

***SeeBeyond ICAN Suite***

# **SAP (BAPI) eWay Intelligent Adapter User's Guide**

***Release 5.0.1***



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# Introducing the SAP (BAPI) eWay

The SAP (BAPI) eWay provides ICAN Projects with the ability to exchange data with SAP R/3 software. This chapter provides an overview of the SAP (BAPI) eWay.

### In This Chapter

- [About the SAP \(BAPI\) eWay](#) on page 6
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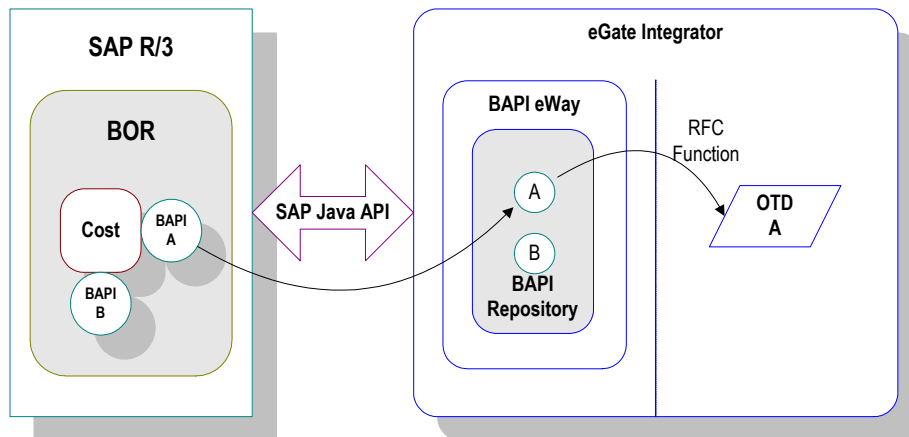
## 1.1 About the SAP (BAPI) eWay

The SAP (BAPI) eWay enables ICAN Projects to exchange data with SAP R/3 software using Business Application Programming Interfaces (BAPIs). BAPIs are standard SAP interfaces that are defined in the SAP Business Object Repository (BOR) as business objects that can be accessed using the Remote Function Call (RFC) protocol.

The SAP R/3 software uses ABAP function modules (functions), some of which can be called from external non-SAP systems. The functions that are enabled to be called remotely are named Remote Function Modules (RFMs).

The SAP (BAPI) eWay uses the SAP Java Connector (JCo) to allow Java applications to access BAPIs and RFMs. Applicable BAPI methods are held in the eWay server's repository, and are invoked by an RFC call from SAP R/3. When invoked, they are passed as an RFC function into an ICAN Object Type Definition (OTD). OTDs define the business logic for Collaborations and Business Processes.

Figure 1 BAPI eWay



The functionality of the SAP (BAPI) eWay simplifies the process of determining the requisite **IMPORT**, **EXPORT** and **TABLE** parameters—marshaling all the necessary data using the correct type and format, calling the RFM that represents the BAPI, and then extracting and parsing data from the **EXPORT** and/or **TABLE** parameters.

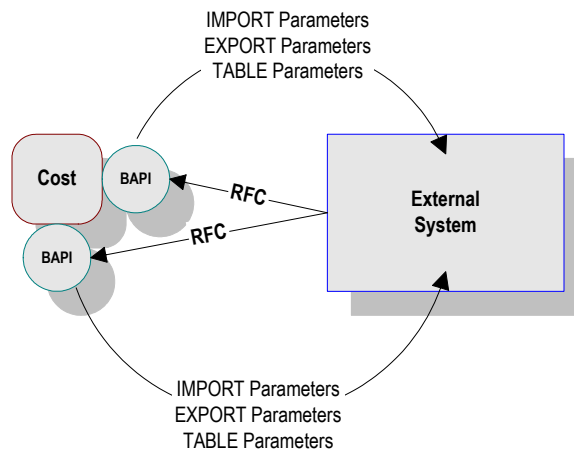
### 1.1.1 Invoking BAPI Methods

Before it can be invoked, a BAPI or RFM requires the following parameters:

- **IMPORT** parameters: data provided to the BAPI
- **EXPORT** parameters: data returned by the BAPI
- **TABLE** parameters - data provided to and/or returned by the BAPI

The detailed metadata for these parameters such as descriptions of their value types and mandatory or optional nature, can be found under SAP transaction **SE37**.

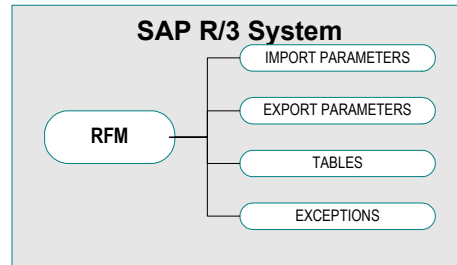
Figure 2 Required Information



## 1.1.2 Remote Function Calls

A Remote Function Call (RFC) is SAP's term for a call to a function, or function module, in one system (the server) from another system (the client). An SAP Remote Function Module (RFM) has four main components, as shown in Figure 3.

**Figure 3** Remote Function Module



When making a call to a Remote Function Module, two different environments are involved (server and client). As a result, information is passed in a different manner than if the function call was being performed locally.

- **Import/Export Parameters**

The actual values must be passed between systems, instead of being done by reference.

- **Tables**

The entire contents of a table must be passed, creating a local copy on the server. After the RFC is completed, then the original table (on the client) is updated.

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## 1.2 The SAP (BAPI) eWay Data Flows

When the SAP (BAPI) eWay communicates with the SAP R/3 software, it uses the RFC protocol. The list below shows the RFC types of communication used:

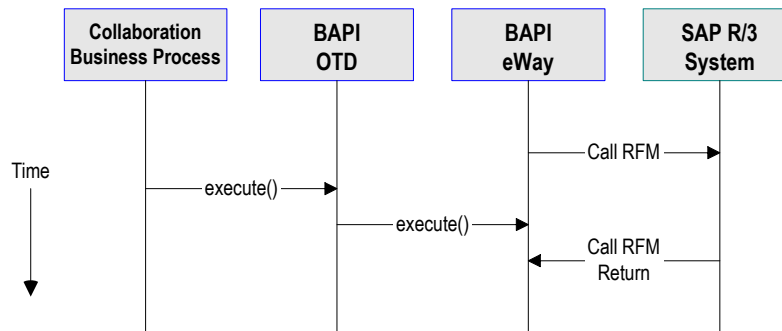
- Outbound (ICAN to SAP R/3): non-transactional (regular) RFC
- Inbound (SAP R/3 to ICAN): non-transactional and transactional RFC (tRFC)

### 1.2.1 Outbound Data Flow: ICAN to SAP R/3

Outbound communications occur when the eWay receives data from ICAN and sends it to SAP R/3 by calling a specific BAPI or RFM. The communication protocol used is non-transactional RFC. The figure below shows the outbound process.



**Figure 4** Outbound Data Flow: ICAN to SAP R/3



The figure above shows the following steps for the outbound data flow:

- 1 The Collaboration or Business Process populates the appropriate BAPI or RFC **Import** and **Table** parameter nodes with data from an inbound OTD.
- 2 The eWay logs onto the SAP R/3 application using preconfigured properties.
- 3 The eWay calls the BAPI OTD's **execute()** method. Any work performed is immediately committed by SAP R/3 through autocommit.
- 4 The SAP R/3 applications returns successfully.

## 1.2.2 Inbound Data Flow: SAP R/3 to ICAN

For the inbound data flow, the eWay can receive data from SAP R/3 via RFC or tRFC. The sections below describe each protocol.

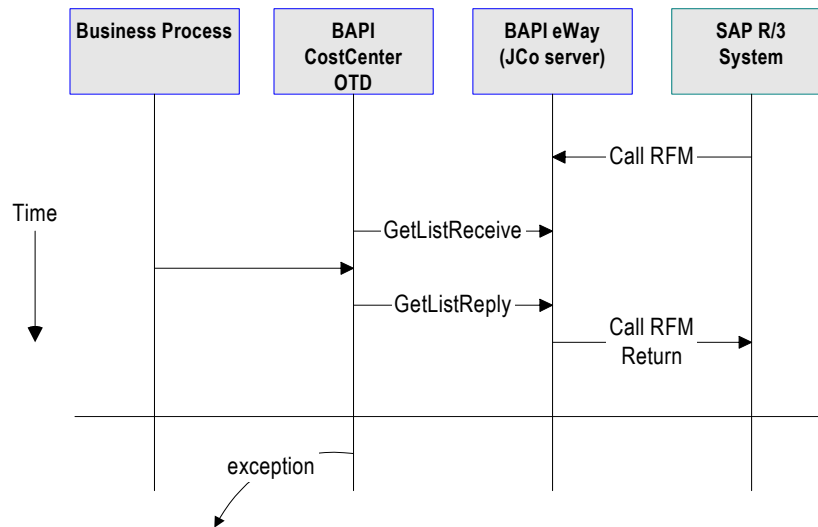
To enable the eWay to receive data from SAP R/3, the eWay must be configured in the SAP R/3 application with an RFC destination. For information, refer to [“Creating the RFC Destination for the eWay” on page 38](#).

*Note:* Inbound communications are supported for eInsight Business Processes, but not for eGate Integrator Collaborations.

### Inbound Data Flow via RFC

RFC provides a simple non-transactional data transmission from SAP R/3 as shown in the figure below. The sequence diagram uses a sample CostCenter OTD to describe the RFC server sequence.

**Figure 5** Inbound Data Flow via RFC



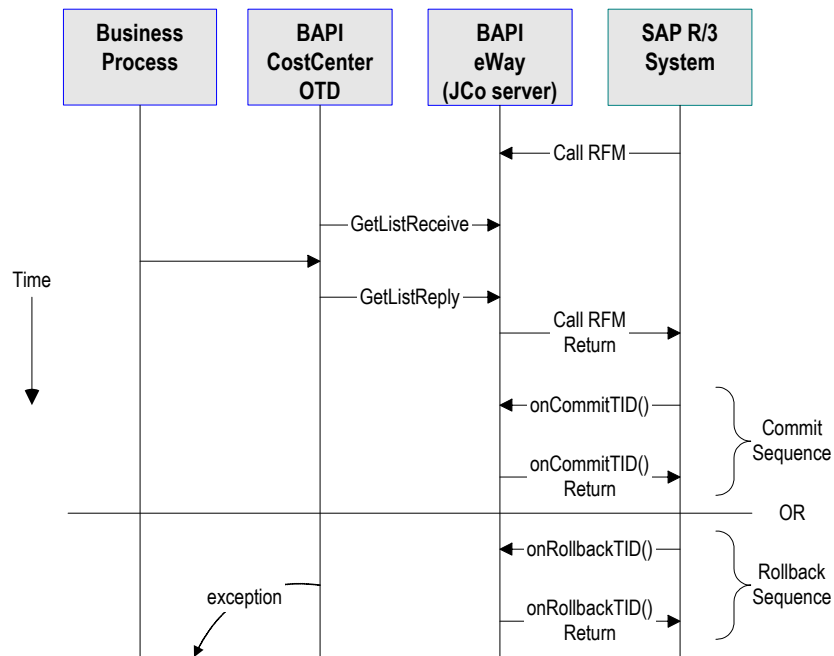
The figure above shows the following steps for the inbound data flow via RFC:

- 1 The Business Process is activated when an RFM call is received from SAP R/3.
- 2 Finding that data from an RFM is available, the Business Process accesses all pertinent data nodes and sends the gathered information to other ICAN components.
- 3 The eWay returns the results of the RFM execution back to SAP.

