to establish a HTTP or HTTPS connection. If HTTPs protocol is specified, SSL must be configured.

Required Values

http://siebel/eai_enu/start.swe

Using the Siebel EAI OTD Wizard

This section describes how to create Object Type Definitions (OTDs) using the Siebel EAI Wizard.

OTDs contain the data structure and rules that define an object. They are generated by extracting the business services that have been exposed through the Siebel Web Engine, and the Integration Objects available in the Siebel instance. For the Siebel EAI eWay, this operation is performed by the Siebel EAI Wizard.

5.1 Creating the OTD

Steps required to create an OTD include:

- **Select Wizard Type**
- **Specify Connection Information**
- **Select Integration Objects**
- **Specify OTD Names**

Select Wizard Type

1 On the Enterprise Explorer, right-click on the Project folder, and choose **New** > **Object Type Definition** from the selection menu.

2 The **Select Wizard Type** appears, displaying the available **OTD** wizards. See **Figure 22 on page 45**.

Figure 22 Select Wizard Type window
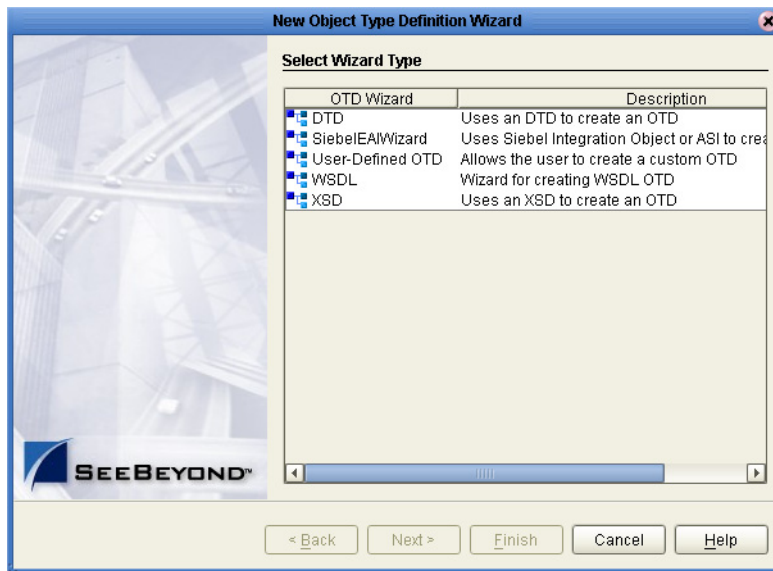
Specify Connection Information

1 From the list of available OTD wizards, select the **SiebelEAIWizard** and click the **Next** button. The C**onnect to Siebel EAI Server** window appears.

Figure 23 Siebel Server Connection window
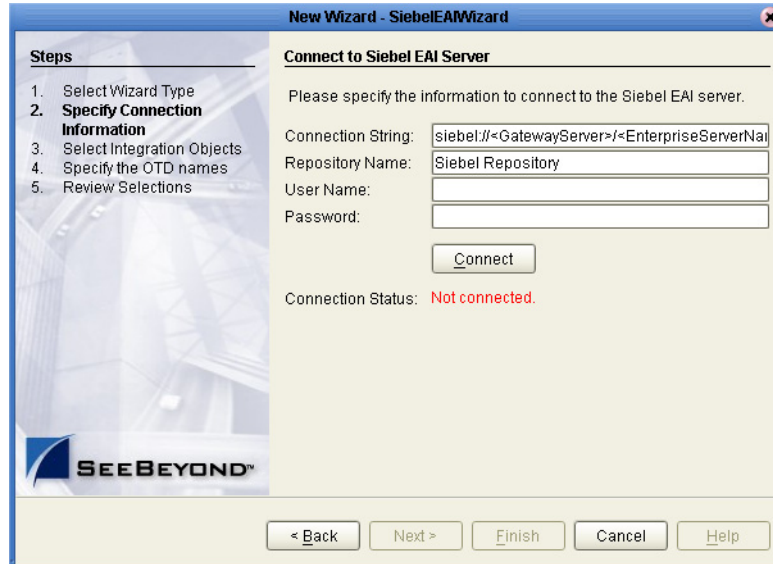
2 Enter the following information into the text fields:

