Configuration of Integrated Outbound Warehousing and Transportation

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Icons in Body Text

Icon	Meaning
	Caution
	Example
	Note
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Typographic Conventions

Type Style	Description
Example text	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options. Cross-references to other documentation.
Example text	Emphasized words or phrases in body text, graphic titles, and table titles.
EXAMPLE TEXT	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 text`	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 text`	Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.
`<Example text>`	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
`EXAMPLE TEXT`	Keys on the keyboard, for example, `F2` or `ENTER`.

Configuration of Integrated Outbound Warehousing and Transportation Processes

You follow the steps described in this document to define settings for the Integration of Outbound Warehousing and Transportation [External] scenario. The scenario involves the following business processes:

- Managing Order-Based Outbound Processes [External]
- Handling Cancellation in Order-Based Outbound Processes [External]
- Managing Delivery-Based Outbound Processes [External]
- Planning Transportation and Billing in Outbound Processes [External]

For this configuration scenario, you can use the standard warehouse `W001`, which is the recommended way of getting started with SAP Extended Warehouse Management (SAP EWM), or your own warehouse.

For more information about using the standard warehouse, see Warehouse Management with Preconfigured Processes [External]. To set up the pre-configured business processes in standard warehouse `W001`, perform all configuration steps except for those indicated as optional. These steps help you to understand configuration of the processes without requiring any manual activities.

To configure the processes in your own warehouse, perform all configuration steps. For optional steps, adjust according to your warehouse needs.

Unless otherwise explicitly stated, the configuration activities described in this document require you to perform configuration steps in EWM.

Prerequisites

You have implemented the following in the order as listed:

1. Integration of SAP EWM with SAP ERP
2. Definition of basic settings for TM
3. Integration of TM with ERP
4. Pre-configured warehouse
    - Definition of settings for Configuration of Warehouse Structure and Master Data for SAP EWM [External]
    - Definition of settings for Warehouse Management with Preconfigured Processes [External]
5. Configuration of TM-ERP-EWM described in this guide and based on the SAP EWM business scenario, Integration of Outbound Warehousing and Transportation [External]

6. Configuration of TM-ERP-EWM based on the SAP TM business scenario described in the *Configuration Guide for TM-ERP-EWM Integration*, which can be found in SAP Solution Manager at *SAP Transportation Management* > *Scenarios* > *Integration of Outbound Warehousing and Transportation* > *Configuration Guide for TM-ERP-EWM Integration*

7. Definition of settings for Configuration of Cross-System Roles for Processes Involving SAP TM, SAP ERP, and SAP EWM [Page 58]

Before you start to configure the business processes of the scenario *Integration of Outbound Warehousing and Transportation*, see the following guides in SAP Solution Manager:

- Configuration of Cross-System Roles for Processes Involving SAP TM, SAP ERP, and SAP EWM [Page 58]
- Configuration of Warehouse Management with Preconfigured Processes [External]
- *Configuration Guide for TM-ERP-EWM Integration* at *SAP Transportation Management* > *Scenarios* > *Integration of Outbound Warehousing and Transportation*
- Integration of SAP ERP with SAP EWM [External]
- *Basic Settings and Integration for SAP ERP* at *SAP Transportation Management* > *Configuration Structures* > *Basic Settings for SAP TM <Release>*
- *Basic Settings for SAP TM* at *SAP Transportation Management* > *Configuration Structures* > *Basic Settings for SAP TM <Release>*

Process

1. Configure settings in ERP; see:
    - Activating Business Functions (ERP) [Page 13]
    - Sales Order and Delivery Creation (ERP) [Page 13]
    - Transportation (ERP) [Page 23]
2. Configure settings in EWM; see:
    - Defining Settings for the TM Logical System and Business System [Page 36]
    - Activating BC Sets [External].
    - Transportation (EWM) [Page 37]
    - Outbound Delivery Order Creation (EWM) [Page 44]
    - Warehouse Activities (EWM) [Page 55]
3. In TM, configure settings as described in the separate *Configuration Guide for TM-ERP-EWM Integration*.

Result

You have configured one or more TM-ERP-EWM integration processes. In warehouse number `W001` you can run the process as described in the corresponding test case.

Example

You configure the business processes using the following organizational units, master data. warehouse structure and process data:

Organizational Units (ERP - TM - EWM)

Field	Description	Value
Plant-related Organizational Units		
Plant (ERP)	Plant 0001	PL01
Vendor for Plant (ERP)	Vendor for plant 0001	BPPL01V
Customer for Plant (ERP)	Customer for plant 0001	BPPL01C
Business Partner for Plant (TM, EWM)	Vendor for plant 0001	BPPL01V
Supply Chain Unit/Location for Plant (TM, EWM)	Plant 0001	PLPL01
Supply Chain Unit/Location for Vendor for Plant (TM, EWM)	Vendor for plant 0001	SUBPPL01V
Supply Chain Unit/Location for Customer for Plant (TM, EWM)	Customer for plant 0001	CUBPPL01V
Party Entitled to Dispose (EWM)	Vendor for plant 0001	BPPL01V
Warehouse-related Organizational Units		
Storage Location (ERP)	Available for Sale	AFS
Warehouse Number (ERP)	Warehouse W01	W01
Warehouse Number (EWM)	Warehouse W001	W001
Supply Chain Unit/Location for Warehouse Number (EWM)	Plant 0001	PLPL01
Sales- and Distribution-related Organizational Units		
Sales Organization (ERP)	Sales organization 0001	0001
Distribution Channel (ERP)	Distribution channel 02	02
Shipping- and Transportation-related Organizational Units		
Shipping Point (ERP)	Shipping point 0001	0001
Supply Chain Unit/Location for Shipping Office (TM, EWM)	Shipping point 0001	SO0001
Transportation Planning Point (ERP)	0001 for shipment creation	0001
	ZDEL for shipment deletion	ZDEL
Shipping Conditions	Order-based transportation planning	T1
	Delivery-based transportation planning	T2
	EWM-based transportation planning	W1

	No transportation planning	W2

Master Data (ERP - TM - EWM)

Customer

Customer (ERP)	Description	Business Partner (TM-EWM)	Supply Chain Unit/Location (TM, EWM)
CUST001	Customer CUST001	CUST001	CUCUST001
CUST002	Customer CUST002	CUST002	CUCUST002
CUST003	Customer CUST003	CUST003	CUCUST003
CUST004	Customer CUST004	CUST004	CUCUST004

Carrier

Carrier (ERP)	Description	Business Partner (TM-EWM)	Supply Chain Unit/Location (TM, EWM)
CARR001	Carrrier CARR001	CARR001	SUCARR001

Products

Product (ERP - TM - EWM)	Description
PROD-S01	Small part, fast-moving 01
PROD-S02	Small part, fast-moving 02
PROD-S03	Small part, fast-moving 03
PROD-S04	Small part, fast-moving 04
PROD-S05	Small part, slow-moving 05
PROD-S06	Small part, slow-moving 06
PROD-M01	Medium part 01
PROD-M02	Medium part 02
PROD-M03	Medium part 03
PROD-L01	Large part 01
PROD-L02	Large part 02

Means of Transport (TM - EWM)

Value	Description
MTR2	Truck
PROD-L03	Large part 03

Handling Unit Types (ERP - EWM)

Value	Description
E1	Europallet
M1	Means of transport

Packaging Material (ERP - EWM)

Value	Description	Packaging Material Type
EUROPALLET	Europallet	PT01
MTR	Means of transport	MTR2

Routes

Application	Value	Description
ERP	000001	Dummy route in ERP
EWM	W001_CU001	Route W001_CU001 (used in EWM-based process only)
	W001_CU002	Route W001_CU002 (used in EWM-based process only)
	W001_CU003	Route W001_CU003 (used in EWM-based process only)
	W001_CU004	Route W001_CU004 (used in EWM-based process only)

Queues (EWM)

Value	Description
Q-010-920	Pick. T010 to T920
Q-020-920	Pick. T020 to T920
Q-050-920	Pick. T050 to T920

Resources (EWM)

Value	Description
HLOP1	High level order picker
HLOP2	High level order picker
FLT1	Forklift truck
FLT2	Forklift truck
PACKER01	Packer (used in EWM-based process only)

Spool Data

Value	Description
01	Use in case one copy is needed

Printers (EWM)

Value	Description
PR04	Printer located at the shipping office

PR07	Printer located at the outbound packing stations (used in EWM-based process only)
PR09	Printer located near the empty pallet area
PR10	Printed located near staging area T920

Warehouse Structure (EWM)

Storage Type	Description
T010	Pallet Rack — Medium Parts
T020	Pallet Rack — Small Parts
T050	Pallet Rack — Large Parts
T920	Provide in Goods Issue
T940	Doors – Outbound

Storage Types

Value	Storage Section	Description
T010	S001	Total section
T020	S001	Fast-moving items
T020	S002	Slow-moving items
T050	S001	Total section
T920	S001	Total section

Storage Bins

Value	Description
T010*	All bins starting with T010
T020*	All bins starting with T020
T050*	All bins starting with T050
STAGE-O02	Staging area
STAGE-O03	Staging area
DOOR-O02	Door in goods issue
DOOR-O03	Door in goods issue

Activity Areas

Value	Description
T010	Activity area for storage type T010
T020	Activity area for storage type T020
T050	Activity area for storage type T050

Staging Area Group

Value	Staging Area	Description
T920	S001	Staging area for storage type T920

Doors

Value	Description
DO02	Door used for outbound processes
DO03	Door used for outbound processes

Process-specific Settings in ERP and EWM

Document Types

Document Type	Order-based Transportation Planning in TM	Delivery-based Transportation Planning in TM	EWM-based Transportation Planning in TM
Order-related Document Types			
Order type (ERP)	ZOR	ZOR	OR
Delivery-related Document Types			
Delivery type (ERP)	ZLF	ZLF	LF
Outbound delivery request (EWM)	OTM	OTM	OUTB
Outbound delivery order (EWM)	OTM	OTM	OUTB
Outbound delivery (EWM)	OTM	OTM	OUTB
Shipment-related Document Types			
Shipment type (ERP)	ZTMS	ZTMS	ZWM1

Warehouse Process Types (EWM)

Value	Description
P212	Pick and move to staging area
P370	Move handling unit (outbound) (used in EWM-based process only)

More Information

Configuration of Warehouse Structure and Master Data for SAP EWM [External]

1 Configuration Settings in SAP ERP

Activities

1. Activating Business Functions (ERP) [Page 13]
2. Sales Order and Delivery Creation (ERP) [Page 13]
3. Transportation (ERP) [Page 23]

1.1 Activating Business Functions (ERP)

You use this procedure to activate the business functions required for the TM-ERP-EWM integration processes in SAP ERP.

Procedure

Contact your system administrator to carry out the following steps in an ERP client allowing cross-client settings and the creation of workbench requests. If necessary, use the workbench request to transport the settings to other ERP systems.

1. On the *SAP Easy Access* screen, enter transaction `SFW5`.
2. If you have not activated business function *ERP-TMS: Order Integration 2* (`LOG_TM_ORD_INT_II`) yet, activate it now.

For more information, see the business function documentation in transaction `SFW5`.

1.2 Sales Order and Delivery Creation (ERP)

You must perform the following settings to create sales orders and outbound deliveries.

	Sales Document Type	**Delivery Document Type**
Order-based Transportation Planning in TM	`ZOR`	`ZLF`
Delivery-based Transportation Planning in TM	`ZOR`	`ZLF`
EWM-based Transportation Planning in TM	`OR`	`LF`

These sales document types and delivery document types are copes of the standard sales document type `OR` and the delivery document type `LF`.

Prerequisites

In SAP ERP, you have the standard ERP Customizing available.

Activities

- Creating Document Types for Sales Order and Delivery Documents (ERP) [Page 14]
- Configuring Allowed Sales Areas for Sales Document Types (ERP) [Page 15]
- Configuring Document Types for Outbound Deliveries (ERP) [Page 16]
- Configuring Additional Shipping Conditions for Customers (ERP) [Page 17]
- Changing Customer Master Data (ERP) [Page 17]
- Configuring Shipping Point (ERP) [Page 18]
- Configuring Route Determination (ERP) [Page 19]
- Configuring Scheduling (ERP) [Page 22]

Result

If you now create sales orders with document type `OR` in SAP ERP, an outbound delivery is automatically created with document type `LF` in SAP ERP.

If you now create sales orders with document type `ZOR` in SAP ERP, no outbound delivery is automatically created in SAP ERP for order-based planning. They are created later as a result of the order-based transportation planning in TM. For delivery-based planning, you created an outbound delivery with document type `LF` for a sales order with document type `OR` manually in ERP.

1.2.1 Creating Document Types for Sales Order and Delivery Documents (ERP)

You use this procedure to copy the standard document types for sales orders and deliveries to new document types.

Only configure the sales document types and delivery types for EWM-ERP-TM integration processes with transportation planning in TM.

Procedure

1. Create a copy of sales order type `OR`, such as `ZOR`.

   In Customizing for SAP ERP, choose *Sales and Distribution* > *Sales* > *Sales Documents* > *Sales Document Header* > *Define Sales Document Types*.

   On the *Change View "Maintain Sales Order Types": Overview*, select sales type *OR* and then choose *Copy As…*.

2. On the *Change View "Maintain Sales Order Types": Details*, enter the required data and save.

3. Create a copy of delivery type `LF`, such as `ZLF`.

In Customizing for SAP ERP, choose *Logistics Execution* > *Shipping* > *Deliveries* > *Define Delivery Types*.

On the Change View "Delivery Types": Overview, select delivery type LF and then choose *Copy As…*.

4. *On the Change View "Delivery Types": Details*, enter the required data and save.

1.2.2 Configuring Allowed Sales Areas for Sales Document Types (ERP)

You use this procedure to configure the allowed sales area for the sales document types you created in the previous step.

In this procedure, we use the sales order type `ZOR` and `OR` with distribution channel `02`.

Only configure the sales document types and delivery types for TM-ERP-EWM integration processes you want to use in your warehouse.

Procedure

Assign the sales order types permitted for sales areas as follows:

1. In Customizing for SAP ERP, choose *Sales and Distribution* > *Sales* > *Sales Documents* > *Sales Document Header* > *Assign Sales Area To Sales Document Type*.
2. Choose activity *Assign sales order types permitted for sales areas*.
3. Create or change entries listed in the table below as required.

Reference Sales Organization	Name	Reference Distribution Channel	Name	Division	Name	Sales Document Type	Description
0001	Sales Organization 0001	02	Distribution Channel 02	01	Product Division 01	OR	Standard Order
0001	Sales Organization 0001	02	Distribution Channel 02	01	Product Division 01	ZOR	Standard Order

Result

You have assigned the order types to distribution channel `02` so that the system proposes the sales unit of measure maintained in the product master for distribution channel `02`.

If you create a sales order with one of these order types in SAP ERP, you must use distribution channel `02`. In the product master of the small and medium products, the sales

unit of measure is carton and the proposed unit of measure during sales order creation for such products is cartons.

1.2.3 Configuring Document Types for Outbound Deliveries (ERP)

You use this procedure to configure the document type for outbound deliveries in SAP ERP.

Since only deliveries created in the ERP warehouse linked to EWM should be transferred to EWM, you activate the delivery split by warehouse to ensure that no deliveries are created containing centrally-managed and EWM-managed items in the same document.

In addition, you determine if deliveries should be created automically upon sales order creation. This setting should not be done in case of order-based transportation planning in TM.

Only configure the sales document types and delivery types for TM-ERP-EWM integration processes you want to use in your warehouse.

Procedure

1. In Customizing for SAP ERP, choose *Logistics Execution* > *Shipping* > *Deliveries* > *Define Delivery Types* and check for the entry below.

Delivery Type	Perform Delivery Split According to Warehouse Number
ZLF	X

2. In Customizing for SAP ERP, choose under *Sales and Distribution* > *Sales* > *Sales Document Header* > *Define Sales Document Types* and change the entries below.

