How To Configure LE-TRA Integration

Applicable Releases:
SAP EWM 9.1 and higher
SAP ERP 6.0 EhP 4 SP 4 and higher

Topic Area:
Extended Warehouse Management – Shipping & Receiving

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# Document History

<table>
<thead>
<tr>
<th>Document Version</th>
<th>Description</th>
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<tr>
<td>1.1</td>
<td>Updated version due to minor corrections</td>
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<tr>
<td>1.0</td>
<td>First official release of this guide</td>
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### Typographic Conventions

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<td><strong>Example text</strong></td>
<td>Emphasized words or phrases in body text, graphic titles, and table titles</td>
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<td><strong>Example text</strong></td>
<td>File and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.</td>
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<tr>
<td><strong>Example text</strong></td>
<td>User entry texts. These are words or characters that you enter in the system exactly as they appear in the documentation.</td>
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<td>Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.</td>
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### Icons

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<td>Recommendation or Tip</td>
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1. **Business Scenario**

With these additional/changed settings it will be possible to test the integration of SAP EWM and the ERP Transportation module (LE-TRA) and the new shipping cockpit.

2. **Background Information**

For most of the customizing entries described in this guide, BC Sets are existing. Those chapters are marked with the suffix ‘(BC Set)’. Only the easy access settings and the order and delivery type definition in ERP have to be carried out manually. Those chapters are marked with the suffix ‘(Mandatory)’.

3. **Prerequisites**

In the EWM system a standard warehouse with preconfigured processes must be up and running. Based on the already existing settings for the standard warehouse it is recommended to create your own (standard) warehouse number using the following configuration guide *How To Configure an Additional Preconfigured Warehouse Using an Additional Plant* in order to avoid interfering with the standard warehouse.

The **Outbound Process Using Wave, Pick-HU, Packing, Staging, and Loading** in your warehouse number shall be configured as the alternative process without packing. (See configuration guide of **Outbound Process Using Wave, Pick-HU, Packing, Staging, and Loading** for more details)

For further information please refer to the following documentation:

*Warehouse Management with pre-configured Processes*

The How to Guide *How To Configure Outbound Process with Full Pallet Removal and SCO* must already be implemented.
4. **Step-by-Step Procedure**

This guide describes additional customizing and easy access settings for the preconfigured warehouse in order to test the LE-TRA Integration processes using the new shipping cockpit in EWM.

4.1 **Configuration in SAP ERP**

4.1.1 **Activate the BC-Set ZZ_PRE_LETRA_05_ERP (Mandatory)**

You use this procedure to activate a BC Set in SAP ERP.

⚠️ **CAUTION**

The BC set is attached to note 1888397. Please follow the instructions in the note on how to download the BC-Set from the note into your system.

**Procedure**

1. In the Easy Access menu for SAP EWM choose Tools → Customizing → Business Configuration Sets → Activation of BC Sets or use transaction SCPR20
2. Enter BC Set ZZ_PRE_LETRA_05_ERP
3. Press activate and enter the following data
   - Logical system for your ERP system e.g. `<ERPCLNT001>`
4. Press copy values

⚠️ **Tip**

Do the activation twice. Because of sequential problems within the BC Set you might get error messages after the first activation. After the second activation only warning messages should occur which have no negative implications

4.1.2 **Create New Order Types in ERP (BC-Set)**

You use this procedure to copy a standard document type for sales order to a new document type in SAP ERP.

**Procedure**

1. In customizing for SAP ERP choose Sales and Distribution → Sales → Sales Documents → Sales Document Header → Define Sales Document Types
2. Create an additional order type by copying OR to ZORA including copy control
3. Create an additional order type by copying OR to ZORB including copy control
4. Save your entries.

4.1.3 **Create New Delivery Types in ERP (BC-Set)**

You use this procedure to copy a standard document type for a delivery to new delivery document types in SAP ERP.

**Procedure**

1. In customizing for SAP ERP choose Logistics Execution → Shipping → Deliveries → Define Delivery Types
2. Create an additional delivery type by copying LF to ZLFA including copy control
3. Create an additional delivery type by copying LO to ZLOA including copy control
4. Create an additional delivery type by copying LF to ZLOB including copy control
5. Create an additional delivery type by copying LF to ZLFB including copy control
6. Save your entries.

4.1.4 Change Order Types in ERP (BC-Set)
You use this procedure to change the new order types in such a way that deliveries with the new delivery type are getting created as follow on documents for sales orders with the new sales order types.