- **Connection String:** siebel://<GatewayServer>/<EnterpriseServerName>/
  <ApplicationObjectManager>/<SiebelServerName>

- **Repository Name:** Siebel Repository

- **User Name:** a valid user name

- **Password:** a valid password

3 Click the **Connect** button. A message appears confirming a successful connection.

Figure 24 Successful Server Connection window

Select Integration Objects

1 Click the **Next** button. The **Select Integration Objects** window appears. Scroll down the Integration Objects selection table and select **Account Interface**.

2 Click the **Add** button. Account Interface appears in the Selected Objects window.

Figure 25 Select Integration Objects window
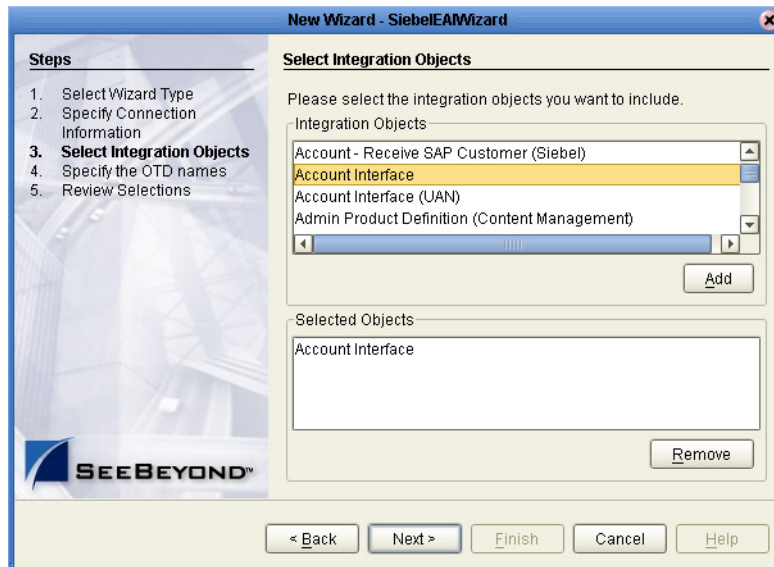
Specify OTD Names

1 Click the **Next** button. The **Specify the OTD names** window appears.

Figure 26 Specify the OTD names window
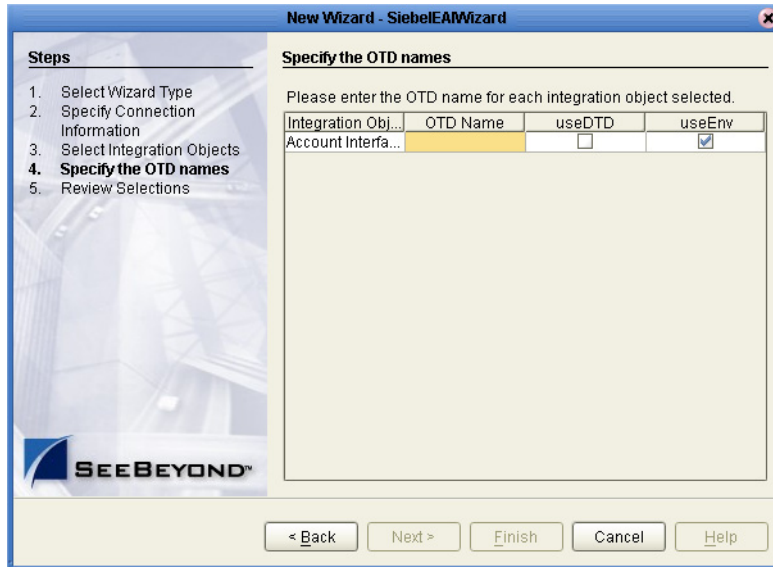
2 In the OTD Name column, enter the value **AcctInt**, then click the **Tab** button.