## Inbound Data Flow via tRFC

Communication via tRFC is the similar to RFC, except that it adds transactional verification steps prior to committing or rolling back. tRFC is preferred over RFC because of the additional reliability. By using unique TIDs associated with a BAPI/RFM call, SAP R/3 processes the data once, and only once. The figure below shows inbound data flow via tRFC.

**Figure 6** Inbound Data Flow via tRFC



The figure above shows the following steps for the inbound data flow via tRFC:

- 1 The Business Process is activated when an RFM call is received from SAP R/3.
- 2 Finding that data from an RFM is available, the Business Process accesses all pertinent data nodes and sends the gathered information to other ICAN components.
- 3 The eWay returns the results of the RFM execution back to SAP R/3.
- 4 If the RFM call returned successfully without exceptions, SAP R/3 informs the eWay that the data can be committed by calling `onCommitTID()`.
- 5 The eWay updates the TID in the file database as being **Committed**, commits the data, and sends an `onCommitTID()` return to SAP R/3.
- 6 If the RFM call did not return successfully, SAP R/3 informs the eWay that the data must be rolled back by calling `onRollbackTID()`.
- 7 The eWay rolls back the data and throws an exception. It also sends an `onRollbackTID()` return to SAP R/3, confirming that the data was rolled back and not committed.

## 1.3 System Requirements

The system requirements for the SAP eWay are the same as for eGate Integrator. For information, refer to the *SeeBeyond ICAN Suite Installation Guide*.

## 1.4 Supported Operating Systems

The SAP eWay is available for the following operating systems:

- Windows Server 2003, Windows XP, and Windows 2000
- HP-UX 11.0, 11i (PA-RISC), and 11i v2.0 (11.23)
- IBM AIX 5.1 and 5.2
- Sun Solaris 8 and 9

In addition to the above listed operating systems, this eWay is supported on WebSphere Application Servers in outbound mode for Java Collaborations only. Refer to the *eGate Integrator User's Guide* for additional information regarding the running of this eWay on this application server.

## 1.5 External System Requirements

The SAP (BAPI) eWay supports the following software on external systems:

- SAP R/3 Enterprise, version 4.0B, 4.5B, 4.6B, 4.6C, 4.6D, and 4.7
- SAP JCo 2.1.x

The SAP R/3 application must be configured to communicate with the SAP (BAPI) eWay as described in [Configuring SAP R/3](#) on page 38.

## 1.6 SAP R/3 Version Support Per Supported Operating System

The table below lists which SAP R/3 Enterprise version can be used with which eWay-supported operating system.

**Table 1** SAP R/3 Version Support per Operating System

Operating System	4.0B	4.5B	4.6B	4.6C	4.7
Windows 2000 SP1 and SP 2	X	X	X	X	X
Windows 2000 SP3					X
Windows XP SP1a					X
Windows Server 2003					X
Sun Solaris 8 and 9	X	X	X	X	X
IBM AIX 5.1L	X	X	X	X	X
IBM AIX 5.2					X

**Table 1** SAP R/3 Version Support per Operating System (Continued)

Operating System	4.0B	4.5B	4.6B	4.6C	4.7
HP-UX 11.0, 11i (PA-RISC), 11i v2.0 (11.23)	X	X	X	X	X

## 1.7 Quick Overview: Implementing SAP (BAPI) eWays in ICAN Projects

This section provides a quick overview of the overall process of implementing SAP (BAPI) eWays in the process of building and deploying ICAN Projects.

- 1 Install the SAP eWay, its documentation, and its sample Projects as described in [“Installing the SAP \(BAPI\) eWay” on page 14.](#)
- 2 Create a Project as described in the *eGate Integrator User’s Guide*.
- 3 Create a BAPI or RFC OTD as described in [“Building SAP \(BAPI\) Project Business Logic” on page 26.](#)
- 4 For eInsight, build the Business Processes and Connectivity Maps as described in [“Building SAP \(BAPI\) Business Logic with eInsight” on page 30.](#)
- 5 For eGate, build the Collaboration and Connectivity Maps as described in [“Building SAP \(BAPI\) Business Logic with eGate” on page 35.](#)
- 6 Configure the logical properties of the eWay as described in [“Configuring Logical eWay Properties” on page 17.](#)
- 7 Create an eGate Environment and add the SAP eWay as described in [“Adding SAP \(BAPI\) eWays to Environments” on page 20.](#)
- 8 Configure the physical properties of the eWay as described in [“Configuring Physical eWay Properties” on page 21.](#)
- 9 Configure the other components in the Environment. For an example, refer to [“Creating eGate Environments for the Sample Projects” on page 46.](#)
- 10 Create the SAP R/3 RFC destination to enable the eWay to receive communication from SAP R/3 as described in [“Creating the RFC Destination for the eWay” on page 38.](#)
- 11 Apply the .jar files to the Logical Host as described in [“Uploading JAR Files to the Logical Host” on page 46.](#)
- 12 Create and activate the Deployment Profile as described in the *eGate Integrator User’s Guide*. For an example, refer to [“Creating Deployment Profiles for Sample Projects” on page 47.](#)

# Installing the SAP (BAPI) eWay

This chapter describes how to install the SAP eWay, its documentation, and the SAP (BAPI) sample Projects.

## In This Chapter

- “Installing the SAP eWay” on page 14
- “After Installation” on page 15

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## 2.1 Installing the SAP eWay

During the eGate Integrator installation process, the Enterprise Manager, a web-based application, is used to select and upload products as .sar files from the eGate installation CD-ROM to the Repository.

The installation process includes installing the following components:

- Installing the Repository
- Uploading products to the Repository
- Downloading components (such as Enterprise Designer and Logical Host)
- Viewing product information home pages

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*:
  - ♦ **SAPBAPIeWay.sar** (to install the SAP eWay)
  - ♦ **FileeWay.sar** (to install the File eWay, used in the sample Projects)
  - ♦ **SAPBAPIeWayDocs.sar** (to install the user guide and the sample Projects)
- 2 In the Enterprise Manager, click the **DOCUMENTATION** tab.
- 3 Click **SAP (BAPI) 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 “[Working with SAP \(BAPI\) Sample Projects](#)” on page 43.

- 5 Download the following files from your support account at [www.service.sap.com](http://www.service.sap.com):
  - ♦ **sapjco.jar**
  - ♦ **sapidocjco.jar**
  - ♦ **sapidoc.jar**

For Windows:

- ♦ **librfc32.dll** (Windows)
- ♦ **sapjcorfc.dll** (Windows)

For UNIX:

- ♦ **librfcm.\***
- ♦ **libsapjcorfc.\***

For the file extensions, use \*.so for Solaris, \*.sl for HP-UX, and \*.0 for AIX.

- 6 Copy the three JCo .jar files to the following directory:  
**ICANSuite\edesigner\usrdir\lib\ext**  
where *ICANSuite* is the folder where you installed eGate Integrator.
- 7 On Windows operating systems, copy the two DLL files to the following folder:  
**WINNT\system32**
- 8 On UNIX operating systems, add the DLL files to the library path.
- 9 Restart Enterprise Designer.

---

## 2.2 After Installation

Once you have installed the SAP eWay, you must then incorporate it into an eGate Project and Environment in Enterprise Designer. The next chapters description how you add the eWay to an eGate Project and an eGate Environment, how you configure the eWay and how to build the necessary OTDs.

# Configuring SAP (BAPI) eWays

This chapter describes how to implement the SAP (BAPI) eWay in an eGate Project. There are several steps to take for the implementation. Each eWay implementation consists of adding and configuring the eWay as a logical component and as a physical component.

The logical eWay component is defined in the Connectivity Map for the eGate Project in Enterprise Designer. The physical eWay component is defined in the eGate Environment.

## In This Chapter

- [Adding SAP \(BAPI\) eWays to Connectivity Maps](#) on page 16
- [Configuring Logical eWay Properties](#) on page 17
- [Adding SAP \(BAPI\) eWays to Environments](#) on page 20
- [Configuring Physical eWay Properties](#) on page 21

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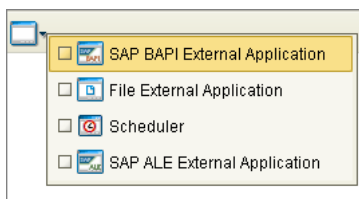
## 3.1 Adding SAP (BAPI) eWays to Connectivity Maps

To start implementing the SAP eWay in an eGate Project, you add the SAP eWay to the Project's Connectivity Map as described below.

### To add SAP (BAPI) eWays to Connectivity Maps

- 1 In the **Project Explorer** tab of the Enterprise Designer, create or click the Project to which you want to add the SAP (BAPI) eWay.
- 2 Create or click a Connectivity Map.
- 3 On the Connectivity Map toolbar, click the **External Applications** icon, and click **SAP BAPI External Application** as shown below.

**Figure 7** Selecting the SAP External Application





This adds the SAP (BAPI) icon to the Connectivity Map toolbar.

- 4 Drag the SAP (BAPI) icon onto the Connectivity Map canvas.
- 5 To rename the external application, right-click the icon, click **Rename**, and enter a new name.

To continue, refer to **“Building SAP (BAPI) Project Business Logic” on page 26** to complete the Connectivity Map and create the eGate Collaborations and eInsight Business Processes. Once those items are complete, you can configure the logical and physical eWay properties as described in the sections below.

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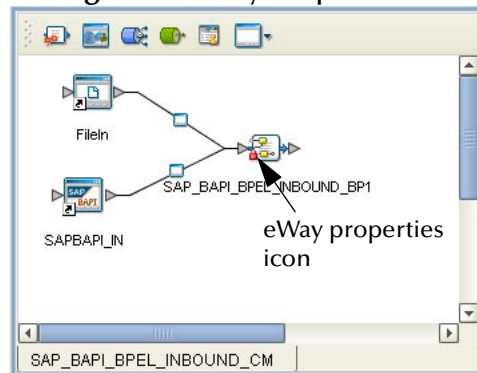
## 3.2 Configuring Logical eWay Properties

After completing the Connectivity Map and linking its components, you can configure the newly created SAP eWay as described below.

### To configure logical eWay properties

- 1 In the **Project Explorer** tab of the eGate Enterprise Designer, expand the Project which contains the Connectivity Map where you want to configure logical eWay properties.
- 2 Click the Connectivity Map. The Connectivity Map appears, showing the eWay properties icon.

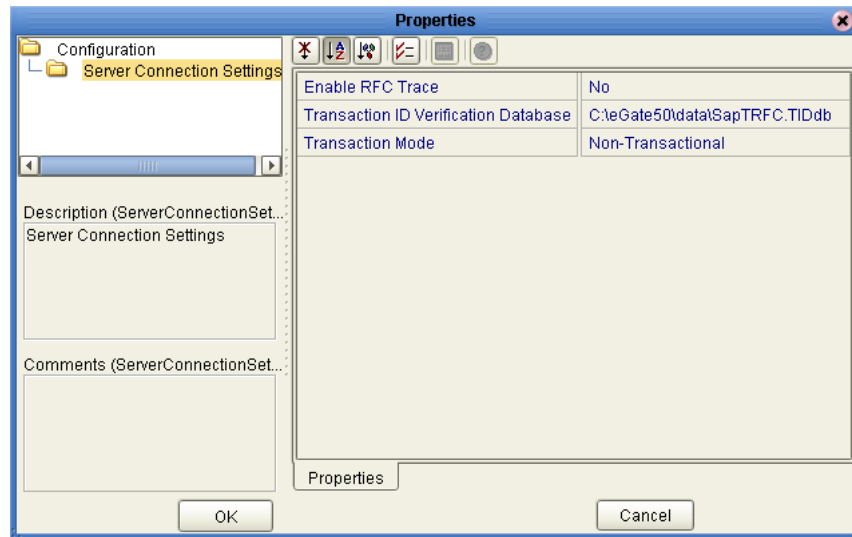
**Figure 8** eWay Properties Icon



- 3 Double-click the eWay properties icon. The **Templates** dialog box appears.
- 4 To configure the inbound eWay, click **Inbound SAP (BAPI) eWay** and click **OK**.  
To configure the outbound eWay, click **Outbound SAP (BAPI) eWay** and click **OK**.  
The **Properties** dialog box appears.