Sales Document Type	Delivery Type	Immediate Delivery
ZOR (Standard Order)	ZLF	- (Create delivery separately)

3. These settings prevent the automatic creation of outbound deliveries upon sales order creation in ERP. In case of order-based transportation planning in TM, the outbound deliveries will be created automatically from the TM system. In case of delivery-based transportation planning in TM, you create the outbound delivery in ERP.

4. Define settings for the subsequent delivery split.

   In Customizing for SAP ERP, choose *Logistics Execution* > *Shipping* > *Deliveries* > *Subsequent Delivery Split:* .

   1. Select split profile *0003* and in the dialog structure choose *per delivery type*.
   2. Copy the entry *0003 LF* to *0003 ZLF*.
   3. Save your data.

Result

If you now create a sales order in SAP ERP with sales document type *ZOR*, an outbound delivery for this sales order will be created in SAP ERP with document type *ZLF*.

For more information about delivery split configuration, see Activating Transaction Data Transfer in ERP [External] in Integration of SAP ERP with SAP EWM [External].

1.2.4 Configuring Additional Shipping Conditions for Customers (ERP)

You use this procedure to configure shipping conditions for customers in SAP ERP. With the shipping conditions you have the possibility to use different transportation planning processes for specific customers.

In the context of the TM-ERP-EWM integration, the shipping conditions in ERP determine whether a customer order or an outbound delivery is sent to TM for transportation planning. They also influence the route determination in ERP.

Procedure

1. In Customizing for SAP ERP, choose *Logistics Execution* > *Shipping* > *Basic Shipping Functions* > *Shipping Point and Goods Receiving Point Determination* > *Define Shipping Condition* and on the *Change View "Shipping Condition": Overview* screen, choose *New Entries*.

2. On the *New Entries: Overview of Added Entries* screen, create the following shipping condition entries:

Description	Value
Order-based transportation planning	T1
Delivery-based transportation planning	T2
EWM-based transportation planning	W1
No tranportation planning	W2

3. Save your entries.

1.2.5 Changing Customer Master Data (ERP)

You use this procedure to configure the customer master data from the pre-configured warehouse in such a way that you use a specific transportation planning process for each customer.

Prerequisites

EWM BC sets described in Activating BC Sets (EWM) [Page 37] must be activated before shipping condition in customer master data is changed to avoid errors during CIF of customer master records to EWM.

Procedure

1. Check the entries for transportation zones.

   In Customizing for SAP ERP, choose *Logistics Execution* > *Transportation* > *Basic Transportation Functions* > *Routes* > *Route Determination* > *Define Transportation Zones* and check for the following:

   - 0000000001 for Region North
   - 0000000002 for Region South

2. Enter transaction `XD02` and in the *Sales area* group box of the dialog box *Customer Change: Initial Screen*, enter the following data:

   - Customer (see table below)
   - Sales Organization: `0001`
   - Distribution Channel: `02`
   - Division: `01`

3. Click *Continue* and on the *Shipping* tab page, assign the following shipping conditions to each customer:

Customer	Shipping Condition	Process
CUST001	T1	Order-Based Transportation Planning
CUST002	T2	Delivery-Based Transportation Planning
CUST003	W1	EWM-Based Transportation Planning
CUST004	W2	Not used in a specific TM-ERP-EWM integration process

 This setting is needed for the route determination in ERP.

4. Click *General Data* and on the *Address* tab page in the *Change Customer: General Data* screen, assign the following transportation zones to each customer:

Customer	Transportation Zone	Description
CUST001	0000000002	Region South
CUST002	0000000002	Region South
CUST003	0000000001	Region North
CUST004	0000000002	Region South

5. Save your entries.

1.2.6 Configuring Shipping Point (ERP)

Procedure

1. Check the entries for transportation zones.

In Customizing, choose *Logistics Execution* > *Transportation* > *Basic Transportation Functions* > *Routes* > *Route Determination* > *Define Transportation Zones* and check for the following:

- `0000000001` for Region North
- `0000000002` for Region South

2. Maintain transportation zone `0000000002` for shipping point `0001`.

   In Customizing for SAP ERP, choose *Logistics Execution* > *Shipping* > *Basic Shipping Functions* > *Routes* > *Route Determination* > *Maintain Country and Transportation Zone for Shipping Point*.

   On the *Change View "Assignment: Departure Country/Zone to Shipping Point": Ov* screen, enter the transportation zone.

3. Change shipping point determination (based on shipping conditions).

   In Customizing, choose *Logistics Execution* > *Shipping* > *Basic Shipping Functions* > *Shipping Point and Goods Receiving Point Determination* > *Assign Shipping Points* and enter shipping point `0001` for the following:

   - Shipping conditions `T1`, `T2`, `W1` and `W2`
   - Loading group `0001`
   - Plant `PL01`

4. Save your entries.

1.2.7 Configuring Route Determination (ERP)

You use this procedure to define a rough route in SAP ERP. Even if you do not execute the transportation planning in ERP, you must define a route in ERP for several reasons:

- You need at least one route to assign an outbound delivery to a shipment in ERP. This setting is required for all TM-ERP-EWM integration processes.
- You can use the rough routes for date scheduling in ERP. This setting is required for the delivery-based transportation planning only. See Configuring Scheduling (ERP) [Page 22].

Prerequisites

You have maintained a transportation zone for the shipping point. It will be used as departure transportation zone in the route. For more information, see Configuring Shipping Point (ERP) [Page 18].

You have defined a transportation zone in the customer master data. See Changing Customer Master Data (ERP) [Page 17]. It will be used as destination transportation zone in the route.

You have defined shipping conditions and maintained them in the customer master data. See Configuring Additional Shipping Conditions for Customers (ERP) [Page 17].

Procedure

1. Define route.

   In Customizing for SAP ERP, choose *Logistics Execution* > *Transportation* > *Basic Transportation Functions* > *Routes* > *Define Routes* > *Define Routes and Stages* and define either a new or existing route.

   You could use, for example, `000021` for the south-north route and `000002` for the southern route.

   

   If you define a new route, select the checkbox *Rel. Transport*, which indicates the relevance for transportation ID. Otherwise, the system cannot assign outbound deliveries to the shipment.

   Save your entries.

2. Define your route determination.

   In Customizing for SAP ERP, choose *Logistics Execution* > *Transportation* > *Basic Transportation Functions* > *Routes* > *Route Determination* > *Maintain Route Determination*.

   Enter a route determination for your departure country and transportation zone (of the shipping point) and destination country and transportation zone (of the customer), based on shipping conditions (of the customer) and transportation groups (of the product).

   For scheduling purposes in delivery-based transportation planning for customer `CUST002` (with shipping condition T2), shipping point `0001`, and products used in the pre-configured warehouse `W001`, the entries in the table below are required with departure and destination country zones:

   - Departure Country/Zone: DE / 0000000002
   - Destination Country/Zone: DE / 0000000002

Route determination without weight group (order)

Shipping Condition	Transp. Group	Route
T2	0001 On pallets	000002

For customers, shipping point 0001, and products used in the pre-configured warehouse W001, the entries in the table below are required with departure and destination country zones:

- Departure Country/Zone: DE / 0000000002
- Destination Country/Zone: DE / 0000000001

Route determination with weight group (delivery)			
Shipping Condition	**Transp. Group**	**Weight Group**	**Route**
T1	0001	0001	000021
		0010	000021

		0100	000021
		9999	000021
T2	0001	0001	000021
		0010	000021
		0100	000021
		9999	000021
W1	0001	0001	000021
		0010	000021
		0100	000021
		9999	000021
W2	0001	0001	000021
		0010	000021
		0100	000021
		9999	000021

- Departure Country/Zone: DE / 0000000002
- Destination Country/Zone: DE / 0000000002

Route determination with weight group (delivery)			
Shipping Condition	**Transp. Group**	**Weight Group**	**Route**
T1	0001	0001	00002
		0010	00002
		0100	00002
		9999	00002
T2	0001	0001	00002
		0010	00002
		0100	00002
		9999	00002
W1	0001	0001	00002
		0010	00002
		0100	00002
		9999	00002
W2	0001	001	00002

		0010	00002
		0100	00002
		9999	00002

3. In Customizing for SAP ERP, choose *Logistics Execution* > *Transportation* > *Basic Transportation Functions* > *Routes* > *Route Determination* > *Define New Route Determination By Delivery Type*.

4. Make the following entries:

DlvTy	**Description**	**RD**
ZLF	Outbound Delivery	B

5. Save your entries.

1.2.8 Configuring Scheduling (ERP)

You use this procedure to configure the delivery scheduling in SAP ERP. This is only required for the TM-ERP-EWM integration process with delivery-based transportation planning in TM. With the lead time defined at sales document type level, the system proposes a delivery date of two days after the current date when creating a sales order. With the delivery scheduling the system determines a planned goods issue date on the basis of the delivery date minus the transit time for the transport of the goods between the shipping point and the customer. The planned GI date is used in EWM to determine the wave template option, i.e. when the picking must begin.

This is only one simple example configuration for delivery scheduling in ERP. There are many other configuration possibilities.

Prerequisites

You have configured the route determination in ERP. For more information, see Configuring Route Determination (ERP) [Page 19].

Procedure

1. Define lead time per sales document type.

   In Customizing for SAP ERP, choose *Sales and Distribution* > *Sales* > *Sales Documents* > *Sales Document Header* > *Define Sales Document Types*.

   On the *Change View "Maintain Sales Order Types": Details* screen, enter a lead time of `2` days and set the *Propose deliv. date* checkbox for order type *ZOR*.

   Save your entries.

2. Activate the delivery scheduling and transportation scheduling for sales document type `ZOR`.

   In Customizing for SAP ERP, choose *Logistics Execution* > *Shipping* > *Basic Shipping Functions* > *Scheduling* > *Delivery Scheduling and Transportation*

Scheduling > *Define Scheduling By Sales Document Type*, enter `X` for delivery scheduling and select the checkbox for transportation scheduling.

Save your entries.

3. Maintain transit time for route

   In Customizing, choose *Logistics Execution* > *Shipping* > *Basic Shipping Functions* > *Scheduling* > *Delivery Scheduling and Transportation Scheduling* > *Maintain Duration*. In the dialog structure, choose *Routes* and enter a transit duration of `0.25` days and factory calendar `01` for route *000002*.

4. Save your entries.

Customer *CUST002* orders goods on 21 August. When creating the sales order with sales document type *ZOR* in ERP, the system proposes 23 August as delivery date (based on the current date plus 2 days lead time). When creating the outbound delivery in ERP, the system calculates the planned goods issue date/time as 22 August at 18:00:00 (based on delivery date/time 23 August at 00:00:00 minus a transit time of 6 hours). This is the time when the truck must be ready to leave the warehouse.

1.3 Transportation (ERP)

You must perform the following settings to configure the outbound integration of ERP shipments with EWM.

Activities

1. Defining Number Ranges for Shipments (ERP) [Page 23]
2. Defining Shipment Types (ERP) [Page 24]
3. Maintaining Transportation Relevance for Deliveries (ERP) [Page 25]
4. Creating Transportation Planning Point for Shipment Communication (ERP) [Page 25]
5. Creating Packaging Material Type (ERP) [Page 26]
6. Changing Packaging Material (ERP) [Page 27]
7. Configuring EDI Communication with EWM (ERP) [Page 29]
8. Maintaining Output Determination for Shipment Communication to EWM (ERP) [Page 28]
9. Scheduling Report for Reprocessing Failed IDocs (ERP) [Page 34]

1.3.1 Defining Number Ranges for Shipments (ERP)

You use this procedure to align the shipment numbering in SAP ERP with the freight order numbering in SAP TM and the transportation unit or vehicle numbering in SAP EWM.

This setting is required for all TM-ERP-EWM integration processes.

In the TM-ERP-EWM integration processes, a shipment in ERP is created either from a freight order in TM or from a transportation unit (or vehicle) in EWM. For a user to find in one system a number given to the carrier in another system, it is recommended to use the same number for the freight order in TM, the shipment in ERP and the transportation unit in EWM.

When using the same number for freight orders, shipments and transportation units, the following rules apply:

- The system creating the first document should use an internal number range to avoid duplicate records in the other systems.
- The internal number ranges across all three systems must not collide. This means that an internal number in the system creating the first document must be defined as external number in the receiving systems.

  The following table gives an example for disjunct number ranges.

TM Freight Orders	ERP Shipments	EWM TUs and Vehicles
	Internal: 1000 - 999999	
Internal: 6100000000 - 6199999999	External (planning in TM): 6100000000 – 6199999999	External: not necessary as EWM uses external TUNUM
External: 6500000000 – 6699999999	External (planning in EWM): 6500000000 – 6699999999	Internal: TU: 6500000000 – 6599999999 VEH 6600000000 – 6699999999

Procedure

1. In Customizing for SAP ERP, choose *Logistics Execution* > *Transportation* > *Shipments* > *Define Number Ranges for Shipments*.
2. Define an external number range for shipments created from TM and an external number range for shipments created from EWM or ensure that the required number ranges exist.
3. Save your entries.

1.3.2 Defining Shipment Types (ERP)

You use this procedure to define shipment types in ERP. As you define the communication between ERP and TM or ERP and EWM depending on the shipment types, you need two shipment types:

- Shipment type ZTMS for outbound processes with transportation planning in TM as a copy of 0001. When TM triggers the creation of a shipment of this type in ERP, a message is sent to EWM but not to TM.
- Shipment type ZWM1 for outbound processes with transportation planning in EWM as a copy of 0001. When EWM triggers the creation of a shipment of this type in ERP, a message is sent to TM but not to EWM.

This setting is required for all TM-ERP-EWM integration processes.

Procedure

1. In Customizing for SAP ERP, choose *Logistics Execution* > *Transportation* > *Shipments* > *Define Shipment Types* > *Define Shipment Types*

2. On the *Change View "Shipment Types": Details* screen, copy shipment type *0001* to *ZTMS* (if it does not already exist) and enter a description; for example, *Road Shipmt from TM* .

   In the *Document Content* group box, enter the following data:

Field	Value
Adopt Route	*2 Do not adopt stages*
Determine Legs	*Blank: No legs to be determined*

3. Copy shipment type 0001 to ZWM1 (if it does not already exist) and enter a description; for example, *Road Shipmt from EWM*.

   Save your entries.

1.3.3 Maintaining Transportation Relevance for Deliveries (ERP)

You use this procedure to configure the transportation relevance for deliveries in SAP ERP as you can only assign transportation-relevant deliveries to a shipment.

You only need to configure the delivery types for the TM-ERP-EWM integration process(es) you want to use in your warehouse.

Procedure

1. In Customizing for SAP ERP, choose *Logistics Execution* > *Transportation* > *Shipments* > *Maintain Transportation Relevance* > *Maintain Transportation Relevance for Delivery Types*.

2. Select the checkbox *Rel. transport* (indicator for transportation-relevant delivery) for delivery types *ZLF* and *LF*.

3. Save your entries.

1.3.4 Creating Transportation Planning Point for Shipment Communication (ERP)

You use this procedure to configure the shipment-related communication between ERP and EWM in the following cases:

- Communication from EWM to ERP for the creation of a shipment in ERP. The creation is communicated via IDoc *SHPMT* to ERP, such as, transportation planning point *0001*

- Communication from EWM to ERP for the deletion of a shipment in ERP. The deletion is communicated via IDoc *SHIPPL* to ERP, such as transportation planning point *ZDEL*
- Communication from ERP to TM after the deletion of a shipment in ERP. The deletion is communicated via IDoc *TPSSHT* to TM. For this purpose, a third transportation planning point shall be defined when configuring the TM-ERP communication.

This configuration document describes only the communication between EWM and ERP. The communication between TM and ERP is described in a separate document.

For each type of communication you define an own transportation planning point. This setting is required for all TM-ERP-EWM integration processes.

Prerequisites

You have created a logical system for EWM in ERP. You have created an external number range for shipments. See Defining Number Ranges for Shipments (ERP) [Page 23].