3 Click the **Next** button. The Review your Selections window appears.

Figure 27 Review your Selections window
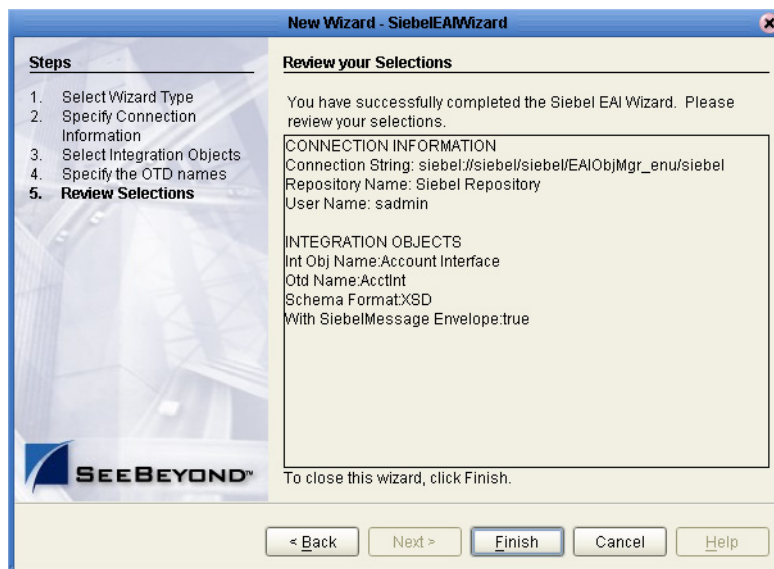
4 Click the **Finish** button. A message appears confirming the successfully generated OTD. See **Figure 28 on page 48**.

Figure 28   Completed OTD Message window
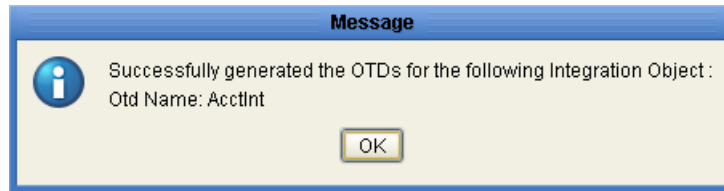
Reviewing the Sample eWay Projects

This chapter describes how to use the sample Projects included in the installation CD-ROM package. Sample Projects are designed to provide an overview of the basic functionality found in the Siebel EAI eWay. In this chapter, the sample Projects are divided into two categories: Projects that include a business process created with the eInsight module, and Projects that are created only using the core eGate product.

This Chapter Includes:

- **The eInsight Engine and Components** on page 49
- **Using the Sample Project with eInsight** on page 50
- **Using the Sample Project in eGate** on page 57

Note: *While several key steps are required to create, activate, and deploy a Project, only the steps that contain information relevant to the Siebel EAI eWay are included in this chapter. For more detailed information on how to compete a sample Project, see the eGate Tutorial.*

6.1 The eInsight Engine and Components

You can deploy an eGate component as an Activity in an eInsight Business Process. Once you have associated the desired component with an Activity, the eInsight engine can invoke it using a Web Services interface. Examples of eGate components that can interface with eInsight in this way are:

- Java Messaging Service (JMS)
- Object Type Definitions (OTDs)
- An eWay
- Collaborations

Using the eGate Enterprise Designer and eInsight, you can add an Activity to a Business Process, then associate that Activity with an eGate component, for example, an eWay. When eInsight runs the Business Process, it automatically invokes that component via its Web Services interface.

6.2 Using the Sample Project with eInsight

This section describes how to use the Siebel EAI eWay with the SeeBeyond ICAN Suite's eInsight Business Process Manager and it's Web Services interface.

Section Topics Include:

- **Project Overview** on page 50
- **Locating the Sample Projects** on page 51
- **Importing the Sample Project** on page 51
- **Sample Project Business Process** on page 52
- **Configuring the Modeling Elements** on page 54

6.2.1 Project Overview

Before running a sample Project, you must:

- Import the sample Project
- Create an Environment for the sample Project
- Configure the eWay properties for your specific system (see **Setting Properties of the Siebel EAI eWay** on page 31)
- Create a Deployment Profile

Two sample Projects using the eInsight business process are included on the installation CD-ROM.

