

## **Configuring SAP R/3 for the Oracle® Java CAPS SAP BAPI Adapter**

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# Configuring SAP R/3 for the SAP BAPI Adapter

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The following sections provide instructions on how to configure the SAP BAPI Adapter to interact successfully with SAP R/3.

- [“Creating the RFC Destination for the Adapter” on page 5](#)
- [“Configuration Needed in SAP R/3 to Send and Receive IDocs” on page 11](#)
- [“Configuring the Distribution Model” on page 12](#)
- [“Configuring Communications” on page 19](#)

## Creating the RFC Destination for the Adapter

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

The SAP R/3 images in this section correspond to SAP GUI version 6.2, and SAP R/3 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 your SAP R/3 system to determine the exact procedures.

### ▼ To Create the RFC Destination for the Adapter

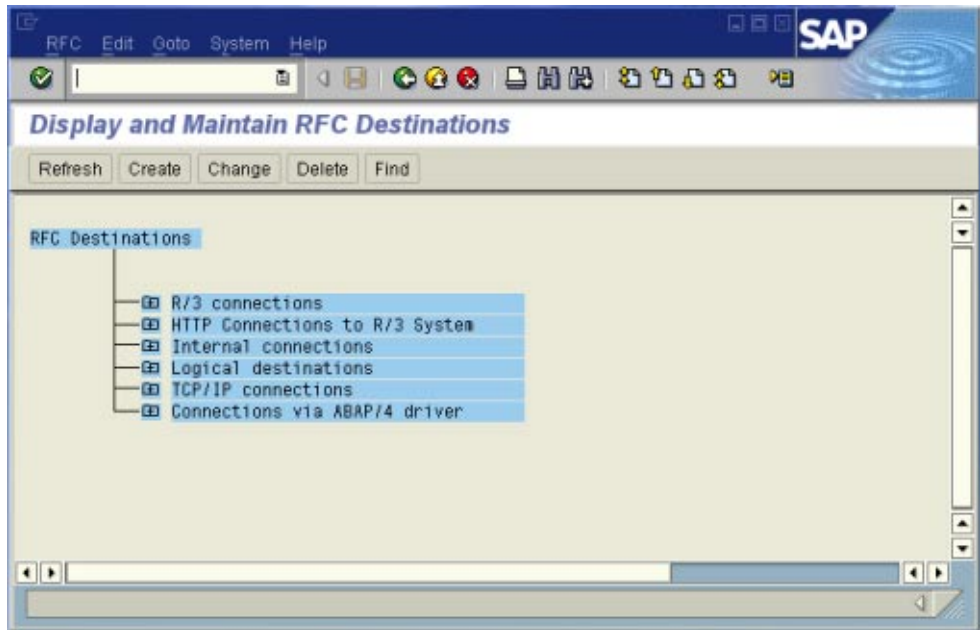
- 1 In the SAP R/3 window, click the forward arrow to display the navigation box if necessary.
- 2 Type `SM59` into the text field and press Enter.

FIGURE 1 Navigating to the SM59 Transaction



The RFC Destination Maintenance window appears.

FIGURE 2 RFC Destination Maintenance Window



- 3 Click TCP/IP connections and then click Create.

The RFC Destination window appears.

FIGURE 3 RFC Destination Window

Destination System Information Test System Help

**RFC Destination**

Test connection

RFC Destination

Connection Type New Entry

Description

Description 1

Description 2

Description 3

Technical Settings Logon/Security Special Options

Gateway Options

Gateway host

Gateway service

Delete

Attributes

Created by Client Created on

Last changed by Client Changed on

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

FIGURE 4 RFC Destination

The screenshot shows the SAP RFC Destination configuration window. The window has a menu bar with 'Destination', 'System Information', 'Test', 'System', and 'Help'. Below the menu bar is a toolbar with various icons. The title bar of the window is 'RFC Destination'. Inside the window, there is a 'Test connection' button. The main content area is divided into several sections. The first section is 'RFC Destination' with a text field containing 'RFCDEST'. Below this is 'Connection Type' with a dropdown menu showing 'T' and 'New Entry'. The next section is 'Description' with three text fields labeled 'Description 1', 'Description 2', and 'Description 3'. Below these are three tabs: 'Technical Settings', 'Logon/Security', and 'Special Options'. The 'Technical Settings' tab is selected, showing 'Gateway Options' with 'Gateway host' and 'Gateway service' text fields and a 'Delete' button. At the bottom of the window is an 'Attributes' section with fields for 'Created by', 'Last changed by', 'Client', 'Created on', and 'Changed on'.

**5 Click Save.**

The RFC Destination window corresponding to your entry appears.

**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 Adapter's Program ID property. This value is case sensitive. For more information, see [“Server Connection Settings”](#) in *Configuring Environment Components for Oracle Java CAPS Application Adapters*.

FIGURE 5 RFC Destination Window

The screenshot shows the SAP 'RFC Destination' configuration window for 'RFCDEST'. The window has a menu bar (Destination, System information, Test, System, Help) and a toolbar. Below the title bar, there are tabs for 'Test connection' and 'Unicode Test'. The main configuration area includes fields for 'RFC Destination' (RFCDEST) and 'Connection Type' (TCP/IP Connection). A 'Description' section has three text areas. Below this are three tabs: 'Technical Settings', 'Logon/Security', and 'Special Options'. The 'Technical Settings' tab is active, showing 'Activation Type' with three radio buttons: 'Start on Application Server', 'Start on Explicit Host', and 'Registered Server Program' (which is selected). Below the radio buttons is a 'Registered Server Program' section with a 'Program ID' field containing 'RFCDEST'. Further down is a 'Gateway Options' section with 'Gateway host' and 'Gateway service' fields, and a 'Delete' button. At the bottom is an 'Attributes' section with a table of metadata.