The **Properties** dialog box shows the logical eWay properties as shown below. Which properties appear depends on whether this an inbound or outbound eWay.

**Figure 9** Logical Inbound eWay Properties



- Specify the eWay properties. The list below shows the properties and the relevant page for more information:

Property	Available For	Page reference
Enable ABAP Debug Window	Outbound	<a href="#">page 18</a>
Enable RFC Trace	Inbound/Outbound	<a href="#">page 19</a>
Maximum TID Database Rows	Outbound	<a href="#">page 19</a>
Transaction ID Verification Database	Inbound/Outbound	<a href="#">page 19</a>
Transaction Mode	Inbound/Outbound	<a href="#">page 20</a>
Use Load Balancing	Outbound	<a href="#">page 20</a>

The sections below describe the eWay properties in detail. When you have completed configurations for the eWay and all other components in the Connectivity Map, create the Environment for the Project and add the eWay as described in [“Adding SAP \(BAPI\) eWays to Environments” on page 20](#). You can then configure the physical properties of the eWay as described in [“Configuring Physical eWay Properties” on page 21](#).

### 3.2.1 Enabling the ABAP Debugging Window

You enable the ABAP debugging window for outbound eWays with the **Enable ABAP Debug Window** property. To display logical eWay properties in the Connectivity Map, refer to [“Configuring Logical eWay Properties” on page 17](#).

Enabling the **Enable ABAP Debug Window** property opens the ABAP debugging window on the Logical Host where this Business Object Server (BOS) resides. The window shows the debug information for the RFC-enabled ABAP application that is called by SAP R/3.

This property only works if the SAPGUI software is installed on the Logical Host for this BOS.

#### Default

The default mode is **No**; the ABAP Debug window is disabled.

### 3.2.2 Enabling RFC Trace

You enable RFC tracing for inbound and outbound eWays with the **Enable RFC Trace** property. The trace file contains RFC API calls, and data sent to and received from the SAP R/3 host. To display logical eWay properties in the Connectivity Map, refer to [“Configuring Logical eWay Properties” on page 17](#).

#### Default

The default mode is **No**; the RFC tracing is disabled.

#### Required Values

Yes or No.

#### Additional Information

The trace file is located in the *logicalhost\stcis* folder, where *logicalhost* is the name of the Logical Host. The trace file is *rfcnumber.trc*, for example, *rfc00310\_0156.trc*.

### 3.2.3 Setting The Maximum Transaction ID Database Rows

You specify the maximum amount of rows for the Transaction ID (TID) database for outbound eWays with the **Maximum TID Database Rows** property. To display logical eWay properties in the Connectivity Map, refer to [“Configuring Logical eWay Properties” on page 17](#).

Set this property only if tRFC is used. This property specifies the maximum number of rows in the outbound TID database that are kept before the oldest rows are purged and their corresponding TIDs confirmed on SAP R/3. Confirmation allows SAP R/3 to remove those TIDs from its TID tracking database and reduce resource consumption.

#### Default

The default is 200 rows.

### 3.2.4 Specifying The Transaction ID Verification Database Location

You specify the location of the Transaction ID Verification database for inbound and outbound eWays with the **Transaction ID Verification Database** property. To display logical eWay properties in the Connectivity Map, refer to [“Configuring Logical eWay Properties” on page 17](#).

Specify the name of the file-based database which persists the TIDs. Provide the path to the database file that records the disposition of all transactions outgoing from this eWay. The database records whether transactions are:

- C (committed)

- U (unprocessed or rolled-back)
- R (reserved or pending)

#### Default

The default location is as follows:

C:\eGate50\data\SapTRFC.TIDdb

### 3.2.5 Specifying the Transaction Mode

You specify the transaction mode for outbound eWays with the **Transaction Mode** property. To display logical eWay properties in the Connectivity Map, refer to [“Configuring Logical eWay Properties” on page 17](#).

The transaction mode specifies whether tRFC is enforced. With tRFC, transactions have unique TIDs and are processed only once by this eWay.

#### Default

The default mode is **Non-Transactional**.

### 3.2.6 Enabling Load Balancing

You enable load balancing for outbound eWays with the **Use Load Balancing** property. To display logical eWay properties in the Connectivity Map, refer to [“Configuring Logical eWay Properties” on page 17](#).

This property allows you to take advantage of the workload balancing provided by SAP R/3. SAP R/3 provides workload balancing to automatically route requests to the application server within a group of servers that has the best response time determined at that moment by an SAP message server.

If you disable load balancing, use the **System number** property as described in [“Specifying The System Number” on page 24](#).

#### Default

The default mode is **No**; load balancing is disabled by default.

---

## 3.3 Adding SAP (BAPI) eWays to Environments

Before you can configure the physical eWay properties, you must add the eWay to an Environment. The procedure below describes how you add SAP (BAPI) eWays to eGate Environments. For detailed information about creating eGate Environments, refer to the *eGate Integrator User’s Guide*.

#### To add eWays to Environments

- 1 In the **Environment Explorer** tab of the Enterprise Designer, click the Repository and expand or create the Environment to which you want to add an eWay.
- 2 Right-clicking the Environment and click **New SAP BAPI External Application**.

This adds an SAP (BAPI) eWay to the Environment. You can now specify the physical properties for the eWay as described in the section below.

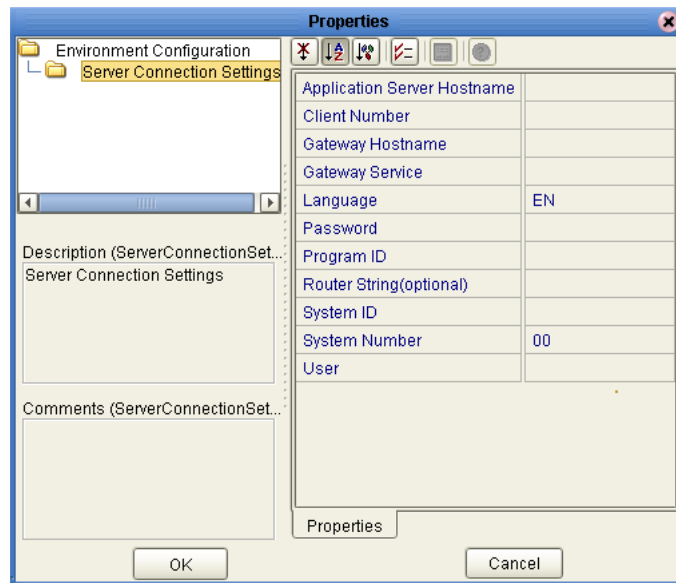
## 3.4 Configuring Physical eWay Properties

Once you have added the SAP (BAPI) eWay to an eGate Environment, you can configure the eWay as described below. For information about adding eWays to Environment, refer to the section above.

To configure physical eWay properties

- 1 In the **Environment Explorer** tab of the Enterprise Designer, click the Repository and expand the Environment that contains the Logical Host for which you want to configure an SAP (BAPI) eWay.
- 2 Expand the Logical Host, right-click the SAP (BAPI) eWay and click **Properties**. The **Properties** dialog box appears.

**Figure 10** Environment eWay Properties



- 3 Specify the properties. The table below shows where to find detailed configuration information for each eWay property.

For this eWay property	Refer to
Application server hostname	<a href="#">page 22</a>
Client number	<a href="#">page 22</a>
Gateway hostname	<a href="#">page 22</a>
Gateway service	<a href="#">page 23</a>
Language	<a href="#">page 23</a>

For this eWay property	Refer to
Password	<a href="#">page 23</a>
Program ID	<a href="#">page 23</a>
Router string	<a href="#">page 24</a>
System ID	<a href="#">page 24</a>
System Number	<a href="#">page 24</a>
User	<a href="#">page 24</a>

4 Click OK.

### 3.4.1 Specifying The Application Server Name

You can specify the host name of the SAP R/3 application server in the eWay Environment properties with the **Application server hostname** property. To display the eWay Environment properties, refer to [“Configuring Physical eWay Properties” on page 21](#).

#### Default

There is no default setting.

### 3.4.2 Specifying the Client Number

You can specify the SAP client number in the eWay Environment properties with the **Client number** property. To display the eWay Environment properties, refer to [“Configuring Physical eWay Properties” on page 21](#).

The SAP client number is used to access the R/3 system.

#### Default

There is no default setting.

#### Required Values

An alphanumeric string. Do not omit leading zeros.

### 3.4.3 Specifying The Name of The Gateway

You can specify the gateway hostname of the SAP R/3 application server in the eWay Environment properties with the **Gateway hostname** property. To display the eWay Environment properties, refer to [“Configuring Physical eWay Properties” on page 21](#).

#### Default

There is no default setting.

### 3.4.4 Specifying The Gateway Service

You can specify the gateway service in the eWay Environment properties with the **Gateway service** property. To display the eWay Environment properties, refer to [“Configuring Physical eWay Properties” on page 21](#).

The gateway service of the SAP R/3 system sends transactions.

#### Default

There is no default setting.

#### Required Values

The SAP recommended value is the string *sapgw* concatenated with the SAP system number. For example, if the system number is *01*, the gateway service is *sapgw01*.

### 3.4.5 Specifying The Language

You can specify the language used for SAP R/3 access in the eWay Environment properties with the **Language** property. To display the eWay Environment properties, refer to [“Configuring Physical eWay Properties” on page 21](#).

#### Default

The default is EN, English.

### 3.4.6 Specifying The Password

You can specify the password for the SAP user in the eWay Environment properties with the **Password** property. To display the eWay Environment properties, refer to [“Configuring Physical eWay Properties” on page 21](#).

You must specify the user before specifying the password. For information, see [“Specifying The User Name” on page 24](#).

#### Default

There is no default setting.

### 3.4.7 Specifying The Program ID

You can specify the program ID for the SAP service in the eWay Environment properties with the **Program ID** property. To display the eWay Environment properties, refer to [“Configuring Physical eWay Properties” on page 21](#).

#### Default

There is no default setting.

#### Required Values

Program ID shown in the SAPGUI transaction SM59. This entry must match the SAPGUI exactly; this entry is case sensitive.

### 3.4.8 Specifying The Router String

You can specify the router string in the eWay Environment properties with the **Router string** property. To display the eWay Environment properties, refer to [“Configuring Physical eWay Properties” on page 21](#).

This property is optional; use it only to gain access to an SAP system that is behind a firewall.

#### Default

There is no default setting.

#### Required Values

The string is composed of the hostnames or IP addresses of all the SAP routers that are in between this BOS and the SAP gateway host. For example, if there are two routers, *saprouter1*, and *saprouter2*, in order, from the BOS to the application server, as follows:

*saprouter1:* 204.79.199.5 *saprouter2:* 207.105.30.146

The router string in this case is as follows:

*/H/204.79.199.5/H/207.105.30.146/H/*

Do not omit the “/H/” tokens to begin, separate, and end the routers.

### 3.4.9 Specifying The System ID

You can specify the ID of the SAP R/3 system in the eWay Environment properties with the **System ID** property. To display the eWay Environment properties, refer to [“Configuring Physical eWay Properties” on page 21](#).