Procedure

1. Create transportation planning points in the enterprise structure.

   In Customizing for SAP ERP, choose *Enterprise Structure* > *Definition* > *Logistics Execution* > *Maintain Transportation Planning Point* and create the transportation planning points `0001` and `ZDEL` in your company code (for example, `0001`), if they do not already exist.

   Save your entries.

2. Assign the logical systems to the corresponding transportation planning points.

   In Customizing for SAP ERP, choose *Logistics Execution* > *Transportation* > *Interfaces* > *External Transportation Planning Systems* > *Maintain Transportation Planning Point for External Systems* and enter the following:

TPPT (Transportation Planning Point)	Description	TPS PartNo (Transportation Planning System Partner Number)	Item Type	Ext.no.rge (External number range)	Change shp (Change shipment)
0001	Shipment creation/update from TM or EWM	-			
ZDEL	Shipment Deletion EWM >ERP >TM	TM logical system (XI)	LS	01	00

3. Save your entries.

1.3.5 Creating Packaging Material Type (ERP)

You can use this procedure to create the packaging material type used for the packaging material of the shipment HU.

Procedure

1. Create packaging material type.

   In Customizing for SAP ERP, choose *Logistics-General* ▸ *Handling Unit Management* ▸ *Basics* ▸ *Define Packaging Material Types*.

Packaging Material Type	Description	Plant Determination	PM Category	Number Assignment	HU Type	Internal Number Range Interval	External Number Range Interval
MTR2	Transportation Unit	- (Plant is entered manually in the handling unit)	A (Means of Transport)	B (Number range interval HU_VEKP)	3 (Unknown)	01	02

2. Save your entries.

1.3.6 Changing Packaging Material (ERP)

You can use this procedure to change the packaging material used as the packaging material of the shipment HU.

For EWM to be able to build a transportation unit or a vehicle from an ERP shipment, the ERP shipment must contain a shipment HU with a specific packaging material (e.g. `MTR`). The packaging material must also exist in EWM and must have a packaging material type (e.g. `MTR2`) defined in EWM as means of transport (e.g. `MTR2`).

This setting is required for the TM-ERP-EWM integration processes with transportation planning in TM (ERP shipments created by TM and communicated to EWM).

For more information, see Configuring Means of Transport and Packaging Material (EWM) [Page 38].

Prerequisites

With the implementation of the pre-configured warehouse W001 in EWM, you have created packaging material MTR as described in Configuration of Warehouse Structure and Master Data for SAP EWM [External].

Procedure

1. Check packaging material type.

   In Customizing for SAP ERP, choose *Logistics - General* ▸ *Handling Unit Management* ▸ *Basics* ▸ *Define Packaging Material Types* and check for packaging material type *MTR2*.

2. Change packaging material.

   On the SAP Easy Access screen, choose *Logistics* ▸ *Logistics Execution* ▸ *Master Data* ▸ *Material* ▸ *Material* ▸ *Change* ▸ *Immediately* (transaction `MM02`) and enter packaging material type `MTR`.

In the *Select View(s)* dialog box, select *Sales: General/Plant Data* and click *Continue*.
In the *Organizational Levels* dialog box enter plant `PL01` and then click *Continue*.
Change the packaging material type to `MTR2`.

3. Save your entries.

1.3.7 Maintaining Output Determination for Shipment Communication to EWM (ERP)

You use this procedure to configure the shipment-related communication from ERP to EWM. This setting is required for the TM-ERP-EWM integration processes with transportation planning in TM.

This configuration document does not describe the required settings for the shipment-related communication between ERP and TM.

Required Condition Records per Shipment Type and Destination Logical System

	Shipment Type ZTMS (shipments created by TM)	**Shipment type ZWM1 (shipments created by EWM)**
Output type ZEWM (shipment creation/change ERP -> EWM)	Yes EWM logical system	No

Procedure

1. Create new output type `ZEWM`.

    1. In Customizing for SAP ERP, choose *Logistics Execution* > *Transportation* > *Basic Transportation Functions* > *Output Control* > *Maintain Output Determination for Shipments* > *Maintain Output Types*.

        Copy the `SEDI` output type as `ZEWM` and enter a description for the new output type, for example, `ERP2EWM`.

    2. On the *Default values* tab page, change the partner function from `CR` (Forwarding Agent) to `LS` (Logical System) and click *Enter*.

    3. In the dialog box, select *copy all* and confirm the message by clicking *Enter*.

    4. In the dialog box, select the `ZEWM` output type and choose the *Partner functions* view.

    5. Delete the existing partner function for CR.

    6. Choose *New Entries* and enter the following data:

        - Medium: `EDI`
        - Function: `LS` (Logical system)

    7. Save your entries.

2. Check which output determination procedure is assigned to shipment type `ZTMS`.

   In Customizing, choose *Logistics Execution* > *Transportation* > *Basic Transportation Functions* > *Output Control* > *Maintain Output Determination for Shipments* > *Assign Output Determination Procedures*

3. Assign the output type `ZEWM` to output determination procedure.

   In Customizing, choose *Maintain Output Determination Procedure* under *Logistics Execution* > *Transportation* > *Basic Transportation Functions* > *Output Control* > *Maintain Output Determination for Shipments*.

   1. For the output determination procedure assigned to shipment type `ZTMS`, add a new entry under control data for the new condition type `ZEWM`

   2. Save your entries.

4. Create a condition record for output type `ZEWM`.

   On the SAP Easy Access screen for SAP ERP, choose *Logistics* > *Logistics Execution* > *Master Data* > *Output* > *Shipment* > *Create* and enter output type `ZEWM`.

   Create the following condition record:

Name	**Value**
Shipment type	ZTMS
Partner function	LS
Partner	EWM logical system, e.g. EWMCLNT001 if EWM is installed on an own server or ABTEWM001 if EWM is installed on top of ERP
Transmission medium	6 (EDI)
Dispatch time	4 (Send immediately (when saving the application))
Language	Use the default system language, for example EN

1.3.8 Configuring EDI Communication with EWM (ERP)

You use this procedure to configure the shipment-related communication between ERP and EWM.

The tables below give you an overview of EDI communication between ERP and EWM in the TM-EWM-ERP integration processes.

EDI Communication for Processes with Transportation Planning in TM

Event	**Message Type**	**Sender**	**Receiver**	**Trigger**
Shipment creation	SHPMNT	ERP	EWM	Output type ZEWM

Shipment change/update	SHPMNT	EWM	ERP	ALE Distribution Model in EWM
Shipment deletion	SHIPPL	EWM	ERP	ALE Distribution Model in EWM

The shipment created in ERP as a result of the transportation planning in TM is sent to EWM. EWM can change the delivery assignments of a shipment (for example if a delivery cannot be loaded onto a truck) or even delete the shipment (for example if the carrier cancels the appointment).

EDI Communication for Processes with Transportation Planning in EWM

Event	Message Type	Sender	Receiver	Trigger
Shipment creation	SHPMNT	EWM	ERP	ALE Distribution model in EWM

As the shipment creation is communicated at the end of the warehouse execution with the goods issue posting, no shipment change, update or deletion is necessary.

It is important that in case of EWM as an add-on to ERP, you never use the own logical system as sending partner as it leads to errors. So, for the communication from EWM to ERP, the EDI communication is defined from `ABTCLNT001` to `ABTEWM001` even if this reverses the semantic for the logical systems. It does not matter for the communication as both logical systems point to the same port.

Prerequisites

The following prerequisites are met if you have integrated SAP ERP 6.0 including SAP enhancement package 3 or higher with SAP EWM 9.0. For more information, see Integration of SAP ERP with SAP EWM [External].

- You have defined an RFC destination in ERP for EWM. On the *SAP Easy Access* screen, choose *Tools* > *Administration* > *Administration* > *Network* > *RFC Destinations*.
  - If you use EWM on your own server, you have set up an RFC destination in ERP for EWM, for example, `EWMCLNT001`
  - If you use EWM as an add-on application to ERP, you have set up an RFC destination, for example, `ABTEWM001` as an internal connection called `NONE`.
- You have defined two logical systems. In Customizing for SAP NetWeaver, choose *Application Server* > *IDoc Interface / Application Link Enabling (ALE)* > *Basic Settings* > *Logical Systems* > *Define Logical System*:
  - ERP logical system, for example `ERPCLNT001` (or `ABTCLNT001` if EWM is installed on top of ERP), assigned as own logical system to the client
  - EWM logical system, for example `EWMCLNT001` (or `ABTEWM001` if EWM is installed on top of ERP), assigned to the RFC destination for EWM

Procedure

1. Create a port for EWM.

   On the *SAP Easy Access* screen, choose *Tools* > *ALE* > *ALE Administration* > *Runtime Settings* > *Port Maintenance*.

- If you use EWM on an own server, you set up a port in ERP for EWM that carries the RFC destination for EWM, for example, `EWMCLNT001`
- If you use EWM as an add-on application to ERP, you set up one port, called `V-NONE`, that carries the RFC destination `NONE`

Create the port as follows:

c. Position the cursor on *Transactional RFC* and choose *Create*.

d. Choose the option *Own Port Name*, enter a name for the port, for example `EWMCLNT001` (or `V-NONE` if you use EWM as an add-on application to ERP) and click *Continue*.

e. Enter a description and the RFC destination for EWM, for example EWMCLNT001 (or NONE if you use EWM as an add-on application to ERP)

f. Save your entries.

2. Create an ALE partner profile for EWM as follows if you use EWM on an own server.

a. On the *SAP Easy Access* screen, choose *Tools* > *ALE* > *ALE Administration* > *Runtime Settings* > *Partner Profiles*. Choose *Create*.

b. Enter the logical system for EWM as partner number, for example `EWMCLNT001` and partner type `LS`.

c. Enter a user type (for example `US` for user) and an agent (user name) to be notified in case of processing errors.

d. Save the partner profile.

e. Choose *Create outbound parameter* for sending IDoc `SHPMNT` to EWM via output determination for output type `ZEWM`.

f. Enter the following data on the *Outbound Options* tab:

Name	**Value**
Partner Role	LS
Message Type	SHPMNT
Message Code	-
Receiver Port	EWM Port, for example EWMCLNT001
Output Mode	Transfer IDoc Immediately
Basic Type	SHPMNT05
Package Size	1

g. Create an entry with the following data on the *Message Control* tab:

Name	**Value**
Application	V7
Message Type	ZEWM
Process Code	SD11

h. Choose *Create inbound* parameter for receiving IDoc `SHPMNT` from EWM.

i. Enter the following data on the *Inbound Options* tab:

Name	**Value**
Partner Role	-
Message Type	SHPMNT
Message Code	-
Process Code	SHPM

j. Choose *Create inbound parameter* for receiving IDoc `TPSSHT` from EWM.

k. Enter the following data on the *Inbound Options* tab:

Name	**Value**
Partner Role	-
Message Type	TPSSHT
Message Code	-
Process Code	SHIP

l. Save your entries.

3. Create an ALE partner profile for sending IDocs as follows if you use EWM as an add-on application to ERP

a. On the *SAP Easy Access* screen, choose *Tools* > *ALE* > *ALE Administration* > *Runtime Settings* > *Partner Profiles* and choose *Create*.

b. Enter the logical system for EWM as partner number, for example `ABTEWM001` and partner type `LS`.

c. Enter a user type (for example, `US` for User) and an agent (user name) to be notified in case of processing errors.

d. Save the partner profile.

e. Choose *Create outbound parameter* for sending IDoc `SHPMNT` to EWM via output determination for output type `ZEWM`.

f. Enter the following data on the *Outbound Options* tab:

Name	**Value**
Partner Role	LS
Message Type	SHPMNT
Message Code	ERP
Receiver Port	V-NONE
Output Mode	Transfer IDoc Immediately
Basic Type	SHPMNT05

Package Size	1

g. Create an entry with the following data on *Message Control* tab:

Name	**Value**
Application	V7
Message Type	ZEWM
Process Code	SD11

h. Choose *Create outbound parameter* for sending IDoc `SHPMNT` to ERP.

i. Enter the following data on the *Outbound Options* tab:

Name	**Value**
Partner Role	-
Message Type	SHPMNT
Message Code	-
Receiver Port	V-NONE
Output Mode	Transfer IDoc Immediately
Basic Type	SHPMNT05
Package Size	1

j. Choose *Create outbound parameter* for sending IDoc `TPSSHT` to ERP.

k. Enter the following data on the *Outbound Options* tab:

Name	**Value**
Partner Role	-
Message Type	SHIPPL
Message Code	-
Receiver Port	V-NONE
Output Mode	Transfer IDoc Immediately
Basic Type	TPSSHT01
Package Size	1

4. Create an ALE partner profile for receiving IDocs as follows if you use EWM as an add-on application to ERP.

   a. On the *SAP Easy Access* screen choose *Tools* ▸ *ALE* ▸ *ALE Administration* ▸ *Runtime Settings* ▸ *Partner Profiles* and choose *Create*.

   b. Enter the own logical system as partner number, for example `ABTCLNT001` and partner type `LS`.

c. Enter a user type (for example `US` for User) and an agent (user name) to be notified in case of processing errors.

d. Save the partner profile.

e. Choose *Create inbound parameter* for receiving IDoc `SHPMNT` from ERP.

f. Enter the following data on the *Inbound Options* tab:

Name	**Value**
Partner Role	-
Message Type	SHPMNT
Message Code	ERP
Process Code	/SCWM/SHPM

g. Choose *Create inbound parameter* for receiving IDoc `SHPMNT` from EWM.

h. Enter the following data on the *Inbound Options* tab:

Name	**Value**
Partner Role	-
Message Type	SHPMNT
Message Code	-
Process Code	SHPM

i. Choose *Create inbound parameter* for receiving IDoc `TPSSHT` from EWM.

j. Enter the following data on the *Inbound Options* tab:

Name	**Value**
Partner Role	-
Message Type	TPSSHT
Message Code	-
Process Code	SHIP

k. Save your entries.

1.3.9 Scheduling Report for Reprocessing Failed IDocs (ERP)

In theTM-ERP-EWM integration processes, outbound deliveries are communicated from EWM to ERP via qRFC communication, shipments via IDoc. In case qRFC messages from EWM to ERP fail due to locking issues, the processing of the inbound queue will be restarted automatically again up to 25 times. For more information, seeIntegration of SAP ERP with SAP EWM [External].

In case shipment IDocs fail because the delivery qRFC messages have not yet been processed, you can schedule report `RBDMANI2` to restart the IDocs automatically.

Procedure

Schedule report RBDMANI2 to reprocess failed IDocs: schedule with current date so that older erroneous IDocs are not always selected again.

Carry out the following steps in the ERP client in which you create shipments.

1. Create a variant for program `RBDMANI2`.
    1. On the *SAP Easy Access* screen, choose *System* > *Services* > *Reporting* > .
    2. Enter program `RBDMANI2` and choose *Execute*.
    3. Enter the message type `SHPMNT`, message class `VII` and message number `007`. If you cannot find the message number in the value help, check for implementation of SAP Note 1665773 in the system.
    4. Save as a variant, for example, `VSHPMNT`.
    5. On the *Variant attributes* screen, choose for field name *Created On* the selection variable *D* and choose the variable name below:

Field	Value
I/EI	I
Option	EQ
Variable Name	Current Date

2. Define a background job for program `RBDMANI2`. In this example, the job runs every three minutes.
    1. On the *SAP Easy Access* screen, choose *System* > *Services* > *Jobs* > *Define Job* > .
    2. Enter the name of the job, for example, `EWMSHPMNT`.
    3. Create step number 1 by choosing *Step*.
    4. In the ABAP program screen area, enter program `RBDMANI2` and variant `VSHPMNT`.
    5. Save your entries.
3. The *Step List Overview* screen appears.
4. Go back and choose *Start Condition*.

    The *Start Time* screen appears.
5. Choose *Date/Time* and enter the scheduled start date and time.
6. Select the *Periodic job* checkbox and choose *Period values*.

The *Period Values* screen appears.

