SeeBeyond ICAN Suite

PkMS eWay Intelligent Adapter User's Guide

Release 5.0

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Chapter 1

Introduction

This user's guide describes how to configure and operate the PkMS eWay Intelligent Adapter, referred to as the PkMS eWay throughout the rest of this document. This document provides information on implementing the PkMS eWay in a typical eGate Integrator environment.

In This Chapter

- **Contents of This Guide** on page 5
- **Writing Conventions** on page 6
- **Supporting Documents** on page 7
- **SeeBeyond Web Site** on page 7

1.1 Contents of This Guide

This guide contains the following information:

- **Chapter 2, "About the PkMS eWay" on page 8** provides an overview of the PkMS eWay.
- **Chapter 3, "Installing the PkMS eWay" on page 10** provides an overview of the PkMS eWay.
- **Chapter 4, "Using the PkMS eWay" on page 12** describes how to build a PkMS eWay Project.

1.2 Writing Conventions

The following writing conventions are observed throughout this document.

Table 1 Writing Conventions

Text	Convention	Example
Button, file, icon, parameter, variable, method, menu, and object names.	**Bold** text	▪ Click **OK** to save and close. ▪ From the **File** menu, select **Exit**. ▪ Select the **logicalhost.exe** file. ▪ Enter the **timeout** value. ▪ Use the **getClassName()** method. ▪ Configure the **Inbound** File eWay.
Command line arguments and code samples	`Fixed` font. Variables are shown in ***`bold italic`***.	`bootstrap -p` ***`password`***
Hypertext links	**Blue** text	For more information, see **"Writing Conventions" on page 6**.

Additional Conventions

Windows Systems

For the purposes of this guide, references to "Windows" will apply to Microsoft Windows Server 2003, Windows XP, and Windows 2000.

Path Name Separator

This guide uses the backslash ("\") as the separator within path names. If you are working on a UNIX system, please make the appropriate substitutions.

1.3 Supporting Documents

The following SeeBeyond documents provide additional information about the ICAN Suite:

- *SeeBeyond Integrated Composite Application Network Suite Primer*
- *eGate Installation Guide*
- *eGate Integrator User's Guide*
- *eGate Integrator Tutorial*
- *SeeBeyond ICAN Suite Deployment Guide*

1.4 SeeBeyond Web Site

The SeeBeyond Web site is a useful source for product news and technical support information at **www.seebeyond.com**.

Chapter 2

About the PkMS eWay

This chapter provides a brief overview of operations and components, general features, and system requirements of the PkMS eWay.

In This Chapter

- **Overview** on page 8
- **Supported Platforms** on page 9
- **System Requirements** on page 9

2.1 Overview

All eWays provide a communication bridge between the eGate environment and one or more external systems.

For details on using eGate and its user interface, see the *eGate Integrator User's Guide*.

The PkMS eWay performs a variety of FTP and FTP-related operations depending on your specific needs, network environment, record-processing, file transfer, and external system requirements.

2.1.1. PkMS eWay OTDs

The PkMS eWay enables eGate to use an FTP connection to exchange data with other network hosts, for the purpose of receiving and delivering objects stored in files. The PkMS eWay provides Object Type Definitions (OTDs) to enable the creation of file transfer operations using FTP.

The PkMS eWay OTDs include an OTD for connecting to external FTP servers, a record-processing OTD, and a local file OTD. The record-processing OTD extracts records out of files, parse files into specific records, and define the content of files as records. The local file OTD picks up or puts data files to local file systems.

Note: *The PkMS eWay supports standard FTP according to RFC-959.*

2.2 Supported Platforms

The PkMS eWay is available for the following platforms:

- Windows 2000 SP3
- Sun Solaris 8

2.3 System Requirements

The system requirements for the PkMS eWay are the same as for eGate Integrator. For information, refer to the *eGate Integrator Installation Guide*. It is also helpful to review the **Readme.txt** for any additional requirements prior to installation. The **Readme.txt** is located on the installation CD-ROM.

Chapter 3

Installing the PkMS eWay

This chapter describes how to install the PkMS eWay.

In This Chapter

- **"Installing the PkMS eWay" on page 10**
- **"After Installation" on page 11**

3.1 Installing the PkMS 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.

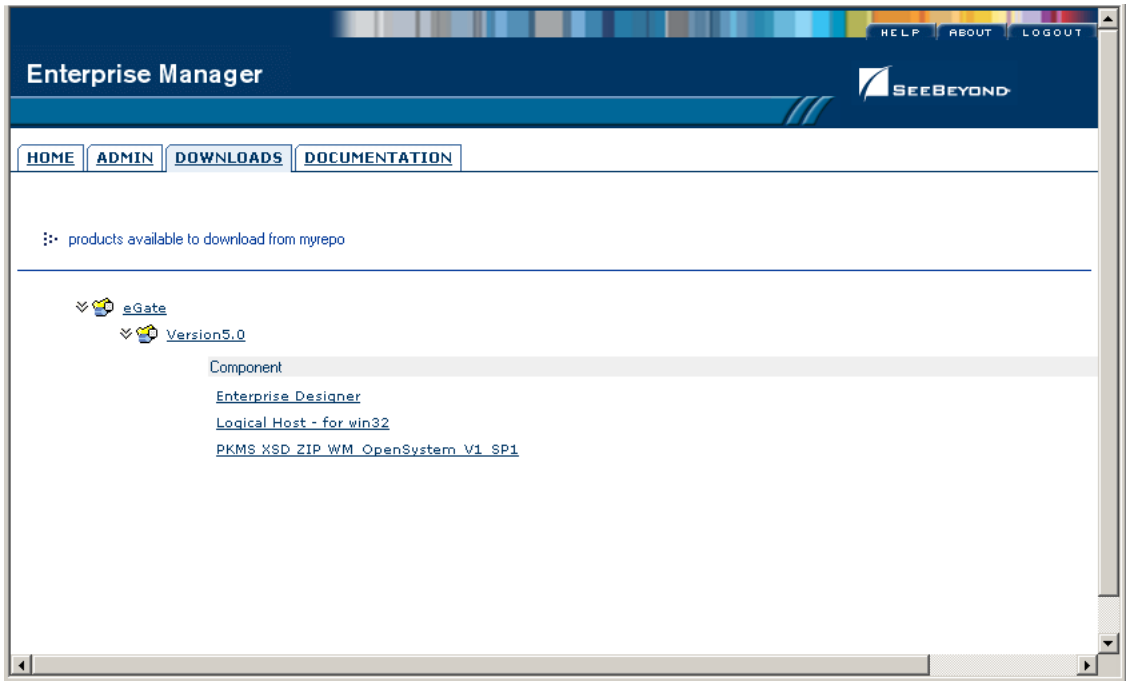
The installation process includes installing the following components:

- 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 *eGate Integrator 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 files:
   - **PkMSXMLSchemaLibrary.sar** (to install the PkMS eWay)
   - **BatcheWay.sar** (to install the Batch eWay)
   - **FileeWay.sar** (to install the File eWay, used in the sample Project)
2. Click **DOWNLOADS**.
3. Click **PKMS XSD ZIP WM OpenSystem V1 SP1**. The **File Download** dialog box appears.
4. Save the file in any directory. This zip file contains the XSD files used when you create Collaboration Definitions.
5. Unzip the file.

