

PUBLIC

SAP Business One 9.0 integration for SAP NetWeaver Document Version: 1.1 – 2018-12-12

Intercompany Purchasing

All Countries



Typographic Conventions

| Type Style | Description |
|---------------------|--|
| Example | Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options. Textual cross-references to other documents. |
| Example | Emphasized words or expressions. |
| EXAMPLE | Technical names of system objects. These include report names, program names, transaction codes, table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE. |
| Example | Output on the screen. This includes file and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools. |
| Example | Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation. |
| <example></example> | Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system. |
| EXAMPLE | Keys on the keyboard, for example, F2 or ENTER. |

Document History

| Version | Date | Change | |
|---------|------------|---|--|
| 1.0 | 2013-03-22 | Release to Customer | |
| 1.1 | 2018-12-12 | Support for SAP Passport for volume-based licensing | |

Table of Contents

| 1 | introat | iction | e |
|-------------|---------|---|-------------|
| 1.1 | Scenar | io Description | 6 |
| | 1.1.1 | Sales from Local Stock | 6 |
| | 1.1.2 | Sales from Central Stock | 8 |
| 1.2 | System | ns and Releases | 10 |
| 1.3 | Prerequ | uisites | 10 |
| | 1.3.1 | General Prerequisites | 10 |
| | 1.3.2 | Data Initialization and Synchronization | 10 |
| | 1.3.3 | Creating Customer Master Records for Subsidiaries in SAP ERP | 10 |
| | 1.3.4 | Adding SAP ERP Information in SAP Business One integration for SAP NetWeaver. | 11 |
| | 1.3.5 | Creating a Vendor Record in SAP Business One | 11 |
| | 1.3.6 | Adding SAP Business One Information in SAP Business One integration for SAP NetWeaver | 11 |
| 2 | Config | uration in SAP ERP | 12 |
| 2.1 | _ | g Output Types | |
| | 2.1.1 | Creating Output Types for Sales Documents | |
| | 2.1.2 | Creating Output Types for Outbound Deliveries | |
| | 2.1.3 | Creating Output Types for Billing Documents | |
| 2.2 | Creatin | g Output Determinations | |
| | 2.2.1 | Creating Output Determinations for Sales Documents | |
| | 2.2.2 | Creating Output Determinations for Outbound Deliveries | |
| | 2.2.3 | Creating Output Determinations for Billing Documents | |
| 2.3 | Maintai | ning the Distribution Model | |
| 2.4 | | ting Partner Profiles | |
| | 2.4.1 | Changing Partner Profiles | |
| 2.5 | Creatin | g Output Condition Records | |
| | 2.5.1 | Creating an Output Condition Record for Sales Documents | |
| | 2.5.2 | Creating an Output Condition Record for Deliveries | |
| | 2.5.3 | Creating an Output Condition Record for Invoices | |
| 2.6 | Definin | g Purchase Order Types | |
| 2.7 | Definin | g Partner Functions | 32 |
| 2.8 | | ng Partner Functions | |
| | 2.8.1 | Assigning Partner Functions to the Account Group | |
| | 2.8.2 | Assigning Partner Functions to Partner Procedures – Customer | |
| | 2.8.3 | Assigning Partner Functions to Partner Procedures – Sales Document Header | |
| | 2.8.4 | Assigning Partner Functions to Partner Procedures – Delivery | |
| 2.9 | | g a Customer Master Record for the SAP Business One End Customer Ship-to Addre | SS |
| | 2.9.1 | Assigning the Customer Master Record to a Subsidiary Customer Master Record | |
| 3 | Confic | uration in SAP Business One Prior to Release 8.8 SP00, PL05 | / 11 |
| 3 .1 | _ | g User-Defined Fields for Marketing Documents | |

| 5 | Value Mapping | 51 |
|-----|--|----|
| 4.3 | Setting Up and Activating the Scenario Package | 45 |
| 4.2 | Setting the System Type-Specific Property for the Headquarters SAP ERP | 44 |
| 4.1 | Creating System ID-Specific Properties for Subsidiary SAP Business One Systems | 42 |
| 4 | Configuration in SAP Business One integration for SAP NetWeaver | 42 |

1 Introduction

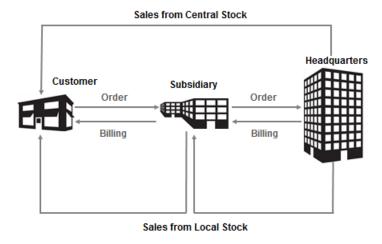
1.1 Scenario Description

The *Intercompany Purchasing* (sap.IC.Purchasing) scenario is intended for large enterprises with several sales and distribution subsidiaries or branches in different locations or countries. SAP Business One runs in the subsidiaries and SAP ERP runs in the headquarters. The scenario covers both the sales from local and from central stock scenario variants.

i Note

The scenario supports volume based licensing and hands over the SAP Passport to SAP ERP.

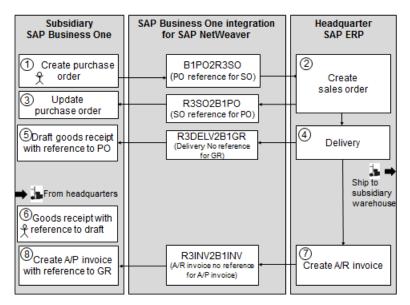
Intercompany Purchasing



Scenario Overview with Sales from Central and Sales from Local Stock

1.1.1 Sales from Local Stock

In the sales from local stock scenario variant, the subsidiary keeps its own stock in its local warehouse. This stock is part of the subsidiary assets. The subsidiary sells headquarters products from its local stock. The subsidiary replenishes its stock with orders to the headquarters.



Sales from Local Stock Process Steps

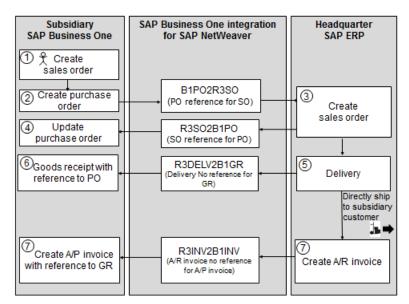
The illustration above describes the sales from the local stock process.

- To order products from the headquarters, the subsidiary responsible for purchasing creates a purchase order in SAP Business One. SAP Business One integration for SAP NetWeaver retrieves the purchase order and transfers it to SAP ERP.
 - By default, SAP Business One integration for SAP NetWeaver sends only new purchase orders to the headquarters. It does not send purchase order updates, because as soon as there is a sales order available in the headquarters SAP ERP, SAP ERP is the leading system in the scenario.
- 2. Based on the purchase order requirements, SAP ERP automatically creates a sales order to sell the products to the subsidiary.
- 3. To update the subsidiary purchase order, the headquarters sends back sales order information. The update includes the reference document number, products, quantities, delivery date, and pricing.
 - SAP ERP transfers the sales order number to the <code>Vendor Reference Number</code> field in the subsidiary purchase order. The subsidiary purchase order number and the headquarters sales order number are part of each document, which facilitates communication between the subsidiary buyer and the headquarters sales responsible.
- 4. The headquarters creates the outbound delivery for the sales order in SAP ERP, and the products are shipped to the subsidiary location.
 - The headquarters posts the goods issue for the products and transfers the shipping notification information to the subsidiary.
- 5. In SAP Business One, a draft goods receipt with reference to the corresponding purchase order is automatically created. The document number and the item number from the headquarters delivery are stored as references in the Vendor Reference Number field (on the document header level) and in the ExLineNo field (on the document item level).
 - Since the inbound delivery document is not available in SAP Business One 2007 and SAP Business One 8.8, the draft goods receipt is a workaround in the systems. Usually, the outbound shipping notification from the headquarters creates an inbound shipping notification in the subsidiary system.
- 6. When the goods reach the subsidiary, the person responsible for goods consignment creates the goods receipt document in the subsidiary. This goods receipt must reference the draft goods receipt that was automatically created in the previous step.

- 7. The A/R invoice in SAP ERP completes the scenario. SAP Business One integration for SAP NetWeaver automatically creates an A/P invoice with reference to the corresponding goods receipt and goods receipt items in SAP Business One.
- 8. The A/P invoice created in SAP Business One references the goods receipt manually created in the subsidiary. This reference is established using the purchase order reference of the goods receipt. The purchase order (document number) reference is transferred to the headquarters sales order and then finally to the A/R invoice by the SAP ERP document flow.

1.1.2 Sales from Central Stock

In the sales from central stock scenario variant, the subsidiary orders products from the headquarters. The headquarters distributes the products from the central warehouse directly to the end customer of the subsidiary. Subsequently, the headquarters sends an invoice for the products to the subsidiary to account for inter-company revenue and inventory valuation. The subsidiary is responsible for sending invoices for the products to the customer.



Sales from Central Stock Process Steps

The illustration above describes the sales from the central stock process.

- 1. The subsidiary responsible for sales creates a sales order. The sales person selects the customer delivery address in the sales order or changes it directly.
 - As of SAP Business One 8.8, the behavior for retrieving the customer ship-to address has changed. In earlier releases the ship-to address data was available in a plain text field only. It was not possible to map it in the mapping process. In releases prior to SAP Business One 8.8, do not directly change the ship-to address in the sales order. Select an available ship-to address from the business partner record.
 - As of SAP Business One 8.8, the ship-to address has individual data fields. It is possible to map the address data from the order in the mapping process. You can change the ship-to address directly in the sales order.
 - Assign a drop shipment warehouse to the sales order items. You order the products for the customer, but they do not reach the subsidiary and they do not increase the inventory.