- **EAI_BPEL_ai_Upsert**—uses the UANSyncAccount Siebel workflow.
- **EAI_BPEL_sa_Upsert**—uses the SEEBEYOND_HTTP_UPDATE siebel workflow.

Both sample Projects contain an input file that accepts sample data, and creates an output that writes the response code to a log file.

The figure below shows the business process used by the sample Projects.

Figure 29   Siebel EAI Sample Project Data Flow
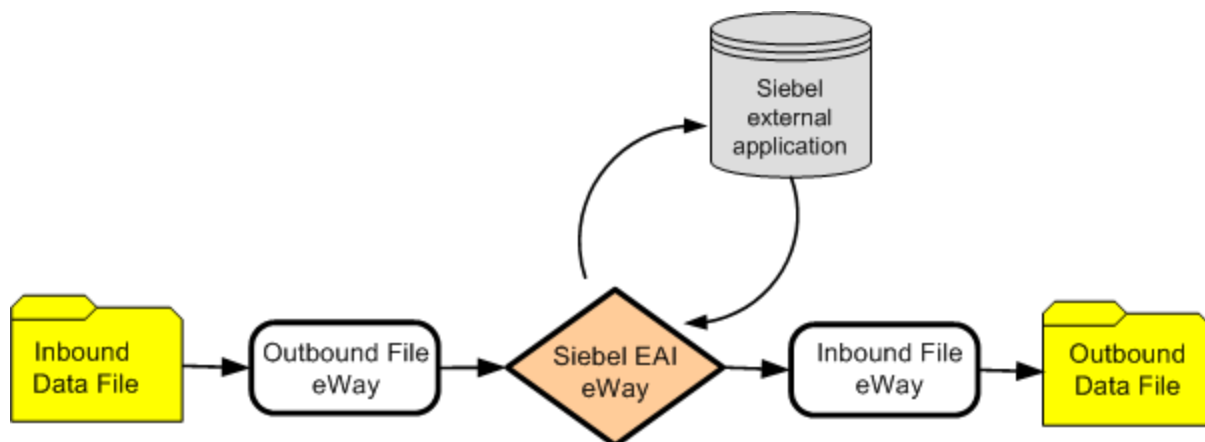
6.2.2 Locating the Sample Projects

The eWay sample Projects are included in the **SiebelEAIeWay.sar**. This file is uploaded separately from the Siebel EAI sar file during installation. For information, refer to **"Installing the Siebel EAI eWay" on page 12**.

Once you have uploaded the **SiebelEAIeWay.sar** to the Repository and you have downloaded the sample Projects using the **DOCUMENTATION** tab in the Enterprise Manager, the sample resides in the folder specified during the download.

6.2.3 Importing the Sample Project

Before you can use the sample eInsight Business Process Project, you must first import the Project into the SeeBeyond Enterprise Designer using the Enterprise Designer Project Import utility.

Note: eInsight is a Business Process modeling tool. If you have not purchased eInsight, contact your sales representative or information on how to do so.

To import the sample Project

1   From the Enterprise Designer's Project Explorer pane, right-click the Repository and select **Import**.

2   In the **Import Manager** window, browse to the directory that contains the sample Project zip file.

3   Select the sample file and then click **Open**.

4   Click the **Import** button. If the import was successful, then click the **OK** button on the **Import Status** window.

5   Close the Import Manager window and select **Refresh All from Repository** from the shortcut menu.

6.2.4 **Sample Project Business Process**

The data used for the sample Projects are contained within an input file called **siebelEAI.txt**, which displays data in XML like tags.