Figure 1 Download the PKMS XSD ZIP WM OpenSystem V1 SP1 .zip File



6 Continue installing the eGate Integrator as instructed in the *eGate Integrator Installation Guide*.

3.2 After Installation

Once you have installed and configured the PkMS eWay, you must then incorporate it into a Project before it can perform its intended functions. See the *eGate Integrator User's Guide* for more information on incorporating the eWay into an eGate Project.

Chapter 4

Using the PkMS eWay

This chapter describes how to use the PkMS eWay to convert XML input to custom DTDs and vice versa. It also includes how to use the sample that comes with the PkMS eWay.

In This Chapter

- **Converting XML or DTD Input with the PkMS eWay** on page 12
- **Working with The PkMS eWay Sample** on page 29

4.1 Converting XML or DTD Input with the PkMS eWay

This section describes how to use the PkMS eWay to convert XML to custom DTDs and vice versa. As a quick start, the following list provide an overview of the steps taken:

1. Create custom data type definitions (DTDs).
2. Create an eGate Project if necessary.
3. Create a Connectivity Map with an inbound eWay, a Collaboration, and an outbound eWay.
4. Create an Object Type Definition (OTD).
5. Creating the Java Collaboration Definition and its business logic.
6. Bind the newly created Collaboration Definition to the service and connect the Collaboration to the eWays.
7. Configure the eWays if necessary.
8. Create an eGate Environment and Deployment Profile.
9. Deploy and run the Project.

4.2 Building a PkMS XSD to DTD Conversion

This section describes how to create a PkMS Project that receives XSD data from a File eWay, converts the data to DTD and FTPs it to an FTP server.

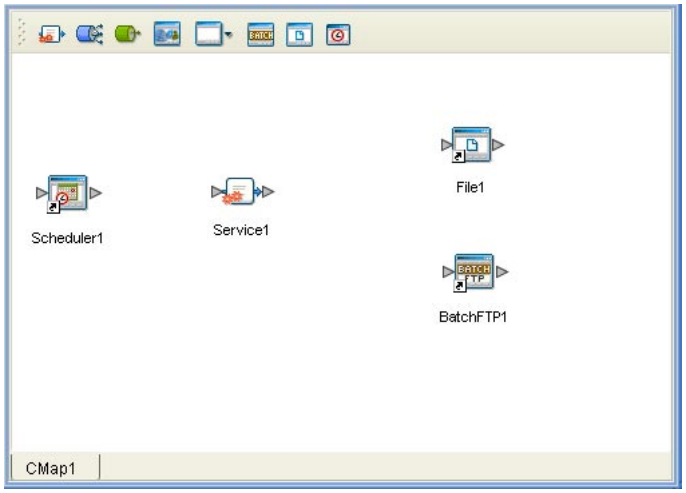
4.2.1. Creating the Connectivity Map

The procedure below describes how to create the Connectivity Map for the PkMS Project.

To create the Connectivity Map

1. In the Project Explorer tab of the Enterprise Designer, right-click the copybook conversion Project, click **New**, and click **Connectivity Map**. A blank Connectivity Map appears.
2. Click the **eWay** icon and click **Scheduler**.
3. Drag the **Scheduler** icon to the Connectivity Map to create the inbound eWay.
4. Drag the **Service** icon to the Connectivity Map.
5. Click the **eWay** icon and click the **File External Application**.
6. Drag the File eWay icon to the Connectivity Map to create the outbound eWay.
7. Click the **eWay** icon and click **Batch FTP External Application**.
8. Drag the Batch eWay icon to the Connectivity Map to create a second outbound eWay. The Connectivity Map looks similar to the figure below.

Figure 2 PkMS Connectivy Map—XSD to DTD

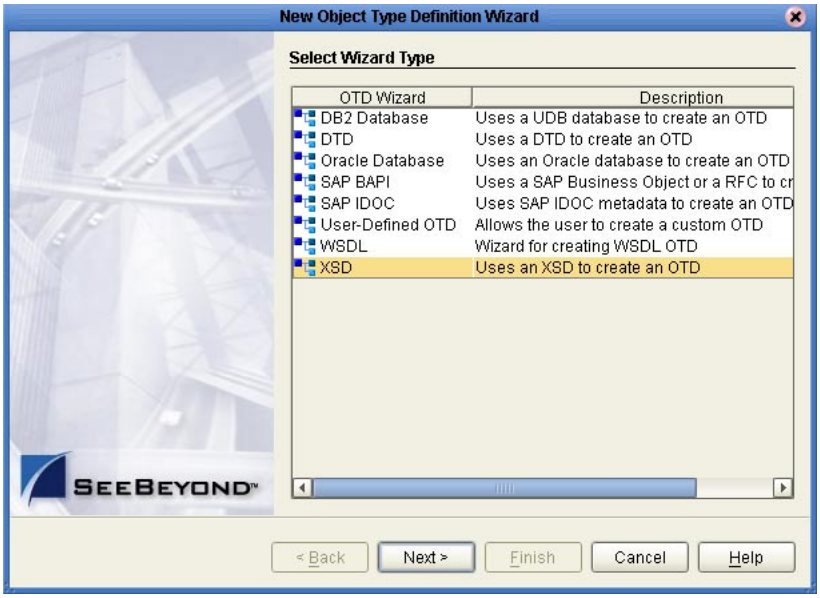


4.2.2. Creating the PkMS Project and OTD

To create the PkMS Project and OTD

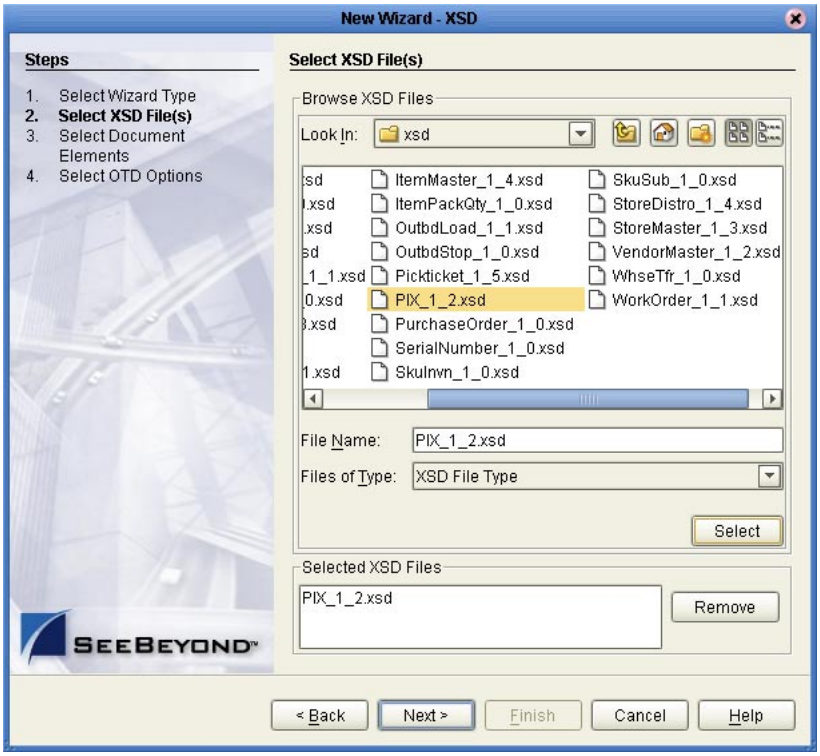
1. In the Project Explorer tab of the Enterprise Designer, right-click the Repository and click **New Project**.
2. Right-click the new Project, click New, and click Object Type Definition. The **New Object Type Definition** wizard appears as shown below.