- 2. SAP Business One automatically creates a purchase order with reference to the sales order in the drop-ship process. SAP Business One integration for SAP NetWeaver transfers the purchase order to SAP ERP. To ensure direct delivery from the central warehouse to customers, SAP Business One integration for SAP NetWeaver transmits the customer delivery address with the purchase order data.
 - This differs from the sales from local stock scenario variant. In this variant, the headquarters delivers directly to the customer of the subsidiary.
 - SAP Business One integration for SAP NetWeaver sends only new purchase orders to SAP ERP. It does not send purchase order updates. SAP ERP is the leading system in this scenario.
- 3. The SAP ERP system creates a sales order based on the purchase order requirements. The sales order header must contain information about the ordering partner (the subsidiary) and the customer ship-to address.
 - o SAP Business One integration for SAP NetWeaver stores the address in an extra partner role, which must be previously set up and assigned to a customer master record created for the subsidiary in SAP ERP.
 - o The scenario stores all information about pricing, shipping, and billing agreements in this subsidiary-specific ERP customer record.
 - o This information has higher priority than the corresponding information in the purchase order.
 - o The customer number, representing the subsidiary, is automatically assigned to the SAP ERP sales order.
- 4. The headquarters sends back information from the sales order to update the subsidiary purchase order. This update includes the reference document number, products, quantities, delivery date, and pricing.
 - The headquarters SAP ERP system transfers the sales order number to the Vendor Reference Number field in the subsidiary purchase order. The subsidiary purchase order number and the headquarters sales order number are parts of each document, which facilitates communication between the subsidiary buyer and the headquarters sales responsible.
- 5. SAP ERP creates the outbound delivery for the sales order, and the products are shipped directly to the end customer of the subsidiary. When the headquarters posts the goods issue for the products, it transfers the shipping notification information to the subsidiary.
 - Change your print layouts so that you print the subsidiary customer address on all shipping documents, such as labels for the packages or shipping notes. Do this based on the value of the Partner Role field. The default for this field comes from the scenario-specific Partner Role property.
 - Although the products are delivered directly to the end customer, SAP ERP sends the shipping notification to SAP Business One. The end customer contacts the subsidiary in case of any questions, and the subsidiary needs access to information about the shipment.
- 6. SAP Business One integration for SAP NetWeaver automatically creates a goods receipt with reference to the corresponding purchase order of the subsidiary. The subsidiary purchase order number is transferred with the shipping notification from SAP ERP. This information is copied from the SAP ERP reference sales order to the outbound delivery. The SAP ERP outbound delivery document number is transferred to the Vendor Reference Number field in the goods receipt at the subsidiary.
 - The goods receipt for the drop shipment warehouse, instead of the inbound shipping notification, is created in the subsidiary.
- 7. The A/R invoice in SAP ERP completes this scenario. The outbound invoice automatically creates an A/P invoice in the subsidiary system. The A/P invoice in the subsidiary is created with reference to the corresponding goods receipt document.

1.2 Systems and Releases

| System | Release |
|--|---|
| SAP ERP | 4.6C, 4.7.100, 4.7.200, ECC 6.0 |
| SAP Business One | SAP Business One 8.8, 8.81, 8.82, 9.0, 9.1, 9.2 SAP Business One 8.82, version for SAP HANA, 9.0, 9.1, 9.2 |
| SAP Business One integration for SAP NetWeaver | 9.0 |

1.3 Prerequisites

1.3.1 General Prerequisites

- You have set-up the system landscape and you have tested the technical connections between the systems. For more information about setting up your technical system landscape, see the *Administrator's Guide*.
- If you cannot use the scenario packages without changes, copy the scenario steps of the packages to your namespace, create a scenario package in your namespace, and adjust the definitions.

1.3.2 Data Initialization and Synchronization

Initialize and synchronize the subsidiaries with product, customizing, and values settings for this scenario. For more information about the data structure and SAP ERP reference tables for each value, see the *Value Mapping* section of this guide.

1.3.3 Creating Customer Master Records for Subsidiaries in SAP ERP

In SAP ERP, create a customer master record for each subsidiary that provides all necessary information to process sales transactions with the subsidiary.

The following configuration steps are also relevant for a subsidiary customer master record:

- Output condition records
 Create output condition records for this customer number to automatically send out documents to the subsidiary using ALE.
- Partner function

To store the subsidiary's customer ship-to address, which ALE transfers, set up the ZH partner function and assign it to the subsidiary customer master record.

Adding SAP ERP Information in SAP Business One 1.3.4 integration for SAP NetWeaver

Add the following information in SAP Business One integration for SAP NetWeaver:

- SysID-specific properties Maintain the SAP ERP customer master number in the SysID-specific properties for each subsidiary.
- Scenario step-specific filter criteria Maintain the SAP ERP customer master record as a filter criteria value in the scenario package definition to route the relevant document (message) to the corresponding receiver system.

Creating a Vendor Record in SAP Business One 1.3.5

In the scenario, you purchase (inter-company) products from the headquarters. The headquarters is your vendor. Create a vendor master record in SAP Business One to store all necessary information for processing purchase transactions with the headquarters. SAP Business One creates purchase orders, goods receipt drafts, and A/P invoices for this vendor number.

Adding SAP Business One Information in SAP Business 1.3.6 One integration for SAP NetWeaver

 $\label{lem:continuous} \mbox{Add the following information in SAP Business One integration for SAP NetWeaver:} \\$

- SysID-specific properties Maintain the SAP Business One vendor master number in the SysID-specific properties for the headquarters.
- Filter criteria Maintain the SAP Business One vendor master record as a filter criteria value in the scenario package definition to route the documents to the corresponding receiver system.

2 Configuration in SAP ERP

The setup and configuration in SAP ERP consists of the following steps:

- Creating output types for sales documents, outbound deliveries, and billing documents
- · Creating output determinations for sales documents, outbound deliveries, and billing documents
- · Maintaining the distribution model
- · Generating and changing partner profiles
- Creating output condition records for sales documents, deliveries, and invoices
- Defining partner functions
- Assigning partner functions to an account group, partner procedure customer, partner procedure sales order, and partner procedure delivery
- Creating a customer master record for the SAP Business One end customer ship-to address
- Assigning the customer record to the partner data of the subsidiary customer record

As of ECC 6.0, the configuration steps to set up the integration process using Application Enabling Link (ALE) are no longer completely assigned to the ALE section in IMG. The following procedures describe whether you access functions from the SAP menu or from IMG.

The *SALE* transaction SALE contains all necessary ALE customizing IMG steps. You can use this transaction to make the ALE configuration process easier. This area menu displays only the ALE-relevant customizing entries.

To open IMG, call the **SPRO** transaction and choose *SAP Reference IMG*.

2.1 Creating Output Types

The *Output Determination* component configures output functions for sales, shipping, and billing to send out sales order, deliveries, and billing documents using ALE.

2.1.1 Creating Output Types for Sales Documents

Procedure

From the IMG menu, choose Sales and Distribution → Basic Functions → Output Control → Output
 Determination → Output Determination Using Condition Technique → Maintain Output Determination for Sales
 Documents → Maintain Output Types.

Alternatively, call the **v/30** transaction.

2. In Edit mode choose New Entries and in the New Entries: Details of Added Entries window, enter the following:

| Field Name | Field Value | Description |
|-------------|--|--|
| Output Type | <output key="" type=""> Example: YBA0</output> | Key for output type for order confirmation coming from SAP ERP using ALE |
| Name | <output name="" type=""> Example: Order Confir. Sub</output> | Description of the output type |

3. In the New Entries: Details of Added Entries window, General data tab, enter:

| Field Name | Field Value | Description |
|----------------------|---|---|
| Access sequence | <access key="" sequence=""> Example: 0003 SalesOrg /Customer</access> | Select the access sequence for output processing to send a sales order confirmation to the subsidiary. We recommend using 0003 SalesOrg/Customer, but you can choose a different value in accordance with your customizing. |
| Access to conditions | Select the checkbox. | SAP ERP determines the output searching for valid condition records. |
| Multiple issuing | Select the checkbox. | The same output may be issued to the same partner more than once. |

4. In the New Entries: Details of Added Entries window, Default values tab, enter the following:

| Field Name | Field Value | Description |
|---------------------|--|--|
| Dispatch time | Send immediately (when saving the application) | Select from entry list |
| Transmission medium | Distribution (ALE) | Select from entry list |
| Partner Function | SP | Processing transmits the message to the customer with SP partner function. |

- 5. In the *Dialog Structure* window, from the tree, choose *Processing routines*.
- 6. In Edit mode, choose New Entries, and in the New Entries: Details of Added Entries window, enter the following:

| Field Name | Field Value | Description |
|----------------|--------------------|-------------|
| Transm. Medium | Distribution (ALE) | |
| Program | RSNASTED | |
| FORM Routine | ALE_PROCESSING | |

- 7. In the *Dialog Structure* window, from the tree, choose *Partner functions*.
- 8. In Edit mode choose New Entries, and in the New Entries: Details of Added Entries window, enter the following:

| Field Name | Field Value | Description |
|------------|--------------------|-------------|
| Medium | Distribution (ALE) | |
| Function | SP | |