Procedure
1. In customizing for SAP ERP choose Sales and Distribution → Sales Documents → Sales Document Header → Define Sales Document Types
2. Change the new order type as follows:

<table>
<thead>
<tr>
<th>Sales Document Type</th>
<th>Description</th>
<th>Delivery Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZORA</td>
<td>Standard Order TPT A</td>
<td>ZLFA</td>
</tr>
<tr>
<td>ZORB</td>
<td>Standard Order TPT B</td>
<td>ZLFB</td>
</tr>
</tbody>
</table>
3. Save your changes.

4.1.5 Configure Subsequent Delivery Split in ERP (BC-Set)
You use this procedure to configure the subsequent delivery split for your delivery types in SAP ERP.

Procedure
1. In Customizing for SAP ERP choose Logistics Execution → Shipping → Deliveries → Subsequent Delivery Split
2. Select split profile 0003.
3. In the dialog structure choose per delivery type
4. Copy the entry 0003 LF to 0003 ZLFA.
5. Save the data.

Do the steps above for delivery types ZLOA, ZLOB, ZLFA and ZLFB as well

4.1.6 Configuring Shipping Point in ERP (BC Set)
You use this procedure to configure the shipping points in SAP ERP.

Procedure
1. In Customizing for SAP ERP, choose Logistics Execution → Transportation → Basic Transportation Functions → Routes → Route Determination → Define Transportation Zones.
2. Check the following entries:
   o 00000000001 for Region North
   o 00000000002 for Region South
3. In Customizing for SAP ERP choose Logistics Execution → Transportation → Basic Transportation Functions → Routes → Route Determination → Maintain Country And Transportation Zone For Shipping Point
4. Check the following entry:
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<table>
<thead>
<tr>
<th>ShPt</th>
<th>Description</th>
<th>Ctry</th>
<th>Name</th>
<th>Zone</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0001</td>
<td>Shipping Point 0001</td>
<td>DE</td>
<td>Germany</td>
<td>00000001</td>
<td>Region North</td>
</tr>
</tbody>
</table>

5. Save your entry

### 4.1.7 Configuring Shipping Conditions for Customers in ERP (BC Set)

You use this procedure to configure shipping conditions for customers in SAP ERP. With the shipping conditions you have to possibility to 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 Conditions
2. Check that the following entries are existing

<table>
<thead>
<tr>
<th>Shipping Condition</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Standard</td>
</tr>
</tbody>
</table>

3. Save your entry.

### 4.1.8 Determine Shipping Point in ERP (BC-Set)

You use this procedure to determine shipping points in SAP ERP

**Procedure**

1. In Customizing for SAP ERP choose Logistics Execution → Shipping → Basic Shipping Functions → Shipping Point and Goods Receiving Point Determination → Assign Shipping Points
2. Create the following entry:

<table>
<thead>
<tr>
<th>Shipping Condition</th>
<th>LGP</th>
<th>Plnt</th>
<th>PrShP</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>0001</td>
<td>PL02</td>
<td>0001</td>
</tr>
</tbody>
</table>

3. Save your entries.

### 4.1.9 Route Determination in 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 to be able to assign outbound deliveries to an ERP shipment.

**Prerequisites**

You have maintained a transportation zone for the shipping point (see previous chapter ‘Configuring Shipping Point in SAP ERP’). It will be used as departure transportation zone in the route

You have defined a transportation zone in the customer master data. (see chapter ‘Create new Customer Master Date in SAP ERP’). 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 chapter Configuring Additional Shipping Conditions for Customers in SAP ERP).

**Result**

As only standard customizing and settings and standard routes are used the standard route determination should work already without any additional settings.
4.1.10 Determine Route Scheduling in ERP (BC-Set)

4.1.10.1 Scheduling With Route Schedule For Shipping Point (BC-Set)
You use this procedure to activate the usage of route schedules by shipping point.

Procedure
1. In Customizing for SAP ERP choose Logistics Execution → Shipping → Basic Shipping Functions → Routes → Route Schedule Determination → Scheduling With Route Schedule For Shipping Point
2. Change the following entry as displayed:

<table>
<thead>
<tr>
<th>Shipping Point</th>
<th>Description</th>
<th>Use Route Schedules</th>
</tr>
</thead>
<tbody>
<tr>
<td>0001</td>
<td>Shipping Point 0001</td>
<td>X</td>
</tr>
</tbody>
</table>

3. Save your changes.

4.1.10.2 Scheduling With Route Schedule For Sales Document Type (BC-Set)
You use this procedure to activate the usage of route schedules by sales document type.