Figure 3 New Object Type Definition Wizard



3 Click **XSD** and click **Next**. The **Select XSD Files** page appears.

Figure 4 Selecting XSD Files



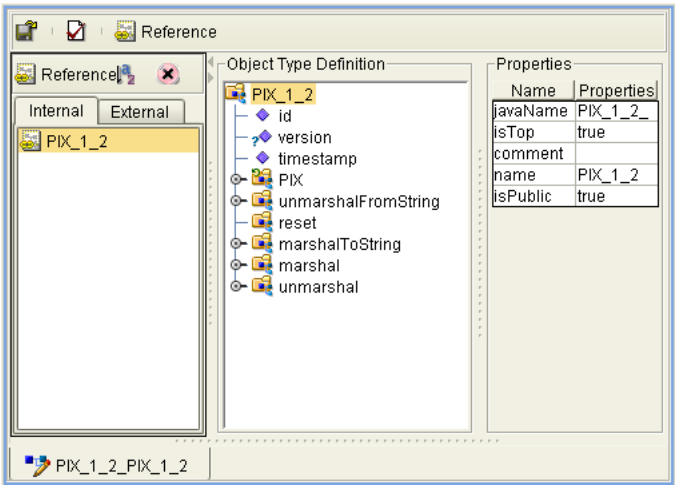
4 In the **Look In** box, browse to the location where you unzipped the **PKMS XSD ZIP WM OpenSystem V1 SP1** zip file.

5 Double-click the XSD file to be used and click **Next**. The **Select Document Elements** page appears.

6 Click the elements and click **Next**. The **Select OTD Options** page appears.

7 Click **Finish**. The **OTD Editor** window displays the newly created OTD similar to the one below.

Figure 5 PkMS Inbound OTD



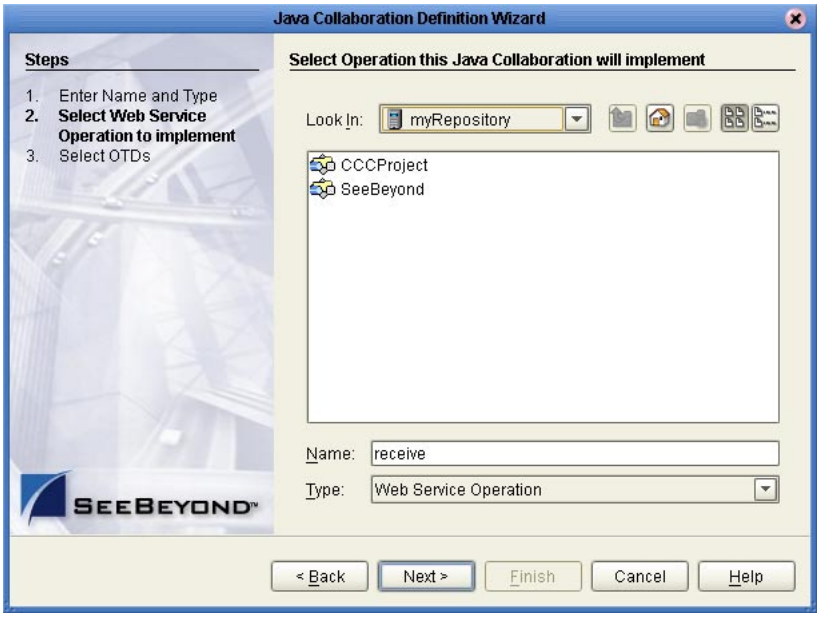
4.2.3. Creating the Collaboration Definition

To create the Collaboration Definition

1 In the Project Explorer of the Enterprise Designer, right-click the COBOL copybook conversion Project, click **New** and click **Java Collaboration Definition**. The **Java Collaboration Definition** wizard appears.

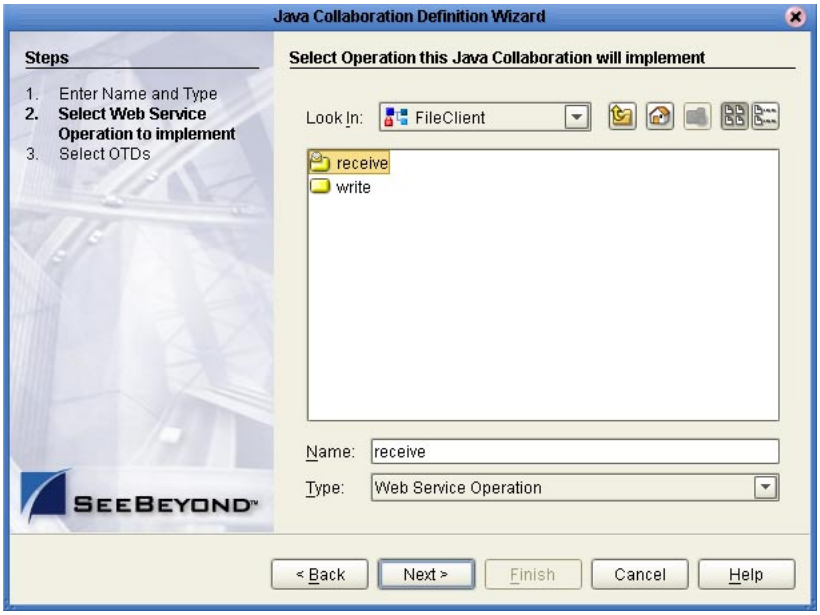
2 In the **Collaboration Name** box, enter the name for the Collaboration and click **Next**. The **Select Operation** page appears as shown below.

Figure 6 Selecting Collaboration Operations



3 Double-click **SeeBeyond**, **eWays, File**, **FileClient**, and click **receive** as shown below.

Figure 7 Selecting File Receive



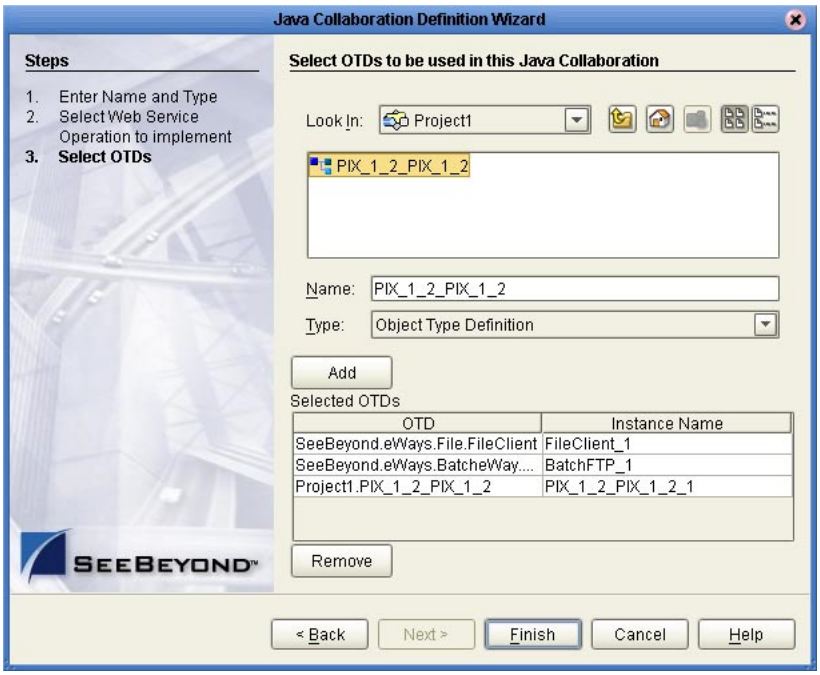
4 Click **Next**.