2.1.2 Creating Output Types for Outbound Deliveries

Procedure

- 1. From the IMG menu, choose Logistics Execution o Shipping o Basic Shipping Functions o Output Control o Output Determination o Maintain Dutput Determination for Determination Deliveries o Maintain Dutput Determination Deliveries o Maintain Dutput Determination Deliveries Determination Deliveries Determination Deliveries Determination Deliveries Determination Deliveries Determination Deliveries De
- 2. In Edit mode, choose New Entries, and in the New Entries: Details of Added Entries window, enter the following:

| Field Name | Field Value | Description |
|-------------|---|-------------|
| Output Type | <output key="" type=""> Example: YLAV</output> | |
| Name | <output name="" type=""> Example: Shipping Note. to Sub.</output> | |

3. On the General data tab, enter the following:

| Field Name | Field Value | Description |
|----------------------|--|--|
| Access Sequence | <access key="" sequence=""> Example: 0008 SalesOrg / Customer</access> | Select the access sequence for output processing to send a shipping notification to the subsidiary; we recommend 0008 SalesOrg/ Sold-to Party. You can choose a different value in accordance with your customizing. |
| Access to conditions | Select the checkbox. | The system determines the output by searching for valid condition records. |

4. On the Default values tab, specify the following:

| Field Name | Field Value | Description |
|---------------------|--|--|
| Dispatch time | Send immediately (when saving the application) | Defaults the processing time in output maintenance |
| Transmission medium | Distribution (ALE) | Defaults the transmission medium in output maintenance |

| Field Name | Field Value | Description |
|------------------|-------------|---|
| Partner Function | SH | Defaults the Ship-to party as output receiver in output maintenance |
| | | ALE transmits the message to the customer with partner function SH. |

- 5. In the *Dialog Structure* window, from the tree, choose *Processing routines*.
- 6. Choose New Entries, and in the New Entries: Details of Added Entries window, enter the following:

| Field Name | Field Value | Description |
|----------------|--------------------|-------------|
| Transm. Medium | Distribution (ALE) | |
| Program | RSNASTED | |
| FORM routine | ALE_PROCESSING | |

- 7. In the Dialog Structure window, from the tree, choose Partner functions.
- 8. Choose New Entries, and in the New Entries: Details of Added Entries window, enter the following:

| Field Name | Field Value | Description |
|------------|--------------------|---------------|
| Medium | Distribution (ALE) | |
| Function | SH | Ship-to party |

Creating Output Types for Billing Documents 2.1.3

Procedure

1. From the IMG menu, choose Sales and Distribution → Basic Functions → Output Control → Output Determination → Output Determination Using Condition Technique → Maintain Output Determination for Billing Documents → Maintain Output Types.

Alternatively, call the **v/40** transaction.

2. In Edit mode, choose New Entries, and in the New Entries: Details of Added Entries window, enter the following:

| Field Name | Field Value | Description |
|-------------|--|-------------|
| Output Type | <output key="" type=""> Example:YRD0</output> | |
| Name | <output name="" type=""> Example: Invoice to Sub.</output> | |

3. On the General data tab, enter the following:

| Field Name | Field Value | Description |
|----------------------|---|---|
| Access Sequence | <access key="" sequence=""> Example: 0004 SalesOrg /Customer</access> | Select the access sequence for output processing to send an invoice to the subsidiary; we recommend 0004 SalesOrg/Sold-to Party You can choose a different value in accordance with your customizing. |
| Access to conditions | Select checkbox | The system determines the output searching for valid condition records. |

4. In the New Entries: Details of Added Entries window, select the Default values tab and specify the following:

| Field Name | Field Value | Description |
|---------------------|--|--|
| Dispatch time | Send immediately (when saving the application) | Displays the processing time by default in output maintenance |
| Transmission medium | Distribution (ALE) | Displays the processing medium by default in output maintenance |
| Partner Function | BP | Bill-to party Displays by default in output maintenance Processing transmits the message with the BP partner function to the customer. |

- 5. In the *Dialog Structure* window, from the tree, choose *Processing routines*.
- 6. Choose New Entries, and in the New Entries: Details of Added Entries window, enter the following:

| Field Name | Field Value | Description |
|----------------|--------------------|-------------|
| Transm. Medium | Distribution (ALE) | |
| Program | RSNASTED | |
| FORM routine | ALE_PROCESSING | |

- 7. In the *Dialog Structure* window, from the tree, choose *Partner functions*.
- 8. Choose New Entries, and in the New Entries: Details of Added Entries window, enter the following:

| Field Name | Field Value | Description |
|------------|--------------------|---------------|
| Medium | Distribution (ALE) | |
| Function | BP | Bill-to party |

9. Save your entries.

2.2 Creating Output Determinations

2.2.1 Creating Output Determinations for Sales Documents

Define the output determinations for sales order processing based on the previously created output types.

Prerequisites

You have created the output type for sending order confirmations to the subsidiary.

Procedure

1. From the IMG menu, choose Sales and Distribution → Basic Functions → Output Control → Output Determination → Output Determination Using Condition Technique → Maintain Output Determination for Sales Documents → Maintain Output Determination Procedure.

Resolve in advance the output determination procedure assigned to the sales order type, relevant for your intercompany sales order processing with the subsidiaries.



In SAP ERP customizing, the output determination procedure assigned to the sales order type OR is **V10000 Order Output**.

- 2. In the Change View "Procedure": Overview window, select the appropriate output determination procedure.
- 3. In the *Dialog Structure* window, in the tree, double-click *Control Data* and choose *New Entries*.

 Check the available entries in your respective output determination procedure to determine the next available free value entry for *Step* (see also the following table).
- 4. In the New Entries: Overview of Added Entries window, enter the following:

| Field Name | Field Value | Description |
|-------------|--|---|
| Step | <numerical for="" step="" value=""> Choose number for next free available step</numerical> | Determines the sequence of the conditions in a procedure |
| CNTR | 0 | Access number of the conditions in a step in the pricing procedure. This is not used for output determination. |
| СТуре | <key of="" output="" type=""> Example: YBA0</key> | Output type previously created for sending out order confirmations to a subsidiary in sales order processing |
| Requirement | 2 | Order Confirmation |

| Field Name | Field Value | Description |
|------------|-------------|---|
| | | This is the condition to check if sales order data is complete. |

2.2.2 Creating Output Determinations for Outbound Deliveries

Define the output determinations in the outbound delivery process for the previously created output types.

Prerequisites

You have created the output type for sending shipping notifications to a subsidiary.

Procedure

From the IMG menu, choose Logistics Execution → Shipping → Basic Shipping Functions → Output Control →
 Output Determination → Maintain Output Determination for Outbound Deliveries → Maintain Output
 Determination Procedure.

Resolve in advance the output determination procedure assigned to the sales order type relevant for your intercompany sales order processing with the subsidiaries.



In SAP ERP customizing, the output determination procedure assigned to the sales order type LF is **V10000 Header Output**.

- 2. In the Change View "Procedure": Overview window, select the appropriate output determination procedure.
- 3. In the *Dialog Structure* window, in the tree, double-click *Control Data* and choose *New Entries*.

 Check the available entries in your respective output determination procedure to determine the next available free value entry for *Step* (see also the following table).
- 4. In the New Entries: Overview of Added Entries window, enter the following:

| Field Name | Field Value | Description |
|------------|--|---|
| Step | <numerical for="" step="" value=""> Choose a number for next available step.</numerical> | Determines the sequence of the conditions in a procedure |
| CNTR | 0 | Access number of the conditions in a step in the pricing procedure. This is not used for output determination. |
| СТуре | <key of="" output="" type=""> Example: YLAV</key> | Output type previously created for sending out shipping |

rights reserved.

| Field Name | Field Value | Description |
|------------|-------------|---|
| | | notifications to a subsidiary in outbound delivery processing |

2.2.3 Creating Output Determinations for Billing Documents

Define the output determinations for invoice document processing based one the previously created output types.

Prerequisites

You have created the output type for sending invoices to a subsidiary.

Procedure

1. Choose Sales and Distribution \rightarrow Basic Functions \rightarrow Output Control \rightarrow Output Determination \rightarrow Output Determination Using Condition Technique \rightarrow Maintain Output Determination for Billing Documents \rightarrow Maintain Output Determination Procedure.

Resolve in advance the output determination procedure assigned to the invoice type, relevant for your intercompany sales order processing with the subsidiaries.



In SAP ERP customizing, the output determination procedure assigned to the sales order type F1 is **V10000 Billing Output**.

- 2. In the Change View "Procedure": Overview window, select the appropriate output determination procedure.
- 3. In the *Dialog Structure* window, in the tree, double-click *Control Data* and choose *New Entries*.

 Check available entries in your respective output determination procedure to determine the next available free value entry for *Step* (see also the following table).
- 4. In the New Entries: Overview of Added Entries window, enter the following:

| Field Name | Field Value | Description |
|------------|---|---|
| Step | <numerical for="" step="" value=""> Choose a number for the next free available step.</numerical> | Determines the sequence of the conditions in a procedure |
| CNTR | 0 | Access number of the conditions in a step in the pricing procedure. This is not used for output determination. |

| Field Name | Field Value | Description |
|-------------|---|---|
| СТуре | <key of="" output="" type=""> Example: YRD0</key> | Output type previously created for sending out invoices to a subsidiary in sales order processing |
| Requirement | 62 | BillDoc:ReleasePost This is the condition to check if invoice document processing is complete. |

Result

You have maintained the output types and the output determination procedures that enable SAP ERP to send sales order, delivery and invoice documents using ALE.

2.3 Maintaining the Distribution Model

When you model the message flow, you specify the applications that communicate with each other in an ALE business process. A message flow defines the sending and receiving systems and the message type. Define the message flow in the distribution model.