#### Default

There is no default setting.

### 3.4.10 Specifying The System Number

You can specify the system number of the SAP R/3 application server in the eWay Environment properties with the **System number** property. To display the eWay Environment properties, refer to [“Configuring Physical eWay Properties” on page 21](#).

Use this property when you are not using SAP load balancing. For information, refer to [“Enabling Load Balancing” on page 20](#).

#### Default

There is no default setting.

### 3.4.11 Specifying The User Name

You can specify the SAP user name in the eWay Environment properties with the **User** property. To display the eWay Environment properties, refer to [“Configuring Physical eWay Properties” on page 21](#).



You must define this property before specifying the password as described in [“Specifying The Password” on page 23](#).

**Default**

There is no default setting.

# Building SAP (BAPI) Project Business Logic

This chapter describes how to build the business logic for SAP (BAPI) Projects. Project business logic is contained in Business Processes for eInsight, and in Collaborations for eGate Integrator used without eInsight.

To build SAP Project business logic, you use the SAP BAPI wizard to create the BAPI and RFC OTDs. You then create the Business Processes or Collaborations, and the Connectivity Maps.

This chapter also includes a final section with an overview of completing SAP Projects after you have built the business logic.

### In This Chapter

- [About the SAP BAPI Wizard](#) on page 26
- [Creating BAPI and RFC OTDs](#) on page 26
- [BAPI and RFC OTDs](#) on page 29
- [Building SAP \(BAPI\) Business Logic with eInsight](#) on page 30
- [Building SAP \(BAPI\) Business Logic with eGate](#) on page 35
- [Completing the Project](#) on page 37

---

## 4.1 About the SAP BAPI Wizard

The SAP BAPI wizard is used to create BAPI OTDs. These OTDs can then later be used in Collaboration Definitions to create the business logic behind the Collaborations. With the BAPI wizard, you create BAPI and RFC OTDs.

---

## 4.2 Creating BAPI and RFC OTDs

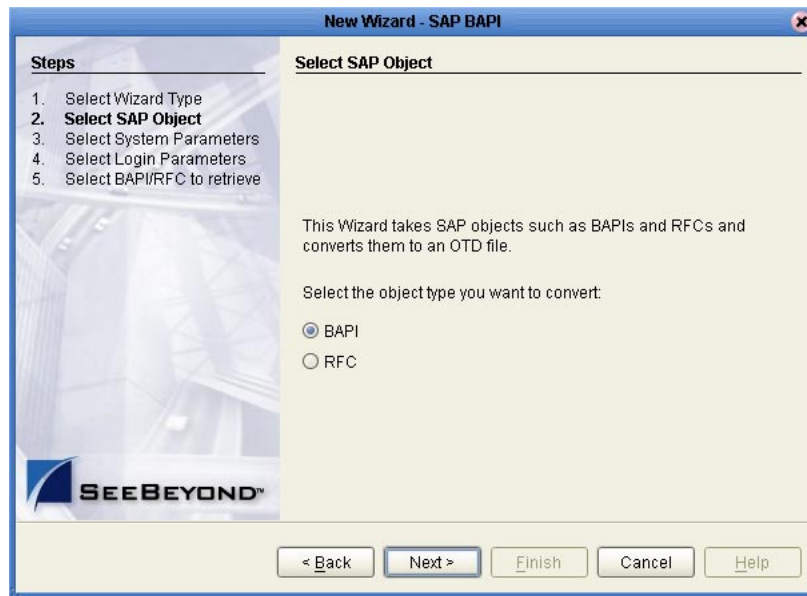
You create BAPI and RFC OTDs with the SAP BAPI wizard in the Enterprise Designer.

### To create BAPI OTDs

- 1 In the Explorer tab of the Enterprise Designer, right click the Project, click **New**, and click **Object Type Definition**. The **New Object Type Definition Wizard** dialog box appears.

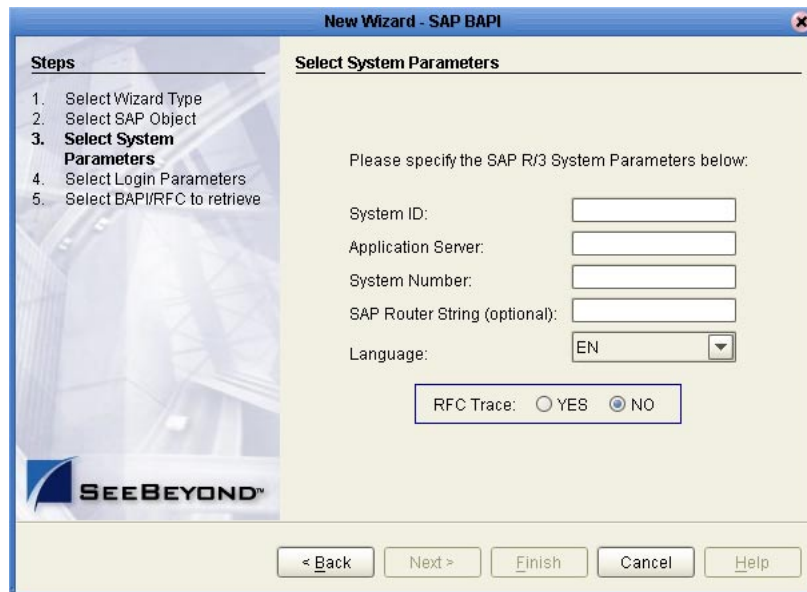
- 2 Click **SAP BAPI** and click **Next**. The **Select SAP Object** page appears.

**Figure 11** BAPI Wizard—SAP Object Selection



- 3 To convert a BAPI object to OTDs, select the **BAPI** option.  
To convert an RFC object to OTDs, select the **RFC** option.
- 4 Click **Next**. The **System Parameters** page appears.

**Figure 12** BAPI Wizard—System Parameters

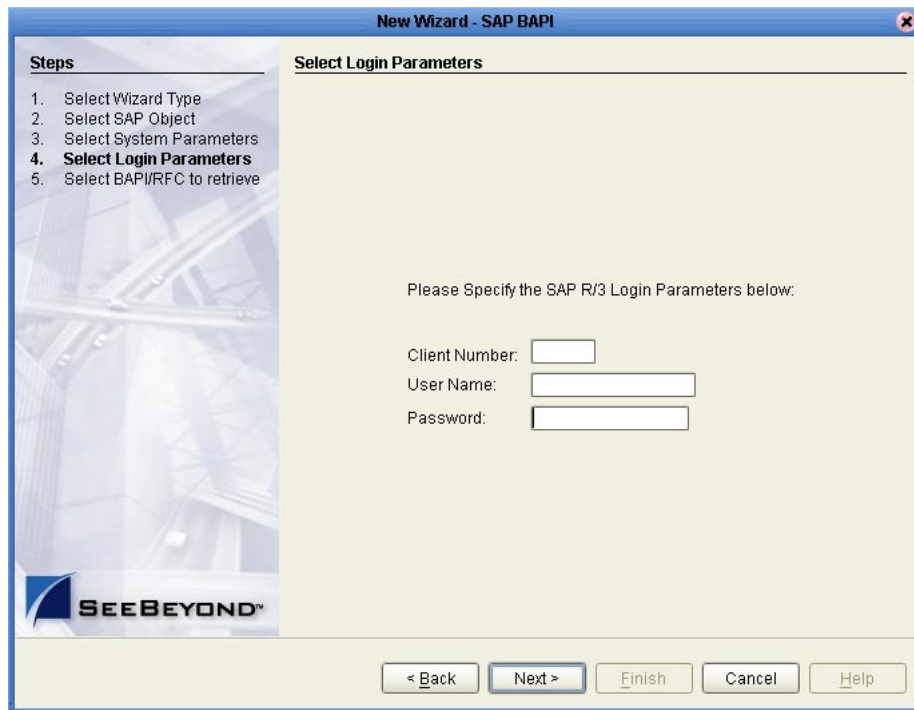


- 5 Enter the information for the SAP R/3 system for the SAP eWay to connect to:

For this option	Enter
System ID	System ID of the SAP R/3 system.
Application server	Host name of the SAP R/3 system.
System number	System number of the SAP R/3 system.
SAP Routing String	Router string of hostnames/IP addresses of all SAP routers between this BOS and the SAP gateway host (optional).
Language	Language used for SAP R/3 access.
RFC Trace	<b>NO</b> to disable RFC tracing (default); <b>YES</b> to enable RFC tracing, which creates the <code>\designer\bin\dev_rfc.trc</code> file when an error occurs when you log into the SAP system using the wizard.

- 6 Click **Next**. The **Login Parameters** page appears.

**Figure 13** BAPI Wizard—Login Parameters

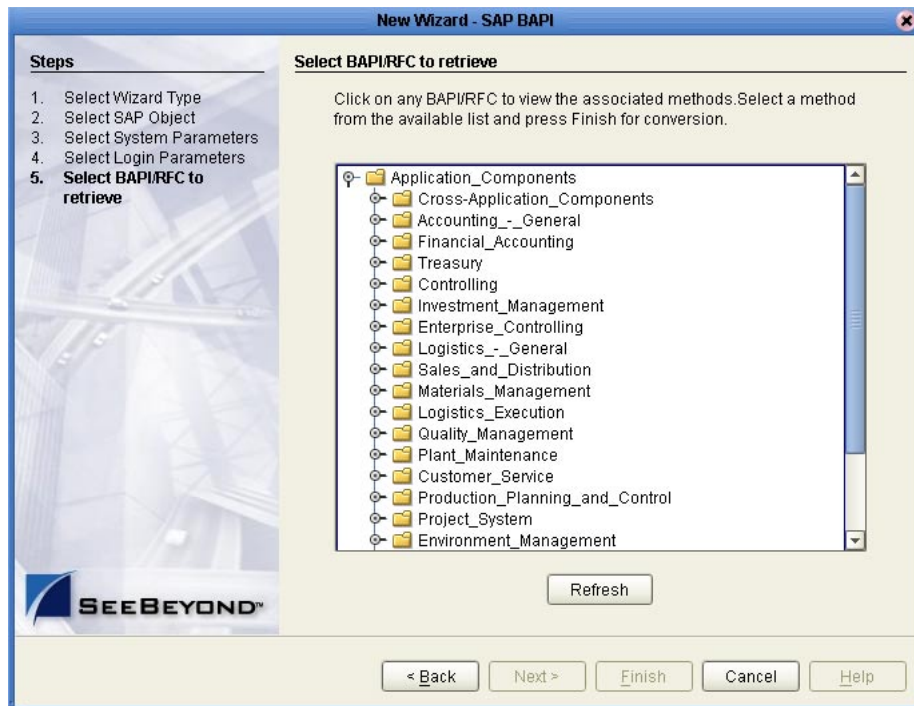


- 7 Enter the information to log into the SAP system:

For this option	Enter
Client Number	Client number of the SAP R/3 system.
User name	User name.
Password	Login password.

- 8 Click **Next**. The **Select BAPI/RFC** page appears, showing the application components

**Figure 14** BAPI Wizard— Select BAPI/RFC



In the BAPI tree, you can cascade to a particular SAP application component and select a BAPI or RFM.

- 9 Expand the SAP application component folder, click a BAPI or RFC, and click **Finish**. The **OTD Editor** window appears, displaying the OTD.

For information about the BAPI and RFC OTDs, refer to the section below.