Attributes					
Created by	PS1	Client	000	Created on	23.12.2005
Last changed by	PS1	Client	000	Changed on	23.12.2005

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

FIGURE 6 Connection Test Results

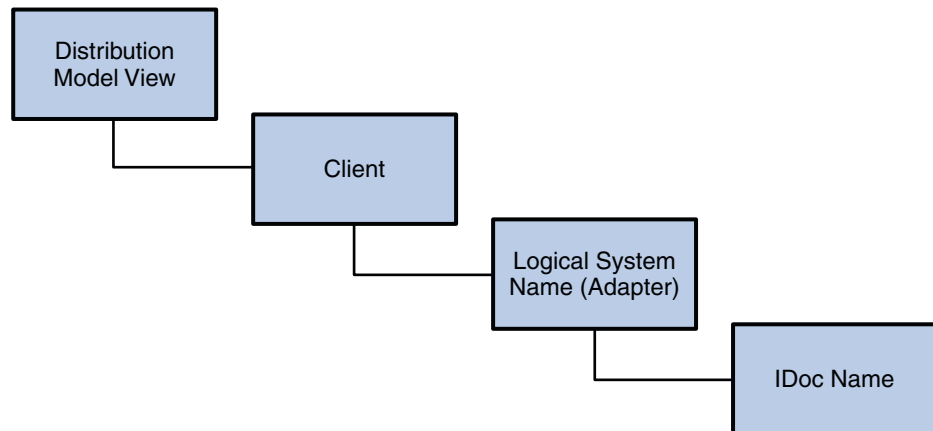
Connection test STCDGW	
Connection type:	TCP/IP connection
Logon:	255 msec
0 KB:	496 msec
10 KB:	491 msec
20 KB:	504 msec
30 KB:	505 msec

## Configuration Needed in SAP R/3 to Send and Receive IDocs

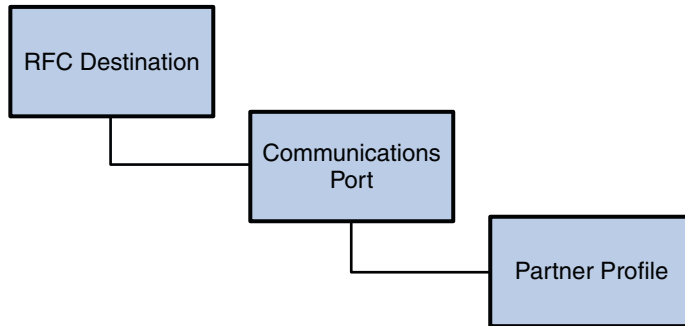
For the SAP BAPI Adapter to interact successfully with the SAP R/3 system, you must configure the SAP R/3 system as described in this chapter.

The SAP R/3 images in this topic correspond to SAP GUI version 6.2, and SAP R/3 version 4.0. They are included to illustrate the general nature of the procedures, and contain only example values. Refer to the documentation supplied with your SAP R/3 system to determine the exact procedures.

FIGURE 7 Distribution Model Hierarchy



Following this high-level setup, you need to define Communications parameters in SAP R/3 to specify the correct routing of IDocs (either inbound to or outbound from SAP R/3). The hierarchy of this Communication system is shown in the following figure.

**FIGURE 8** Communications Hierarchy

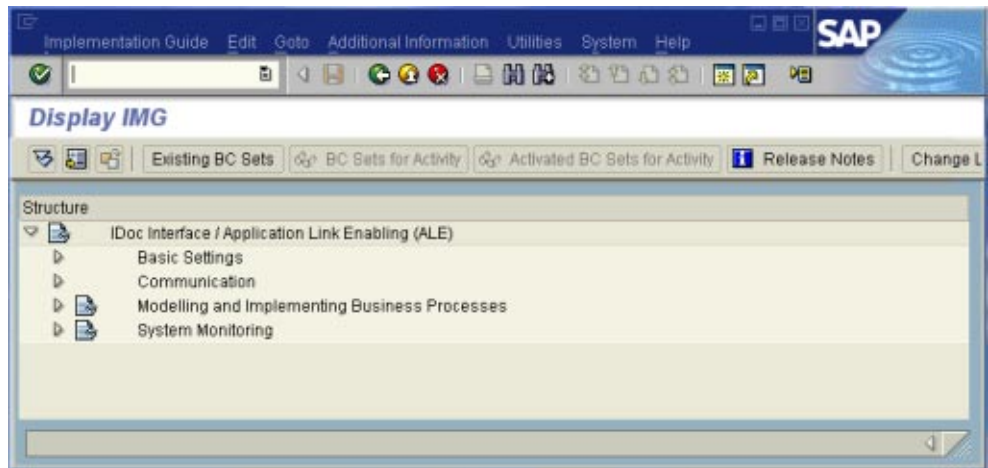
The RFC Destination defines the entity to which Remote Function Calls (RFCs) can be made; it is the same as the Logical System in the Distribution Model. The Communications Port defines a channel for communication of IDocs. The Partner Profile acts as an identifier for the Java CAPS system, and provides a communications gateway by incorporating elements of the ALE interface.

## Configuring the Distribution Model

You need to complete the following in SAP R/3 to run a RFC BAPI inbound.