To model a message flow using IDocs or BAPIs, specify a model view in the distribution model. In the model view, add the respective message type.

To model the communication between SAP Business One integration for SAP NetWeaver and SAP ERP for the *Intercompany Purchasing* scenario, define the following entries in the distribution model:

- The ORDERS message type defines the inbound sales order from SAP Business One integration for SAP NetWeaver (sending system) to SAP ERP (receiving system).
- The ORDRSP message type defines the outbound order update from SAP ERP (sending system) to SAP Business One integration for SAP NetWeaver (receiving system).
- The DESADV message type defines the outbound shipping notification from SAP ERP (sending system) to SAP Business One integration for SAP NetWeaver (receiving system).
- The INVOIC message type defines the outbound A/R invoice from SAP ERP (sending system) to SAP Business One integration for SAP NetWeaver (receiving system).

Prerequisites

- You have set up the logical systems for your sender and receiver systems.
- You have set up the RFC connection to your SAP Business One integration for SAP NetWeaver server.
- The model view names in the entire distributed environment of the organization are unique.

For more information about setting up your technical system landscape, see the *Administrator's Guide*.

Procedure

1. From the IMG menu, choose SAP NetWeaver → Application Server → IDoc Interface / Application Link Enabling (ALE) → Modeling and Implementing Business Processes → Maintain Distribution Model and Distribute Views.

Alternatively, call the **BD64** transaction.

- 2. Change to Edit mode and choose Create Model View.
- 3. In the *Create Model View* window, enter the following:

| Field Name | Field Value | Description |
|----------------|--|--|
| Short Text | <distribution model="" name=""> Example: IC-SfLS/SfCS</distribution> | The short text of a distribution view describes the communication relationships entered in the model view and it is displayed in the distribution model maintenance. |
| Technical name | <distribution model="" name="" technical=""> Example: B1ICSALES</distribution> | The technical name of the distribution model is unique. |
| Start date | The creation date is the default value. | This is the start date of the validity period. Change the default value only, if you want the validity period to start later. |
| End date | The default value is 31.12.9999. | This is the last day of the validity period. |

- 4. To add message types to the distribution model, in the *Distribution Model Changed* window, select your previously created distribution model and choose *Add message type*.
- 5. In the *Add message type* window, enter the following:

| Field Name | Field Value | Description |
|--------------|---|---|
| Model view | The system displays the <name distribution="" model="" of="" your=""> by default.</name> | This is the technical name of the model view for which you create the message flow. It is the technical name of your distribution model view; do not change it. |
| Sender | <logical for="" name="" system="" the<br="">SAP Business One integration for SAP NetWeaver server></logical> | |
| Receiver | <sap erp="" logical="" name="" system=""></sap> | |
| Message type | ORDERS | |

6. Choose *Enter* and repeat the steps above to add the following message types to your distribution model:

| Sender | Receiver | Message Type | Remarks |
|---|---|--------------|--|
| <sap erp="" logical<br="">system name></sap> | <logical name<br="" system="">for the SAP Business One integration for SAP NetWeaver server></logical> | ORDRSP | This is the order update outbound message from SAP ERP (sales order) to SAP Business One (purchase order). |
| <sap erp="" logical<br="">system name></sap> | <logical name<br="" system="">for the SAP Business One integration for SAP NetWeaver server></logical> | DESADV | This is the shipping notification outbound message from SAP ERP (delivery) to SAP Business One (draft GR or GR). |
| <sap erp="" logical<br="">system name></sap> | <logical name<br="" system="">for the SAP Business One integration for SAP NetWeaver server></logical> | INVOIC | This is the invoice outbound message from SAP ERP (A/R invoice) to SAP Business One (A/P invoice). |

7. Save the distribution model.

1 Note

Define data filters for the DESADV, INVOIC and ORDRSP message types, and group them according to the customer number representing your subsidiary. To do this, under your message type, double-click *No filter set* and *Create filter group*. Define your customer or vendor number.

2.4 Generating Partner Profiles

Define the partner profiles for all outbound and inbound messages based on the information in the distribution model. Generate the partner profiles based on the information you have already maintained in your relevant distribution model.

Prerequisites

You have defined the distribution model.

Procedure

1. From the IMG menu, choose SAP NetWeaver → Application Server → IDoc Interface / Application Link Enabling (ALE) → Modeling and Implementing Business →Partner Profiles and Time of Processing → Generate Partner Profiles.

Alternatively, call the **BD82** transaction.

2. In the Generating partner profile window, enter the following:

rights reserved.

| Field Name | Field Value | Description |
|---------------------------|--|---|
| Model View (from) | <distribution model="" name="" technical=""> Example: B1ICSALES</distribution> | |
| Partner System | <name business="" for="" integration="" logical="" netweaver="" of="" one="" sap="" server="" system="" the=""></name> | |
| Transfer IDoc immediately | Select the radio button. | Outbound parameters: Output processing immediately starts for each individual IDoc. |
| Trigger immediately | Select the radio button. | Inbound parameters: The system processes the inbound IDoc immediately. |

i Note

Do not change any other default values in this generation window.

3. Choose Execute.

2.4.1 Changing Partner Profiles

For ALE communication, you define partners with inbound or outbound parameters in partner profiles. If any partner values are not applicable to the scenario, change them manually.

Prerequisites

You have generated the partner profile for the respective distribution model.

Procedure

- 1. From the SAP menu, choose $Tools \rightarrow ALE \rightarrow ALE$ Administration $\rightarrow Runtime$ Settings $\rightarrow Partner$ Profiles. Alternatively, call the **we20** transaction.
- 2. Expand the Partner type LS (Logical system) sub tree.
- 3. Select the entry for the logical system of the SAP Business One integration for SAP NetWeaver server.
- 4. In the Outbound parmt. section in the Message Type column, select ORDRSP.
- 5. To display the details, choose *DetailScreenOutb. Parameter* (loupe icon).
- 6. In the Partner Profiles: Outbound parameters window, on the Outbound Options tab, enter the following:

| Field Name | Field Value | Description |
|----------------------|--------------------------|----------------------|
| Transfer IDOC immed. | Select the radio button. | Outbound parameters: |

| Field Name | Field Value | Description |
|------------|------------------------------------|--|
| | | Output processing starts immediately for each individual IDoc. This is automatically set during partner profile generation. Select this radio button, if it is not set by default. |
| Basic type | ORDERS05 Change the default value. | For data communication. The system displays the type automatically when you generate the partner profile. |

7. On the *Message Control* tab, enter the following:

| Field Name | Field Value | Description |
|--------------|--|---|
| Application | V1 | Application area Sales The system assigns this field to the corresponding message control (output control) field. Together with the output type, this field uniquely identifies a message type in message control that you can then uniquely assign to an IDoc type. |
| Message type | <output key="" type=""> Example: YBAO</output> | Output type previously created for sending out order confirmations to a subsidiary in sales order processing. The system assigns this field to the corresponding message control (output control) field. Together with the application, this field uniquely identifies a message type in message control that you can then uniquely assign to an IDoc type. |
| Process Code | SD10 | ORDRSP: Sales order confirmation The IDoc interface uses the process code to determine the application selection module that converts the SAP document into an IDoc. |

8. Delete all other entries created in the previous generation step from this table.

On the *Message Control* tab, select the entries you want to delete and choose the *Delete Line* button (red minus sign).

- 9. Save your entries.
- 10. Choose *Back* and repeat the above steps to create the following entries:

| Message Type | Outbound Options Outbound Param. | Outbound Options Basic Type | Message Control Application | Message Control Message Type | Message Control Process Code |
|--------------|---|-----------------------------------|-----------------------------------|--|---------------------------------------|
| DESADV | Transfer IDOC immediately | DELVRY03 | V2 | DELVRY03 INVOICO2 SYNCHRON <key of="" output="" type=""> Example: YLAV Output type created previously for sending out shipping notifications to a subsidiary in outbound delivery processing</key> | DELV |
| INVOIC | Transfer IDOC immediately | INVOICO2 | V3 | <pre><key of="" output="" type=""> Example: YRDO Previously created output type for sending out invoices to a subsidiary in invoice document processing</key></pre> | SD09 |
| SYNCH | Transfer IDOC immediately | SYNCHRON | <blank></blank> | <blank></blank> | Blank> |

- 11. To check inbound parameters, select the entry for the logical system for the SAP Business One integration for SAP NetWeaver server.
- 12. In the *Inbound parmt*. section, select the ORDERS message type.
- 13. To display details, choose *DetailScreenInboundParameter*.
- 14. In the Partner Profiles: Inbound parameters window, on the Inbound options tab, enter the following:

| Field Name | Field Value | Description |
|---------------------|-----------------------|---|
| Process Code | ORDE | Identifies the data processing type for inbound processing. If there is no entry, enter the correct value. |
| Trigger immediately | Selected radio button | Processing by function module parameters: |

| Field Name | Field Value | Description |
|------------|-------------|---|
| | | The system starts inbound processing immediately for each IDoc. |
| | | This is automatically set when generating the partner profile. |

2.5 Creating Output Condition Records

2.5.1 Creating an Output Condition Record for Sales Documents

The *Output Determination* component configures output functions for sending sales orders, deliveries, and billing documents to the SAP Business One integration for SAP NetWeaver server using Application Link Enabling (ALE). Create the output condition record for your subsidiary customer (records) to trigger the transfer of the sales order confirmation message to your SAP Business One integration for SAP NetWeaver server using ALE. Sales order document changes are also transferred.