5 Navigate and double-click the following files:

- **SeeBeyond** > **eWays** > **File** > **FileClient**
- **SeeBeyond** > **eWays** > **File** > **BatcheWay** > **BatchFTP**
- ***Projectname*** > ***ProjectOTDs***

The Java Collaboration Definition wizard displays similar to the following:

Figure 8 Selecting OTDs



6 Click **Finish**. The **Java Collaboration Editor** window appears.

You can now create the business logic for the Collaboration as described below.

4.2.4. Creating the Business Logic for The Collaboration Definition

Once you have created the Collaboration Definition as described in the section above, you can create the business logic for the Collaboration. The business logic for a PkMS Collaboration consist of the following components;

1 **Getting the Input Data** on page 17

2 **Unmarshaling From String** on page 18

3 **Mapping the Data** on page 19

4 **Marshaling to String** on page 19

Getting the Input Data

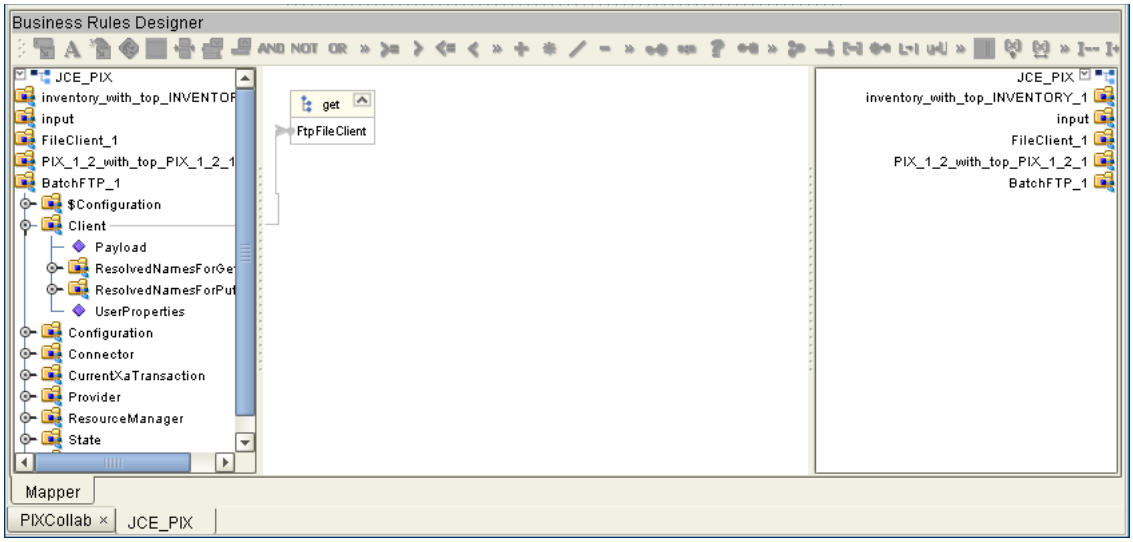
The first step in the business logic is to handle the data when it comes into the Project. In this case, you unmarshal the data to String as described below.

To unmarshal text input format

1 Expand **BatchFTP_1**, right-click **Client**, and click **Select a method to call**. A list of methods appears.

2 Click **get().** The **get** box appears as shown below.

Figure 9 Getting Input Data



Unmarshaling From String

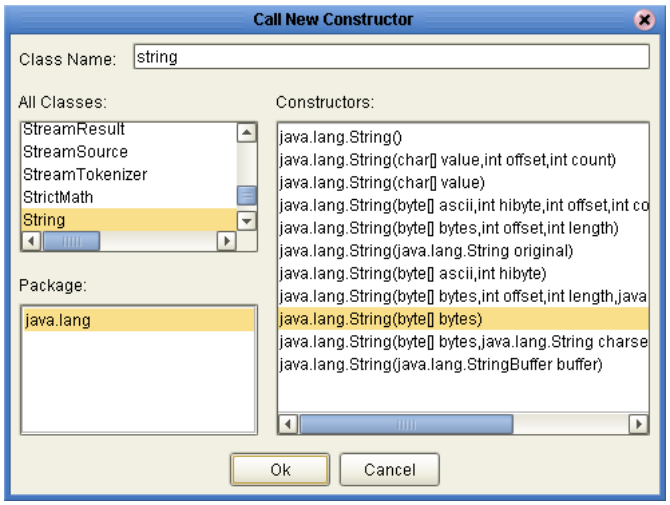
To unmarshal text input format

3 Right-click the custom conversion OTD, click **Select a method to call,** and click **unmarshalFromString().** The **unmarshalFromString** box appears.

4 Click the **Call New Contructor** button. The **Call New Contructor** dialog box appears.

5 Enter **string** and press **ENTER**. The list of string constructs appears as shown below.

Figure 10 Calling a New Constructor

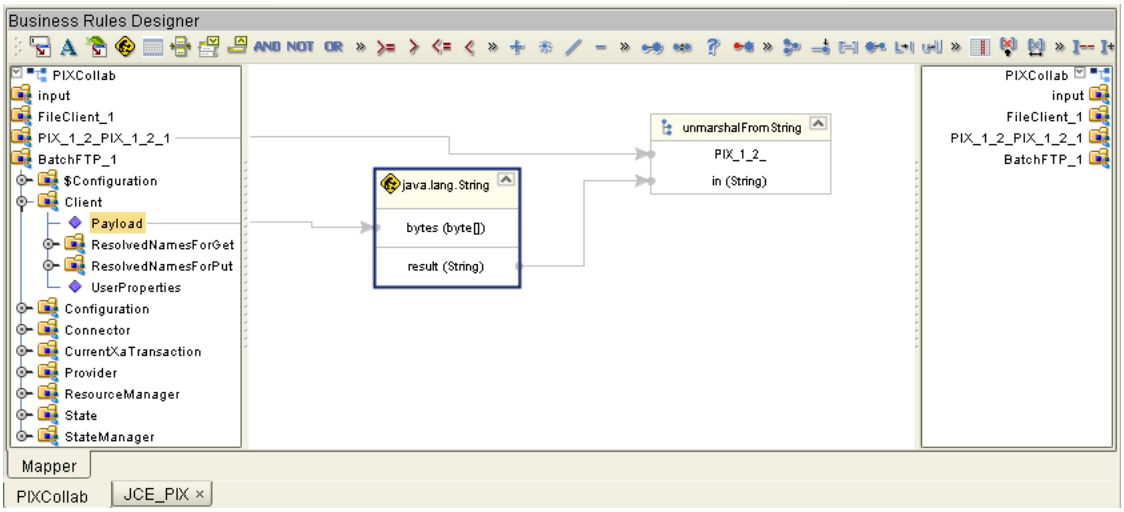


6 Click **java.lang.string(byte[] bytes)** and click **OK**.

7 Drag **Payload** under **Client** to **byte[] bytes** in the **java.lang.string** box.

8 Drag **result (String)** to **in (String)** as shown below.

Figure 11 Unmarshaling the Input Data



Mapping the Data

Map the input data to the output data.