- [“To Name the Logical System” on page 13](#)
- [“To Specify the Distribution Model” on page 16](#)

FIGURE 9 SAP R/3 System Window

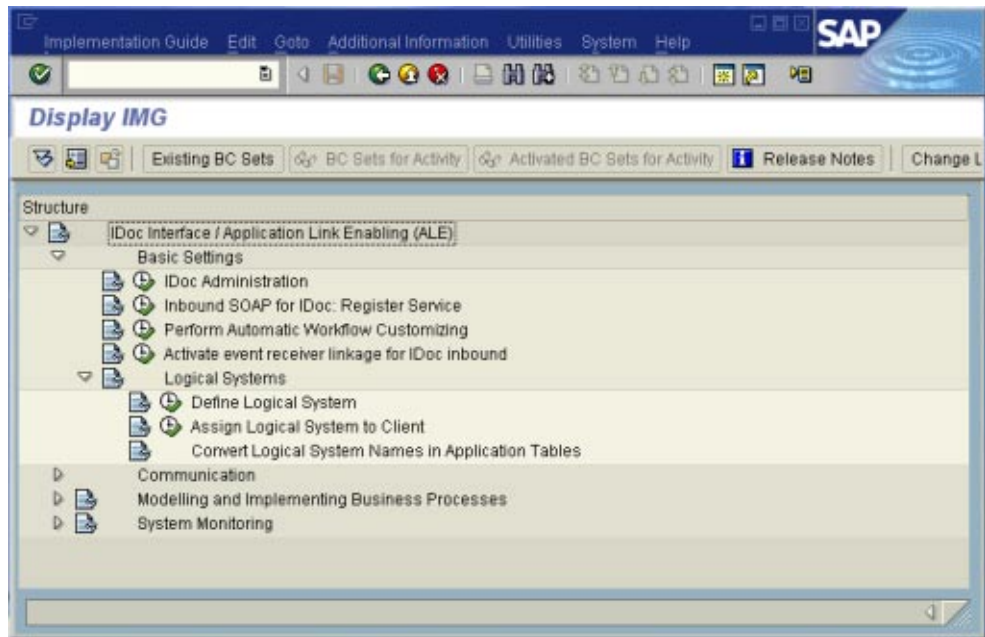


## ▼ To Name the Logical System

Transaction: SALE

- 1 In the SAP R/3 System home window (shown above), type SALE into the command field and click Enter.

The Distribution (ALE) Structure window appears.

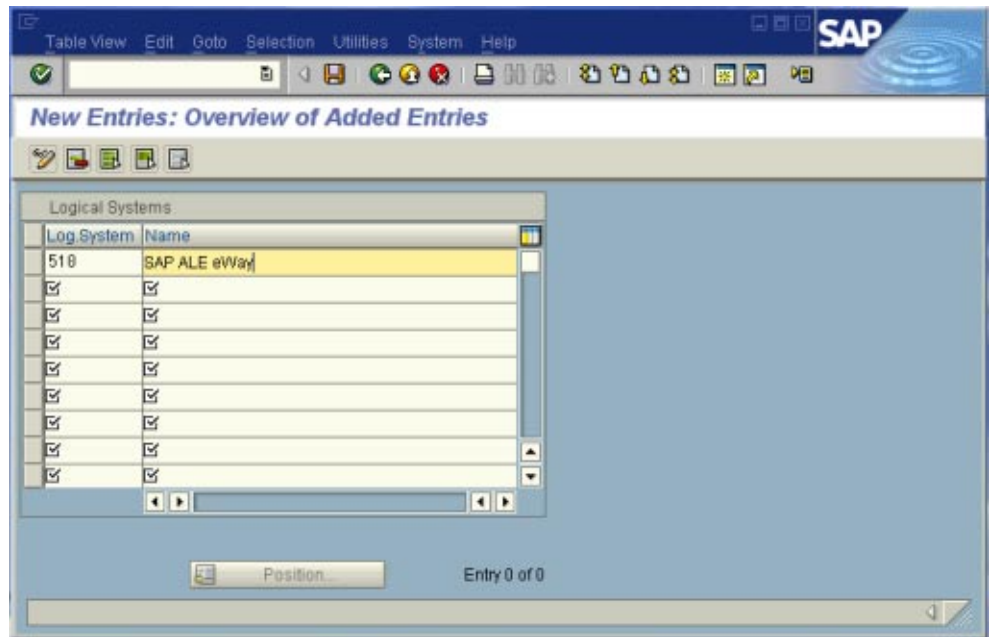


- 2 Expand IDoc Interface / Application Link Enabling (ALE) > Basic Settings > Logical Systems > Define Logical System.
- 3 Click the Activity button and select Define Logical System.
- 4 Click the New entries button.

The Logical Systems Overview window appears.

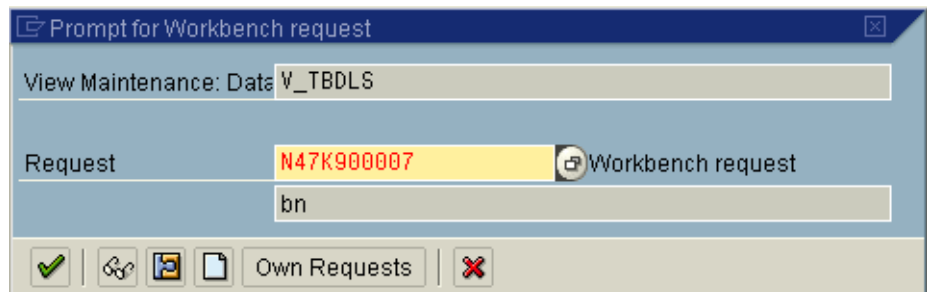
The New Entries window appears.