Prerequisites

- You have set up the output types and the output determination.
- You have set up the distribution model and partner profiles.
- You have created a customer master record for your subsidiary.
- You have initialized and synchronized your subsidiaries with product, customizing and value settings. For more information, see section 1.3.2 Data Initialization and Synchronization

Procedure

- 1. From the SAP menu, choose $Logistics \rightarrow Sales$ and $Distribution \rightarrow Master Data \rightarrow Output \rightarrow Sales$ Document $\rightarrow Create$.
 - Alternatively, call the **vv11** transaction.
- 2. In the Create Output Condition Records: Sales window, in the Output type field, enter the <key of output type>, for example: YBAO.
 - This is the output type for sending out order confirmations to a subsidiary and for sending out order update messages to your SAP Business One integration for SAP NetWeaver server in sales order processing.
 - This output type has a reference in the partner profile as an outbound parameter for message control of the ORDRSP message type. The entry of a sales document triggers the message output for the sales order change using the output record.

3. Choose *Enter* and in the *Create Condition Records* (<name of output type>): Fast Entry window, enter the following:

| Field Name | Field Value | Description |
|--------------------|--|--|
| Sales organization | <sales key="" organization=""></sales> | This is the headquarters organizational unit responsible for selling products to the subsidiary. The sales order for intercompany processing must be created for this sales organization. |
| Customer | <number created="" customer="" for="" of="" record="" subsidiary="" the=""></number> | This is the customer record that you have previously created and to which the condition applies. SAP Business One integration for SAP NetWeaver transmits sales order changes to the subsidiary this customer represents. The sales order must be created for this customer record. |
| PartF | SP | This is the partner function for this customer number in the sales order. Partner function SP represents the sold-to party. |
| Partner | <number created="" customer="" for="" of="" record="" subsidiary="" the=""></number> | During output determination, the system determines the recipient of the output from the master record for the specified partner function. You can specify a recipient that overrides the standard partner. The customer number of the subsidiary is equal to the customer number of the partner function SP. |
| Medium | A | Distribution (ALE) This is the default value based on your previous customizing activity for this output type. |
| Time | 4 | Send immediately (when saving the application) This is the default value based on your previous customizing activity for this output type. |

| Field Name | Field Value | Description |
|------------|------------------------------|---|
| Language | <language key=""></language> | This determines the language in which you display or enter texts and print documents. Select the language for your subsidiary. |

2.5.2 Creating an Output Condition Record for Deliveries

The *Output Determination* component configures output functions for sending sales orders, deliveries, and billing documents to the SAP Business One integration for SAP NetWeaver server using Application Link Enabling (ALE). Create the output condition record for your subsidiary customer (records) to trigger the transfer of the shipping notification message to your SAP Business One integration for SAP NetWeaver server using ALE.

Prerequisites

- You have set up the output types and the output determination.
- You have set up the distribution model and partner profiles.
- You have created a customer master record for your subsidiary.

Procedure

- 1. From the SAP menu, choose $Logistics \rightarrow Sales$ and $Distribution \rightarrow Master Data \rightarrow Output \rightarrow Shipping \rightarrow Create$. Alternatively, call the **vv21** transaction.
- 2. In the Create Output Condition Records: Sales window, in the Output type field, enter the <key of output type>, for example: YLAV.
 - This is the output type for sending out shipping notifications to a subsidiary.
 - This output type has a reference in the partner profile as an outbound parameter for message control of the DESADV message type. The entry of an outbound delivery triggers the message output for the shipping notification using the output record.
- 3. Choose Enter and in the Create Condition Records (<name of output type>): Fast Entry window, enter the following:

| Field Name | Field Value | Description |
|--------------------|--|--|
| Sales organization | <sales key="" organization=""></sales> | This is the headquarters organizational unit responsible for selling products to the subsidiary. |

| Field Name | Field Value | Description |
|------------|--|---|
| | | The sales order for intercompany processing must be created for this sales organization. |
| Customer | <number created="" customer="" for="" of="" record="" subsidiary="" the=""></number> | This is the customer record that you have previously created and to which the condition applies. SAP Business One integration for |
| | | SAP NetWeaver transmits sales order changes to the subsidiary this customer represents. |
| | | The sales order must be created for this customer record. |
| PartF | SH | This is the partner function for this customer number in the sales order. |
| | | Partner function SH represents the ship-to party. |
| Partner | <number created="" customer="" for="" of="" record="" subsidiary="" the=""></number> | During output determination, the system determines the recipient of the output from the master record for the specified partner function. |
| | | You can specify a recipient that overrides the standard partner. |
| | | The customer number of the subsidiary is equal to the customer number of the partner function SP. |
| Medium | A | Distribution (ALE) This is the default value based on your previous customizing activity for this output type. |
| Time | 4 | Send immediately (when saving the application) |
| | | This is the default value based on your previous customizing activity for this output type. |
| Language | <language key=""></language> | This determines the language in which you display or enter texts and print documents. Select the language for your subsidiary. |

2.5.3 Creating an Output Condition Record for Invoices

The *Output Determination* component configures output functions for sending sales orders, deliveries, and billing documents to the SAP Business One integration for SAP NetWeaver server using Application Link Enabling (ALE). Create the output condition record for your subsidiary customer (records) to trigger the transfer of the invoice message to your SAP Business One integration for SAP NetWeaver server using ALE.

Prerequisites

- You have set up the output types and the output determination.
- You have set up the distribution model and partner profiles.
- You have created a customer master record for your subsidiary.

Procedure

1. From the SAP menu, choose $Logistics \rightarrow Sales$ and $Distribution \rightarrow Master Data \rightarrow Output \rightarrow Billing Document \rightarrow Create.$

Alternatively, call the **vv31** transaction.

2. In the Create Output – Condition Records: Sales window, in the Output type field, enter the <key of output type>, for example: YRDO.

This is the output type for sending out invoices to a subsidiary.

This output type has a reference in the partner profile as an outbound parameter for message control of the INVOIC message type. The entry of an A/R invoice triggers the message output for the invoice using the output record.

3. Choose *Enter* and in the *Create Condition Records* (<*name of output type*>): *Fast Entry* window, enter the following:

| Field Name | Field Value | Description |
|--------------------|--|--|
| Sales organization | <sales key="" organization=""></sales> | This is the headquarters organizational unit responsible for selling products to the subsidiary. |
| | | The sales order for intercompany processing must be created for this sales organization. |
| Customer | <number created="" customer="" for="" of="" record="" subsidiary="" the=""></number> | This is the customer record that you have previously created and to which the condition applies. SAP Business One integration for SAP NetWeaver transmits sales |
| | | order changes to the subsidiary this customer represents. |

| Field Name | Field Value | Description |
|------------|--|--|
| | | The sales order must be created for this customer record. |
| PartF | BP | This is the partner function for this customer number in the invoice. |
| | | Partner function BP represents the bill-to party. |
| Partner | <number created="" customer="" for="" of="" record="" subsidiary="" the=""></number> | During output determination, the system determines the recipient of the output from the master record for the specified partner function. |
| | | You can specify a recipient that overrides the standard partner. |
| | | The customer number of the subsidiary is equal to the customer number of the partner function BP. |
| Medium | A | Distribution (ALE) This is the default value based on your previous customizing activity for this output type. |
| Time | 4 | Send immediately (when saving the application) This is the default value based on your previous customizing activity for this output type. |
| Language | <language key=""></language> | This determines the language in which you display or enter texts and print documents. Select the language for your subsidiary. |

2.6 **Defining Purchase Order Types**

Order types indicate how a customer transmits an order. When processing a sales document, SAP Business One integration for SAP NetWeaver enters the purchase order type into the item level of the sales order.

You use the purchase order type to distinguish between the sales from local stock and sales from central stock scenario variants.

SAP Business One integration for SAP NetWeaver uses the INT and EXT purchase order types as the default during transmission from SAP Business One to SAP ERP.

SAP Business One integration for SAP NetWeaver copies the value to the reference outbound delivery. It also comes with the shipping notification message.

Based on the EXT or INT value, the scenario distinguishes whether to create a draft goods receipt for the Sales from Local Stock scenario variant or a goods receipt for the Sales from Central Stock scenario variant.

Procedure

Define the possible order types.

- From the IMG menu, choose Sales and Distribution →Sales → Sales Documents →Sales Document Header →
 Define Purchase Order Types.
- 2. Choose New Entries, and in the New Entries: Overview of Added Entries window, do the following:
 - 1. To support the sales from central stock scenario variant, in the *Pur. ord. Type* field, enter the mandatory value **EXT**.

The B1PO2R3SO scenario step transfers this value to the sales order item during sales order document processing.

In the shipping notification message processing, the SAP Business One document is created based on this value.

For the sales from central stock scenario variant, it is the goods receipt.

- 2. In the Description field enter Extern. Delv. to Cus, for example.
- 3. Save your entries.
- 4. To support the sales from local stock scenario variant, in the *Pur. ord. Type* field, enter the mandatory value **INT**.

The B1PO2R3SO scenario step transfers this value to the sales order item during sales order document processing.

In shipping notification message processing, the SAP Business One document is created based on this

For the sales from local stock scenario variant, it is the draft goods receipt.

- 5. In the Description field enter Intern. Delv. to Sub, for example.
- 6. Save your entries.

2.7 Defining Partner Functions

To enter and process the SAP Business One end customer ship-to address in the SAP ERP sales order processing, create a partner function. This partner function also supports distinguishing between the different delivery addresses, for the subsidiaries and for the SAP Business One end customer.