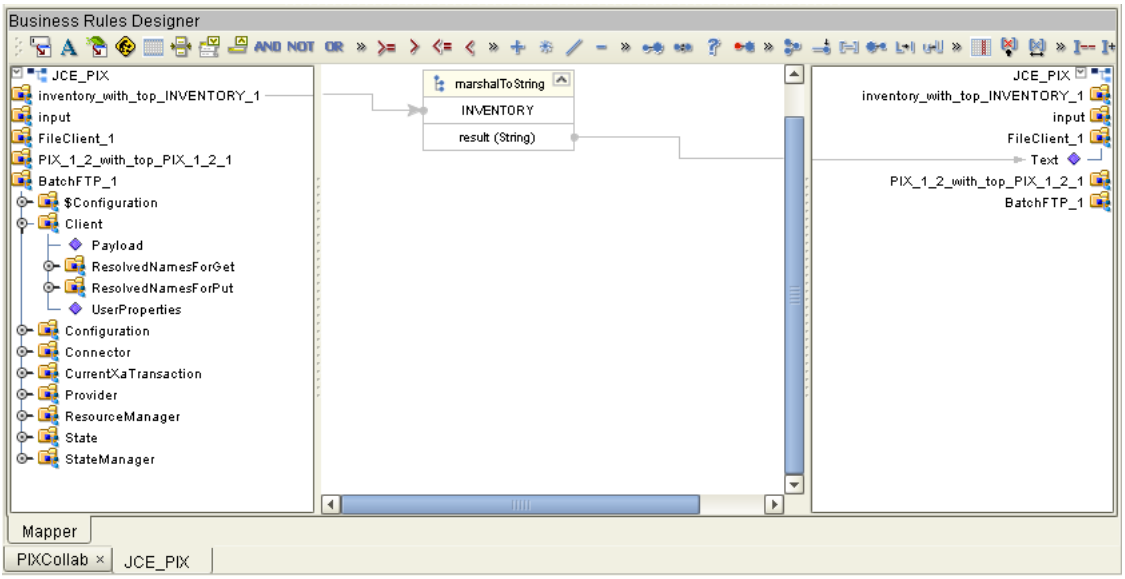
Marshaling to String

To marshal data as strings to an output destination

1 Right-click the custom OTD to be marshaled, click **Select a method to call**, and click **marshalToString()**. The **marshalToString** box appears.

2 Drag **Result (String)** to **Text** under **FileClient_1** as shown below.

Figure 12 Marshaling Data to String



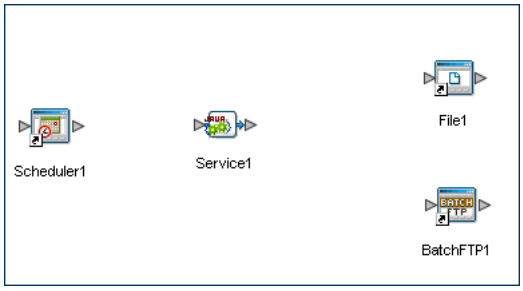
4.2.5. Binding the Collaboration Definition and eWays

Once you have created the Collaboration and its business logic as described in the section above, you can bind the new Collaboration Definition to the Service, and then connect the Collaboration to the eWays.

To bind the Collaboration Definition and eWays

1 From the Project Explorer of the Enterprise Designer, drag the newly created Collaboration Definition to the Service in the Connectivity Map as shown below.

Figure 13 Binding the Collaboration Definition and Service



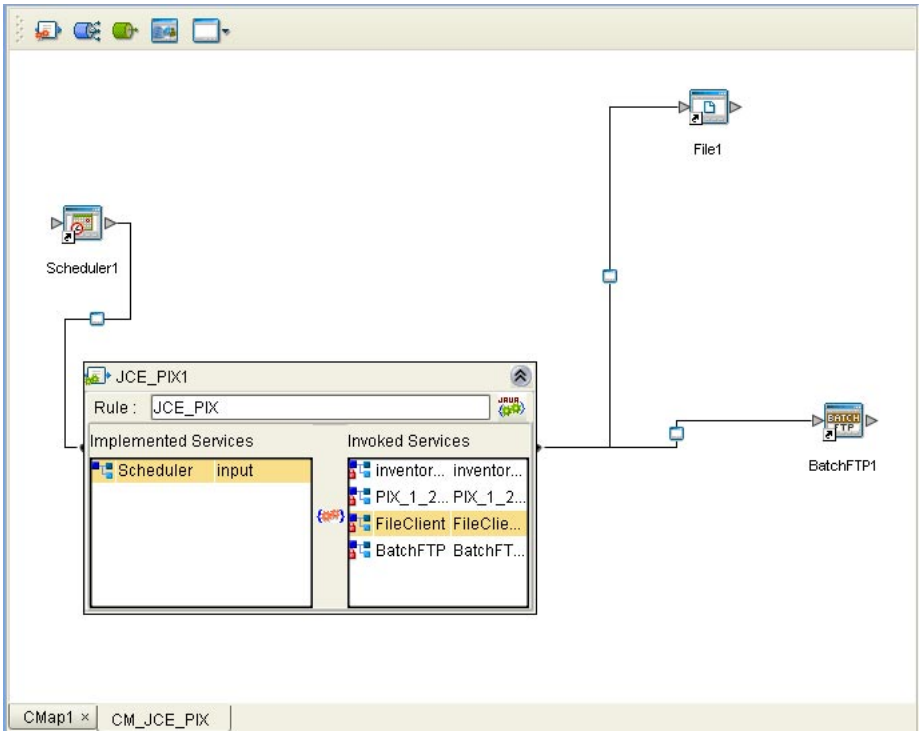
2 Double-click the **Service** icon. The **Service1** window appears.

3 Drag the Scheduler service to the Scheduler eWay.

4 Drag the BatchFTP service to the Batch eWay.

5 Drag the FileClient service to the File eWay. The binding windows looks similar to the figure below.

Figure 14 Connecting the Collaboration to the eWays



6 Close the **Service1** window and click **Save**.

4.2.6. Deploying the Project

Once you have completed the Connectivity Map binding, you must do the following to finish the Project:

1 Configure the eWays as described in the eWay documentation.

2 Create an Environment and Deployment Profile and run the Project as described in the *eGate Integrator User's Guide*.

4.3 Building a PkMS DTD to XSD Conversion

This section describes how to create a PkMS Project that receives DTD data and converts the data to XSD.

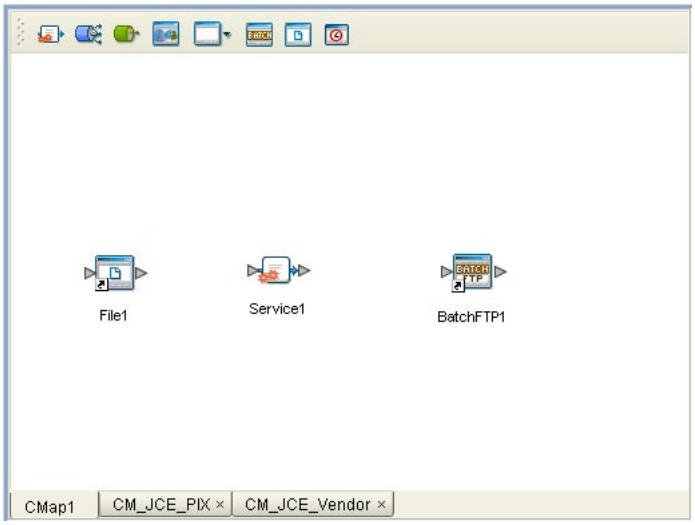
4.3.1. Creating the Connectivity Map

The procedure below describes how to create the Connectivity Map for the PkMS Project.