- 5 Enter the logical name for your SAP Adapter using capital letters and a brief descriptive name.



- 6 Click Save.

The Change Request Entry window appears.



- 7 Click the Create request button.

The Create Request window appears.

- 8 Enter a short description (for example, Adapter Test) and click Save.

The Change Request entry window appears.

**9 Click Enter to add the new data into the system.**

You are now returned to the Logical Systems Overview window, and the new Logical System appears in the list.

**10 Click Save and select the Back button repeatedly until the SAP R/3 System window appears**

## ▼ To Specify the Distribution Model

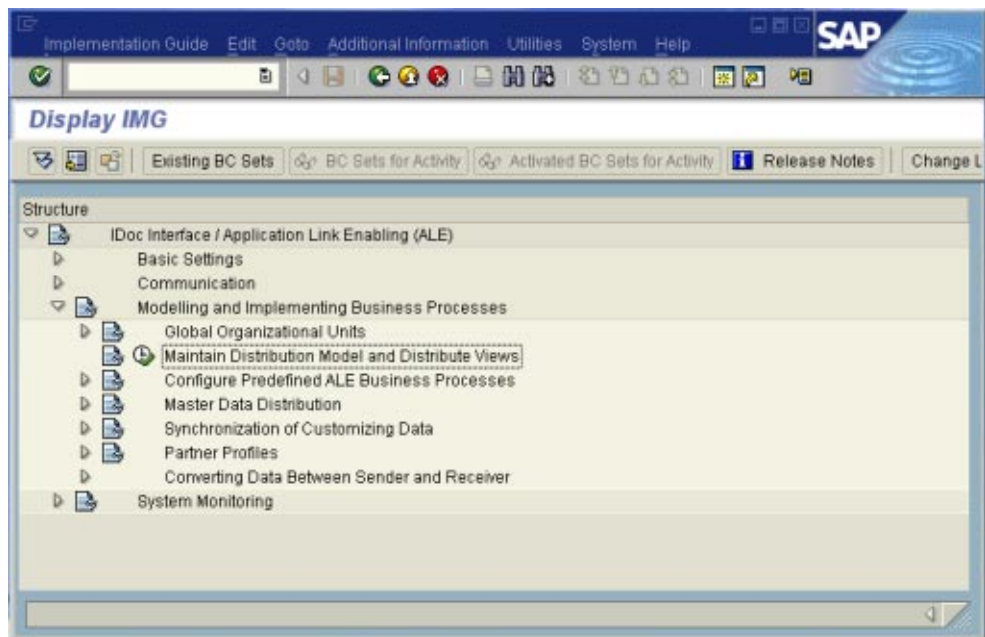


**Caution** – It is recommended that you use the Z prefix when defining a name. This prefix is reserved for external use, and will not conflict with any SAP naming conventions. Using the Z prefix will also prevent any interference with standard SAP functionality or conflicts with standard SAP terminology.

Transaction: **SALE**

**1 In the SAP R/3 System home window, type SALE into the command field and click Enter.**

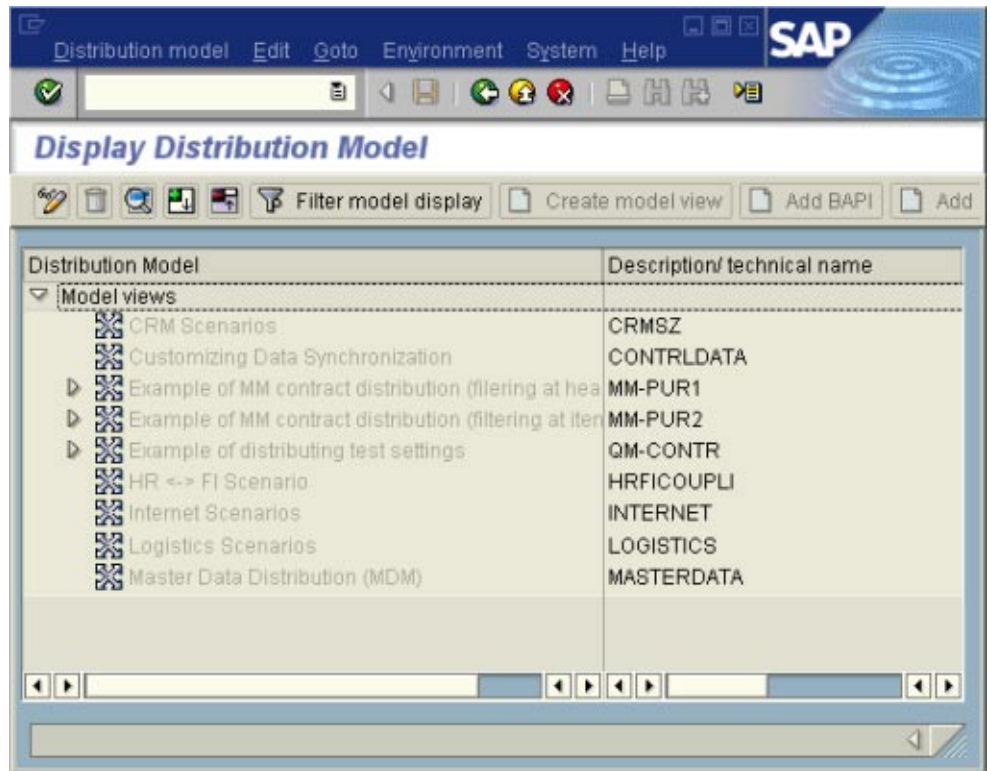
The Distribution (ALE) Structure window appears.