The PO2SO scenario step transfers the delivery address of the subsidiary end customer together with the purchase order data. To store it in the SAP ERP sales order, create a dummy customer record for this additional partner function and assign it to the subsidiary customer master record in the partner data.

To store the SAP Business One end customer ship-to address in the sales order and to copy it to the delivery, assign the partner function to the sales order and delivery documents.

1 Note

You cannot overwrite the existing ship-to address of the subsidiary. This address data is responsible for tax determination. When you create the headquarters invoice for the subsidiary, it is important that the tax-relevant data in the address, destination country or region, and the tax ID remain unchanged.

Procedure

1. From the IMG menu, choose Sales and Distribution \rightarrow Basic Functions \rightarrow Partner Determination \rightarrow Set Up Partner Determination.

Alternatively, call the **VOPA** transaction.

If you access the partner function maintenance using the transaction code, access differs from the one using the IMG path. The following description is based on the access using the transaction code.

2. In the Maintain: Partner Determin. window, enter the following:

| Field Name | Field Value | Description |
|------------|--|---|
| Customer | Select the radio button in the Partner object section. | This creates a partner role for the business object customer. |

3. Choose Partner functions. and in the Maintain: Partner Functions window, enter the following:

| Field Name | Field Value | Description |
|--------------|--|---|
| Function | <partner function="" key=""> Example: ZH</partner> | This is the partner function for the dummy customer record. The partner function allows storing the SAP Business One end customer ship-to address in the SAP ERP sales order processing. |
| Description | <partner function="" name=""> Example: Ship-to BUSINESS ONE Customer</partner> | This is the name of the partner role. |
| Partner Type | KU | This is the key for a partner type customer. It identifies the type of partner, customer, supplier, or individual person. |

4. Save your settings.

i Note

To create a new partner function, place your cursor in an existing partner function line and overwrite the existing values. When you save your settings, the system creates an additional line, without deleting the existing line.

2.8 Assigning Partner Functions

Use partner functions to define the rights and responsibilities of each business partner in a business transaction.

Prerequisites

You have created customer master data records for subsidiaries.

For more information, see section 1.3.3 Creating Customer Master Records for Subsidiaries in SAP ERP

2.8.1 Assigning Partner Functions to the Account Group

Define partner functions for the customer account group. The account group is a classifying feature in customer master records. It determines the number range of a customer account number, whether the user or the system assigns the number, and which maintenance user interfaces and fields are necessary or possible in the master record. Assign your previously created partner function to your preferred customer account groups.

Prerequisites

You have determined the account group you want to use to create the "dummy customer" record.

Procedure

1. From the IMG menu, choose Sales and Distribution \rightarrow Basic Functions \rightarrow Partner Determination \rightarrow Set Up Partner Determination.

Alternatively, call the **VOPA** transaction.

If you access the partner function maintenance using the transaction code, access differs from the one using the IMG path. The following description in based on the access using the transaction code.

2. In the Maintain: Partner Determin. window, enter the following:

| Field Name | Field Value | Description |
|------------|---|-------------|
| Customer | Select radio button in the <i>Partner object</i> section. | |

- 3. Select Partner functions. and from the menu, choose Environment \rightarrow Acct grp assignment.
- 4. In the Maintain: Allowed partner functions per account group window, enter the following:

| Field Name | Field Value | Description |
|------------|--|---|
| Funct | <partner function="" key=""> Example: ZH</partner> | This is the partner function for the dummy customer record. |
| | | It allows storing the SAP Business |
| | | One end customer ship-to |

| Field Name | Field Value | Description |
|------------|---|--|
| | | address in the SAP ERP sales order processing. |
| Acct group | <account group="" key=""> Example: DEBI, KUNA</account> | This is the account group for the customer master data for which you create the "dummy customer". |
| | | Contact the person responsible for the master data maintenance in the SAP ERP system to determine an account group. It must later be possible to process the customer record in sales order and delivery processing. |

5. Save your settings.

2.8.2 Assigning Partner Functions to Partner Procedures – Customer

Assign partner functions to partner procedures. Partner procedures specify the allowed partner functions for a business transaction, for example, processing a customer master record. They also specify mandatory partner functions.

Assign your previously created partner functions to the partner procedures. The partner procedures must have an assignment to the account group for which you want to create the subsidiary customer record.

If you want to assign the "dummy customer" to the subsidiary customer in the ZH partner function, assign this partner function to the partner procedure that is relevant for the account group for which the subsidiary customer record is created.

Prerequisites

You have checked the partner procedure assigned to the account group for which you have created the subsidiary customer record.

Procedure

1. From the IMG menu, choose Sales and Distribution \rightarrow Basic Functions \rightarrow Partner Determination \rightarrow Set Up Partner Determination.

Alternatively, call the **VOPA** transaction.

If you access the partner function maintenance using the transaction code, access differs from the one using the IMG path. The following description ins based on the access using the transaction code.

2. In the Maintain: Partner Determin. window, enter the following:

| Field Name | Field Value | Description |
|------------|---|-------------|
| Customer | Select radio button in the Partner object section. | |

- 3. Choose *Partner Procedures* and in the *Maintain: Partner Procedures Customer Master* window, select your partner procedure, which is assigned to the account group of the subsidiary customer record, for example, AG Sold-to Party.
- 4. Choose *Procedure details* and in the *Maintain: Procedures Details < name of procedure> Customer Master* window, enter the following:

| Field Name | Field Value | Description |
|------------|--|---|
| Funct | <partner function="" key=""> Example: ZH</partner> | This is the partner function for the dummy customer record. It allows storing the SAP Business One end customer ship-to address in the SAP ERP sales order processing. |

5. Save your settings.



To create a new partner function assignment, place your cursor in an existing partner function line and overwrite the existing values. When you save your settings, the system creates an additional line, without deleting the existing line.

2.8.3 Assigning Partner Functions to Partner Procedures – Sales Document Header

Assign the allowed partner functions for a business transaction to the partner procedure that is assigned to the relevant business document. Also define which of the partner functions are mandatory in the process.

Assign your previously created partner function to the partner procedure that is assigned to the document type for which you want to create the SAP ERP intercompany sales order.

Prerequisites

You have checked the partner procedure, assigned to the sales order document type, you use to create an ERP intercompany sales order.

Procedure

1. From the IMG menu, choose Sales and Distribution \rightarrow Basic Functions \rightarrow Partner Determination \rightarrow Set Up Partner Determination.

Alternatively, call the **VOPA** transaction.

If you access the partner function maintenance using the transaction code, access from the one using the IMG path. The following description is based on the access using the transaction code.

2. In the Maintain: Partner Determin. window, enter the following:

| Field Name | Field Value | Description |
|-----------------------|---|-------------|
| Sales Document Header | Select the radio button in the Partner object section. | |

- 3. Choose *Partner procedures* and in the *Maintain: Partner Procedures Sales Document Header* window, select your partner procedure, for example, TA Standard order.
- 4. Choose *Procedure details* and in the *Maintain: Procedures Details < name of procedure> Sales Document Header* window, enter the following:

| Field Name | Field Value | Description |
|------------|--|---|
| Funct | <partner function="" key=""> Example: ZH</partner> | This is the partner function for the dummy customer record. It allows storing the SAP Business One end customer ship-to address in the SAP ERP sales order processing. |

5. Save your settings.



To create a new partner function assignment, place your cursor in an existing partner function line and overwrite the existing values. When you save your settings, the system creates an additional line, without deleting the existing line.

2.8.4 Assigning Partner Functions to Partner Procedures – Delivery

Assign the allowed partner functions for a business transaction to the partner procedure, assigned to the relevant business document. Also define which of the partner functions are mandatory in the process.

Assign your previously created partner function to the partner procedure that is assigned to the document type for which you want to create the SAP ERP intercompany outbound delivery.

Prerequisites

You have determined the partner procedures assigned to the document type for which you plan to create the SAP ERP delivery.

Procedure

1. From the IMG menu, choose Sales and Distribution \rightarrow Basic Functions \rightarrow Partner Determination \rightarrow Set Up Partner Determination.

Alternatively, call the **VOPA** transaction.

If you access the partner function maintenance using the transaction code, access differs from the one using the IMG path. The following description is based on the access using the transaction code.

2. In the Maintain: Partner Determin. window, enter the following:

| Field Name | Field Value | Description |
|------------|---|-------------|
| Delivery | Select the radio button in the Partner object section. | |

- 3. Choose *Partner procedures* and in the *Maintain: Partner Procedures Sales Document Header* window, select your partner procedure, for example, TA Standard order.
- 4. Choose *Procedure details* and in the *Maintain: Procedures Details < name of procedure> Sales Document Header* window, enter the following:

| Field Name | Field Value | Description |
|------------|--|---|
| Funct | <partner function="" key=""> Example: ZH</partner> | This is the partner function for the dummy customer record. It allows storing the SAP Business One end customer ship-to address in the SAP ERP sales order processing. |

5. Save your settings.



To create a new partner function assignment, place your cursor in an existing partner function line and overwrite the existing values. When you save your settings, the system creates an additional line, without deleting the existing line.

2.9 Creating a Customer Master Record for the SAP Business One End Customer Ship-to Address

Create a customer master record to store the SAP Business One end customer ship-to address in the SAP ERP sales order processing. This customer record contains the currently transferred ship-to address in sales order processing. Therefore, the customer record values are placeholders. When the runtime creates a sales order, the system automatically updates the placeholder values in the sales order header with the real SAP Business One end customer ship-to address.

Choose a name for the customer master record that you can easily identify as the "placeholder", for example, Dummy_B1 (name or number, depending on your number range settings).