Figure 30   Input Data File

```
<ListOfAccountInterface>
<Account>
<AccountId>8-88A18</AccountId>
<AccountStatus>Active</AccountStatus>
<MainPhoneNumber>626-123-4567</MainPhoneNumber>
<Name>Smith</Name>
<Type/>
<ListOfBusinessAddress>
<BusinessAddress>
<AddressId>9-28FAB</AddressId>
<AddressIntegrationId>CCF87EB651B5D111D70A12532DA6D7</
AddressIntegrationId>
<City>Monrovia</City>
<Country>USA</Country>
<County>Los Angeles</County>
<PostalCode>91016</PostalCode>
<State>CA</State>
<StreetAddress>800 Royal Oaks Ave</StreetAddress>
</BusinessAddress>
</ListOfBusinessAddress>
<ListOfRelatedContact/>
<ListOfRelatedOrganization>
<RelatedOrganization IsPrimaryMVG="Y">
<OrganizationId>0-R9NH
</OrganizationId>
</RelatedOrganization>
</ListOfRelatedOrganization>
</Account>
</ListOfAccountInterface>
```

Creation of a business process includes:

- Dragging and dropping business process activities from the Project explorer tree to the eInsight Business Process Designer's modeling canvas.

- Connecting logical business activities together.

- Adding business rules between activities.

Figure 31 provides an example of a completed business process.

Figure 31   Example Business Process

Adding Business Process Activities

An eInsight Business Process Activity can be associated with the Siebel EAI eWay during system design phase. To make this association, select the desired operators under eWay in the Enterprise Explorer and drag it onto the eInsight Business Process Designer canvas.

The Siebel EAI eWay has the following operators available:

- receive
- unmarshal
- marshal
- eaiPost
- write

The operation is automatically changed to an Activity with an icon identifying component that is the basis for the Activity. At run time, eInsight invokes each the order defined in the Business Process. Using eInsight's Web Services interface, Activity in turn invokes the Siebel EAI eWay.

6.2.5 Using OTD Integration Objects

Each sample Project uses a different integration object within the OTD. For more information on the steps required to create OTDs using the SiebelEAI Wizard, see **"Using the Siebel EAI OTD Wizard" on page 44**

- **EAI_BPEL_ai_Upsert**—uses the Account Interface Integration Object
- **EAI_BPEL_sa_Upsert**—uses the Sample Account Integration Object

6.2.6 Available Web Service Operations

Siebel EAI contains several web service operations, located at SeeBeyond > eWays > SiebelEAIeWay > Siebel EAI.

Web service operations include:

- **eaiPost**—uses the *Account Interface* integration object with the **UANSyncAccount** workflow.
- **eaiQueryPost**—uses the *Sample Account* integration object with the **SeeBeyond HTTP Query** workflow.
- **eaiUpsertPost**—uses *Sample Account* integration object with the **SeeBeyond HTTP Update** workflow.
- **eaiDeletePost**—uses *Sample Account* integration object with the **SeeBeyond HTTP Delete** workflow.
- **eaiwebportalReceive**—a web service operation that supports the inbound functionality in the business process.

6.2.7 Configuring the Modeling Elements

Business rules are defined and configured between the business process activities located on the modeling canvas. The sample Projects contain business rules between each of the activities listed in the business process flow.

Note: *A detailed description of the steps required to configure modeling elements are found in the eGate Integrator's User's Guide.*

Sample eInsight Projects included on the installation CD-ROM contain similar business rules. The business process described below uses the **EAI_BPEL_ai_Upsert** sample as illustration.

During the business process, the sample Project:

- Unmarshalls data into an OTD
- Marshalls data from the Siebel workflow
- Calls the PostSiebelform
- Verifies the Response Code from Siebel
- Writes the output log file

Unmarshall Data

Data is first read as a long string from the input file, then broken up into recognizable fields and placed into the account interface table (AcctInterface.unmarshal.Output OTD).