- 2 Click the Activity button next to Maintain Distribution Model and Distribute Views.

The Maintain Distribution Model window appears.



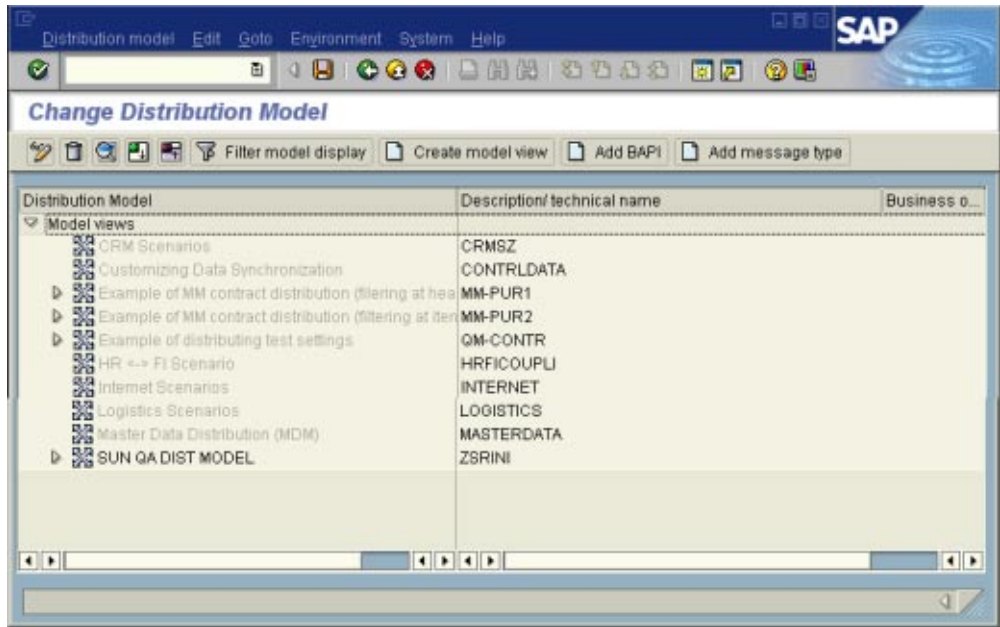
- 3 Select the Menu path Edit > Model View > Create.

The Create Model View dialog box appears.

Short text	SUN QA DIST MODEL
Technical name	ZSRINI
Start date	02.03.2006
End Date	31.12.9999

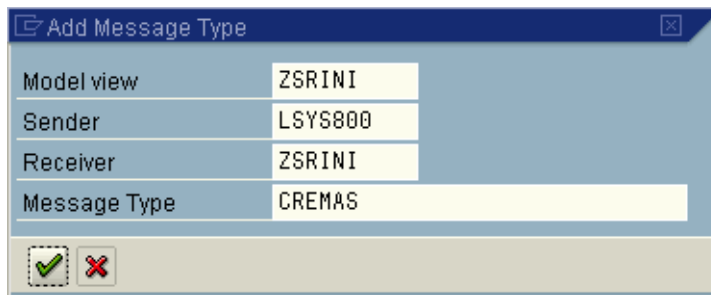
- 4 Enter the logical name you want for the new Distribution Model View, along with a brief descriptive name or message (for your own use).

- 5 Click Continue (Enter), which returns you to the previous window. Your new Model View now appears in the tree, as shown in the following figure.



- 6 Highlight the new entry and select Add Message Type.

The Add Message Type dialog box appears.

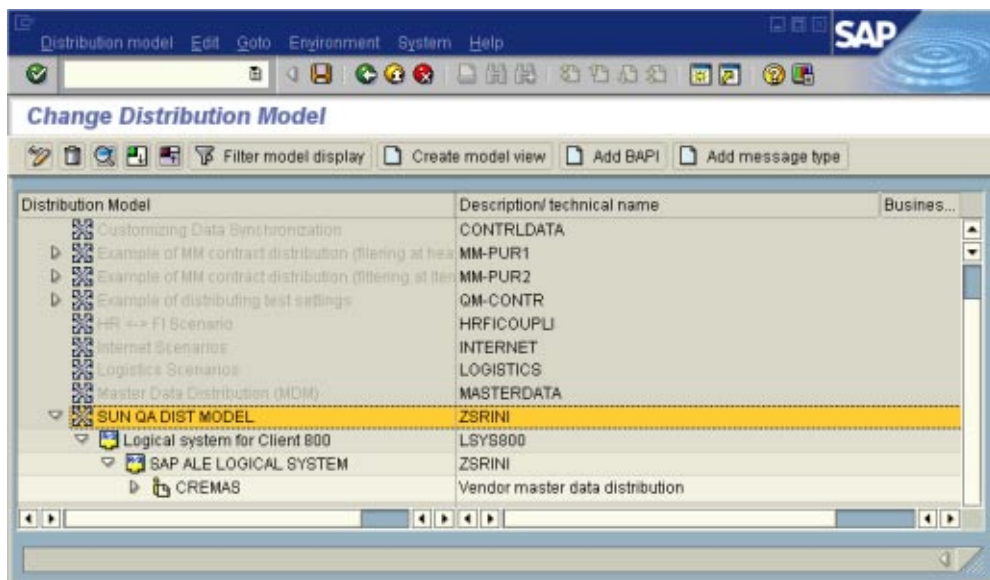


- 7 Type the desired values for the four parameters into the text boxes, or select them from the drop-down menus.