Procedure

To create a customer master record, see the standard SAP ERP system documentation.

2.9.1 Assigning the Customer Master Record to a Subsidiary Customer Master Record

Assign the "placeholder" customer record to the customer master records you have created for your subsidiary. This enables the subsidiary customer to store the SAP Business One end customer ship-to address, in addition to the already available address data, without overwriting it in sales order processing.

In the sales area data segment of the customer master record, you can assign different customer numbers to the partner functions to cover differing or alternative partner data, such as several ship-to addresses or different bill-to partners.

Assign the "placeholder" customer record with the partner function you have created for your "placeholder" customer; for example ZH.

Procedure

1. From the SAP menu, choose $Logistics \rightarrow Sales$ and $Distribution \rightarrow Master Data \rightarrow Business Partner \rightarrow Customer \rightarrow Change \rightarrow Complete.$

Alternatively, call the **xD02** transaction.

2. In the Change Customer: Initial window, enter the following:

| Field Name | Field Value | Description |
|----------------------|---|--|
| Customer | <key customer="" of="" subsidiary="" your=""></key> | This is the customer number for the subsidiary. |
| Company Code | <company code="" key=""></company> | This is the company code of the subsidiary customer. |
| Sales organization | <sales key="" organization=""></sales> | This is the sales organization of the subsidiary customer. |
| Distribution Channel | <distribution channel="" key=""></distribution> | This is the distribution channel of the subsidiary customer. |
| Division | <division key=""></division> | This is the division of your subsidiary customer. |

- 3. Choose Enter and in the Change Customer: General Data window, choose Sales area data.
- 4. In the Change Customer: Sales Area Data window, on the Partner function tab, enter the following:

| Field Name | Field Value | Description |
|------------|---|---|
| PF | <partner function="" name=""> Example: ZH</partner> | This is the partner function for the SAP Business One end customer ship-to address. |

| Field Name | Field Value | Description |
|------------|--|--|
| Number | <"Placeholder" customer key> Example: Dummy_B1 | This is the customer record you have created as a placeholder for the SAP Business One end customer ship-to address. |

5. Save your entries.

Configuration in SAP Business One Prior 3 to Release 8.8 SP00, PL05

3.1 Creating User-Defined Fields for Marketing Documents

To support document split and consolidation, define a user-defined field (UDF) that holds SAP ERP item reference information. The scenario package transfers this information. As of SAP Business One 8.8, SP00, PL05, you do not need to define the field; it is part of the standard delivery.

Prerequisites

You have created a vendor record in SAP ERP.

For more information, see 1.3.5 Creating a Vendor Record in SAP Business One

Procedure

- 1. In SAP Business One, choose $Tools \rightarrow User$ -Defined $Fields \rightarrow Manage\ User\ Fields$.
- 2. In the Manage User Fields window, choose Marketing Documents → Rows and choose Add.
- 3. In the Field Data window, enter the following:

| Field Name | Field Value | Description |
|-------------|-------------|--|
| Title | ExLineNo | In this field, the system stores the item reference data of the SAP ERP delivery item. |
| | | Check in SAP Business One documents settings for marketing documents, that you cannot enter data in this field and it is not visible in application document processing. |
| Description | ExLineNo | |

4. Choose OK.

41

4 Configuration in SAP Business One integration for SAP NetWeaver

4.1 Creating System ID-Specific Properties for Subsidiary SAP Business One Systems

Maintain SysID-specific properties for each subsidiary in the system landscape. System ID-specific properties are available per system type. When you create a system landscape entry, this entry gets a unique system ID (SysID). You can maintain fixed values for properties for the SysID.

SAP Business One integration for SAP NetWeaver accesses the properties at runtime and uses them for message processing, for example for setting defaults, selecting options, and so on.

All scenario packages that use the systems as senders or receivers, can access the SysID-specific properties.

From a business point of view, the aim of using SysID-specific properties is to place the subsidiary in the company organization environment. In the large account environment, the settings represent the organizational entity of the subsidiary from the headquarters' point of view. The settings describe the subsidiary with SAP ERP organization units. For example, the subsidiary represents the sales channel for the headquarters' products in a foreign country.

Prerequisites

You have set up the system landscape with all sender and receiver systems in SAP ERP and in SAP Business One integration for SAP NetWeaver.

For more information about setting up your technical system landscape, see the *Administrator's Guide*.

Procedure

- 1. To start SAP Business One integration for SAP NetWeaver, choose $Start \rightarrow All\ Programs \rightarrow SAP\ Business\ One$ integration for SAP NetWeaver \rightarrow SAP Business One integration for SAP NetWeaver.
- 2. To log on, in the B1i Administrative Login user interface, enter the user name and password.
- 3. Choose SLD and select the SLD entry for your subsidiary.
- 4. Select the *Properties* button to set the following properties:

| Field Name | Field Value | Description |
|------------------|---|--|
| Company Code | | Not relevant for the intercompany purchasing scenario |
| Company Language | <language key=""> Example: EN English, DE German</language> | This defines the main company language for the subsidiary. Processing selects the language- |

| Field Name | Field Value | Description |
|------------------------------|---|---|
| | | dependent data segments of the SAP ERP message. In SAP ERP, you can provide the material for several languages. If the company language is EN, processing transfers the English short text for the material. For country-specific values or entries, see the ISO codes for countries. |
| Credit Control Area | | Not relevant for the intercompany purchasing scenario |
| Distribution Channel | | Not relevant for the intercompany purchasing scenario |
| Division | | Not relevant for the intercompany purchasing scenario |
| Foreign Language | <language key=""> Example: EN English, DE German</language> | This defines the foreign company language for the subsidiary The item's <i>Description</i> field that processing transfers to SAP Business One contains the language-dependent short text of the SAP ERP material master record. This is valid for all language-dependent text data in SAP ERP. For language-specific values or entries, see the ISO codes for countries. |
| Plant | | Not relevant for the intercompany purchasing scenario |
| Sales Organization | | Not relevant for the intercompany purchasing scenario |
| Subsidiaries Customer Number | <sap customer="" erp="" number=""></sap> | This customer number is a SAP ERP customer number of the headquarters system. It represents the subsidiary from the SAP ERP sales point of view. This number must be unique per subsidiary. This value is mandatory. |
| | | The subsidiary customer number is an automatic default. The sales |

| Field Name | Field Value | Description |
|------------|-------------|---|
| | | order message, posted in SAP ERP, uses this customer number as the default sold-to party. |

1 Note

All other properties are not relevant for the intercompany purchasing scenario. You can ignore them.

5. Save your settings.

4.2 Setting the System Type-Specific Property for the Headquarters SAP ERP

Enter the vendor number of your headquarters SAP ERP in the SysID-specific properties of the headquarters SLD entry. The vendor number identifies SAP ERP as the vendor for the subsidiary in the intercompany purchasing scenario.

Procedure

- 1. To start SAP Business One integration for SAP NetWeaver, choose $Start \rightarrow All\ Programs \rightarrow SAP\ Business\ One$ integration for SAP NetWeaver \rightarrow SAP Business One integration for SAP NetWeaver.
- 2. To log on, in the *B1i Administrative Login* user interface, enter the user name and password.
- 3. Choose SLD and select the SLD entry for your headquarters.
- 4. To set a value for the *Headquarters Vendor Number* system type property, choose the *Properties* button and enter the following:

| Field Name | Field Value | Description |
|----------------------------|--|---|
| Headquarters Vendor Number | <sap business="" number="" one="" vendor=""></sap> | This vendor number must be unique; it represents the headquarters from the SAP Business One purchasing point of view. |
| | | This entry is mandatory. |
| | | The scenario does not run correctly without it. The scenario sets the headquarters vendor number in the sales order confirmation, the shipping notification (draft and goods receipt), and the A/R invoice. |

i Note

All other properties are not relevant for the SAP Business One intercompany purchasing scenario. You can ignore them.

5. Save your settings.

4.3 Setting Up and Activating the Scenario Package

You use the setup functions for scenarios to configure your intercompany purchasing scenario. To set up the scenario, do the following:

- Select the scenario steps
- Select the sender systems
- Select the receiver systems
- Set filter definitions
- Set local properties
- Set value mapping definitions

You can use either the existing integration framework functions or the setup wizard (22). The description below uses the setup wizard.

Procedure

- 1. To start SAP Business One integration for SAP NetWeaver, choose $Start \rightarrow All\ Programs \rightarrow SAP\ Business\ One$ integration for SAP NetWeaver \rightarrow SAP Business One integration for SAP NetWeaver.
- 2. To log on, in the B1i Administrative Login user interface, enter the user name and password.
- 3. To set up your scenario, choose $Scenarios \rightarrow Setup$.
- 4. In the Scenario Package Identifier field, select the sap.IC.Purchasing Scenario package and choose (Setup Wizard).

The step Selection of Scenario Steps displays the scenario steps.