To create the Connectivity Map

1. In the Project Explorer tab of the Enterprise Designer, right-click the copybook conversion Project, click **New**, and click **Connectivity Map**. A blank Connectivity Map appears.
2. Click the **eWay** icon and click the **File External Application**.
3. Drag the File eWay icon to the Connectivity Map to create the outbound eWay.
4. Drag the **Service** icon to the Connectivity Map.
5. Click the **eWay** icon and click **Batch FTP External Application**.
6. Drag the Batch eWay icon to the Connectivity Map to create a second outbound eWay. The Connectivity Map looks similar to the figure below.

Figure 15 PkMS Connectivy Map—DTD to XSD

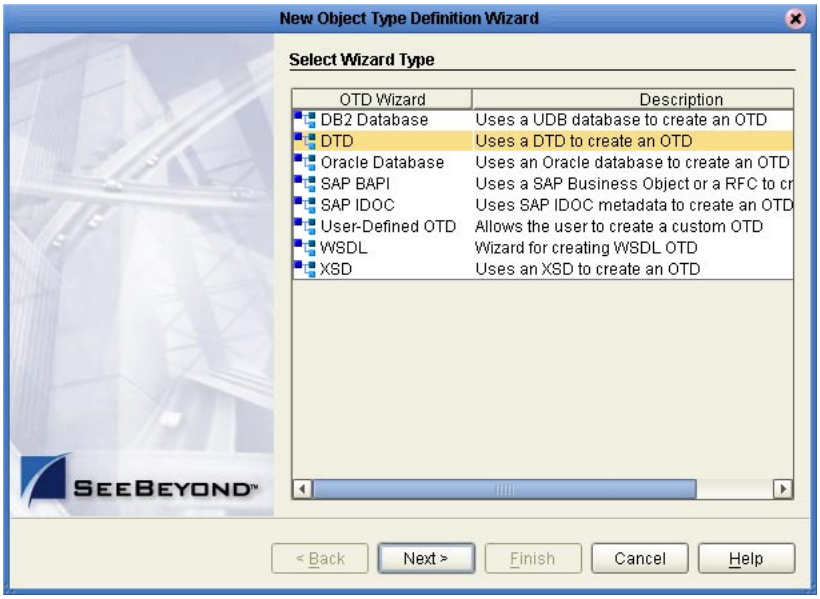


4.3.2. Creating the PkMS Project and OTD

To create the PkMS Project and OTD

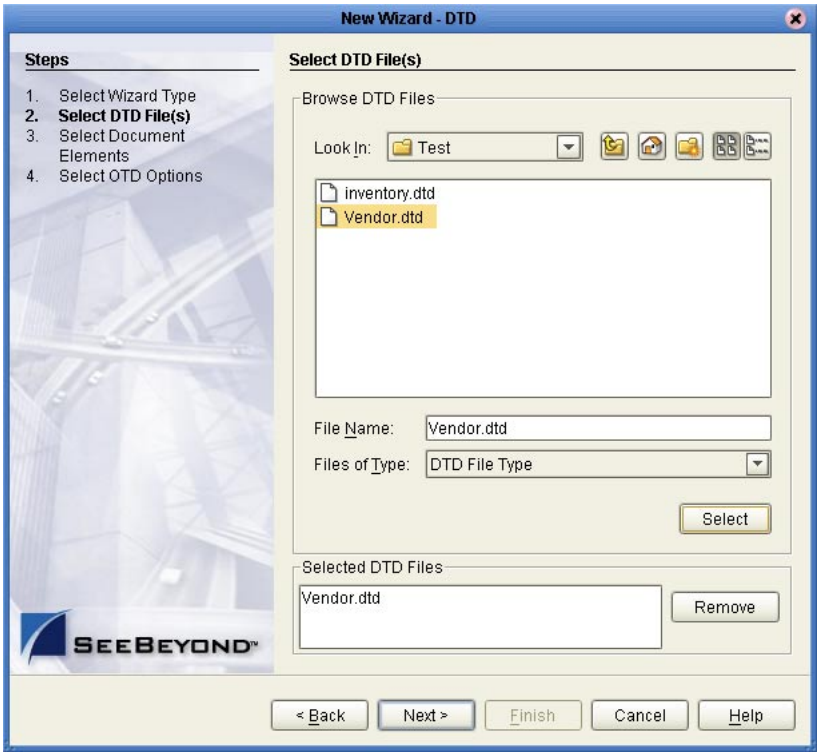
1. In the Project Explorer tab of the Enterprise Designer, right-click the Repository and click **New Project**.
2. Right-click the new Project, click New, and click Object Type Definition. The **New Object Type Definition** wizard appears as shown below.

Figure 16 New Object Type Definition Wizard



3 Click **DTD** and click **Next**. The **Select DTD Files** page appears.

Figure 17 Selecting DTD Files



4 In the **Look In** box, browse to the location where the custom DTDs reside.

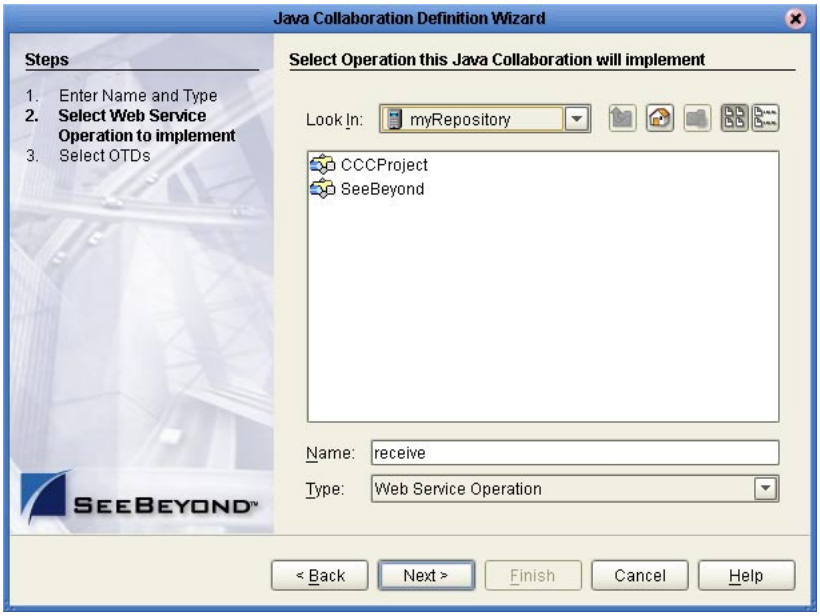
5 Double-click the DTD file to be used and click **Finish**. The **OTD Editor** window displays the newly created OTD

4.3.3. Creating the Collaboration Definition

To create the Collaboration Definition

1. In the Project Explorer of the Enterprise Designer, right-click the COBOL copybook conversion Project, click **New** and click **Java Collaboration Definition**. The **Java Collaboration Definition** wizard appears.
2. In the **Collaboration Name** box, enter the name for the Collaboration and click **Next**. The **Select Operation** page appears as shown below.