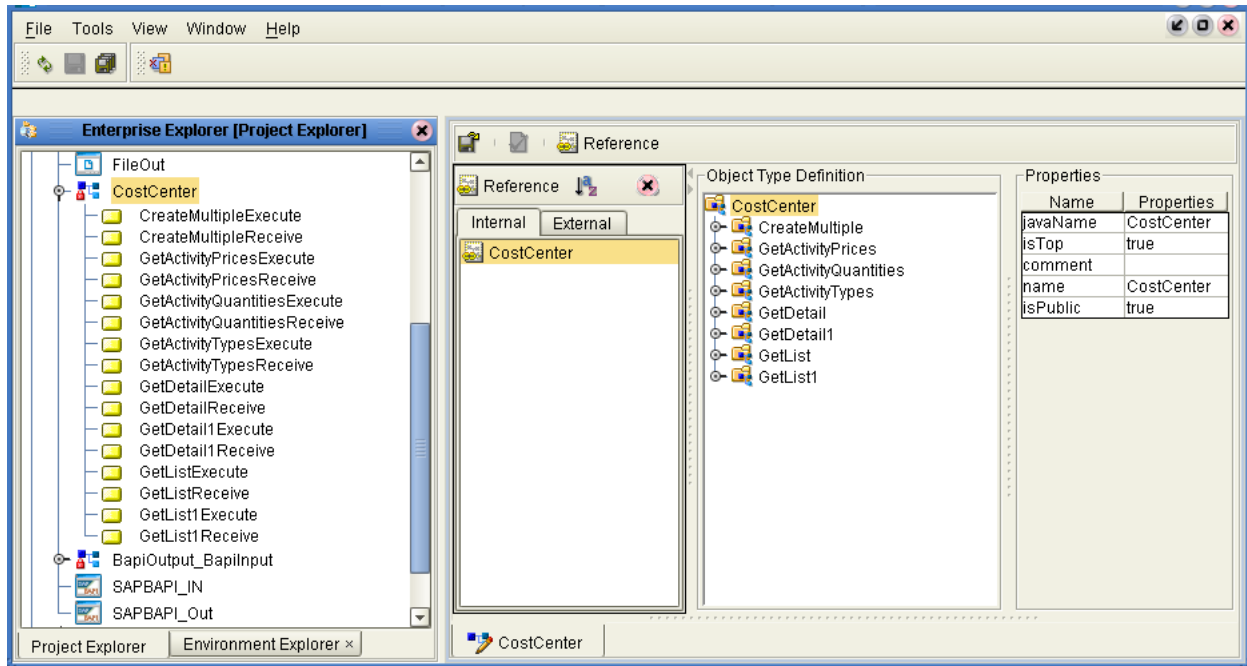
You can now build the Collaborations or Business Processes as described in **“Building SAP (ALE) Business Logic with eInsight” on page 42** and **“Building SAP (ALE) Business Logic with eGate” on page 47**. The section below describes the BAPI methods (operations) that are available for you to use in the source code for the Collaborations or Business Activities.

---

## 4.3 BAPI and RFC OTDs

When an OTD is built for an SAP R/3 business object such as Application Components→Controlling→CostCenter. This creates an OTD which has methods corresponding to all BAPIs in the SAP R/3 business object.

Figure 15 CostCenter OTD



The figure above shows the CostCenter OTD. The OTD has nodes for each of the BAPIs in the CostCenter business object. The OTD also has WSDL operations such as GetListExcute and GetListReceive. These WSDL operations are used when the OTD is used in a Business Process. The execute methods are used for client mode operations. The receive methods are used for server mode operations.

## 4.4 Building SAP (BAPI) Business Logic with eInsight

This section describes how to build the SAP business logic with eInsight in the following sections:

- [Adding Business Processes](#) on page 31
- [Building Inbound SAP Business Processes](#) on page 31
- [Building Outbound SAP Business Processes](#) on page 32
- [Adding Connectivity Maps](#) on page 33
- [Building Inbound SAP Connectivity Maps](#) on page 33
- [Building Outbound SAP Connectivity Maps](#) on page 34

To see an example of SAP Business Processes and Connectivity Maps, import the SAP\_BAPI\_BPEL sample Project as described in [“Working with SAP \(BAPI\) Sample Projects”](#) on page 43.


## 4.4.1 Adding Business Processes

### To add Business Processes

- In the **Project Explorer** tab of the Enterprise Designer, right-click the Project for which you intend to create a Business Process, click **New**, and then **Business Process**.

## 4.4.2 Building Inbound SAP Business Processes

### To build inbound SAP Business Processes

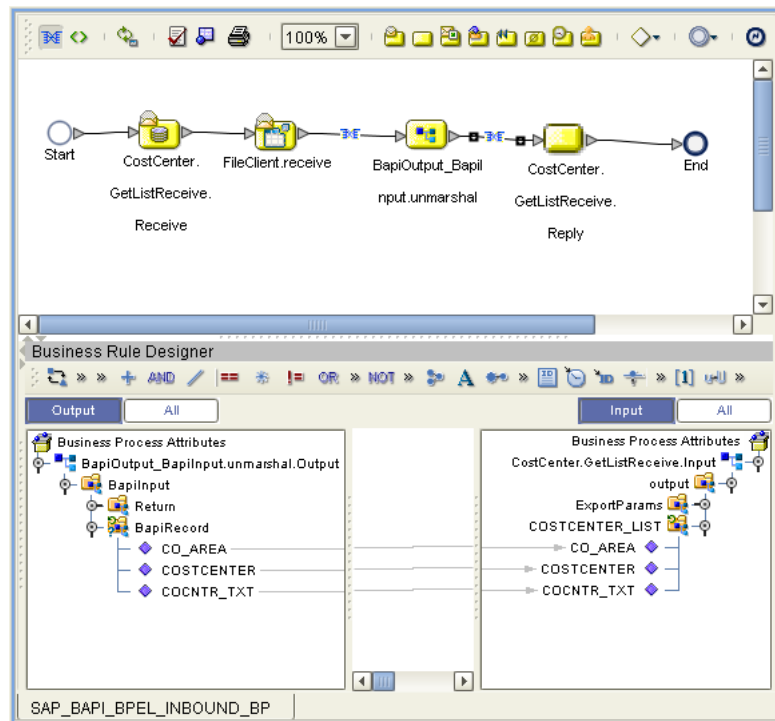
- 1 In the **Project Explorer** tab of the Enterprise Designer, expand the BAPI OTD. This displays the BAPI OTD methods.
- 2 Expand the **SeeBeyond**, **eWays**, **File**, and **FileClient** folders in the **Project Explorer** tab.
- 3 Drag the appropriate methods to the Business Process Designer canvas. For example, for the CostCenter business object, do the following:
  - ♦ Drag the *GetListReceive* method to the Business Process Designer canvas. This creates two Activities on the canvas: **GetListReceive.Receive** and **GetListReceive.Reply**. The *receive* Activity is used to receive the RFM call from SAP. The *reply* Activity is used to return the results of the RFM call back to SAP.
- 4 Configure all other Activities by highlighting the Activity and clicking **Show Properties** .
- 5 Link all components as described in *eInsight Business Process Manager User's Guide*.
- 6 To create data mappings, right-click the link between the Activities and click **Add Business Rule**.
- 7 In the **Business Rule Editor** window, create the code and the data mappings. For details, refer to the *eInsight Business Process Manager User's Guide*.

The figure below shows an example of an inbound SAP Business Process including the data mapping in the **Business Rule Editor** window. This example shows the following process

- 1 The eWay receive an RFM call from SAP
- 2 The eWay reads sample data from a file
- 3 The eWay unmarshals it to the reply Activity to send it back to SAP as results of the RFM call.


To explore the business logic design for an actual Project, import the SAP\_BAPI\_BPEL sample Project as described in [“Importing the Sample Projects” on page 44](#).

**Figure 16** Inbound Business Process and Data Mapping



### 4.4.3 Building Outbound SAP Business Processes

To build outbound SAP Business Processes

- 1 In the **Project Explorer** tab of the Enterprise Designer, expand the BAPI OTD. This displays the BAPI OTD methods.
- 2 Expand the **SeeBeyond**, **eWays**, **File**, and **FileClient** folders in the **Project Explorer** tab.
- 3 Drag the **FileClient.Receive** method to the Business Process Designer canvas.
- 4 Drag the appropriate methods to the Business Process Designer canvas. For example, for the **CostCenter** business object, do the following:
  - ♦ Drag the *GetListExecute* method to the Business Process Designer canvas. This Activity executes the necessary BAPI methods on SAP, and retrieves the results back to the Activity synchronously.
- 5 Drag the *marshal* method from the custom DTD to store the results returned by the BAPI.
- 6 Drag the **Fileclient.Write** method to the Business Process Designer canvas.
- 7 Configure all other Activities by highlighting the Activity and clicking **Show Properties** .
- 8 Link all components as described in *eInsight Business Process Manager User's Guide*.

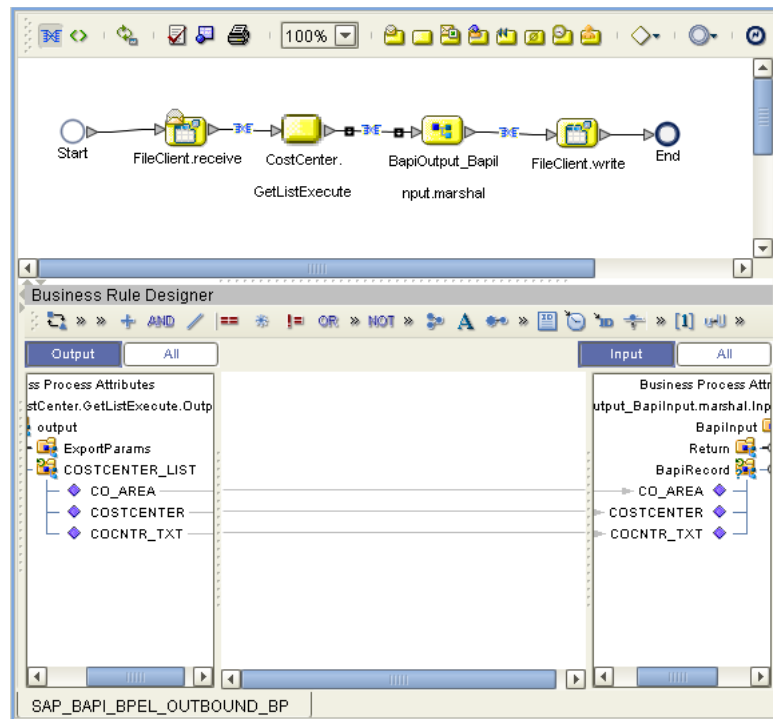


- 9 To create data mappings, right-click the link between the Activities and click **Add Business Rule**.
- 10 In the **Business Rule Editor** window, create the code and the data mappings. For details, refer to the *eInsight Business Process Manager User's Guide*.

The figure below shows an example of an outbound SAP Business Process including the data mapping in the **Business Rule Editor** window.

To explore the business logic design for an actual Project, import the SAP\_BAPI\_BPEL sample Project as described in **“Importing the Sample Projects” on page 44**.

**Figure 17** Outbound Business Process and Data Mapping



#### 4.4.4 Adding Connectivity Maps

To add Connectivity Maps

- In the **Project Explorer** tab of the Enterprise Designer, right-click the Project for which you intend to create a Connectivity Map, click **New**, and then **Connectivity Map**.

#### 4.4.5 Building Inbound SAP Connectivity Maps

The procedure below describes how to build inbound SAP Connectivity Maps. To see an example, import the SAP\_BAPI\_BPEL sample Project as described in **“Working with SAP (BAPI) Sample Projects” on page 43**.