7. Select *Other Period*, enter `3` minutes and save your entries.
8. On the *Period Values* screen, save your entries.
9. On the *Start Time* screen, save your entries.
10. On the *Define Background Job* screen, save your entries.

2 Configuration Settings in SAP EWM

Activities

1. Defining Settings for the TM Logical System and Business System [Page 36]
2. Activating BC Sets (EWM) [Page 37]
3. Transportation (EWM) [Page 37]
4. Outbound Delivery Order Creation (EWM) [Page 44]
5. Warehouse Activities (EWM) [Page 55]

2.1 Defining Settings for the TM Logical System and Business System (EWM)

A TU replicated as freight order in a TM system should only contain deliveries replicated as delivery-based transportation requirements in the same TM system. For this purpose, the TU must be assigned to a TM system. Therefore the TM system must be defined as logical system and business system in EWM.

This does not mean that EWM communicates with TM. EWM only uses the TM system for checking that a TU and its deliveries are consistent (all replicated in the same TM system). Therefore there is no need to define an RFC destination between EWM and TM.

If EWM and TM are installed on the same system and use the same client, no action is necessary here.

If you use the System Landscape Directory to create your SAP systems, no action is necessary here as the logical systems and business systems are already transferred from the SLD to all systems.

This setting is required for all TM-ERP-EWM integration processes.

This is a cross-client setting.

Procedure

Carry out the first step of the procedure in your EWM customizing client allowing cross-client settings and transport if necessary the settings to other EWM systems. Carry out the second step in all EWM systems (in a client allowing cross-client settings) in which you want to use the process.

1. Define a logical system for each TM client (for example, `TMCLNT001`).

   In Customizing for SAP EWM, choose *SCM Basis* > *Integration* > *Basic Settings for Creating the System Landscape* > *Name Logical Systems*.

2. Save your entries, which are cross-client.

3. Define a business system for each TM client (for example, `TMCLNT001`).

   In Customizing, choose *Extended Warehouse Management* > *Interfaces* > *ERP Integration* > *General Settings* > *Define Own Business System* and on the overview screen, enter the required data to assign the logical system as defined above to the business system.

4. Save your entries.

2.2 Activating BC Sets (EWM)

Prerequisites

You have defined the ERP version control for your ERP business system in Customizing for SAP EWM under *Interfaces* > *ERP Integration* > *General Settings* > *Set Control Parameters for ERP Version Control*. This is done automatically if you have used the implementation tool for warehouse integration. See Creating and Integrating a Warehouse in EWM [External].

Procedure

1. Start transaction `SCPR20`

2. Activate the following BC sets:

BC Set	Description	Entry
/SCWM/DLV_OUTBOUND_TM	Outbound Delivery with Transport Integration	None
/SCWM/TMERPINT_CL	TM-ERP-EWM Integration - Client Settings	ERP Business System
/SCWM/TMERPINT_WH	TM-ERP-EWM Integration - Warehouse Settings	EWM Warehouse Number

2.3 Transportation (EWM)

Activities

- Checking External Numbering for ERP Shipment (EWM) [Page 44]

2.3.1 Checking Packaging Material Type (EWM)

You use this procedure to check if the packaging material type `MTR2` used in packaging material `MTR` exists. You use the packaging material `MTR` for the creation of a TU and vehicle in EWM.

Procedure

1. In Customizing for SAP EWM, choose *Extended Warehouse Management* > *Cross-Process Settings* > *Handling Units* > *Basics* > *Define Packaging Material Types*.
2. Check the packaging material type against the data in the table below.

Packaging Material Type	Description	Packaging Material Category	Control for Handling Units About to Become Empty	Type of External Handling Unit Number Assignment
MTR2	Transportation Unit	A (Means of Transport)	-	-

2.3.2 Configuring Means of Transport and Packaging Material (EWM)

You use this procedure to configure the use of transportation units (TUs) in EWM. For a shipment created in ERP, EWM will create one transportation unit with means of transport MTR2. For a transportation unit created manually in EWM, you use means of transport MTR3. Two separate means of transport are necessary to distinguish between the behaviors in the following. For more information, see Checking Default Values for IDoc Outbound (EWM) [Page 43].

- In case of transportation planning in SAP TM, the shipment end status in ERP remains open with the GI posting.
- In case of EWM-based transportation planning, the shipment end status in ERP is set to completed with the GI posting.

This setting is required for all TM-ERP-EWM integration processes.

Procedure

1. In Customizing for SAP EWM, choose *SCM Basis* > *Master Data* > *Transportation Lane* > *Maintain Means of Transport*.

   Check for the means of transport against the data as in the table below.

Means of Transport	Description	Standard Code	Average Speed	Average Working Time	Transportation Mode	Mode of Transport Category
MTR2	Truck	031	60.000	24:00	ROAD	1

MTR3	Truck (Planning in EWM)	031	60.000	24:00	ROAD	1

2. In Customizing for SAP EWM, choose *Cross-Process Settings* > *Shipping and Receiving* > *General Settings* > *Define Control Parameters for Forming Vehicles/Transportation Units*.

   Check for the data as in the table below.

Means of Transport	Vehicle/TU	No. Range No.	Action Profile	Status Profile	Default Owner	Max. No. of Seals
MTR2	TU (Transportation Unit)	01	/SCWM/TU	-	-	-
MTR2	VEH (Vehicle)	01	/SCWM/VEH	-	-	-
MTR3	TU (Transportation Unit)	01	/SCWM/TU	-	-	-
MTR3	VEH (Vehicle)	01	/SCWM/VEH	-	-	-

3. On the SAP Easy Access screen, choose *Extended Warehouse Management* > *Settings* > *Shipping and Receiving* > *Link Between Packaging Material (TU) and Means of Transport*.

   Check for the data as in the table below. Create the data if it does not exist.

MTr (Means of Transport)	Pack.Material (Packaging Material)	Optional	Seq.PMs (Sequence of Mandatory Packaging Materials)	No. PMs in MTr (Number of Mandatory Packaging Materials)	Cont. PM (Packaging Material has Character of a Container)
MTR2	MTR	X	-	-	X
MTR3	MTR	X	-	-	X

2.3.3 Configuring Action Profiles for TU and Vehicle (EWM)

You use this procedure to activate the action definitions of TU and Vehicle for sending messages to SAP ERP.

This setting is required for all TM-ERP-EWM integration processes.

Procedure

1. In Customizing for SAP EWM, choose *Cross-Process Settings* > *Shipping and Receiving* > *Message Processing* > *Define Action Profiles for Vehicles*.

2. Select the Action Profile /SCWM/TU and choose action definition in the dialog structure and switch to change mode.

3. Activate the following entries and save:

Action Definition	Inactive
/SCWM/SR_SEND_SHIPPL	-
/SCWM/SR_SEND_SHPMNT	-

4. Select the Action Profile `/SCWM/VEH`, choose *action definition*and toggle to change mode.

5. Activate the following entries and save:

Action Definition	Inactive
/SCWM/SR_SEND_SHIPPL_VEH	-

2.3.4 Configuring EDI Communication with ERP (EWM)

You use this procedure to configure the shipment-related communication with ERP in EWM.

Prerequisites

The following prerequisites are met if you have integrated SAP ERP 6.0 including SAP enhancement package 3 or higher with SAP EWM 9.0. For more information, see Integration of SAP ERP with SAP EWM [External].

If you use EWM on an own server, you have already made the following settings with the integration of SAP ERP with SAP EWM:

- You have defined an RFC destination, for example, `ERPCLNT001`, in ERP for EWM on the *SAP Easy Access* screen under *Tools* ▸ *Administration* ▸ *Administration* ▸ *Network* ▸ *RFC Destinations*.
- You have defined two logical systems in Customizing for *SAP NetWeaver* under *Application Server* ▸ *IDoc Interface / Application Link Enabling (ALE)* ▸ *Basic Settings* ▸ *Logical Systems* ▸ *Define Logical System*, as follows:
    - An EWM logical system, for example, `EWMCLNT001`, assigned as own logical system to the client
    - An ERP logical system, for example, `ERPCLNT001`, assigned to the RFC destination for ERP

If you use EWM as an add-on application for ERP, the prerequisites are the same as described in the section, Configuring EDI Communication with EWM (ERP). [Page 29]

Procedure

1. Create a distribution model in Customizing for *SAP NetWeaver* under *IDoc Interface / Application Link Enabling (ALE)* ▸ *Modelling and Implementing Business Processes* ▸ *Master Data Distribution* ▸ *Serialization for Sending and Receiving Data* ▸ *Serialization Using Message Types* ▸ *Maintain Distribution Model*.

- If you use EWM as an add-on application for ERP, you set up an ALE distribution model to trigger the sending of the IDoc from EWM to ERP. The model view needs to be created for distribution of message type `SHPMNT` and `SHIPPL` from your own logical system (for example `ABTCLNT001`) to the EWM logical system (for example `ABTEWM001`).

  

  It is important that in case of EWM as Add-On to ERP, you never use the own logical system as sending partner as it leads to errors. So, for the communication from EWM to ERP, the EDI communication is defined from `ABTCLNT001` -> `ABTEWM001` even if this reverses the semantic for the logical systems. It does not matter, for the communication as both logical systems points to the same port.

- If you use EWM on an own server, you set up an ALE distribution model in EWM to trigger the sending of the IDoc from EWM to ERP. The model view needs to be created for distribution of message type `SHPMNT` and `SHIPPL` from the logical system for EWM (for example `EWMCLNT001`) to the logical system for ERP (for example `ERPCLNT001`).

Create the distribution model as follows:

3. Switch to change mode.
4. Choose *Create Model View*, enter a short text and a technical (for example `EWM2ERP`) and press `Continue`.
5. Position the cursor on model view `EWM2ERP`, choose *Add Message Type* and enter the following data:

Sender	**Own logical system, for example EWMCLNT001 (or ABTCLNT001 if EWM is installed as Add-On to ERP)**
Receiver	ERP logical system, for example ERPCLNT001 (or ABTEWM001 if EWM is installed as Add-On to ERP)
Message Type	SHPMNT

6. Repeat step 3 for message type `SHIPPL`
7. Save your entries.

2. Create a port for ERP on the *SAP Easy Access* screen under *Tools* > *ALE* > *ALE Administration* > *Runtime Settings* > *Port Maintenance*.

   - If you use EWM on an own server, you set up a port in EWM for ERP that carries the RFC destination for ERP, such as, `ERPCLNT001`.
   - If you use EWM as an add-on application for ERP, you have already defined this setting described in section, Configuring EDI Communication with EWM (ERP) [Page 29].

   If you use EWM on an own server, create the port as follows:

   b. Position the cursor on *Transactional RFC* and choose *Create*.
   c. Choose the option *Own Port Name*, enter a name for the port, for example `ERPCLNT001` and press *Continue*.

d. Enter a description and the RFC destination for EWM, for example, `ERPCLNT001`.

e. Save your entries.

3. Create an ALE partner profile for ERP as follows if you use EWM on an own server. If you use EWM as an add-on application for ERP, you have already defined this setting described in section Configuring EDI Communication with EWM (ERP) [Page 29].

   a. On the *SAP Easy Access* screen under, *Tools* > *ALE* > *ALE Administration* > *Runtime Settings* > *Partner Profiles*.

   b. Choose *Create*.

   c. Enter the logical system for ERP as partner number, for example, `ERPCLNT001` and partner type *LS*.

   d. Enter a user type (for example `US` for User) and an agent (user name) to be notified in case of processing errors.

   e. Save the partner profile.

   f. Choose *Create outbound parameter* for sending IDoc `SHPMNT` to ERP via ALE distribution model.

   g. Enter the following data on the *Outbound Options* tab:

Field Name	**Value**
Partner Role	-
Message Type	`SHPMNT`
Message Code	-
Receiver Port	ERP Port, for example `ERPCLNT001`
Output Mode	Transfer IDoc Immediately
Basic Type	`SHPMNT06`
Package Size	1

   h. Choose *Create outbound parameter* for sending IDoc `TPSSHT` to ERP via ALE distribution model.

   i. Enter the following data on the *Outbound Options* tab:

Field Name	**Value**
Partner Role	-
Message Type	`SHIPPL`
Message Code	-
Receiver Port	ERP Port, for example, `ERPCLNT001`
Output Mode	Transfer IDoc Immediately
Basic Type	`TPSSHT01`

Package Size	1

j. Choose *Create inbound parameter* for receiving IDoc `SHPMNT` from ERP.

k. Enter the following data on the *Inbound Options* tab:

Field Name	Value
Partner Role	-
Message Type	`SHPMNT`
Message Code	-
Process Code	`/SCWM/SHPM`

l. Save your entries.

2.3.5 Checking Default Values for IDoc Outbound (EWM)

You can use this procedure to define default values sent with shipment IDocs from EWM to ERP.

This setting is required for all TM-ERP-EWM integration processes.

Prerequisites

For more information about the prerequisites for IDoc processing, see the documentation in Customizing for SAP EWM under *Interfaces* > *ERP Integration* > *Transportation* > *Define Default Values for IDoc Outbound*.

Procedure

1. In Customizing for SAP EWM, choose *Interfaces* > *ERP Integration* > *Transportation* > *Define Default Values for IDoc Outbound*.

2. Check the following entries:

Business System	Message Type	Means of Transport	Shipment Type	TPPt	Keep Shipment Open
ERP_001	SHIPPL	-	ZWM1	ZDEL	-
ERP_001	SHPMNT	-	ZWM1	0001	X
ERP_001	SHPMNT	MTR3	ZWM1	0001	-

2.3.6 Checking External Numbering for TU/Vehicle (EWM)

You use this procedure to copy the ERP shipment number to the external TU number or external vehicle number in EWM when receiving a shipment IDoc from ERP.

Procedure

1. Activate mapping of shipment number to external vehicle and TU number.

   In Customizing for SAP EWM, choose *Interfaces* > *ERP Integration* > *Transportation* > *Map Shipment Number and TU Number*.

2. Select the *Map Shpmnt* (Map Shipment) checkbox and save.

   For more information, see the field help.

2.3.7 Checking External Numbering for ERP Shipment (EWM)

You use this procedure to copy the external TU number or external vehicle number to the ERP shipment number when sending a shipment IDoc from ERP.

Procedure

1. Activate mapping of TU number or external vehicle to shipment number.

   In Customizing for SAP EWM, choose *Interfaces* > *ERP Integration* > *Transportation* > *Map Shipment Number and TU Number*.

2. Select the *Map TU No.* (Map Transportation Unit Number) checkbox and save.

   For more information, see the field help.

2.4 Outbound Delivery Order Creation (EWM)

Activities

2.4.1 Checking Document Types and Item Types

(EWM)

You can use this procedure to check the configuration of the document types and item types for the TM-ERP-EWM integration processes. The TM-ERP-EWM integration processes use two document types:

Process	Delivery Type in EWM
Order-Based Transportation Planning in TM	OTM
Delivery-Based Transportation Planning in TM	OTM
Transportation Planning in EWM	OUTB

The major difference between `OUTB` and `OTM` is the blocked status for transportation planning. When you create an outbound delivery order with document type `OTM`, it is blocked for warehouse execution until it is assigned to a TU/vehicle.

If you want to start the warehouse execution before an outbound delivery order is assigned to a TU/vehicle, you have two options:

- Deactivate the blocked status for transportation planning for delivery type `OTM` in case you never want to use it. This is described in this chapter.
- Allow a manual release of the blocked status for transportation planning in exceptional cases. See Checking Transportation Planning Types (EWM) [Page 52].

Procedure

Check for entries in following tables.

1. In Customizing for SAP EWM, choose *Extended Warehouse Management* > *Goods Issue Process* > *Outbound Delivery* > *Manual Settings* > *Define Document Types for Outbound Delivery Process*.