Figure 18 Selecting Collaboration Operations



3. Double-click **?**
4. Click **Next**.
5. Navigate and double-click the following files:
   - **SeeBeyond > eWays > File > BatcheWay > BatchFTP**
   - ***Projectname* > *ProjectOTDs***
6. Click **Finish**. The **Java Collaboration Editor** window appears.

You can now create the business logic for the Collaboration as described below.

4.3.4. Creating the Business Logic for The Collaboration Definition

Once you have created the Collaboration Definition as described in the section above, you can create the business logic for the Collaboration. The business logic for a PkMS Collaboration consist of the following components;

1. **Getting the Input Data** on page 17
2. **Unmarshaling From String** on page 18

3 **Mapping the Data** on page 19

4 **Marshaling to String** on page 19

Getting the Input Data

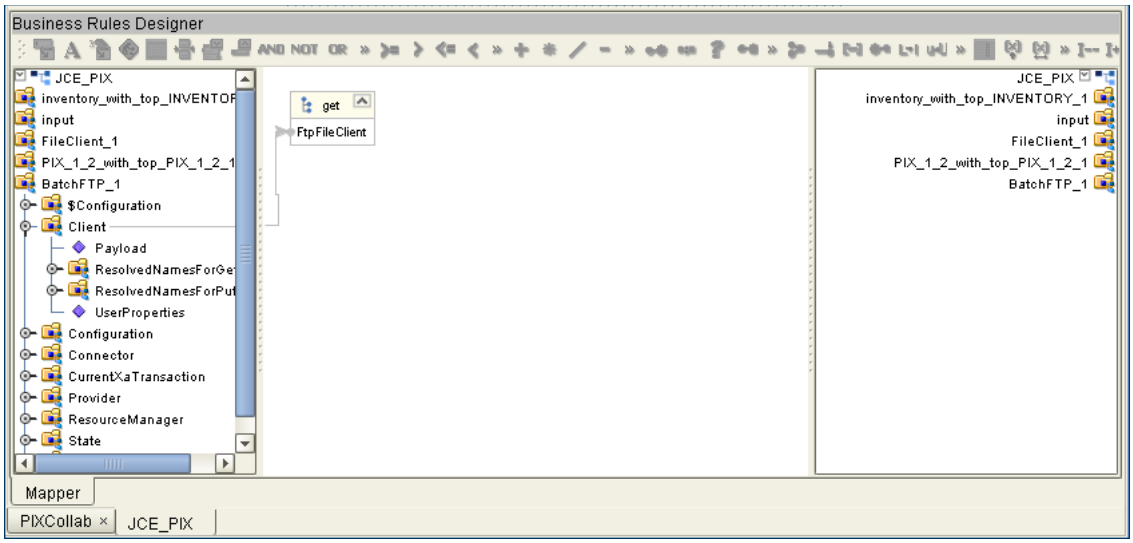
The first step in the business logic is to handle the data when it comes into the Project. In this case, you unmarshal the data to String as described below.

To unmarshal text input format

1 Expand **BatchFTP_1**, right-click **Client**, and click **Select a method to call**. A list of methods appears.

2 Click **get().** The **get** box appears as shown below.

Figure 19 Getting Input Data



Unmarshaling From String

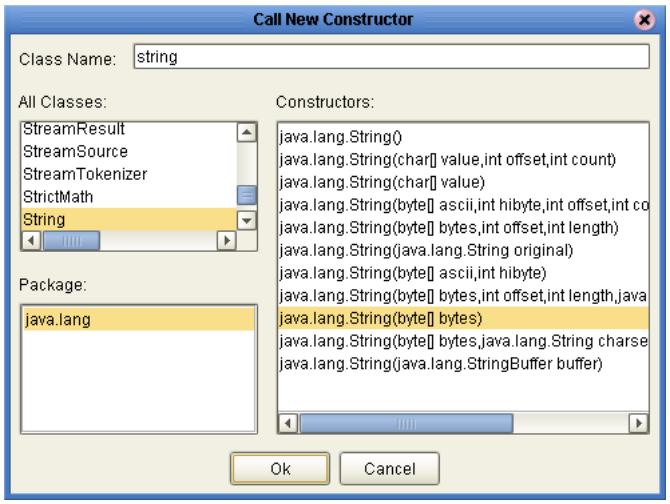
To unmarshal text input format

3 Right-click the custom conversion OTD, click **Select a method to call,** and click **unmarshalFromString().** The **unmarshalFromString** box appears.

4 Click the **Call New Contructor** button. The **Call New Contructor** dialog box appears.

5 Enter **string** and press **ENTER**. The list of string constructs appears as shown below.

Figure 20 Calling a New Constructor

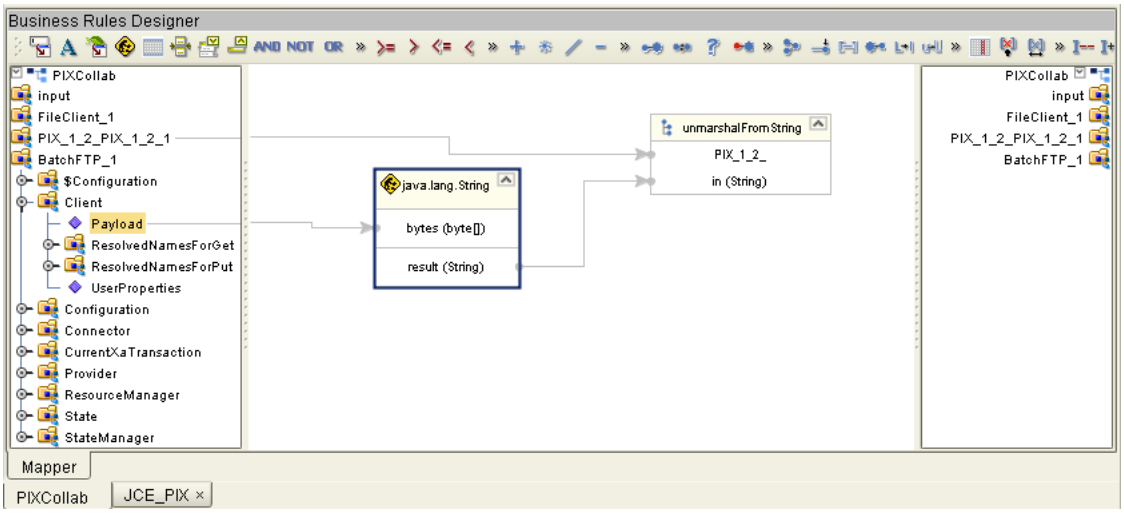


6 Click **java.lang.string(byte[] bytes)** and click **OK**.

7 Drag **Payload** under **Client** to **byte[] bytes** in the **java.lang.string** box.

8 Drag **result (String)** to **in (String)** as shown below.

Figure 21 Unmarshaling the Input Data



Mapping the Data

Map the input data to the output data.