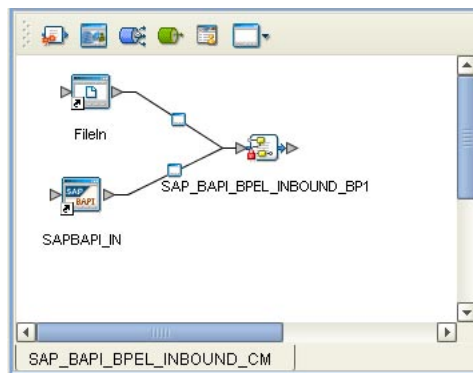
For more information about using Connectivity Maps and linking Connectivity Map components, refer to the *eGate Integrator User's Guide*.

### To build inbound SAP Connectivity Maps

- 1 Add the SAP (BAPI) eWays and other necessary components to the Connectivity Map.
- 2 Drag the inbound Business Process from the **Project Explorer** tab to the Connectivity Map.
- 3 Link and configure all components.

The figure below shows an example of an inbound SAP Connectivity Map. To explore the Connectivity Map for an actual Project, import the SAP\_BAPI\_BPEL sample Project as described in **“Importing the Sample Projects” on page 44**.

**Figure 18** Inbound SAP Connectivity Map



### 4.4.6 Building Outbound SAP Connectivity Maps

The procedure below describes how to build outbound SAP Connectivity Maps. To see an example, import the SAP\_BAPI\_BPEL sample Project as described in **“Working with SAP (BAPI) Sample Projects” on page 43**.

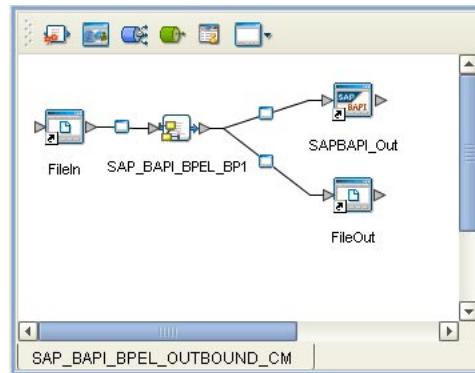
For more information about using Connectivity Maps and linking Connectivity Map components, refer to the *eGate Integrator User’s Guide*.

### To build outbound SAP Connectivity Maps

- 1 Add an SAP (BAPI) eWay and other necessary components to the Connectivity Map.
- 2 Drag the outbound Business Process from the **Project Explorer** tab to the Connectivity Map.
- 3 Link and configure all components.

The figure below shows an example of an outbound SAP Connectivity Map. To explore the Connectivity Map for an actual Project, import the SAP\_BAPI\_BPEL sample Project as described in **“Importing the Sample Projects” on page 44**.

Figure 19 Outbound SAP Connectivity Map



## 4.5 Building SAP (BAPI) Business Logic with eGate

This section describes how to build the outbound SAP Collaborations in the following sections:

- [Building Outbound Collaborations](#) on page 35
- [Adding Connectivity Maps](#) on page 36
- [Building Outbound SAP Connectivity Maps](#) on page 36

**Note:** *Inbound Projects are supported for eInsight Business Processes only, not for eGate Integrator Collaborations.*

To see an example of SAP Collaborations and Connectivity Maps, import the SAP\_BAPI\_JCE sample Project as described in [“Working with SAP \(BAPI\) Sample Projects”](#) on page 43.

### 4.5.1 Building Outbound Collaborations

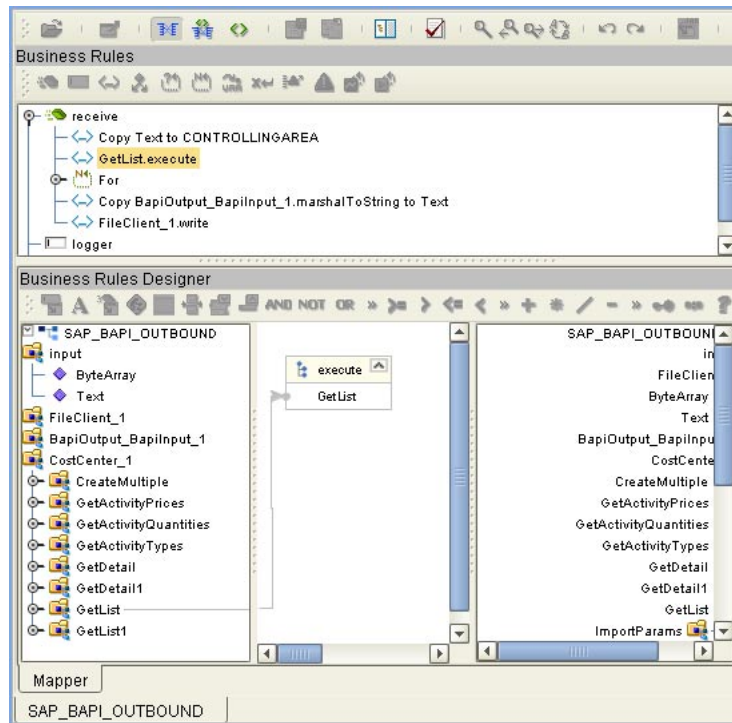
After you have built the BAPI OTDs as described in [“Creating BAPI and RFC OTDs”](#) on page 26, you are ready to build Collaborations.

To build Collaborations

- 1 In the **Project Explorer** tab of the Enterprise Designer, right-click the Project, click **New**, and then **Collaboration Definition (Java)**.
- 2 Complete the **Collaboration Definition** wizard. For details about this wizard, refer to the *eGate Integrator User’s Guide*.
- 3 Map the relevant import parameters for the desired BAPI and select the *execute* method to execute the BAPI on the SAP system.
- 4 In the **Collaboration Editor** window, create the source code and the data mappings for the Collaboration. For details, refer to the *eGate Integrator User’s Guide*.

The figure below shows an example of data mapping for an outbound SAP (BAPI) Collaboration. To explore the business logic design for an actual Project, import the SAP\_BAPI\_JCE sample Project as described in **“Importing the Sample Projects”** on page 44.

**Figure 20** Outbound Collaboration



## 4.5.2 Adding Connectivity Maps

To add Connectivity Maps

- In the **Project Explorer** tab of the Enterprise Designer, right-click the Project for which you intend to create a Connectivity Map, click **New**, and then **Connectivity Map**.

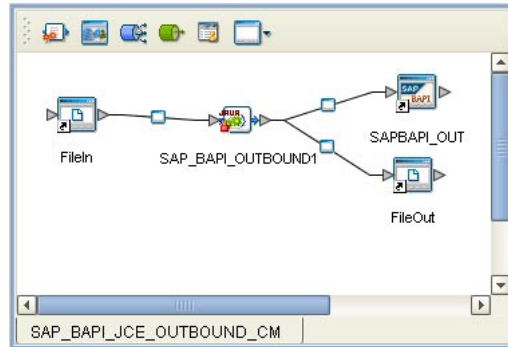
## 4.5.3 Building Outbound SAP Connectivity Maps

To build outbound SAP Connectivity Maps

- 1 Add the SAP (BAPI) eWay to the Connectivity Map as described in **“Adding SAP (BAPI) eWays to Connectivity Maps”** on page 16.
- 2 Add other components such as other eWays and Collaborations to the Connectivity Map.
- 3 Drag the outbound Collaboration from the **Project Explorer** tab into the Collaboration icon in the Connectivity Map.
- 4 Link and configure all components. For details, refer to the *eGate Integrator User’s Guide*.

The figure below shows an example of an outbound SAP Connectivity Map. To explore the Connectivity Map for an actual Project, import the SAP\_BAPI\_JCE sample Project as described in **“Importing the Sample Projects” on page 44.**

**Figure 21** Outbound SAP Connectivity Map



---

## 4.6 Completing the Project

The procedure below provides a quick overview of the remaining steps to complete SAP BAPI Projects:

### To complete the Project

- 1 Configure the logical properties of the eWay as described in **“Configuring Logical eWay Properties” on page 17.**
- 2 Create an eGate Environment and add the SAP eWay as described in **“Adding SAP (BAPI) eWays to Environments” on page 20.**
- 3 Configure the physical properties of the eWay as described in **“Configuring Physical eWay Properties” on page 21.**
- 4 Configure the other components in the Environment. For an example, refer to **“Creating eGate Environments for the Sample Projects” on page 46.**
- 5 Create an RFC destination for the eWay in the SAP R/3 application as described in **“Creating the RFC Destination for the eWay” on page 38.**
- 6 Apply the .jar files to the Logical Host as described in **“Uploading JAR Files to the Logical Host” on page 46.**
- 7 Create and activate the Deployment Profile as described in the *eGate Integrator User Guide*. For an example, refer to **“Creating Deployment Profiles for Sample Projects” on page 47.**

# Configuring SAP R/3

For the SAP (BAPI) eWay to interact successfully with SAP R/3, you must configure the SAP R/3 application as described in this chapter.

The SAP screen captures in this chapter correspond to SAPGUI version 6.2, and SAP version 4.7. They are included to illustrate the general nature of the procedures, and contain only example values. Refer to the documentation supplied with SAP R/3 to determine the exact procedures.

## In This Chapter


- [Creating the RFC Destination for the eWay](#) on page 38
- [Security Issues](#) on page 42

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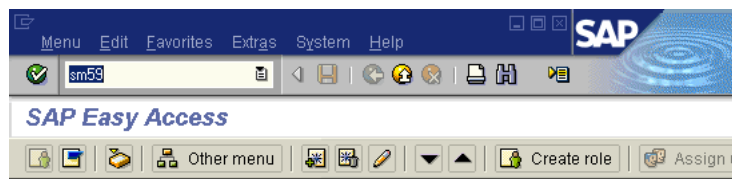
## 5.1 Creating the RFC Destination for the eWay

For the SAP (BAPI) eWay to receive communications from SAP R/3, you must set the eWay up as an RFC destination in SAP R/3 as described below.

To create the RFC destination for the eWay

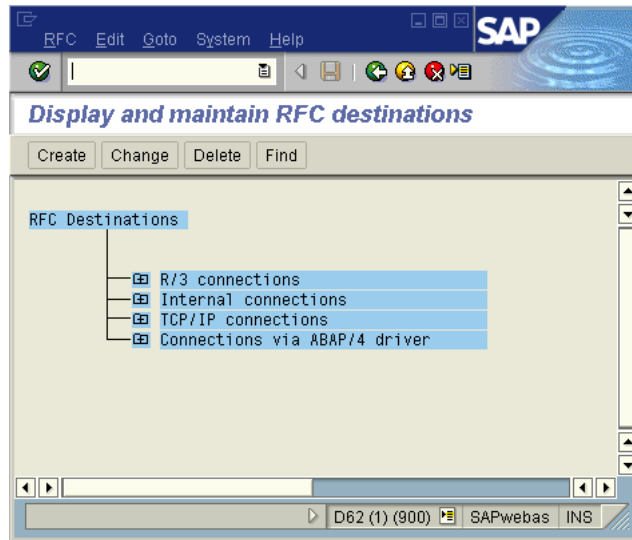
- 1 In the SAP window, click  to display the navigation box if necessary.
- 2 Type **SM59** as shown below and press ENTER.