Document Type	Document Category	Document Category Description	Document Type Description	Status Profile
OTM	FDO	Outbound Delivery	Outbound Delivery Transport Integration	`/SCDL/OUT_FD_STANDARD`
OTM	ODR	Outbound Delivery Request	Outbound Del.Req. Transport Integration	`/SCDL/OUT_REQ_STANDARD`
OTM	PDO	Outbound Delivery Order	Outbound Del.Order Transport Integration	`/SCWM/OUT_PRD_TRANSP_INT`

2. In Customizing for SAP EWM, choose *Extended Warehouse Management* > *Goods Issue Process* > *Outbound Delivery* > *Manual Settings* > *Define Item Types for Outbound Delivery Process*.

Item Type	Document Category	Item Category	Description	Status Profile
ODTM	FDO	DLV	Standard Item - Transport Integration	/SCDL/OUT_FD_DLV_STANDARD
ODTM	ODR	DLV	Standard Item - Transport Integration	/SCDL/OUT_REQ_DLV_STANDARD
ODTM	PDO	DLV	Standard Item - Transport Integration	/SCWM/OUT_PRD_DLV_TRANSP_INT
OTXT	FDO	TXT	Text Item Outbound Delivery	
OTXT	ODR	TXT	Text Item Outbound Delivery	
OTXT	PDO	TXT	Text Item Outbound Delivery	

3. in Customizing for SAP EWM, choose *Extended Warehouse Management* > *Goods Issue Process* > *Outbound Delivery* > *Define Allowed Item Types in Outbound Delivery Process*.

Document Type	Item Type
OTM	ODTM
OTM	OTXT

4. Check the status profiles as follows:

    1. In Customizing for SAP EWM, choose *Extended Warehouse Management* > *Cross-Process Settings* > *Delivery Processing* > *Status Management* > *Define Status Profiles*.

    2. Select the status profile assigned to the document type, for example, /SCWM/OUT_PRD_TRANSP_INT.

    3. In the dialogue structure, choose Status Types.

    4. Check the following entries:

Status Type	Short Text	Inactive
DBT	Blocked (Transp. Plan)	-
DCO	Completion	-
DER	Planned Picking	-

DLO	Loading	-
DPC	Packing	-
DPI	Picking	-
DTU	Assign Transportation Unit	-
DWA	Warehouse Act.	-

5. If you do not want to use the blocked status for transportation planning, set the Inactive flag for status type `DBT`.

6. Repeat steps 2-4 for the status profile assigned to the item type, for example, /`SCWM/OUT_PRD_DLV_TRANSP_INT`.

In addition to the status types already used in document type `OUTB` and item type `ODLV`, the document type `OTM` and item type `ODTM` contain status type `DBT`, which is used to block a delivery until it is assigned to a TU. This means that for TM-based transportation planning, the picking can only begin after EWM has received the shipment IDoc from ERP. You can set this status type to inactive if you do not want this delivery block.

2.4.2 Checking Determination of Document Types and Item Types (EWM)

You can use this procedure to check how the system determines the document types and item types for outbound delivery order creation. To separate the outbound business processes, the outbound delivery orders for this business process are to be created with a special document type in SAP ERP. For the outbound delivery request creation and the outbound delivery order creation in SAP Extended Warehouse Management (EWM), the document type used in the ERP system (for example, `LF`) must be mapped to the relevant EWM document type. The same applies to the item types.

Procedure

Check entries.

1. In Customizing for SAP EWM, choose *Extended Warehouse Management* > *Interfaces* > *ERP Integration* > *Delivery Processing* > *Map Document Types from ERP System to EWM* and check for the data in the table below.

Document Type from ERP	Mapping Delivery Type – Document Type
ZLF	OTM

 If you use another delivery type than `ZLF`, create the entries for your ERP delivery type.

2. In Customizing for SAP EWM, choose *Extended Warehouse Management* > *Interfaces* > *ERP Integration* > *Delivery Processing* > *Map Item Types from ERP System to EWM* and check for the data in the table below.

Document Type from ERP	Item Type from ERP	Document Type	Mapping of ERP Item Type
ZLF	TAN		ODTM
ZLF	TATX		OTXT

 If you use another delivery type than `ZLF` or different item types, create the entries for your ERP delivery type and item types accordingly.

Result

You have checked the determination of the document type and item types in EWM during outbound delivery order creation. You create an outbound delivery with document type `ZLF` and item type `TAN` in SAP ERP. The outbound delivery order is created with document type `OTM` and item type `ODTM` in EWM.

2.4.3 Checking Determination of Date Types (EWM)

You can use this procedure to check the configuration of the relevant date types for outbound delivery requests and outbound delivery orders and the configuration of the delivery date mapping from SAP ERP to SAP Extended Warehouse Management (EWM).

Procedure

Check entries.

1. In Customizing for SAP EWM, choose *Extended Warehouse Management* > *Goods Issue Process* > *Outbound Delivery* > *Manual Settings* > *Define Document Types for Outbound Delivery Process* and check for the data in the table below.

Document Type	Document Category	Date Profile
OTM	FDO	/SCWM/OUT_FD
OTM	ODR	/SCWM/OUT_REQ
OTM	PDO	/SCWM/OUT_PRD

2. In Customizing, choose *Extended Warehouse Management* > *Goods Issue Process* > *Outbound Delivery* > *Manual Settings* > *Define Item Types for Outbound Delivery Process* and check for the data in the table below.

Item Type	Document Category	Item Category	Date Profile
ODTM	FDO	DLV	-
ODTM	ODR	DLV	/SCWM/OUT_REQ_DLV
ODTM	PDO	DLV	/SCWM/OUT_PRD_DLV
OTXT	FDO	TXT	-
OTXT	ODR	TXT	-

OTXT	PDO	TXT	-

For the item types `OTXT` (Text Item Outbound Delivery), no date profile is required as these items are not relevant for warehouse activities and are only for information purposes.

The date profile for the outbound delivery item type is not set as during delivery processing, the system makes use of the profile for outbound delivery orders instead. It makes sense only for some profiles to define them on outbound delivery item type level. This is, for example, the case for the field control profile.

3. For date profiles:

    1. In Customizing, choose *Extended Warehouse Management* > *Cross-Process Settings* > *Delivery Processing* > *Dates/Times* > *Define Date Profiles*.

    2. Select a date profile, for example, `/SCWM/OUT_REQ`.

    3. Choose Date/Time Types in the dialog structure.

    4. Check for the data in the table below.

Date/Time Type	Inactive
ETRANSPORT	-
ETRANSPORTPL	-
TCDLOCGI	X
TDELIVERY	-
TDELIVERYF	X
TOUTYARD	-

    5. Repeat the steps 2-4 for each date profile indicated in step 1, for example, for date profile `/SCWM/OUT_FD`.

4. In Customizing, choose *Extended Warehouse Management* > *Interfaces* > *ERP Integration* > *Delivery Processing* > *Map Date Types from ERP System to EWM* check for the data in the table below.

Date/Time Type from ERP	Document Type	Item Type	Start Date	End Date	Conf.D/T
WSHDRKODAT	OTM	ODTM	SPICK	EPICK	E
WSHDRLDDAT	OTM	ODTM	SLOAD	ELOAD	E
WSHDRLFDAT	OTM			TDELIVERY	-
WSHDRWADAT	OTM	ODTM	SGOODSISSUE	EGOODSISSUE	-
WSHDRWADTI	OTM	ODTM		EGOODSISSUE	E

2.4.4 Configuring Determination of Warehouse

Process Types (EWM)

You use this procedure to change the warehouse process type determined by the system when outbound delivery orders are created.

With the implementation of the pre-configured processes in warehouse `W001`, you have assigned warehouse process type `P211` for picking, packing, staging and loading to the delivery types. Instead of process type `P211`, the BC sets for the TM-ERP-EWM integration processes use the alternative process type `P212` without packing station in order to reduce the number of process steps. For more information, see Configuring Process Type P212 (EWM) [Page 55].

Procedure

Check entries.

1. In Customizing for SAP EWM, choose *Extended Warehouse Management* > *Cross-Process Settings* > *Warehouse Task* > *Define Warehouse Process Type* and check for the data in the table below.

Warehouse	Warehouse Process Type	Description
W001	P212	Pick and Move to Staging Area

2. In Customizing for *Extended Warehouse Management* choose *Cross-Process Settings* > *Warehouse Task* > *Determine Warehouse Process Type* and check for the data in the table below.

Warehouse	Document Type	Item Type	Delivery Priority	Process Type Determination	Process Indicator	Warehouse Process Type
W001	OTM	-	-	-	- (No Special Process)	P212
W001	OUTB	-	-	-	- (No Special Process)	P212

Result

You can create an outbound delivery order with one of the document types that were defined for integration scenarios (`OTM` and `OUTB`). The warehouse process type `P212` is determined for the outbound delivery order items.

2.4.5 Creating Routes (EWM)

You use this procedure to create routes used in the EWM-based transportation planning process for the transport of goods from the warehouse `W001` to customer `CUST003` using means of transport *MTR3*. No transportation lane is needed as the process uses the geo-coordinates of the location master data to determine the transit time to the customer.

Procedure

1. On the *SAP Easy Access* screen for *Extended Warehouse Management*, choose *Master Data* > *Shipping and Receiving* > *Route Determination* > *Maintain Route* and choose the *Leg* tab page.
2. Copy route *W0001_CU003* to *W001_CW003* and enter a description, for example, route `W001_CW003` for the new route.
3. On the *Leg* tab page, change the means of transport from `MTR2` to `MTR3`.
4. On the *Carrier* tab page, create the following entry:

Means of Transport	Carrier
MTR3	CARR001

5. On the *Carrier* tab page, delete the existing entry for means of transport `MTR2`
6. Save your entries.

2.4.6 Checking Determination of Routes (EWM)

You can use this procedure to check the route determination in EWM.

In case of transportation planning in TM, there is no need for a route determination in EWM. As a consequence, delivery type *OTM* has no route determination. In case of transportation planning in EWM, you use the route determination in EWM as described in the pre-configured process, Outbound Process Using Wave, Pick-HU, Packing, Staging, and Load [External].

Procedure

Check if route determination is inactive for document type *OTM*.

1. In Customizing for SAP EWM, choose *Extended Warehouse Management* > *Goods Issue Process* > *Outbound Delivery* > *Route Determination* > *Activate or Deactivate Route Determination*.
2. Check for the entry from the table below.

Warehouse No.	Document Type	Doc. Category	RD/RC Status	RD Sequence	RD ERP
W001	OTM	PDO	3 Route Determination Inactive	Standard Logic	No Determination If Route Origin Is in ERP (SD)

2.4.7 Checking Additional Shipping Conditions (EWM)

You use this procedure to configure shipping conditions in SAP EWM. When the system transfers an outbound delivery from ERP to EWM, it checks that the shipping conditions also exist in EWM customizing.

The entries must be identical to those described in Configuring Additional Shipping Conditions for Customers (ERP) [Page 17].

Prerequisites

You have activated BC set `/SCWM/TMERPINT_CL`. See Activating BC Sets in SAP EWM [Page 37].

Procedure

Check entries.

1. In Customizing for SAP EWM, choose *Extended Warehouse Management* > *Cross-Process Settings* > *Delivery Processing* > *General Settings* > *Define Shipping Conditions*.

2. Check for the following entries in the table below.

Ship.Cond. (Shipping Condition)	Description
T1	Order-Based TP
T2	Delivery-Based TP
W1	EWM-Based TP
W2	No Transportation Planning

2.4.8 Checking Transportation Planning Types (EWM)

You use this procedure to configure the determination of the transportation planning type (`TPT`) of outbound deliveries in SAP EWM. In addition you define if blocked deliveries of a certain transportation planning type can be released manually for EWM execution before the results of the transportation planning are available. The transportation planning type in outbound deliveries and in TU/vehicles prevents the assignment of an outbound delivery to a TU/vehicle created by another transportation planning process. In case of transportation planning in SAP ERP or SAP TM, the transport planning type in the TU/vehicle and in the outbound deliveries is set automatically to one of the following values:

TPT	Description
A	Obligatory External Planning in SAP ERP
C	Obligatory External Planning in SAP TM

In case of transportation planning in EWM, you use the following transportation planning types:

TPT	Description
B	Obligatory Internal Planning in EWM

D	Obligatory Planning in EWM with Billing in TM

In case of transportation planning in EWM, the system determines the transportation planning type in the outbound deliveries and in the TUs/vehicles as follows:

- When you replicate an outbound delivery from ERP or create an outbound delivery manually in EWM, the system determines the transportation planning type of the outbound delivery based on EWM customizing (see procedure described below).
- When you create a TU/vehicle manually in EWM, it has no transportation planning type yet.
- When you assign the first delivery item to a TU/vehicle without transportation planning type, the systems automatically copies the transportation planning type of the outbound delivery to the TU/vehicle. From now on you can only assign outbound deliveries with a compatible transportation planning type to the TU/vehicle.

Procedure

Check entries.

1. In Customizing for SAP EWM, choose *Extended Warehouse Management* > *Goods Issue Process* > *Outbound Delivery* > *Integration with Transportation* > *Define Transportation Planning Type (Outbound)* and enter the following data:

Field	Value
Warehouse Number	W001
Doc. Cat.	PDO
Doc. Type.	OUTB
Shipping Condition	W1
TranPlngTy	*D Obligatory Planning in EWM with Billing in TM*

2. This entry is relevant for the EWM-based planning with freight cost settlement in TM only.
3. In Customizing for SAP EWM, choose *Extended Warehouse Management* > *Goods Issue Process* > *Outbound Delivery* > *Integration with Transportation* > *Allow EWM Execution Without Transportation Planning (Outbound)*.
4. Check for the following entry:

Warehouse Number	Doc. Cat. (Document Category)	Doc. Type (Document Type)	Business System	TranPlngTy (Transportation Planning Type)	Release
W001	PDO	OTM		*C Obligatory External Planning in TM*	X

2.4.9 Configuring Printing of Delivery Notes (EWM)

You use this procedure to configure the printing of delivery notes for the outbound document type `OTM` used in EWM in case of transportation planning in TM. You configure the system to create one delivery note printout upon goods issue posting at the printer located in the shipping office.

With the configuration of the Outbound Process Using Wave, Pick-HU, Packing, Staging, and Loading in warehouse `W001` you have already configured the following printing:

- Printing of handling unit labels
- Printing of delivery notes for document type `OUTB` (used in case of transportation planning in EWM)
- Printing of road waybills

This section describes only the additional settings needed for document type `OTM`.

Procedure

1. In Customizing for SAP EWM, choose *Extended Warehouse Management* > *Goods Issue Process* > *Outbound Delivery* > *Manual Settings* > *Define Document Types for Outbound Delivery Process* and check for the following entry:

Document Type	Document Type	Action Profile
OTM	FDO	/SCWM/FDO_01

2. With the configuration of the Outbound Process Using Wave, Pick-HU, Packing, Staging, and Loading in warehouse `W001` you have already checked the settings for the action profile `/SCWM/FDO_01`.
3. Check the assignment of determination procedure to the action definition.
4. In Customizing for SAP EWM, choose *Extended Warehouse Management* > *Cross-Process Settings* > *Delivery Processing* > *Actions* > *Configure Action Scheduling* > *Assign Determination Procedure*.
5. On the selection screen, choose *Determination Procedure for PPF Action Config.* and check the following entry:

Action Definition	Document Category	Document Type	Determination Procedure Delivery
/SCWM/FDO_01_PRINT	FDO	OTM	ODDNP

6. On the SAP Easy Access screen for SAP EWM, choose *Extended Warehouse Management* > *Delivery Processing* > *Actions* > *Maintain Condition Records for PPF Schedule Conditions*.
7. On the selection screen, enter application `DPP`, maintenance group `DLVP`, and choose *Execute (F8)*.
8. Create the following entries:

Condition Type	Action Definition	Document Type	Goods Movement Status	Change Mode	Ship-To Party	Warehouse

			Changes			
0DDN	/SCWM/FDO_01_PRINT	OTM	NSFI	I	CUST001	W001
0DDN	/SCWM/FDO_01_PRINT	OTM	NSFI	I	CUST002	W001

2.5 Warehouse Activities (EWM)

Activities

- Configuring Process Type P212 (EWM) [Page 55]
- Configuring Determination of Staging Areas and Doors (EWM) [Page 55]
- Configuring Automatic Creation and Release of Waves (EWM) [Page 56].
- Configuring Consolidation Groups [Page 58]

2.5.1 Configuring Process Type P212 (EWM)

Procedure

For more information about the following steps, see Configuring Alternative Process without Packing Station [External] described in Outbound Process Using Wave, Pick-HU, Packing, Staging, and Load [External].