Figure 32   Unmarshalling Data into the OTD
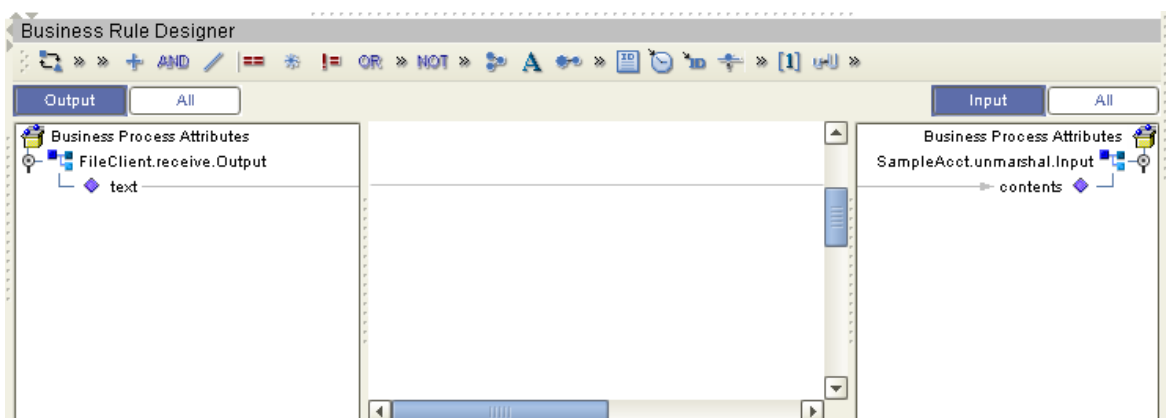
Marshall Data into the Siebel Workflow

The OTD data is grabbed, marshalled to string format, and then assigned to the account interface table (AcctInterface.marshal.Input OTD).

Figure 33   Marshaling Data from the Siebel Workflow
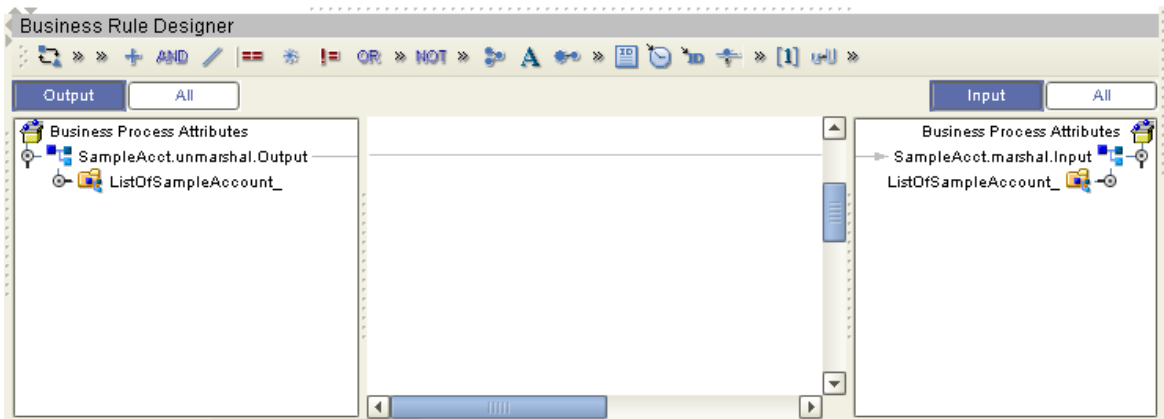
Call the PostSiebelform

The PostSiebelform is a method that invokes the UANSyncAccount workflow. Data from the xmlData field is forwarded in an XML-formatted message to the Siebel Workflow that manages and enforces the Business Process.