**Figure 22** Navigating to the SM59 Transaction



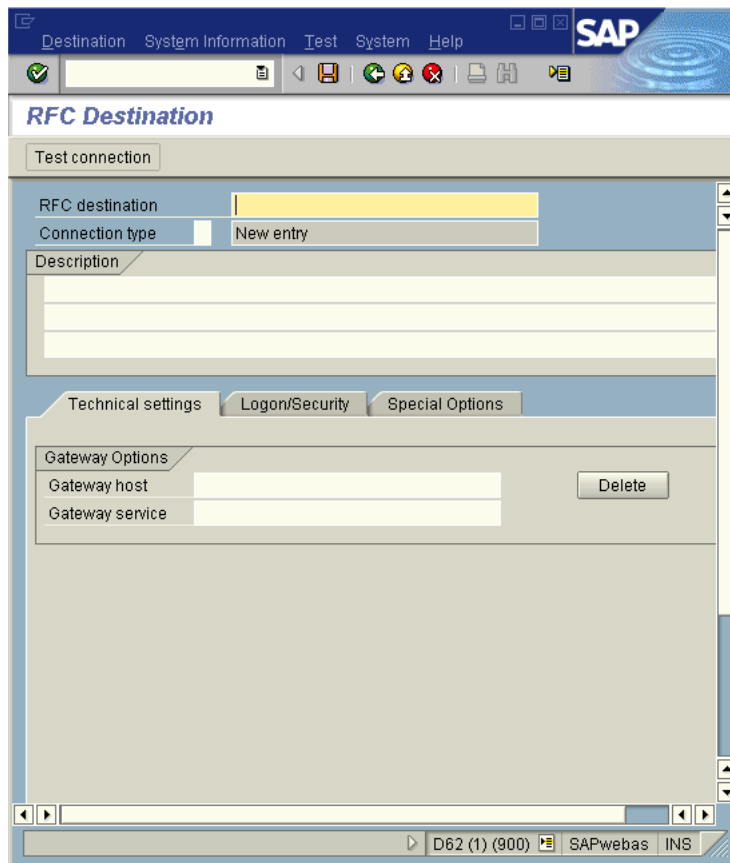
This displays the **RFC Destination Maintenance** window.

**Figure 23** RFC Destination Maintenance Window



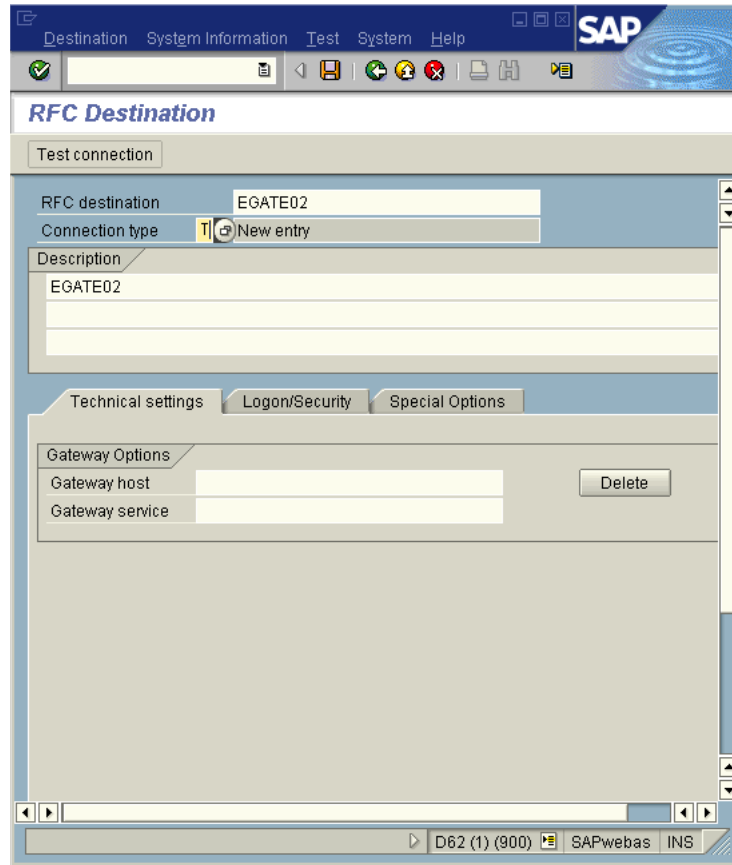
- 3 Click **TCP/IP connections** and **Create** to display the **RFC Destination** entry window.


**Figure 24** RFC Destination Entry Window



- 4 Type in the name of the RFC Destination (use a Logical System name), an accompanying Description, and enter <T> for the Connection Type (TCP/IP).

Figure 25 RFC Destination

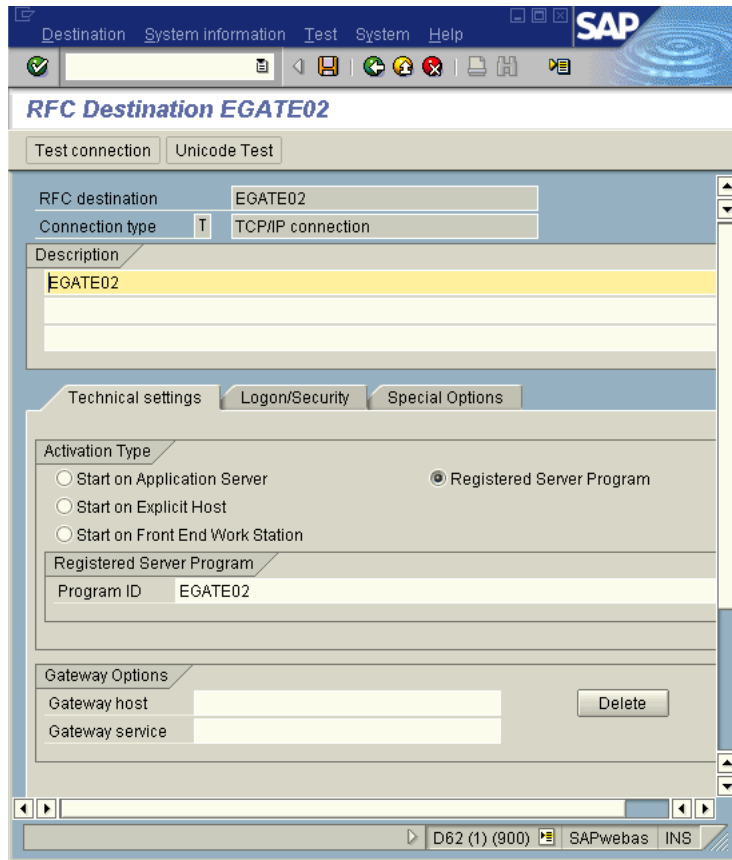


- 5 Click **Save** , which displays the **RFC Destination** window corresponding to your entry.
- 6 Select the **Registered as Server Program** option.
- 7 Enter the Program ID and click **Save**.

This program ID must be exactly the same as that specified in the eWay **Program ID** property. This value is case sensitive. For information, refer to [“Specifying The Program ID” on page 23](#).



**Figure 26** RFC Destination Window



- 8 Click **Test Connection**, which tests the connection for logon speed and message transfer speed. When the eWay is running, the results are displayed in a table; otherwise, return code 3 is displayed.

**Figure 27** Connection Test Results

Connection test STCDGW	
<b>Connection type:</b>	TCP/IP connection
<b>Logon:</b>	255 msec
0 KB:	496 msec
10 KB:	491 msec
20 KB:	504 msec
30 KB:	505 msec

---

## 5.2 Security Issues

SAP R/3 uses *authorization objects* to allow access to various levels of operation. A minimum set of authorization objects required for the SAP (BAPI) eWay to operate is described below. Use this only as a reference for setting up your own profiles.

These settings are located under **Cross-Application Authorization Objects**. Refer to the SAP R/3 documentation for additional information.

### Function Group Access

Under **Auth. check for RFC access**, select:

- ARFC
- EDIN
- ERFC
- RFC1
- SCCR
- SYST
- ZDG1

### Permission for Processing BAPI Type

Under **BAPI/EDI > Distributing master data and BAPI/EDI**, select:

- Receiving BAPIs via RFC

# Working with SAP (BAPI) Sample Projects

The SAP eWay comes with sample Projects. You can import these Projects into Enterprise Designer and use them to quickly learn how to set up SAP (BAPI) eWays in ICAN Projects, Environments, and Deployment Profiles.

There is a sample Project for use with the eGate, and another for use with eGate in combination with eInsight.

This chapter describes how you import and use the sample Projects.

### In This Chapter

- [About the Sample Projects](#) on page 43
- [Locating the Sample Projects](#) on page 44
- [Importing the Sample Projects](#) on page 44
- [Creating eGate Environments for the Sample Projects](#) on page 46
- [Creating Deployment Profiles for Sample Projects](#) on page 47
- [Deploying the Sample Projects](#) on page 48

---

## 6.1 About the Sample Projects

The SAP (BAPI) eWay includes the following sample Projects that you can import. This enables you to see how ICAN Projects can be to work with SAP R/3 applications.

- SAP\_BAPI\_JCE for use with eGate
- SAP\_BAPI\_BPEL for use with eInsight/eGate

### SAP Version Support

The sample Projects supports SAP version 4.6x and 4.7.

### Sample Project Contents

Each Project contains the following:

- Input data
- Connectivity Maps
- Outbound Collaboration (SAP\_BAPI\_JCE)
- Inbound and outbound Business Processes (SAP\_BAPI\_BPEL)

The sample Projects provide a Project that allows you to browse its configurations to learn how ICAN SAP Projects are designed. The Projects do not include Environments and Deployment Profiles necessary to deploy the sample Projects. To learn how to complete the Projects for deployment, refer to [“Preparing Sample Projects for Deployment” on page 45](#).

### Sample Project Zip Files

The SAP (BAPI) eWay sample Projects are provided as a zip file, **SAP\_BAPI\_eWay\_Sample.zip**, which contains two zip files and an input file:

- **SAP\_BAPI\_JCE.zip** for the SAP\_BAPI\_JCE Project (eGate only)
- **SAP\_BAPI\_BPEL.zip** for the SAP\_BAPI\_BPEL Project (eGate/eInsight)
- **SAP\_BAPI\_Inbound.~in** (inbound Collaboration input file)

---

## 6.2 Locating the Sample Projects

The eWay sample Projects are included in the **SAPBAPIeWayDocs.sar**. This file is uploaded separately from the SAP eWay sar file during installation. For information, refer to [“Installing the SAP eWay” on page 14](#).

Once you have uploaded the **SAPBAPIeWayDocs.sar** to the Repository and you have downloaded the sample Projects (**SAP\_BAPI\_eWay\_Sample.zip**) using the **DOCUMENTATION** tab in the Enterprise Manager, the sample zip file resides in the folder you specified during the download.

---

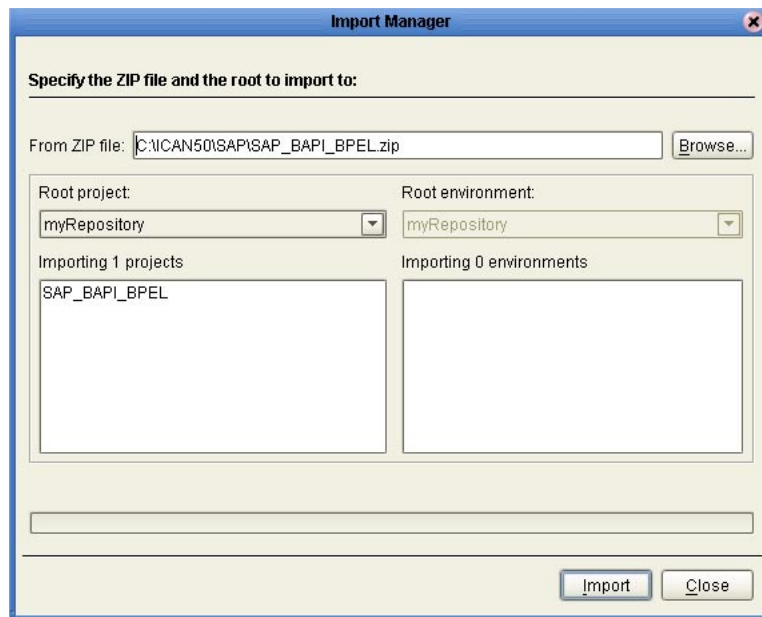
## 6.3 Importing the Sample Projects

You can import the SAP sample Projects as described below. To find out where the Projects reside, refer to [“Locating the Sample Projects” on page 44](#).