- 5. Choose the *Activate* checkbox for all scenario steps, and then choose *Save* and *Next*.
 - o sap.B1PO2R3SO (SAP Business One purchase order to SAP ERP sales order)
 - o sap.R3so2B1Po (SAP ERP sales order to SAP Business One purchase order update)
 - o sap.R3DELV2B1GR (SAP ERP delivery to SAP Business One goods receipt)
 - o sap.R3INV2B1INV (SAP Business One purchase order to SAP ERP sales order)
- 6. In the *Senders* and in the *Receivers* sections select all SAP Business One subsidiary systems and the headquarters system and choose *Next*.
- 7. In the *Filter Definition* step, the integration framework displays all active scenario steps for all selected sender and receiver systems.
 - o In the Sender Filters section, define filter criteria that are the same for all receiver systems.
 - o In the Sender Receiver Filters section, define filter criteria that are different for receiver systems.
 - o By default all combinations are selected with the checkbox in front of each row. **Do not deselect any combination**, even if you do not define any filters for the combination. If you deselect any combination, the integration framework filters everything.
 - o For the sap.B1PO2R3SO scenario step, in the Sender Receiver Filters section, for each subsidiary, define the following:

| Sender | Receiver | Filter Name | Filter Value | Remarks |
|------------|--------------|-------------------|---|---|
| Subsidiary | Headquarters | Vendor Number | Vendor number maintained in SAP Business One | This is the vendor in SAP Business One that represents the headquarters. Create the SAP Business One purchase order for this vendor. This vendor number is maintained for your receiving SAP ERP SysID as the headquarters vendor number. |
| Subsidiary | Headquarters | PO Task Filter | | The scenario considers only new purchase orders. Recommendation Set the filter in the Sender Filters section, it is independent of any receivers. |

o For the sap.R3SO2B1PO scenario step, in the *Sender Receiver Filters* section, for each subsidiary, define the following:

| Sender | Receiver | Filter Name | Filter Value | Remarks |
|--------------|------------|---|---|---|
| Headquarters | Subsidiary | Order Response Customer Number | Customer number in headquarters SAP ERP | This customer has been created in SAP ERP. It represents the subsidiary. This customer number is maintained for the receiving SAP Business One SysID as the subsidiary customer number. The sales order in SAP ERP is created for this customer number. |

o For the sap.R3DELV2B1GR scenario step, in the Sender Receiver Filters section, for each subsidiary ,define the following:

| Sender | Receiver | Filter Name | Filter Value | Remarks |
|--------------|------------|--------------------------------|-------------------------------|---|
| Headquarters | Subsidiary | Delivery Customer Number | Customer number in SAP ERP | This customer has been created in SAP ERP. It represents the subsidiary. This customer number is maintained for the receiving SAP Business One SysID as |

| Sender | Receiver | Filter Name | Filter Value | Remarks |
|--------------|------------|-------------|----------------------------------|--|
| | | | | the subsidiary customer number. |
| | | | | The sales order in the headquarters SAP ERP is created for this customer number. |
| Headquarters | Subsidiary | PO Type | INT for sales from local stock | This is optional. |
| | | | EXT for sales from central stock | |

o For the sap.R3INV2B1INV scenario step, in the *Sender Receiver Filters* section, for each subsidiary, define the following:

| Sender | Receiver | Filter Name | Filter Value | Remarks |
|--------------|------------|-------------------------------|-------------------------------|---|
| Headquarters | Subsidiary | Invoice Customer Number | Customer number in SAP ERP | This customer has been created in SAP ERP. It represents the subsidiary. This customer number is maintained for the receiving SAP Business One SysID as the subsidiary customer number. |
| | | | | The sales order in the headquarters SAP ERP is created for this customer number. |

 $\circ\quad$ To define filter values for the fields above, enter the following:

| Field Name | Field Value | Description |
|-------------|--|---|
| Filter | To select a filter, click the (ellipsis) button. | |
| Operand | Equal to, Not equal to, Greater than, Less than, Between, Not between, Greater than or equal to, Less than or equal to, Contains, Equal to blank, Is not blank | |
| Filter from | <string></string> | If you have selected an operand, you must enter a value. |
| Filter to | <string></string> | You can enter only a value, if the operand is Between or Not Between. |

8. Save your filter settings.

- 9. The scenario does not use global properties, choose *Next* and in the *Local Properties* step, define values for local properties.
 - o For the sap.B1PO2R3SO scenario step, define the following for each subsidiary:

| Sender | Receiver | Property | Property Value | Remarks |
|------------|--------------|----------------------------|--|--|
| Subsidiary | Headquarters | IC_Sales Organization | <sap erp="" sales<br="">organization key ></sap> | This value is mandatory. It is the automatic default for the sales order created in SAP ERP. The sales order is created for this sales organization. Other than the sales organization in the subsidiary SysID properties, this value specifies the SAP ERP sales organization that sells to subsidiaries. |
| Subsidiary | Headquarters | IC_Distribution Channel | <sap erp<br="">distribution channel key></sap> | This value is mandatory. This value is the automatic default for the sales order created in SAP ERP. The sales order is created for this distribution channel. Other than the distribution channel in the subsidiary SysID properties, this value specifies the SAP ERP distribution channel that sells to subsidiaries. |
| Subsidiary | Headquarters | IC_Division | <sap erp<br="">division key></sap> | This value is mandatory. It is the automatic default for the sales order created in SAP ERP. The sales order is created for this division. Other than the division in the subsidiary SysID properties, this value specifies the SAP ERP division that sells to subsidiaries. |
| Subsidiary | Headquarters | OrderType | <sap erp="" order<br="">type key> For example: OR</sap> | This value is mandatory. It is the automatic default for the sales order created in SAP ERP. The sales order is created with this order type. The sales order in SAP ERP is created with this order |

| Sender | Receiver | Property | Property Value | Remarks |
|------------|--------------|-------------|--|--|
| | | | | type to sell products to subsidiaries. |
| Subsidiary | Headquarters | PartnerRole | <sap erp="" partner<br="">key > Example: ZH</sap> | Partner function you have created for the "placeholder" customer. This record is used in SAP ERP sales orders to keep the ship-to address of the SAP Business One end-customer. This is only relevant for the sales from central stock variant. |
| Subsidiary | Headquarters | Text_ID | <sap erp="" id<br="" text="">key> For example: 0002</sap> | This is a four-digit key for SAP ERP text, available in the sales order header. Text for the sales order is created in the SAP ERP order for this text ID. The text ID must be available in SAP ERP for the VBBK text object. |

o For the sap.R3SO2B1PO scenario step, define the following for each subsidiary:

| Sender | Receiver | Property | Property Value | Remarks |
|------------|--------------|----------|--|--|
| Subsidiary | Headquarters | Text_ID | <sap erp="" id<br="" text="">key></sap> | This is a four-digit key for SAP ERP text, available in the sales order header. Text for the sales order is created in the SAP ERP order for this text ID. The text ID must be available in SAP ERP for the VBBK text object. |

- Save your settings and choose *Next*.
- 10. In the *Value Mapping* step, define values for all available mappings and for all system combinations; choose *Next*.

To create a value mapping, choose New.

- 1. In the Mapping Definitions section, to select the sender system, choose the ... (ellipsis) button.
- 2. To select a receiver system, choose the second the ... (ellipsis) button.
- 3. To define mapping values, choose the *Modify* button. The *Value Mapping Table* opens.
- 4. To add a value pair, choose the *Add* button.
- 5. In the first field, enter the value for the sender system.

- 6. In the second field, enter the value for the receiver system.
- 7. Save your settings and close the window.

The following value mapping are available from SAP Business One to SAP ERP:

- o CURCY Currency Code (B1->ERP)
- o REGIO Address Extension Region (B1->ERP)
- VSART Shipping Type (B1->ERP)

The following value mapping are available from SAP ERP to SAP Business One:

- o Currency on Item Line Level (ERP->B1)
- DocCurrency Currency Code (ERP->B1)
- Hight1Unit Height Unit of Measure (ERP->B1)
- o Lengh1Unit Length Unit of Measure (ERP->B1)
- MeasureUnit Unit of Measure (ERP->B1)
- PaymentGroupCode Payment Terms (ERP->B1)
- o TransportationCode Shipping Type (ERP->B1)
- VolumeUnit Volume Unit of Measure (ERP->B1)
- Weight1Unit Weight Unit of Measure (ERP->B1)

The following mappings are the same, but for the direction:

- o CURCY Currency Code and DocCurrency Currency Code
- o VSART Shipping Type and TransportationCode Shipping Type

For more information about how to use the value mapping function, see the *Operations Guide*, section *1.1.6.2 Setting up Value Mappings*

- 11. The scenario does not use schedulers; choose *Deploy* to finalize the scenario setup.
- 12. To activate the scenario, choose the *Activate* button.

5 Value Mapping

We assume that the default values in the table below already exist in SAP ERP and SAP Business One. If not, enter the values manually for the configuration.

| SAP ERP Customizing Table | SAP ERP Values | SAP Business One integration for SAP NetWeaver Value Mapping Table | SAP Business One Value Table | SAP Business One Default Values |
|---|---|--|---------------------------------|-------------------------------------|
| T006 Units of Measurement | MG Milligram G Gram KG Kilogram OZ Ounce LB US Pound | WeightUoM | OWGT Weight UOM | 1 mg 2 g 3 kg 4 Oz 5 Lb |
| T006 Units of Measurement | 1 MMQ Cubic millimeter 2 CCM Cubic centimeter 3 CDM Cubic decimeter 4 M3 Cubic meter 5 IN3 Cubic inch 6 FT3 Cubic foot | VolumnUoM | OLGT Volume UOM | 1 cmm 2 cc 3 cdm 4 cm 5 ci 6 cf |
| T005S Region (State, Province, County) | Default values available | State | No value table available | Default values available |
| TVSB Shipping Conditions | 01 As soon as possible 02 Standard 03 Collect. processing 04 Transport Service 05 Just-in-time 06 Synch. to production 08 TVPS Multimode 09 Pick up 10 Immediately 20 Domestic 24/48h | ShippingType | OSHP Shipping Types | No default values available |



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