1. Check entries for:
    1. Process type
    2. Determination of source bins for picking
    3. Definition of process-oriented storage control
    4. Warehouse order creation rules
    5. Queue definition.
    6. Queue determination criteria
    7. Warehouse-specific verification determination
2. Configure the queue sequence for the resource group.
3. Configure the determination of the warehouse process type.
4. Configure the determination of staging areas and doors.
5. Configure the condition records for printing HU labels

2.5.2 Configuring Determination of Staging Areas and Doors (EWM)

This configuration setting is necessary for the determination of the staging area and of the door in the outbound delivery order without route determination in EWM.

Procedure

1. On the *SAP Easy Access* screen for SAP EWM, choose *Extended Warehouse Management* > *Settings* > *Shipping and Receiving* > *Staging Area and Door Determination (Outbound)*.

   This setting is necessary for the determination of the staging area and of the door in the outbound delivery order without route determination in EWM.

2. Create the following entry:

Warehouse	Route	Warehouse Process Type	Staging Area Group	Staging Area	Staging Bay	Warehouse Door
W001	-	P212	T920	S001	STAGE-O02	DO02

3. Save.

2.5.3 Configuring Automatic Creation and Release of Waves (EWM)

You use this procedure to configure the automatic creation and release of waves. If a valid wave already exists, no new wave is created but instead the outbound delivery order items are assigned to the existing wave. For the automatic release of the wave, a background job is automatically scheduled during the creation of the wave to start at the release time defined in the wave template of the wave.

For wave templates using the release method *A* (Automatic), SAP Extended Warehouse Management (EWM) creates a job that automatically releases waves on the release date and time set up in the wave template.

Procedure

1. Check entries.

   1. In Customizing for SAP EWM, choose *Extended Warehouse Management* > *Goods Issue Process* > *Wave Management* > *General Settings* > *Set Automatic Wave Generation for Warehouse Process Type* and check the following entry:

Warehouse	Warehouse Process Type	Automatic Wave Creation
W001	P212	X

   2. In Customizing, choose *Extended Warehouse Management* > *Goods Issue Process* > *Wave Management* > *Wave Template Determination* > *Assign Procedure to Document Type* and check the following entries:

Warehouse	Document Category	Document Type	Procedure
W001	PDO	OTM	0ODL
W001	PDO	OUTB	0ODL

3. Check the wave template.

   1. On the *SAP Easy Access* screen for *Extended Warehouse Management*, choose *Work Scheduling* > *Wave Management* > *Maintain Wave Templates* and check the following entry.

Warehouse	Template	Description	Release Method	Wave Type	Category	Assignment	P (Behavior During Pick Denial)
W001	100	Automatic Wave Release	A (Automatic)	WT01	C1		B (Create WT with Alternative Source Bin Immediately)

   2. Select the new entry and in the dialog structure choose *Define Wave Template Time Attributes*.

   3. Check the following entries:

Warehouse	Wave Template	Wave Template Option	Wave Cutoff Time	Wave Release Time	Picking Completion	Pack Completion	Staging Completion	Wave Completion	Calendar
W001	100	1	06:00:00	06:30:00	08:30:00	09:10:00	09:15:00	09:30:00	01
W001	100	2	08:00:00	08:30:00	10:30:00	11:10:00	11:15:00	11:30:00	01
W001	100	3	10:00:00	10:30:00	13:30:00	14:10:00	14:15:00	14:30:00	01
W001	100	4	12:00:00	13:30:00	15:30:00	16:10:00	16:15:00	16:30:00	01
W001	100	5	15:00:00	15:30:00	17:30:00	18:10:00	18:15:00	18:30:00	01

2. Create entry.

   On the *SAP Easy Access* screen for *Extended Warehouse Management*, choose *Work Scheduling* > *Wave Management* > *Maintain Conditions for Determining Wave Templates* and create the following entry:

Condition Type	Document Category	Warehouse	Template	Valid From	Valid To
0ODL	PDO	W001	100	<today's date>	9999-12-31

If you want to use different wave templates depending on attributes such as routes, route schedules, means of transport or shipping conditions, create the condition records accordingly.

2.5.4 Configuring Consolidation Groups

You use this procedure to prevent the building of cross-delivery handling units (HUs) in TM-ERP-EWM integration processes. You can prevent cross-delivery HUs in two ways:

- Reset the order combination flag in customer master data in ERP or,
- Activate example implementation of BAdI `/SCWM/EX_CORE_CONS` in EWM preventing cross-delivery HUs in the context of TM-ERP-EWM integration processes only. This option is only necessary if you use the order combination flag in customer master data in ERP for other processes.

Procedure

You either reset the order combination flag in customer master data in ERP or activate example BAdI implementation in EWM.

To reset the order combination flag in customer master data in ERP:

1. On the *SAP Easy Access* screen for SAP ERP, choose *Logistics* > *Sales and Distribution* > *Master Data* > *Business Partner* > *Customer* > *Change* > *Sales and Distribution*.
2. On the initial screen, enter the following data and choose *Continue*:
   - Customer number, such as, `CUST001 – CUST003`
   - Sales Organization, such as `0001`
   - Distribution Channel, such as `02`
   - Division, such as `01`
3. On the *Shipping* tab page, reset, if necessary, the *Order Combination* field in *Sales Area Data*.
4. Save your entries.

To activate example implementation of `BAdI /SCWM/EX_CORE_CONS` in EWM:

1. In Customizing for SAP EWM choose *Business Add-Ins (BAdIs) for Extended Warehouse Management* > *Goods Issue Process* > *BAdI: Define Consolidation Group*.
2. In the *Enhancement Implementation* field, enter a name, such as `Z_EI_CONS_TMERPINT`, and a short text. Choose *Continue*.
3. Enter a name for the BadI implementation and the implementation class, such as `Z_EI_CONS_TMERPINT` and `ZCL_EI_CONS_TMERPINT`. Choose *Continue*.
4. Save your implementation in a customer-own package or as a local object.
5. In the next dialog box, copy the example implementation and inherit from its class.
6. Activate the implementation class and the implementation.

3 Configuration of Cross-System Roles for

Processes Involving SAP TM, SAP ERP, and SAP EWM

You use this process to configure a cross-system role, enabling users to execute transactions in SAP Transportation Management (SAP TM), SAP ERP and SAP Extended Warehouse Management (SAP EWM) from SAP NetWeaver Business Client (SAP NWBC).

You can use such a cross-system role in business processes involving SAP TM, SAP ERP and SAP EWM, for example, in business processes contained in business scenario *Integration of Outbound Warehouse and Transportation*.

In addition to the cross-system role, you can use this process to integrate a launchpad into SAP NWBC. This is an optional configuration. With the launchpad, the user can easily navigate to all transactions used in business scenario *Integration of Outbound Warehouse and Transportation*.

It is not mandatory to create a cross-system role for business scenario *Integration of Outbound Warehouse and Transportation*. As an alternative, if the process steps are executed by different users (for example, a transportation planner working exclusively in SAP TM and a warehouse clerk working exclusively in SAP EWM) you can create separate roles and users in each system. If you do not want to work with a cross-system role, create users using the standard roles provided by each application and the recommended UI technology for each application instead, for example, SAP GUI for SAP ERP and for SAP EWM and SAP NWBC for SAP TM. In this case, you do not need to proceed with the configuration described in this document.

We describe the cross-system role configuration in the following system landscapes:

- SAP TM, SAP ERP, and SAP EWM installed on separate servers. See Configuration for SAP TM, SAP ERP, and SAP EWM Installed on Separate Servers [Page 60].
- SAP TM installed on a separate server, SAP ERP and SAP EWM installed on one server. See Configuration for SAP ERP and SAP EWM Installed on One Server [Page 61].
- SAP ERP installed on a separate server, SAP TM and SAP EWM installed on one server. See Configuration for SAP TM and SAP EWM Installed on One Server [Page 63].

Prerequisites

- You have authorizations for system administration, including user and role administration, and you are familiar with user and role administration in AS ABAP. For more information, see SAP Library for SAP NetWeaver Platform on SAP Help Portal at http://help.sap.com/nw_platform. Choose the correct release and then *Application Help*. In SAP Library, choose *SAP NetWeaver Library: Function-Oriented View* > *Security* > *Identity Management* > *User and Role Administration of Application Server ABAP*.
- You have authorizations for cross-client settings in all affected systems.
- You are familiar with SAP NWBC. For more information, see the SAP NWBC documentation at SAP Library for SAP NetWeaver Platform on SAP Help Portal at http://help.sap.com/nw_platform. Choose the correct release and then *Application*

Help. In SAP Library, choose *Administration Information* > *Technical Operations for SAP NetWeaver* > *Technical Operations for SAP NetWeaver Business Client*.

- The users executing the business processes have installed and configured the SAP NWBC desktop version on their computer.

  Note that only the Desktop Installation of SAP NWBC is currently supported for business scenario *Integration of Outbound Warehouse and Transportation*.

- Depending on your system landscape, different RFC destinations are required for the role configuration. See the corresponding procedures.

Features

As the role configuration depends on the system landscape, we distinguish between the following processes:

- Configuration for SAP TM, SAP ERP, and SAP EWM Installed on Separate Servers
- Configuration for SAP ERP and SAP EWM Installed on One Server
- Configuration for SAP TM and SAP EWM Installed on One Server

Result

A user assigned to the cross-system role can now execute transactions in SAP TM, SAP ERP, and SAP EWM from SAP NWBC without having to log on separately in each system.

Example

You configure a cross-system role for business processes contained in business scenario *Integration of Outbound Warehouse and Transportation*. The SAP NWBC shell contains all transactions required to use the business processes contained in the business scenario.

3.1 Configuration for SAP TM, SAP ERP, and SAP EWM Installed on Separate Servers

You use this process to configure a cross-system role in a system landscape with SAP Transportation Management (SAP TM), SAP ERP, and SAP Extended Warehouse Management (SAP EWM) installed on separate servers.

You configure the following roles, launchpad, and users in the system containing the corresponding application:

Roles

Role Name (Example)	Application	Description
/SCWM/EXPERT	SAP EWM	Role for SAP EWM transactions
/SCMTMS/TRANSPORTATION_MGR_V2	SAP TM	Role for SAP TM transactions
ZERP_TM_EWM_INTEGRATION	SAP ERP	Cross-system role with SAP ERP, SAP TM, and SAP EWM transactions

Launchpad

Launchpad	Application	Description

ZERP_TM_EWM_LPD	SAP ERP	Launchpad for *Integration of Outbound Warehouse and Transportation*

Users

User ID	Application	Description
USER01	SAP TM	User for SAP TM
USER01	SAP ERP	User for SAP ERP
USER01	SAP EWM	User for SAP EWM

Prerequisites

A trusted RFC connection exists between the following systems:

Trusted RFC Destinations for SAP TM, SAP ERP, and SAP EWM Installed on Separate Servers

RFC Destination Name (Example)	Defined In	Target System	Used For
EWMCLNT001_T	SAP ERP	SAP EWM	Cross-system role
TMSCLNT001_T	SAP ERP	SAP TM	Cross-system role

Note that the name for the RFC destination follows the naming convention <*SYSTEM*>CLNT<*CLIENT*>_T.

For more information on how to set up the navigation and trusted RFC connection in the example of SAP TM-SAP ERP Integration, see SAP Note 1552355. For more information, see the SAP NWBC documentation at SAP Library for SAP NetWeaver Platform on SAP Help Portal at http://help.sap.com/nw_platform. Choose the correct release and then *Application Help*. In SAP Library, choose *Administration Information* > *Technical Operations for SAP NetWeaver* > *Technical Operations for SAP NetWeaver Business Client* > .

Process

1. Changing Single Roles in SAP EWM [Page 64]
2. Changing Single Roles in SAP TM [Page 66]
3. Creating Cross-System Roles in SAP ERP [Page 67]
4. Integrating SAP TM Roles into Cross-System Roles in SAP ERP [Page 69]
5. Integrating SAP EWM Roles into Cross-System Roles in SAP ERP [Page 70]
6. Creating Launchpads in SAP ERP [Page 71] (Optional)
7. Integrating Launchpads into Cross-System Roles in SAP ERP [Page 74] (Optional)
8. Creating Authorization Profiles for Cross-System Roles in SAP ERP [Page 75]
9. Creating Users in SAP EWM [Page 78]
10. Creating or Changing Users in SAP TM [Page 78]
11. Creating Users in SAP ERP [Page 79]

3.2 Configuration for SAP ERP and SAP EWM

Installed on One Server

You use this process to configure a cross-system role in a system landscape with SAP Extened Warehouse Management (SAP EWM) installed as an add-on to SAP ERP and SAP Transportation Management (SAP TM) installed on a separate server.

You configure the following roles, launchpad, and users in the system containing the corresponding application:

Roles

Role Name (Example)	Application	Description
/SCWM/EXPERT	SAP EWM	Role for SAP EWM transactions
/SCMTMS/TRANSPORTATION_MGR_V2	SAP TM	Role for SAP TM transactions
ZERP_TM_EWM_INTEGRATION	SAP ERP	Cross-system role with SAP ERP, SAP TM, and SAP EWM transactions

Launchpad

Launchpad	Application	Description
ZERP_TM_EWM_LPD	SAP ERP	Launchpad for *Integration of Outbound Warehouse and Transportation*

Users

User ID	Application	Description
USER01	SAP TM	User for SAP TM
USER01	SAP ERP and SAP EWM	User for SAP ERP and SAP EWM

Prerequisites

A trusted RFC connection exists between the following systems:

Trusted RFC Destinations for SAP ERP and SAP EWM Installed on One Server

RFC Destination Name (Example)	Defined In	Target System	Used For
TMSCLNT001_T	SAP ERP	SAP TM	Cross-system role

Note that the name for the RFC destination follows the naming convention <*SYSTEM*>CLNT<*CLIENT*>_T.

For more information on how to set up the navigation and trusted RFC connection in the example of SAP TM-SAP ERP Integration, see SAP Note 1552355. For more information, see the SAP NWBC documentation at SAP Library for SAP NetWeaver Platform on SAP Help Portal at http://help.sap.com/nw_platform. Choose the correct release and then *Application Help*. In SAP Library, choose *Administration Information* > *Technical Operations for SAP NetWeaver* > *Technical Operations for SAP NetWeaver Business Client*.

Process

1. Changing Single Roles in SAP EWM [Page 64]
2. Changing Single Roles in SAP TM [Page 66]

3. Creating Cross-System Roles in SAP ERP [Page 67]
4. Integrating SAP TM Roles into Cross-System Roles in SAP ERP [Page 69]
5. Integrating SAP EWM Roles into Cross-System Roles in SAP ERP [Page 70]
6. Creating Launchpads in SAP ERP [Page 71] (Optional)
7. Integrating Launchpads into Cross-System Roles in SAP ERP [Page 74] (Optional)
8. Creating Authorization Profiles for Cross-System Roles in SAP ERP [Page 75]
9. Creating or Changing Users in SAP TM [Page 78]
10. Creating Users in SAP ERP [Page 79]

3.3 Configuration for SAP TM and SAP EWM Installed on One Server

You use this process to configure a cross-system role in a system landscape with SAP Transportation Management (SAP TM) and SAP Extended Warehouse Management (SAP EWM) installed on the same server (Supply Chain Execution or SCE server) and SAP ERP installed on a separate server.