### To import the sample Projects

- 1 Unzip the **SAP\_BAPI\_eWay\_Sample.zip** file. This creates the following zip files:
  - ♦ **SAP\_BAPI\_JCE.zip** (for the eGate only Project)
  - ♦ **SAP\_BAPI\_BPEL.zip** (for the eGate/eInsight Project)
- 2 In the **Project Explorer** tab of the Enterprise Designer, right-click the Repository and click **Import**. The **Import Manager** dialog box appears.
- 3 Click **Browse** and navigate to the folder where you unzipped the sample zip file.
- 4 Click **SAP\_BAPI\_JCE.zip** or **SAP\_BAPI\_BPEL.zip**. The **Import Manager** dialog box appears similar to the following:

Figure 28 Import Manager Dialog Box



- 5 Click **Import**. A dialog box confirms that the Project import was successful.
- 6 Click **OK** and click **Close**.

You can now explore the Connectivity Maps, the OTDs, and the business logic for the Collaborations or Business Processes.

### 6.3.1 Preparing Sample Projects for Deployment

The sample Projects do not include the eGate Environments, Deployment Profiles, and the physical configurations for the eWays needed to deploy the Projects. To deploy the Projects, do the following after import:

- 1 Create an eGate Environment and add the SAP eWay as described in the next section.
- 2 Configure the physical properties of the eWay as described in [“Configuring Physical eWay Properties” on page 21](#).
- 3 Configure the other components in the Environment. For an example, refer to [“Creating eGate Environments for the Sample Projects” on page 46](#).
- 4 Apply the .jar files to the Logical Host as described in [“Uploading JAR Files to the Logical Host” on page 46](#).
- 5 Create and activate the Deployment Profile as described in [“Creating Deployment Profiles for Sample Projects” on page 47](#).

## 6.4 Creating eGate Environments for the Sample Projects

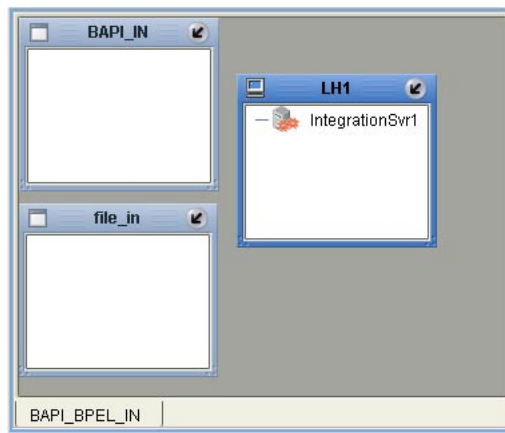
The procedure below describes how you create an eGate Environment for the SAP (BAPI) sample Projects. For detailed information about creating Environments, refer to the *eGate Integrator User's Guide*.

To create eGate Environments for the sample Projects

- 1 In the Environment Explorer tab of the Enterprise Designer, right-click the Repository and click **New Environment**.
- 2 Right-click the Environment and click **New File External System** to add a File eWay and **New SAP BAPI External System** to add an SAP eWay. Which external systems to add and how many depends on the design of the Project.
- 3 Right-click the Environment and click **New Logical Host**.
- 4 Right-click the Logical Host and click **New SeeBeyond Integration Server**.

The figure below shows the completed Environment.

**Figure 29** eGate Environment for Inbound Sample Project (eInsight)



After creating the Environment components, you must upload several .jar files to the Logical Host as described in the next section.

## 6.5 Uploading JAR Files to the Logical Host

Once you have added a Logical Host to the Environment as described in the section above, you must upload the .jar files listed below to the Logical Host. You must upload these files before you run the sample Projects.

- ♦ **sapjco.jar**
- ♦ **sapidocjco.jar**
- ♦ **sapidoc.jar**

You installed these .jar files during the installation in the following directory:

`ICANSuite\edesigner\usrdir\lib\ext`

where *ICANSuite* is the folder where you installed eGate Integrator.

#### To upload .jar files to the Logical Host

- 1 In the Environment Explorer tab in the Enterprise Designer, right-click the Logical Host, and click **Upload File**. The **Upload Third-Party Files** dialog box appears.
- 2 Click **Add** and navigate to the folder where the .jar files reside.
- 3 Double-click the files and click **OK**.

This uploads the .jar files to the Logical Host.

Once the files are uploaded to the Logical Host you configure the physical properties of the eWay as described in **“Configuring Physical eWay Properties” on page 21**.

After the eWay configuration, you are ready to create the Deployment Profile as described in the section below.

---

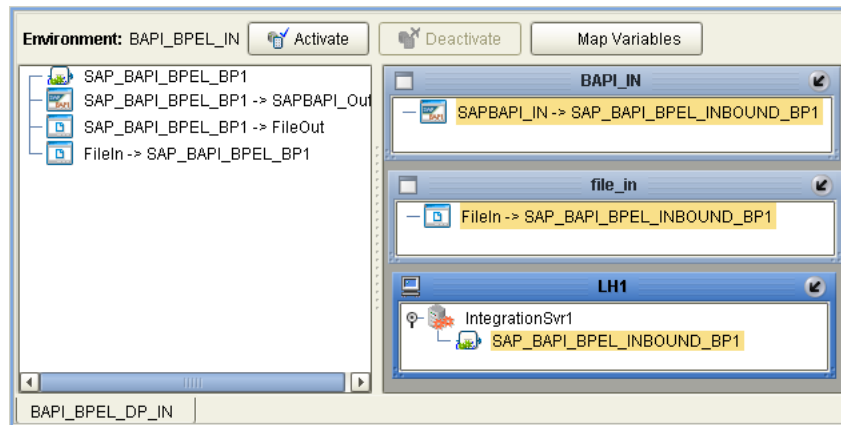
## 6.6 Creating Deployment Profiles for Sample Projects

Once you have created the Environment and added its components, and you have uploaded the .jar files to the Logical Host as described in the section above, you can create the Deployment Profiles for the sample. The procedure below describes how to create Deployment Profiles for the inbound and outbound Collaborations.

#### To create Deployment Profiles for sample Projects

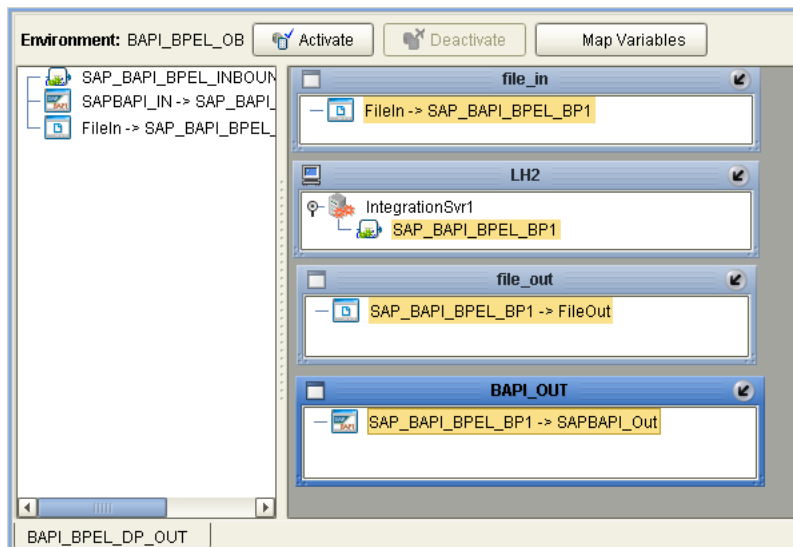
- 1 In the Project Explorer tab of the Enterprise Designer, right-click the Project and click **New Deployment Profile**.
- 2 Enter a name for the Deployment Profile, and select the Environment you created for the sample.
- 3 Double-click the Deployment Profile. Drag the Project components to the Environment component as shown in the figure below. The figure below shows the deployment profile for the inbound eInsight sample Project.

**Figure 30** Inbound Deployment Profile (eInsight)



The figure below shows the deployment profile for the outbound eInsight sample Project.

**Figure 31** Outbound Deployment Profile (eInsight)



## 6.7 Deploying the Sample Projects

For instruction on how to deploy the sample Projects see the *eGate Integrator User's Guide*. Before you deploy the Projects, make sure you configure the SAP R/3 application as described in [“Configuring SAP R/3” on page 38](#).

### Notes on Reactivating Inbound Projects

SAP prohibits multiple JCo servers from being registered with the same identifier. When the inbound Project is first deployed, a JCo server is created and registered with SAP with the identifier, which is specified in the environment configuration properties



for the SAP eWay. If you reconfigure an existing Project or create a new inbound SAP Project for an SAP system with a previously used identifier, the existing deployment must be deactivated first.

# Managing Deployed eWays

This chapter describes how to manage deployed SAP eWays. Once you have implemented an SAP eWay into an eGate Project and Environment, and have deployed the Project by activating the Deployment Profile, you can monitor the eWay using the Enterprise Manager. This chapter includes information about monitoring eWays as well as reconfiguring deployed eWays.

## In This Chapter

- [Reconfiguring Deployed eWays](#) on page 50
- [Monitoring SAP \(BAPI\) Collaborations](#) on page 51
- [Log Files and Alerts](#) on page 51

---

## 7.1 Reconfiguring Deployed eWays

This section describes how you reconfigure the logical and physical properties of eWays in Projects that have already been deployed. The logical properties are configured in the Connectivity Map

### 7.1.1 Reconfiguring Logical eWay Properties

To reconfigure a currently deployed eWay, you change the configuration and then reactivate the Deployment Profile. If you also made changes to the logical properties of the eWay in the Connectivity Map, apply the changes to the Logical Host as described in the next section.

The procedure below describes how you reconfigure the logical eWay properties.

#### To configure logical eWay properties

- 1 Configure the logical properties in the Connectivity Map as described in [“Configuring Logical eWay Properties” on page 17](#).
- 2 In the **Project Explorer** tab, double-click the Deployment Profile for the Project.
- 3 Click **Reactivate**.

## 7.1.2 Reconfiguring Physical eWay Properties

To reconfigure a currently deployed eWay, you change the configuration and then apply the changes to the Logical Host as described below. If you also made changes to the logical properties of the eWay in the Connectivity Map, you must also reactivate the Deployment Profile as described in the *eGate Integrator User's Guide*.

The procedure below describes how you reconfigure the physical eWay properties.

To reconfigure physical eWay properties

- 1 Configure the physical properties in the Environment as described in **“Configuring Physical eWay Properties” on page 21**.
- 2 In the **Environment Explorer** tab, right-click the Logical Host that contains this eWay.
- 3 Click **Apply**.

---

## 7.2 Monitoring SAP (BAPI) Collaborations

You monitor eGate SAP (BAPI) Collaborations with the Enterprise Manager. For more information using the Enterprise Manager, refer to the *eGate Integrator System Administration Guide* and the *eGate Integrator User's Guide*.

---

## 7.3 Log Files and Alerts

SAP (BAPI) alerts are logged in the Logical Host log file. For information about this log file, and how to change the logging level in Enterprise Manager, refer to the *eGate Integrator System Administrator Guide*.

**Note:** *If an alert is logged that the JCo library is not found, refer to **“Uploading JAR Files to the Logical Host” on page 46**.*

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