Procedure
1. In Customizing for SAP ERP choose Logistics Execution → Shipping → Basic Shipping Functions → Routes → Route Schedule Determination → Scheduling With Route Schedule For Sales Document Type
2. Change the following entry as displayed:

<table>
<thead>
<tr>
<th>Sales Document Type</th>
<th>Description</th>
<th>RtSchedAct</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZORA</td>
<td>Standard Order TPT A</td>
<td>X</td>
</tr>
<tr>
<td>ZORB</td>
<td>Standard Order TPT B</td>
<td>X</td>
</tr>
</tbody>
</table>

3. Save your changes.

4.1.10.3 Scheduling With Route Schedule For Delivery Type (BC-Set)
You use this procedure to activate the usage of route schedules by delivery type.

Procedure
1. In Customizing for SAP ERP choose Logistics Execution → Shipping → Basic Shipping Functions → Routes → Route Schedule Determination → Scheduling With Route Schedule For Delivery Type
2. Change the following entry as displayed:

<table>
<thead>
<tr>
<th>Del. Type</th>
<th>Description</th>
<th>Rte Sched</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZLFA</td>
<td>Outb Delivery TPT A</td>
<td>X</td>
</tr>
<tr>
<td>ZLFB</td>
<td>Outb Delivery TPT B</td>
<td>X</td>
</tr>
<tr>
<td>ZLOA</td>
<td>Dlv. w/o Ref. TPT A</td>
<td>X</td>
</tr>
<tr>
<td>ZLOB</td>
<td>Dlv. w/o Ref. TPT B</td>
<td>X</td>
</tr>
</tbody>
</table>

3. Save your changes.
4.1.11 Define Route Schedule Calendar (Mandatory)

You use this procedure to define route schedule calendars in SAP ERP.

Procedure

1. In the Easy Access menu for SAP ERP choose Logistics → Logistics Execution → Master Data → Transportation → Routes → Route Schedule
2. Create new entries as follows:

<table>
<thead>
<tr>
<th>Shipping Point</th>
<th>Route Schedule</th>
<th>Description</th>
<th>Route</th>
<th>GI Day</th>
<th>GI Time</th>
<th>Ship To Party</th>
<th>Shipping Condition</th>
<th>Transport Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>0001</td>
<td>MON1800</td>
<td>MONDAY 18:00</td>
<td>000012</td>
<td>1</td>
<td>18:00</td>
<td>CUST021</td>
<td>01</td>
<td>0001</td>
</tr>
<tr>
<td>0001</td>
<td>TUE1800</td>
<td>TUESDAY 18:00</td>
<td>000012</td>
<td>2</td>
<td>18:00</td>
<td>CUST022</td>
<td>01</td>
<td>0001</td>
</tr>
</tbody>
</table>

3. Save your entries.

4.1.12 Defining Number Ranges for Shipments in ERP (BC Set)

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

When using the same number for 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:

<table>
<thead>
<tr>
<th>ERP Shipments</th>
<th>EWM TUs and Vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal: 6100000000–6199999999</td>
<td>External: not necessary as EWM uses external TUNUM</td>
</tr>
</tbody>
</table>

Procedure

1. In customizing for SAP ERP choose Logistics Execution → Transportation → Shipments → Define Number Ranges for Shipments
2. Make the following entry

<table>
<thead>
<tr>
<th>No</th>
<th>From No.</th>
<th>To Number</th>
<th>Ext</th>
</tr>
</thead>
<tbody>
<tr>
<td>03</td>
<td>6100000000</td>
<td>6199999999</td>
<td></td>
</tr>
<tr>
<td>04</td>
<td>6500000000</td>
<td>6699999999</td>
<td>X</td>
</tr>
</tbody>
</table>

3. Save your entries.

4.1.13 Defining Shipment Types in ERP (BC Set)

You use this procedure to define shipment types which are used for ERP based planning and EWM-based planning.

Procedure

...
1. In customizing for SAP ERP choose Logistics Execution → Transportation → Shipments →Define Shipment Types

2. Copy shipment type 0001 to ZERP and ZEWM and change the number ranges as follows:

<table>
<thead>
<tr>
<th>Shipment Type</th>
<th>NR int. assgt.</th>
<th>No. range ext.</th>
<th>Adopt route</th>
<th>Determine legs</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZERP</td>
<td>03</td>
<td></td>
<td>2 Do not adopt stages</td>
<td>Blank: No legs to be determined</td>
</tr>
<tr>
<td>ZEWM</td>
<td>03</td>
<td>04</td>
<td>2 Do not adopt stages</td>
<td>Blank: No legs to be determined</td>
</tr>
</tbody>
</table>

3. Save your entries.

4.1.14 Maintaining Transportation Relevance for Deliveries in SAP ERP (BC Set)

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.