For example, CREMAS is the message type used for Creditor Master Data.

- 8 Select **Continue (Enter)**, which returns you to the previous window.

The values you select now appear in the Distribution Model tree, as shown in the following figure.



- 9 Save your entry, click **Back** and then **Cancel** to return to the Distribution Structure window.

## Configuring Communications

This section describes the following communication configuration tasks.

- “To Define the Communications Port” on page 20
- “To Create a Partner Profile” on page 21
- “To Configure a Partner Profile” on page 24

FIGURE 10 SAP R/3 System Window



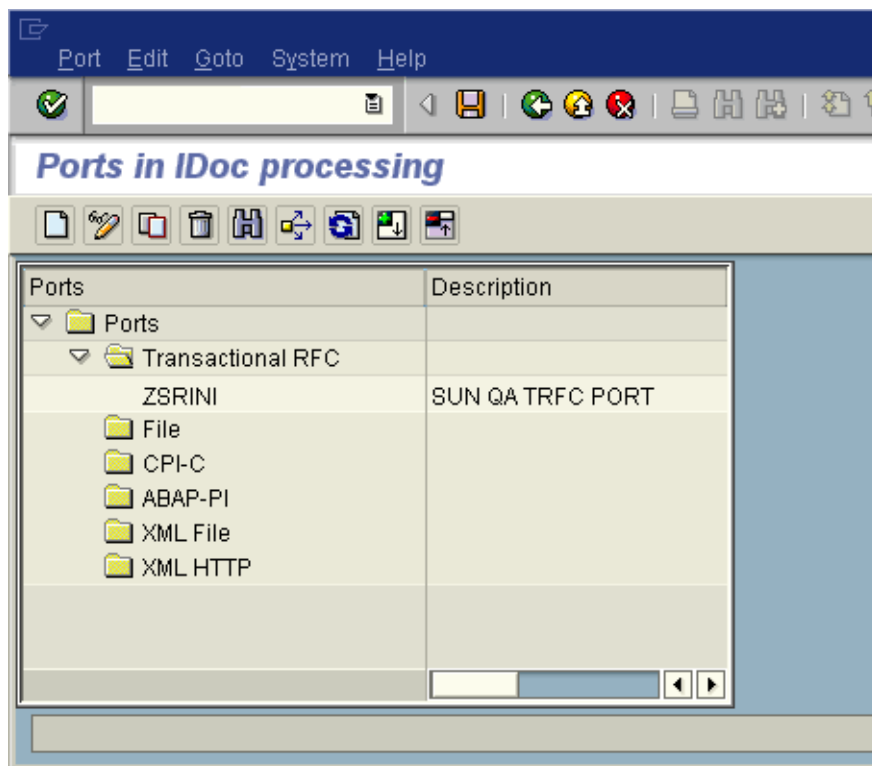
## ▼ To Define the Communications Port

The Communications Port defines the type of connection with the Partner (see [“To Create a Partner Profile” on page 21](#)). This task is used to specify the outbound file name, directory path, and any associated function modules.

Transaction: **WE21**

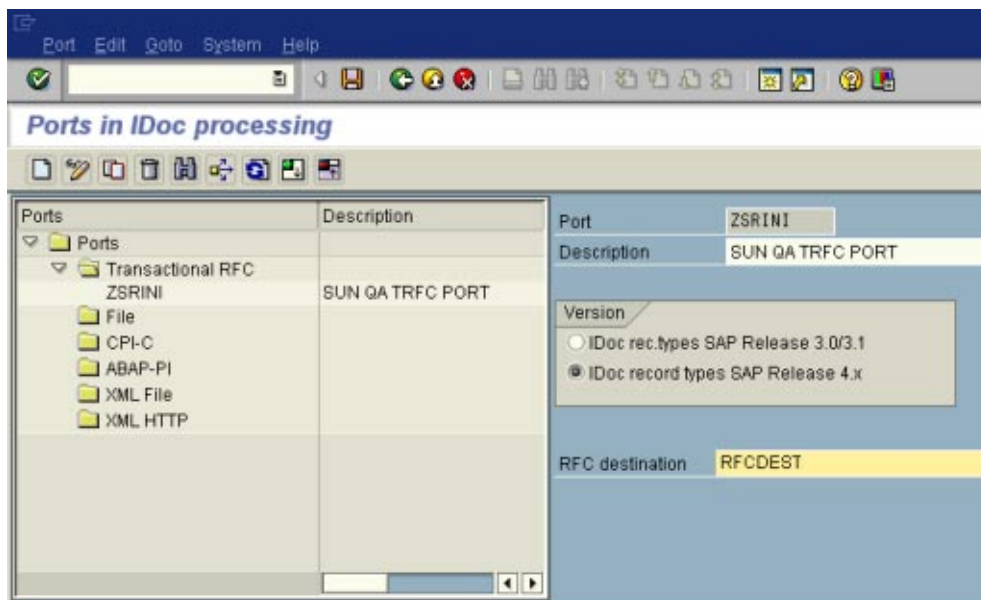
- 1 In the SAP R/3 System home window, type WE21 into the command field and click Continue (Enter).

The WF-EDI Port Definition window appears.