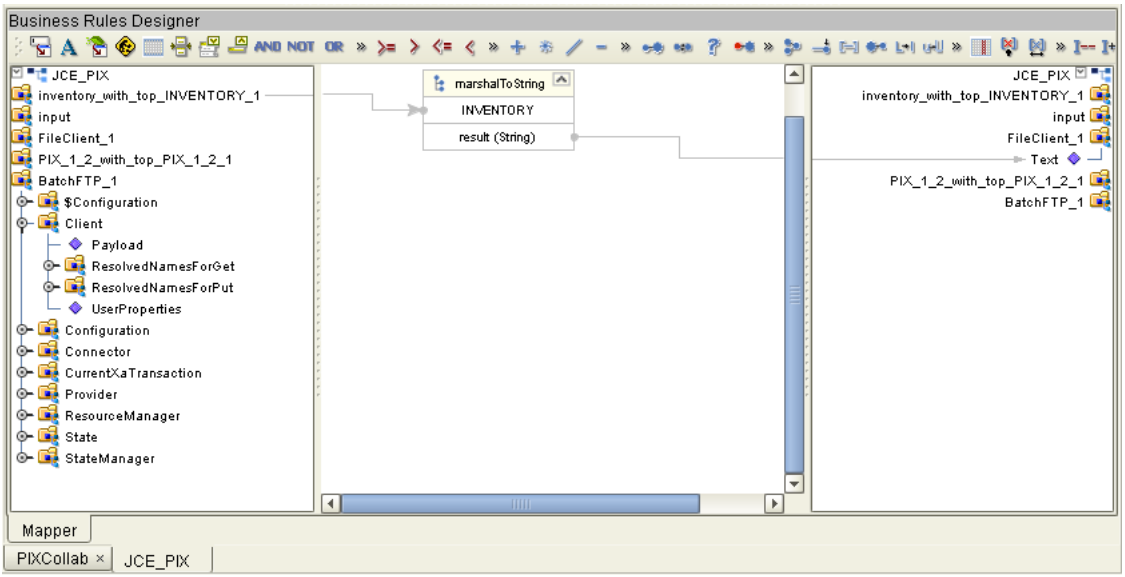
Marshaling to String

To marshal data as strings to an output destination

1 Right-click the custom OTD to be marshaled, click **Select a method to call**, and click **marshalToString()**. The **marshalToString** box appears.

2 Drag **Result (String)** to **Text** under **FileClient_1** as shown below.

Figure 22 Marshaling Data to String



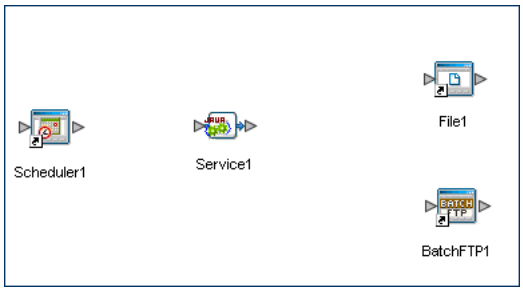
4.3.5. Binding the Collaboration Definition and eWays

Once you have created the Collaboration and its business logic as described in the section above, you can bind the new Collaboration Definition to the Service, and then connect the Collaboration to the eWays.

To bind the Collaboration Definition and eWays

1 From the Project Explorer of the Enterprise Designer, drag the newly created Collaboration Definition to the Service in the Connectivity Map as shown below.

Figure 23 Binding the Collaboration Definition and Service



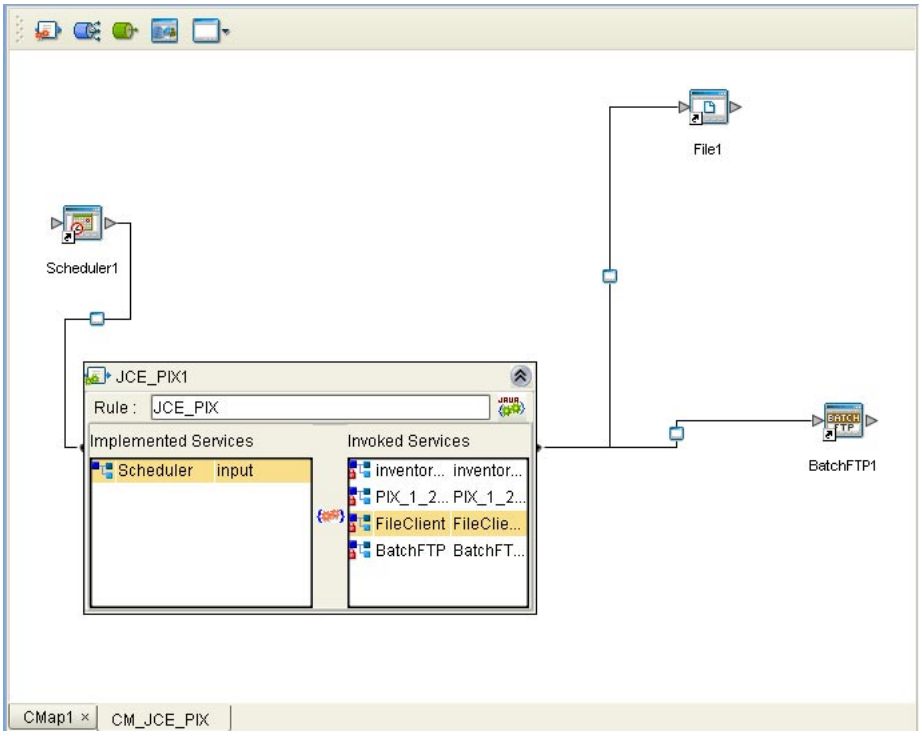
2 Double-click the **Service** icon. The **Service1** window appears.

3 Drag the Scheduler service to the Scheduler eWay.

4 Drag the BatchFTP service to the Batch eWay.

5 Drag the FileClient service to the File eWay. The binding windows looks similar to the figure below.

Figure 24 Connecting the Collaboration to the eWays



6 Close the **Service1** window and click **Save**.

4.3.6. Deploying the Project

Once you have completed the Connectivity Map binding, you must do the following to finish the Project:

1 Configure the eWays as described in the eWay documentation.

2 Create an Environment and Deployment Profile and run the Project as described in the *eGate Integrator User's Guide*.

Writing The Output to a File

If you are using a File eWay for the output of the copybook conversion Project, you can use the method below to write the output to a file.

To write the output to a file

1 Right-click **FileClient_1** in the input column, click **Select a method to call**, and click **write()**.

2 Click **Save**.

3

4.4 Working with The PkMS eWay Sample

PkMS eWay includes a sample that you can import to see how a PkMS conversion can be set up. The sample is provided as a zip file, **PkMS_eWay_Sample.zip**, on the installation CD-ROM. This zip file contains:

- A zip file with an exported Project that you can import (**WM_Sample.zip**)
- An input file

4.4.1. Importing the Sample Project

The installation CD-ROM includes a sample Project for the PkMS eWay. To import the Project into Enterprise Designer, follow the steps below.

To import the sample

1. Copy **PkMS_eWay_Sample.zip** from the samples directory on the installation CD-ROM to a temporary directory.
2. Unzip the file to the temporary directory.
3. In the Project Explorer tab of the Enterprise Designer, right-click the Repository and click **Import Project**. The **Select File to Import** dialog box appears.
4. Browse to the temporary directory.
5. Double-click **WM_Sample.zip.** The **File Destination** dialog box appears.
6. Click **Import to a new Project**, enter the name of the Project, and click **OK**.
7. When the import has successfully completed, right-click the Repository and click **Refresh All from Repository**.

The Project is now imported. Before you deploy and run the Project, do the following:

- Configure the eWays for the correct input and output directories. Refer to the eWay documention for more information.
- Create an Environment and Deployment Profile, and run the Project. Refer to the *eGate Integrator User's Guide* for more information.

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