You configure the following roles, launchpad, and users in the system containing the corresponding application:

Roles

Role Name (Example)	Application	Description
/SCWM/EXPERT	SAP EWM	Role for SAP EWM transactions
/SCMTMS/TRANSPORTATION_MGR_V2	SAP TM	Role for SAP TM transactions
ZERP_TM_EWM_INTEGRATION	SAP ERP	Cross-system role with SAP ERP, SAP TM, and SAP EWM transactions

Launchpad

Launchpad	Application	Description
ZERP_TM_EWM_LPD	SAP ERP	Launchpad for *Integration of Outbound Warehouse and Transportation*

Users

User ID	Application	Description
USER01	SAP TM and SAP EWM	User for SAP TM and SAP EWM
USER01	SAP ERP	User for SAP ERP

Prerequisites

A trusted RFC connection exists between the following systems:

Trusted RFC Destinations for SAP TM, SAP ERP, and SAP EWM Installed on Separate Servers

RFC Destination Name (Example)	Defined In	Target System	Used For
SCECLNT001_T	SAP ERP	SAP EWM and SAP TM	Cross-system role

Note that the name for the RFC destination follows the naming convention <*SYSTEM*>CLNT<*CLIENT*>_T.

For more information on how to set up the navigation and trusted RFC connection in the example of SAP TM-SAP ERP Integration, see SAP Note 1552355. For more information, see the SAP NWBC documentation at SAP Library for SAP NetWeaver Platform on SAP Help Portal at http://help.sap.com/nw_platform. Choose the correct release and then *Application Help*. In SAP Library, choose *Administration Information* > *Technical Operations for SAP NetWeaver* > *Technical Operations for SAP NetWeaver Business Client*.

Process

1. Changing Single Roles in SAP EWM [Page 64]
2. Changing Single Roles in SAP TM [Page 66]
3. Creating Cross-System Roles in SAP ERP [Page 67]
4. Integrating SAP TM Roles into Cross-System Roles in SAP ERP [Page 69]
5. Integrating SAP EWM Roles into Cross-System Roles in SAP ERP [Page 70]
6. Creating Launchpads in SAP ERP [Page 71] (Optional)
7. Integrating Launchpads into Cross-System Roles in SAP ERP [Page 74] (Optional)
8. Creating Authorization Profiles for Cross-System Roles in SAP ERP [Page 75]
9. Creating Users in SAP EWM [Page 78]
10. Creating or Changing Users in SAP TM [Page 78]
11. Creating Users in SAP ERP [Page 79]

3.4 Changing Single Roles in SAP EWM

You use this procedure to change the standard role /SCWM/EXPERT in SAP Extended Warehouse Management (SAP EWM) when SAP EWM and SAP ERP are installed on separate servers. The role is integrated in the SAP ERP cross-system role in procedure Creating Cross-System Roles in SAP ERP [Page 67].

If SAP EWM is installed as Add-On to SAP ERP, no activity is necessary here if you use standard role /SCWM/EXPERT.

To use the business processes contained in business scenario *Integration of Outbound Warehouse and Transportation*, you enhance /SCWM/EXPERT with the following authorizations:

Authorizations for Enhancing /SCWM/EXPERT

Authorization Object	Value	Purpose
S_TCODE	/SCWM/TO_DISP	Navigation from SAP EWM monitor to display transaction for warehouse tasks
	SP01 SP02	Use of spool data
S_SPO_DEV	<*SAP EWM printers*> or *	For printing and spool display purposes
S_ADMI_FCD	SP01	For printing and spool display purposes
B_ALE_RECV	SHIPPL SHPMNT	For receiving shipment IDOCs

As an alternative to standard role /SCWM/EXPERT, you can create your own SAP EWM roles manually containing only the transactions and the authorizations required in your own SAP EWM processes.

Procedure

Generate the authorization profile for standard role /SCWM/EXPERT as follows:

1. In SAP EWM, start transaction PFCG.
2. Enter role /SCWM/EXPERT and choose *Role* > *Change*.
3. Create the authorization profile for the role as follows:
    1. On the *Authorizations* tab page, choose the *Propose Profile Names* button.
    2. Choose the *Change Authorization Data* button.

       The *Save the Role* dialog box appears.
    3. Choose *Yes*.

       The *Define Organization Levels* dialog box appears.
    4. Enter your organizational data, or choose *Full Authorization*. Save your entries.
4. Add the authorizations to the profile as follows:
    1. On the *Change Role: Authorizations* screen, choose the *Manually* button.

       The *Manual Selection of Authorization* dialog box appears.
    2. Enter the authorization objects listed in the table *Authorizations for Enhancing /SCWM/EXPERT*.
    3. Choose *Cross-Application Authorization Objects* > *Transaction Code Check at Transaction Start* > *Transaction Code Check at Transaction Start* and choose the line with missing values.

4. Choose *Change* and add the transaction codes listed in the table *Authorizations for Enhancing /SCWM/EXPERT* for `S_TCODE`.

5. Choose *Basis: Administration* > *System Authorizations* > *System Authorizations* and choose *Change*. Select Activity `SP01`.

6. Choose *Basis: Administration* > *System Authorizations* > *Spool: Device Authorizations* and choose *Change*. Enter the SAP EWM printers used in your business processes, or choose *Full Authorization*.

7. Choose *Cross-Application Authorization Objects* > *ALE/EDI: Receiving IDocs via RFC* > *ALE/EDI: Receiving IDocs via RFC* and choose *Change*. Enter message types `SHIPPL` and `SHPMNT`. Save your entries.

5. Generate the profile as follows:

    1. On the *Change Role: Authorization* screen, adjust and enrich the default values for the profile. If you want to provide full authorization, choose the *Status* icon next to the role name.

        The *Assign Full Authorization for Subtree* dialog box appears. Choose *Execute*. Save your entries.

    2. Choose *Generate*.

For more information, see SAP Library for SAP NetWeaver on SAP Help Portal at http://help.sap.com/nw_platform. Choose the correct release and then *Application Help*. In SAP Library, choose *SAP NetWeaver Library: Function-Oriented View* > *Security* > *Identity Management* > *User and Role Administration of Application Server ABAP* > *Configuration of User and Role Administration* > *Role Administration* > *Role Administration Functions* > *Generating Authorization Profiles*.

3.5 Changing Single Roles in SAP TM

You use this procedure to change the standard role `/SCMTMS/TRANSPORTATION_MGR_V2` in SAP Transportation Managment (SAP TM) or to copy it to a role of your own. The role is integrated in the SAP ERP cross-system role in the procedure Creating Cross-System Roles in SAP ERP [Page 67].

If you use the business processes contained in business scenario *Integration of Outbound Warehouse and Transportation*, it is not necessary to create a role of your own. You can use standard role `/SCMTMS/TRANSPORTATION_MGR_V2` instead.

As an alternative to standard role `/SCMTMS/TRANSPORTATION_MGR_V2`, you can create your own SAP TM roles manually, containing only the applications and the authorizations required in your own SAP TM processes.

Procedure

Generate the authorization profile for standard role `/SCMTMS/TRANSPORTATION_MGR_V2` as follows:

1. In SAP TM, start transaction `PFCG`.

2. Enter role `/SCMTMS/TRANSPORTATION_MGR_V2` and choose *Role* > *Change*.
3. On the *Authorizations* tab page, choose the *Propose Profile Names* button.
4. Choose the *Change Authorization Data* button.

   The *Save the Role* dialog box appears.
5. Choose *Yes*.

   The *Define Organization Levels* dialog box appears.
6. Enter your organizational data, or choose *Full Authorization*.
7. On the *Change Role: Authorization* screen, adjust and enrich the default values for the profile.

   If you want to provide full authorization, choose the *Status* icon next to the role name. The *Assign Full Authorization for Subtree* dialog box appears. Choose *Execute*, and save your entries.
8. Choose *Generate*.

   

   If you decide to create a role of your own instead of using the standard role, you must copy all entries assigned to role `/SCMTMS/TRANSPORTATION_MGR_V2` to your own role in transaction `POWL_TYPER` and in transaction `POWL_QUERYR`.

For more information, see SAP Library for SAP NetWeaver on SAP Help Portal at http://help.sap.com/nw_platform. Choose the correct release and then *Application Help*. In SAP Library, choose *SAP NetWeaver Library: Function-Oriented View* > *Security* > *Identity Management* > *User and Role Administration of Application Server ABAP* > *Configuration of User and Role Administration* > *Role Administration* > *Role Administration Functions* > *Generating Authorization Profiles*.

3.6 Creating Cross-System Roles in SAP ERP

You use this procedure to create the single, cross-system role `ZERP_TM_EWM_INTEGRATION` in SAP ERP. The cross-system role contains not only the transactions needed in SAP ERP to use business processes contained in business scenario *Integration of Outbound Warehouse and Transportation*, but it also includes the single roles you created or changed in SAP EWM and SAP TM.

Procedure

1. In SAP ERP, start transaction `PFCG`.
2. Enter role `ZERP_TM_EWM_INTEGRATION` and choose *Create Single Role*.
3. Enter a description, for example `Role for TM-ERP-EWM Integration`. Save your entries.
4. On the *Menu* tab page, choose the *Menu Options* button.

   A dialog box appears.

5. Select the *Hide Menu from SAP Easy Access* checkbox.
6. Enhance the role with the SAP ERP role *LO – SD – Sales and Distribution* (`SAP_EP_LO_SD_VA00`) as follows:
    1. Choose *Copy Menus* > *From Another Role* > *Local* .
    2. In the *Single Role* field, enter `SAP_EP_LO_SD_VA00`.
    3. Select role `SAP_EP_LO_SD_VA00` and choose *Enter*.

       The *Selection of Transactions from the Menu* dialog box appears.
    4. Select *LO – SD – Sales and Distribution* and choose *Add*.
7. Enhance the role with the SAP ERP role *LO – LE – Goods Issue* (`SAP_EP_LO_LE_OUTB`) as follows:
    1. Choose *Copy Menus* > *From Another Role* > *Local* .
    2. In the *Single Role* field, enter `SAP_EP_LO_LE_OUTB`.
    3. Select role `SAP_EP_LO_LE_OUTB` and choose *Enter*.

       The *Selection of Transactions from the Menu* dialog box appears.
    4. Select *LO – LE – Goods Issue* and choose *Add*.
8. Enhance the role with the SAP ERP role *LO – LE – Transportation* (`SAP_EP_LO_LE_TRA`) as follows:
    1. Choose *Copy Menus* > *From Another Role* > *Local* .
    2. In the *Single Role* field, enter `SAP_EP_LO_LE_TRA`.
    3. Select role `SAP_EP_LO_LE_TRA` and choose *Enter*.

       The *Selection of Transactions from the Menu* dialog box appears.
    4. Select *LO – LE – Transportation* and choose *Add*.
9. In the *Hierarchy* screen area, create a new folder called *Enterprise Resource Planning* as follows:
    1. Select *Role Menu* and choose the *Create Folder* button.
    2. Enter folder name `Enterprise Resource Planning`.
    3. Drag and drop the role *LO - LE – Transportation* to the new folder.
    4. Drag and drop the role *LO - LE - Goods Issue* to the new folder.
    5. Drag and drop the role *LO - SD - Sales and Distribution* to the new folder.
    6. Select the new folder, *Enterprise Resource Planning*, and choose the *Other Node Details* button.
    7. Select *Folder Option S As Service Map*.

Result

You have created a single role in SAP ERP. It contains transactions needed in SAP ERP to use business processes contained in business scenario *Integration of Outbound Warehouse and Transportation*.

You can now integrate the SAP TM and SAP EWM roles into the SAP ERP role as described in the procedures Integrating SAP TM Roles into Cross-System Roles in SAP ERP [Page 69] and Integrating SAP EWM Roles into Cross-System Roles in SAP ERP [Page 70].

3.7 Integrating SAP TM Roles into Cross-System Roles in SAP ERP

You use this procedure to enhance cross-system role `ZERP_TM_EWM_INTEGRATION` in SAP ERP with the SAP Transportation Management (SAP TM) role.

Prerequisites

You have created a cross-system role. See Creating Cross-System Roles in SAP ERP [Page 67].

Procedure

Integrate SAP TM role `/SCMTMS/TRANSPORTATION_MGR_V2`, or your own SAP TM role, into the SAP ERP role `ZERP_TM_EWM_INTEGRATION` as follows:

1. In SAP ERP, start transaction `PFCG`.
2. Enter role `ZERP_TM_EWM_INTEGRATION` and choose *Role* > *Change*.
3. Enhance the role with the SAP TM role `/SCMTMS/TRANSPORTATION_MGR_V2` as follows:
    1. On the *Menu* tab page, choose *Copy Menus* > *From Another Role* > *Target System*.

       The *Select Target System* dialog box appears.
    2. Choose *Select RFC Destination*.

       Instead of selecting an RFC destination, you can select a variable, for example `TMS`, which you must define in transaction `SM30_SSM_RFC` first.
    3. Select the trusted RFC destination for the SAP TM system, for example `TMSCLNT001_T` or `SCECLNT001_T`.
    4. Select role `/SCMTMS/TRANSPORTATION_MGR_V2` and choose *Enter*.

       The *Selection of Transactions from the Menu* dialog box appears.
    5. Select the following entries:
        - *ERP Logistics Integration*

- *Freight Order Management*
- *Planning*
- *Freight Settlement*
- *OBN targets*

6. Choose *Add*.

4. In the *Hierarchy* screen area, create a new folder, *Transportation Management*, as follows:

    1. Select *Role Menu* and choose the *Create Folder* button to create a new folder below the *Enterprise Resource Planning* folder.
    2. Enter the folder name, `Transportation Management`.
    3. If necessary, reposition the folder so that it is the second folder in the hierarchy.
    4. Drag and drop *OBN Targets* to the new folder.
    5. Drag and drop *Freight Settlement* to the new folder.
    6. Drag and drop *Planning* to the new folder.
    7. Drag and drop *Freight Order Management* to the new folder.
    8. Drag and drop *ERP Logistics Integration* to the new folder.
    9. Choose *OBN Targets* > *ERP Logistics Integration* > *ERP (*Add target system for all folder-entries*)*. For the items in the folder, remove the entries in the *Target System* field by selecting the nodes and choosing the *Other Node Details* button.
    10. Optionally, check that, for all other items, the trusted RFC connection to the SAP TM system is set as the target system.

5. Save your entries.

For more information about object based navigation see the NWBC documentation at SAP Library for SAP NetWeaver Platform on SAP Help Portal at http://help.sap.com/nw_platform. Choose the correct release and then *Application Help*. In SAP Library, choose *Administration Information* > *Technical Operations for SAP NetWeaver* > *Technical Operations for SAP NetWeaver Business Client* > *Role Maintenance in PFCG* > *Object-Based Navigation (OBN)*.

3.8 Integrating SAP EWM Roles into Cross-System Roles in SAP ERP

You use this procedure to enhance the cross-system role `ZERP_TM_EWM_INTEGRATION` in SAP ERP with the SAP Extended Warehouse Management (SAP EWM) role `/SCWM/EXPERT`.

Prerequisites

You have created a cross-system role. See Creating Cross-System Roles in SAP ERP [Page 67].

Procedure

Integrate SAP EWM role `/SCWM/EXPERT` into the SAP ERP role `ZERP_TM_EWM_INTEGRATION` as follows:

1. In SAP ERP, start transaction `PFCG`.
2. Enter role `ZERP_TM_EWM_INTEGRATION` and choose *Role* > *Change*.
3. On the *Menu* tab page, enhance the role with the SAP EWM role `/SCWM/EXPERT` as follows, depending on how SAP EWM is installed:
   - If SAP EWM is installed on a separate server, proceed as follows:
     1. Choose *Copy Menus* > *From Another Role* > *Target System*.

        The *Select Target System* dialog box appears.
     2. Choose *Select RFC Destination*.

        

        Instead of selecting an RFC destination, you can define a variable, for example `EWM`, in transaction `SM30_SSM_RFC`, and select the variable here.
     3. Select the trusted RFC destination for the SAP EWM system, for example `EWMCLNT001_T` or `SCECLNT001_T`.
     4. Select role `/SCWM/EXPERT` and choose *Enter*.