- 2 Expand the tree under Transactional RFC to display the currently-defined Ports.

- 3 Select the desired Port from the list, or select Change to display the Port Definition for Asynchronous RFC Overview window.



- 4 Enter a Version (to specify the IDoc record type), Logical destination, and Description, matching the entries made previously.
- 5 Select Enter.  
The Change Request Query dialog window appears. Note that you must have CTS (Correction and Transport System) turned on for this screen to appear.
- 6 Select Create Request.  
The Create Request dialog window appears.
- 7 Enter a Short description and click Save.
- 8 Select Back repeatedly to return to the SAP R/3 System window.

## ▼ To Create a Partner Profile

This task is used to demonstrate how to create the Partner for the Logical System you created earlier. Note that the LS Partner Type is used for all ALE distribution scenarios.

Transaction: **WE20**

- 1 In the SAP R/3 System home window, type **WE20** into the command field and then click **Continue (Enter)**.

The Partner Profile: Initial Screen window appears.

The screenshot displays the SAP Partner Profile: Initial Screen window (WE20). The window has a menu bar with 'Partners', 'Edit', 'Tools', 'Utilities', 'System', and 'Help'. Below the menu bar is a toolbar with various icons. The main area is divided into two panes. The left pane shows a tree view of partner profiles under the 'Partner Profiles' folder. The right pane contains configuration fields for a selected partner profile.

**Partner Profiles List:**

Partner	Description
Partner Type B	Bank
Partner Type BP	Benefits provider
Partner Type GP	Business Partner
Partner Type KU	Customer
Partner Type LJ	Vendor
Partner Type LS	Logical system
LSYS800	Logical system for Client 800
ZSRINI	SAP ALE LOGICAL SYSTEM
Partner Type US	User (first 10 characters, no check)

**Configuration Fields:**

Partner no.:   
Partn.Type:

Post processing: permitted agent ☐ Classification

Type:   
Agent:   
Lang.:

**Outbound parmts.**

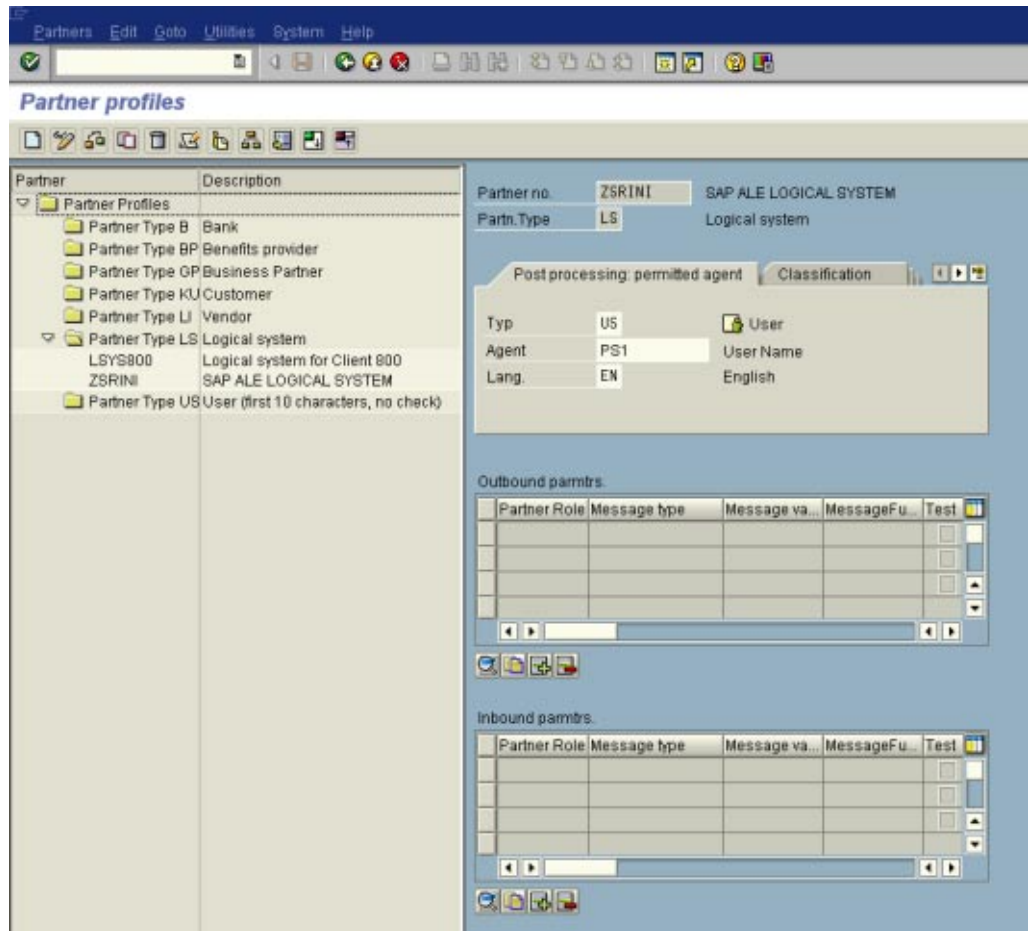
Partner Role	Message type	Message va.	MessageFu.	Test
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>

**Inbound parmts.**

Partner Role	Message type	Message va.	MessageFu.	Test
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>

- 2 Enter the name of the logical system created previously in the Partner number field, select LS for the Partner type, and select Create.

The Partner is created and the Create Partner Profile <Partner Number> window appears.