Figure 34   Calling the PostSiebelform
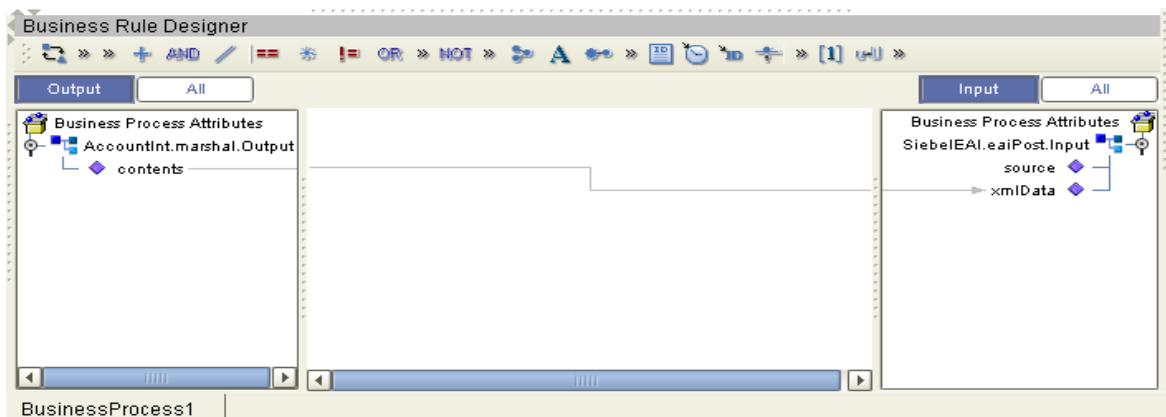
Verify the Response Code

During run-time, the Workflow invokes the Siebel EAI XML Converter, which converts the information from XML into the Siebel internal format. The responseCode responseMessage and textResult are concatenated into a single response back to the user.

Figure 35   Verifying the Response Code
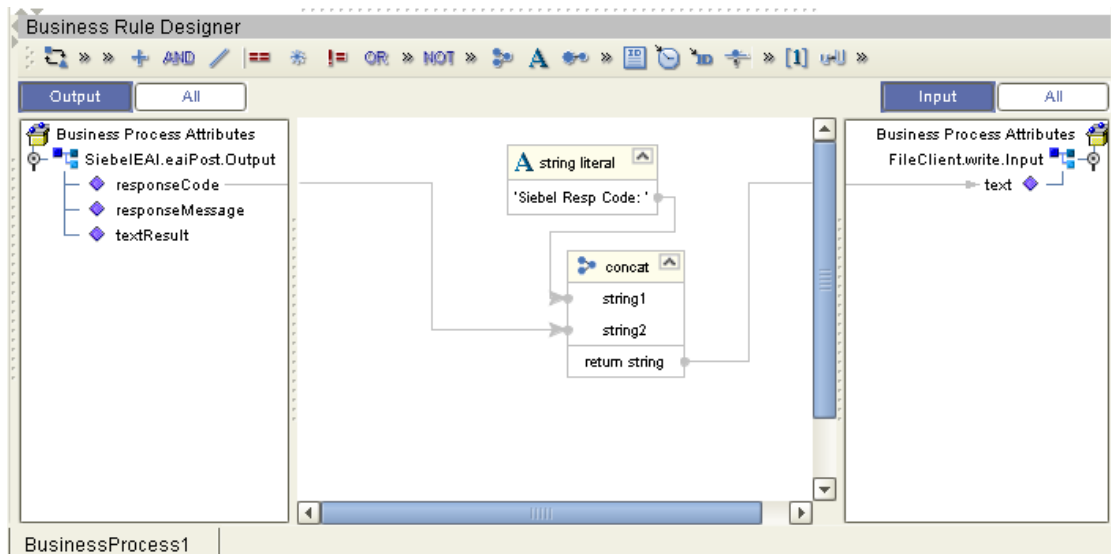
Write the Response Code

The final step is to write the response code log file, which verifies the operational status of the Workflow

6.3 Using the Sample Project in eGate

This section describes how to use the Siebel EAI eWay with the eGate Integrator.

Section Topics Include:

Working with the Sample Projects in eGate on page 57

Configuring the eWays on page 57

Creating the Environment Profile on page 58

Deploying a Project on page 58

Running the Sample on page 59

6.3.1 Working with the Sample Projects in eGate

Two sample Projects created using eGate Integrator are included on the installation CD-ROM.

- **EAI_JCE_ai_Upsert**—uses the UANSyncAccount Siebel workflow.
- **EAI_JCE_sa_Upsert**—uses the SEEBEYOND_HTTP_UPDATE siebel workflow.

Both sample Projects contain an input file that accepts sample data, and creates an output that writes the response code to a log file. Along the way, Siebel Business process validates data and enforces the necessary business rules. An example of the business process used by the sample Projects is found in **Figure 29 on page 50**.