        The *Selection of Transactions from the Menu* dialog box appears.
     5. Select *Extended Warehouse Management*, and choose *Add*.
   - If SAP EWM is installed as an add-on to SAP ERP, proceed as follows:
     1. Choose *Copy Menus* > *From Another Role* > *Target System*.
     2. Select role `/SCWM/EXPERT` and choose *Enter*.

        The *Selection of Transactions from the Menu* dialog box appears.
     3. Select *Extended Warehouse Management*, and choose *Add*.
4. If necessary, in the *Hierarchy* screen area, reposition the folder so that it is the third folder.
5. Save your entries.

3.9 Creating Launchpads in SAP ERP

You use this process to create a launchpad containing only the transactions used in business processes contained in business scenario *Integration of Outbound Warehouse and Transportation*. After integration of the launchpad into the cross-system role, the launchpad is visible in SAP NetWeaver Business Client (SAP NWBC) and allows easier navigation during execution of the business process.

Creating a launchpad for a better navigation in SAP NWBC is an optional step. The SAP NWBC shell already contains all transactions used in business processes of business scenario *Integration of Outbound Warehouse and Transportation*. You can find them using the different navigation levels in SAP NWBC.

Process

Since there are many ways to configure a launchpad, this process does not describe the individual steps for the creation of a launchpad. Instead, it gives you some hints for the creation of a launchpad that can be used in a business process of business scenario *Integration of Outbound Warehouse and Transportation*.

For more information about launchpad creation, see SAP Library for SAP ERP on SAP Help Portal at http://help.sap.com/ecc. Choose the correct release and then *Application Help*. In SAP Library, choose *SAP ERP Cross-Application Functions* › *Roles* › *Automatic Roles* › *Setting Up Launchpad*.

1. In SAP ERP, start transaction `LPD_CUST`.
2. Create a launchpad, for example, role `ERP`, instance `ZERP_TM_EWM_LPD` and description `TM-ERP-EWM Integration`.
3. Add folders to the launchpad. For example, create the following folders:
   - *Enterprise Resource Planning*
   - *Transportation Management*
   - *Extended Warehouse Management*
4. Add applications to the folders, and save the launchpad.

Example

This example shows applications that you can add to a launchpad for a business process of business scenario *Integration of Outbound Warehouse and Transportation*.

Applications in Folder Enterprise Resource Planning

Link Text	Appl. Type	Transaction Code, Application, or URL	System	Application-Related Parameters
Sales Order – Create	`TRA`	Transaction `VA01`	`Local`	GUI Type: `WEB_GUI`
Sales Order – Display	`TRA`	Transaction `VA03`	`Local`	GUI Type: `WEB_GUI`
Shipment	`TRA`	Transaction `VT03N`	`Local`	GUI Type: `WEB_GUI`
Outbound Delivery – Create	`TRA`	Transaction `VL01N`	`Local`	GUI Type: `WEB_GUI`

Outbound Delivery – Display	TRA	Transaction VL03N	Local	GUI Type: WEB_GUI

Applications in Folder Transportation Management

Link Text	Appl. Type	Transaction Code, Application, or URL	System	Application-Related Parameters
Freight Order Requirement	WDA	Namespace SCMTMS Application WDA_POWL_OVP	*<RFC Destination for SAP TM>*	Configuration /SCMTMS/WDA_POWL_OVP Parameter Mapping: Target Parameter APPLID with Fixed Value SCMTMS_POWL_OM_SHIPPER Target Parameter POWL_UI_COMP_CC with Fixed Value /SCMTMS/POWL_UI_COMP
Freight Order	WDA	Namespace SCMTMS Application WDA_POWL_OVP	*<RFC Destination for SAP TM>*	Configuration /SCMTMS/WDA_POWL_OVP Parameter Mapping: Target Parameter APPLID with Fixed Value SCMTMS_POWL_OM_FO Target Parameter POWL_UI_COMP_CC with Fixed Value /SCMTMS/POWL_UI_COMP
Freight Order Settlement	WDA	Namespace SCMTMS Application WDA_POWL_OVP	*<RFC Destination for SAP TM>*	Configuration /SCMTMS/WDA_POWL_OVP Parameter Mapping: Target Parameter APPLID with Fixed Value SCMTMS_POWL_SUPPAY Target Parameter POWL_UI_COMP_CC with Fixed Value /SCMTMS/POWL_UI_COMP

Applications in Folder Extended Warehouse Management

Link Text	Appl. Type	Transaction Code, Application, or URL	System	Application-Related Parameters
Transportation Unit	TRA	Transaction /SCWM/TU	*<RFC Destination for SAP*	GUI Type: WEB_GUI

			EWM> or Local	
Outbound Delivery Order	TRA	Transaction /SCWM/PRDO	<*RFC Destination for SAP EWM*> or Local	GUI Type: WEB_GUI
Wave	TRA	Transaction /SCWM/WAVE	<*RFC Destination for SAP EWM*> or Local	GUI Type: WEB_GUI
Pick, Stage, Load	URL	<*URL for ITS Mobile version of /SCWM/RFUI*> For more information on /SCWM/RFUI with ITS mobile, see How-to Guide *Configuring ITS Mobile for SAP EWM RFUI* on SAP Service Marketplace at http://help.sap.com/ewm *Additional Information*.	Not applicable	Not applicable
Warehouse Monitor	TRA	Transaction /SCWM/MON	<*RFC Destination for SAP EWM*> or Local	GUI Type: WEB_GUI

For all entries, the *Navigation Mode* field has the value EXT_HEAD *Headerless Portal Window* and the *Parameter Forwarding* has the value G *Get Parameters*.

3.10 Integrating Launchpads into Cross-System Roles in SAP ERP

You use this procedure to integrate the launchpad into the cross-system role in SAP ERP.

Using a launchpad for a better navigation in SAP NWBC is optional. The SAP NWBC shell already contains all transactions used in business processes of business scenario *Integration of Outbound Warehouse and Transportation*. You can find them using the different navigation levels in SAP NWBC.

Prerequisites

- You have created a launchpad. See Creating Launchpads in SAP ERP [Page 71].
- You have created a cross-system role. See Creating Cross-System Roles in SAP ERP [Page 67].

Procedure

1. In SAP ERP, start transaction PFCG.
2. Enter role ZERP_TM_EWM_INTEGRATION and choose *Role* *Change*.

3. On the *Menu* tab page, in the *Hierarchy* screen area, select *Role Menu* and choose the *Create Folder* button to create a new folder as first folder.

4. Enter folder name *Overview*.

5. Select the new *Overview* folder and choose *Insert Node* > *Web Dynpro Application* from the menu of the *Insert Node* button.

6. On the *Web Dynpro Application* screen, in the *Web Dynpro Application* field, enter `APB_LAUNCHPAD`.

7. Enter description `Overview`.

8. Enter the following parameters:

   - Name `ROLE`; Value `ERP`
   - Name `INSTANCE`; Value `ZERP_TM_EWM_LPD`
   - Name `NO_CHANGE_LIST_BUTTON`; Value `X`

9. Choose *Enter*. Save your entries.

As an alternative, you can use Web Dynpro application `WDR_CHIP_PAGE` to create a more complex overview page, for example, with the overview launchpad and an integrated Web Dynpro application.

For this purpose, in *Other Node Details*, you set the launchpad node to *Invisible* and add Web Dynpro Application `WDR_CHIP_PAGE`, including an application configuration for this component. For more information on how to use Web Dynpro Application `WDR_CHIP_PAGE` see SAP Library for SAP NetWeaver Platform on SAP Help Portal at http://help.sap.com/nw_platform. Choose the correct release and then *Application Help*. In SAP Library, choose *SAP NetWeaver Library: Function-Oriented View* > *Application Server* > *Application Server ABAP* > *UI Technologies in ABAP* > *Creating Mashups with the Page Builder* > *Creating Pages with the Page Builder* > *Creating Page Configurations*.

3.11 Creating Authorization Profiles for Cross-System Roles in SAP ERP

You use this procedure to enhance the SAP ERP role with extra authorizations and generate the authorization profile.

If SAP ERP and SAP Extended Warehouse Management (SAP EWM) are installed on separate servers, you enhance SAP ERP with the following authorizations for using the business processes contained in business scenario *Integration of Outbound Warehouse and Transportation*:

Authorizations for Enhancing SAP ERP if SAP ERP and SAP EWM are Installed on Separate Servers

Authorization Object	Value	Purpose

B_ALE_RECV	SHIPPL SHPMNT	For receiving shipment IDOCs
S_TCODE	APB_LPD_CALL_TRANS	For navigation from launchpad to other transactions, only necessary if you use a launchpad.

If SAP EWM is installed as an add-on to SAP ERP, you enhance SAP ERP with the following authorizations for using the business processes contained in business scenario *Integration of Outbound Warehouse and Transportation*:

Authorizations for Enhancing SAP ERP if SAP EWM is Installed as an Add-On to SAP ERP		
Authorization Object	**Value**	**Purpose**
S_TCODE	/SCWM/TO_DISP	Navigation from SAP EWM monitor to display transaction for warehouse tasks
	SP01 SP02	Use of spool data
	APB_LPD_CALL_TRANS	For navigation from launchpad to other transactions, only necessary if you use a launchpad.
S_SPO_DEV	<*SAP EWM printers*> or *	For printing and spool display purposes
S_ADMI_FCD	SP01	For printing and spool display purposes
B_ALE_RECV	SHIPPL SHPMNT	For receiving shipment IDOCs

Procedure

1. In SAP ERP, start transaction PFCG.
2. Enter role ZERP_TM_EWM_INTEGRATION and choose *Role* > *Change*.
3. Create the authorization profile for the role as follows:
    1. On the *Authorizations* tab page, choose the *Propose Profile Names* button.
    2. Choose the *Change Authorization Data* button.

       The *Save the Role* dialog box appears.
    3. Choose *Yes*.

       The *Define Organization Levels* dialog box appears.
    4. Enter your organizational data, or choose *Full Authorization*, and save your entries.
4. If SAP EWM and SAP ERP are installed on separate servers, add the authorizations to the profile as follows:
    1. On the *Change Role: Authorizations* screen, choose the *Manually* button.

The *Manual Selection of Authorization* dialog box appears.

2. Enter the authorization objects listed in the table *Authorizations for Enhancing SAP ERP if SAP ERP and SAP EWM are Installed on Separate Servers*.

3. In the hierarchy, choose *Cross-Application Authorization Objects* > *Transaction Code Check at Transaction Start* > *Transaction Code Check at Transaction Start* and choose the line with missing values.

4. Choose *Change* and add the transaction code listed in the table *Authorizations for Enhancing SAP ERP if SAP ERP and SAP EWM are Installed on Separate Servers* for object `S_TCODE`.

5. Choose *Cross-Application Authorization Objects* > *ALE/EDI: Receiving IDocs via RFC* > *ALE/EDI: Receiving IDocs via RFC*.

6. Choose *Change* and enter message types `SHIPPL` and `SHPMNT`. Save your entries.

5. If SAP EWM is installed as an add-on to SAP ERP, add the authorizations to the profile as follows:

   1. On the *Change Role: Authorizations* screen, choose the *Manually* button.

      The *Manual Selection of Authorization* dialog box appears.

   2. Enter the authorization objects listed in the table *Authorizations for Enhancing SAP ERP if SAP EWM is Installed as an Add-On to SAP ERP*.

   3. Choose *Cross-Application Authorization Objects* > *Transaction Code*. Check at *Transaction Start* > *Transaction Code Check at Transaction Start* and choose the line with missing values.

   4. Choose *Change* and add the transaction codes listed in the table *Authorizations for Enhancing SAP ERP if SAP EWM is Installed as an Add-On* to ERP for object `S_TCODE`.

   5. Choose *Basis: Administration* > *System Authorizations* > *System Authorizations*. Choose *Change* and select Activity `SP01`.

   6. Choose *Basis: Administration* > *System Authorizations* > *Spool: Device Authorizations*. Choose *Change* and enter the SAP EWM printers used in your business processes, or choose *Full Authorization*.

   7. Choose *Cross-Application Authorization Objects* > *ALE/EDI: Receiving IDocs via RFC* > *ALE/EDI: Receiving IDocs via RFC*. Choose *Change* and enter message types `SHIPPL` and `SHPMNT`. Save your entries.

6. Generate the profile as follows:

   1. On the *Change Role: Authorization* screen, adjust and enrich the default values for the profile. If you want to provide full authorization, choose on the *Status* icon next to the role name.

      The *Assign Full Authorization for Subtree* dialog box appears. Choose *Execute*, and save your entries.

   2. Choose *Generate*.

For more information, see SAP Library for SAP NetWeaver Platform on SAP Help Portal at http://help.sap.com/nw_platform. Choose the correct release and then *Application Help*. In

SAP Library, choose *SAP NetWeaver Library: Function-Oriented View* > *Security* > *Identity Management* > *User and Role Administration of Application Server ABAP* > *Configuration of User and Role Administration* > *Role Administration* > *Role Administration Functions* > *Generating Authorization Profiles*.

3.12 Creating Users in SAP EWM

You use this procedure to create a user in SAP Extended Warehouse Management (SAP EWM) and assign the SAP EWM single role to the user. This procedure is only necessary if SAP EWM and SAP ERP are installed on separate servers.

If SAP EWM is installed as an add-on to SAP ERP, no activity is necessary here, because you use the same user as in SAP ERP.

For the SAP ERP user to access transactions in SAP EWM or applications in SAP TM via the trusted RFC connection, you must create a user *with the same name in all systems*.

Procedure

1. In SAP EWM, start transaction `SU01`.
2. Enter the user name, for example `USER01`, and choose *Create*.
3. On the *Address* tab page, enter the necessary data. You must enter at least a last name.
4. On the *Logon Data* tab page, enter an initial password.
5. On the *Roles* tab page, enter role `/SCWM/EXPERT`.
6. On the *Parameters* tab page, enter parameter ID `/SCWM/LGN` with value `<warehouse number>`, for example, `W001`, and parameter ID `/SCWM/MON` with value `SAP`, and save your entries.

   This enables the user to skip the entry of the warehouse number in SAP EWM transactions, and to access the SAP EWM monitor without additional entries.

3.13 Creating or Changing Users in SAP TM

You use this procedure to create a user in SAP Transportation Management (SAP TM) and assign the SAP TM single role to the user.

For the SAP ERP user to access transactions in SAP Extended Warehouse Management (SAP EWM) or applications in SAP TM via the trusted RFC connection, you must create a user *with the same name in all systems*.

Procedure

- If SAP TM and SAP EWM are installed on separate servers, proceed as follows:

  1. In SAP TM, start transaction `SU01`.
  2. Enter a user name, for example `USER01`, and choose *Create*.

3. On the *Address* tab, enter the necessary data. You must enter at least a last name.

4. On the *Logon Data* tab page, enter an initial password.

5. On the *Roles* tab page, enter role `/SCMTMS/TRANSPORTATION_MGR_V2`. Save your entries.

- If SAP TM and SAP EWM are installed on the same server, and you have already created the SAP EWM user, proceed as follows:

  1. In SAP TM, start transaction `SU01`.

  2. Enter a user name, for example `USER01`, and choose *Change*.

  3. On the *Roles* tab page, enter role `/SCMTMS/TRANSPORTATION_MGR_V2`. Save your entries.

3.14 Creating Users in SAP ERP

You use this procedure to create a user in SAP ERP and assign the cross-system role to the user.

For the SAP ERP user to access transactions in SAP Extended Warehouse Management (SAP EWM) or applications in SAP Transport Management (SAP TM) via the trusted RFC connection, you must create a user *with the same name in all systems*.

Procedure

1. In SAP ERP, start transaction `SU01`.

2. Enter a user name, for example `USER01`, and choose *Create*.

3. On the *Address* tab page, enter the necessary data. You must enter at least a last name.

4. On the *Logon Data* tab page, enter an initial password.

5. On the *Roles* tab page, enter role `ZERP_TM_EWM_INTEGRATION`. Save your entries.