- 3 Under the Classification tab, select ALE for the Partner class and A (Active) for the Partner status, then Save.

You now have created the Partner, and need to continue to the next section to configure the Partner Profile.

## ▼ To Configure a Partner Profile

This task is used to demonstrate how you configure the Inbound/Outbound Parameters in the Partner Profile.

Transaction: **WE20**

- 1 In the **Partner Profile: Initial Screen** window, select the desired **Partner Number**, for example **ZSRINI**.
- 2 Select the **Inbound parameters**.

The screenshot shows the SAP WE20 transaction window titled "Partner profiles: Inbound parameters". The window has a menu bar with "Inbound parameters", "Edit", "Goto", "System", and "Help". Below the menu bar is a toolbar with various icons. The main area contains the following fields and options:

- Partner no.**: ZSRINI
- Partn. Type**: LS
- Partner Role**: (empty)
- Message type**: CREMAS
- Message code**: (empty)
- Message function**: (empty)
- Test**: ☐

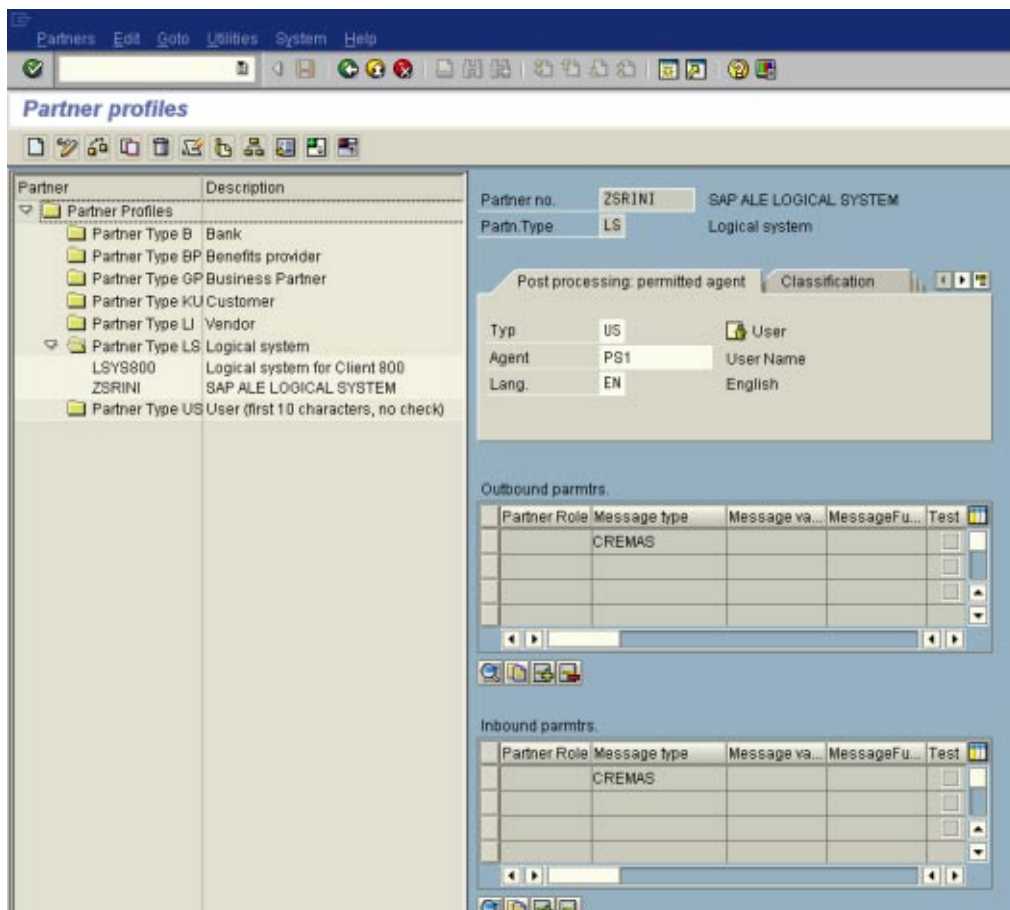
Below these fields are three tabs: "Inbound options", "Post processing: permitted agent", and "Telephony". The "Inbound options" tab is selected, showing the following options:

- Process code**: CRE1
- Cancel Processing After Syntax Error**: ☒
- Processing by Function Module**:
  - ☐ Trigger by background program
  - ☒ Trigger Immediately



- 3 Select CREMAS as a Message type and CRE1 as a Process code from the drop-down menus, then click Save.

The entries now appear in the list in the EDI Partner Profile: Inbound Parameters Overview window.



- 4 Follow the same procedure for Outbound parameters, as seen in the following figure.

The screenshot shows the 'Partner profiles: Outbound parameters' window in SAP. The 'Outbound Options' tab is selected. The following fields are visible and populated:

- Partner No.: ZSRINI
- Partn.Type: LS
- Partner Role: (empty)
- Message Type: CREMAS
- Message code: (empty)
- Message function: (empty)
- Test: ☐
- Receiver port: ZSRINI
- Output Mode:
  - ☒ Transfer IDoc Immed.
  - ☐ Collect IDocs
  - ☐ Start subsystem
  - ☒ Do not start subsystem
- IDoc Type:
  - Basic type: CREMAS03
  - Extension: (empty)
  - View: (empty)
  - ☒ Cancel Processing After Syntax Error
  - Seg. release in IDoc type: (empty)
  - Segment Appl. Rel.: (empty)

- 5 After making your entries, click Save and then click Back to get to the main SAP R/3 System window.