6.3.2 Configuring the eWays

The sample uses three eWays: Inbound File eWay, Outbound File eWay, and Siebel EAI eWay. To configure the sample Projects eWays, use the following information.

Figure 36 Connectivity Map
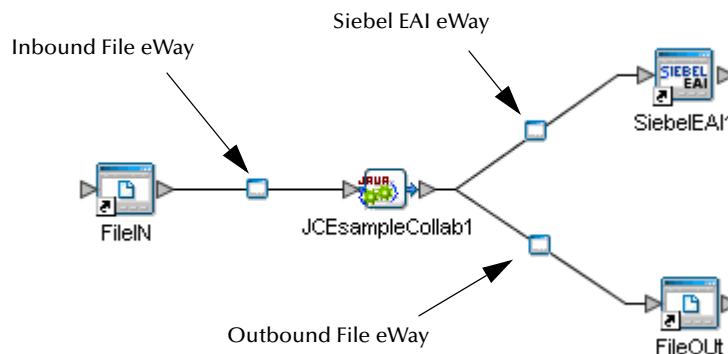
Note: *For additional information on the eWay properties, see* **Setting the eWay Properties in the Connectivity Map** *on page 10.*

To configure the Inbound File eWay:

1   On the Connectivity Map canvas, double click the eWay icon located between the **FileIn** and the **JavaCollaboration** Service.

2   On the resulting **Templates** window, select **Inbound File eWay** and click **OK**.

3   On the **Properties** window, enter the appropriate configurations for the Inbound File eWay. See the *File eWay User's Guide* for information on how to specifically configure the File eWay. For this sample, the default settings are used.

4   When you have completed your selections, click **OK**.

To configure the Outbound SiebelEAI eWay:

1   On the Connectivity Map canvas, double click the eWay icon located between the **JavaCollaboration** Service and **SiebelEAI** database.

2   On the Properties window, enter the appropriate configurations for the Outbound Sybase eWay and click **OK**. See **Setting the Properties in the Outbound eWay** on page 10. For this sample, the default settings are used.

3   When you have completed your selections, click **OK**.

To configure the Outbound File eWay:

1   On the Connectivity Map canvas, double click the eWay icon located between **JavaCollaboration** Service and **FileOut** eWay.

2   On the resulting **Templates** window, select **Outbound File eWay** and click **OK**.

3   On the **Properties** window, enter the appropriate configurations for the Outbound File eWay. See the *File eWay User's Guide* for information on how to specifically configure the File eWay. For this sample, change the Directory field to **<valid path to the directory where the output file will be stored>**. The Output File Name to **Output1.dat**. For the remaining parameters, the default settings are used.

4   When you have completed your selections, click **OK**.

6.3.3 Creating the Environment Profile

To review the components of the Sample Project, there is an Inbound and an Outbound File eWay, an eWay, and a Service.

To create the external Environment for the Sample Project:

1   On the Environment Explorer, highlight and right-click the eWay profile.

2   Select **Properties**, and enter the configuration information required for your Outbound eWay. For more information, see **Environment Property Properties** on page 39.

6.3.4 Deploying a Project

To deploy a Project, please see the *eGate Integrators User's Guide*.

6.3.5 Running the Sample

For instruction on how to run the Sample Project, see the *eGate Tutorial*.

Once the process has completed, the Output file in the target directory configured in the Outbound File eWay will contain all records retrieved from the database in an .xml format.

Using eWay Java Methods

The Siebel EAI eWay exposes various Java methods to add extra functionality, making it easier to set, and get information in the Siebel ESI eWay OTDs. For a complete list of the Java methods within the classes listed below, refer to the **Javadoc**.

- EAIWebClientApplication
- EAIWebRequest
- EAIWebResult
- SiebelEAIAlertCodes
- SiebelEAIClientApplication

You can find the **Javadoc** in the **SiebelEAIeWayDocs.sar** file. For complete instructions on uploading files to the repository, see the *ICAN Installation Guide*.

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