Procedure

1. In customizing for SAP ERP choose Logistics Execution → Transportation → Shipments Maintain Transportation Relevance → Maintain transportation relevance for delivery types

2. Create the following entries:

<table>
<thead>
<tr>
<th>DlvTy</th>
<th>Description</th>
<th>Rel.Transport</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZLOA</td>
<td>Dlv. w/o Ref. TPT A</td>
<td>X</td>
</tr>
<tr>
<td>ZLOB</td>
<td>Dlv. w/o Ref. TPT B</td>
<td>X</td>
</tr>
</tbody>
</table>

3. Save your entries.

4.1.15 Creating Transportation Planning Point in ERP (BC Set)

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 SHPMNT to ERP (example: TPPT 0001).
- Communication from EWM to ERP for the deletion of a shipment in ERP. The deletion is communicated via IDoc SHIPPL to ERP. (example: TPPT ZDEL)

Procedure

1. In customizing for SAP ERP choose Enterprise Structure → Definition → Logistics Execution → Maintain transportation planning point

2. Create the following entry

<table>
<thead>
<tr>
<th>TPPt</th>
<th>Description</th>
<th>CoCd</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZDEL</td>
<td>Deletion EWM&gt;ERP</td>
<td>0001</td>
</tr>
</tbody>
</table>

3. Save your entry.

4. In customizing for SAP ERP choose Logistics Execution → Transportation → Interfaces → External Transportation Planning Systems → Maintain Transportation Planning Point for External Systems

5. Create the following entry
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<table>
<thead>
<tr>
<th>TPPl</th>
<th>Description</th>
<th>TPS PartNo</th>
<th>Item type</th>
<th>Ext.no.rge</th>
<th>Change shp</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZDEL</td>
<td>Deletion EWM&gt;ERP</td>
<td>ERFCLNT001</td>
<td>LS</td>
<td>01</td>
<td>00</td>
</tr>
</tbody>
</table>

6. Save your entry

4.1.16 Define Packaging Material Type in ERP (BC Set)

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

Procedure

1. In customizing for SAP ERP choose Handling Unit Management → Basics → Define Packaging Material Types
2. Make the following entries:

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

3. Save the entry.

4.1.17 Changing Packaging Material in ERP (Mandatory)

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).

See also corresponding chapter on the EWM side: Configuring Means of Transport and Packaging Material in SAP EWM

Procedure

1. In Customizing for SAP ERP, choose Logistics → General → Handling Unit Management → Basics → Define Packaging Material Types
2. Check that packaging material type MTR2 exists.
3. In the Easy Access menu for SAP ERP choose Logistics → Logistics Execution → Master Data → Material → Material → Change → Immediately (or choose transaction MM02).
4. Enter material MTR.
5. Select view Sales: General/Plant.
6. Organizational levels: plant PL01.
7. Change the packaging material type to MTR2.
8. Save your changes
4.1.18 Create Customer Master in SAP ERP (Mandatory)

You use this procedure to create new customer master data in ERP. Important is to maintain transportation zones for your customers in order to determine routes in ERP which are a prerequisite for using transportation planning in ERP via LE-TRA. Create the new customers by copying for example CUST001 to CUST021 and CUST002 to CUST022. Change/add the data as described in the table below.

Procedure

1. In the Easy Access menu for SAP ERP choose Logistics → Sales and Distribution → Master Data → Business Partner → Customer → Create → Complete
2. Create new customers by copying customer CUST001 to CUST021 and CUST002 to CUST022
3. Create/change the data as follows

<table>
<thead>
<tr>
<th>Account Group</th>
<th>Customer</th>
<th>Company Code</th>
<th>Sales Area</th>
<th>Name</th>
<th>Street</th>
<th>Postal Code</th>
<th>City</th>
<th>Transportation Zone</th>
<th>Shipping Conditions</th>
<th>Tax Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>KUNA</td>
<td>CUST021</td>
<td>0001</td>
<td>0001</td>
<td>CUST021</td>
<td>Haupts tr.</td>
<td>71083</td>
<td>Herrenberg</td>
<td>0000000002</td>
<td>01</td>
<td>0</td>
</tr>
<tr>
<td>KUNA</td>
<td>CUST022</td>
<td>0001</td>
<td>0001</td>
<td>CUST022</td>
<td>Haupts tr.</td>
<td>73230</td>
<td>Kirchheim unter Teck</td>
<td>0000000002</td>
<td>01</td>
<td>0</td>
</tr>
</tbody>
</table>

4.1.19 Create new output type ZEWM (BC Set)

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

Procedure

1. In Customizing for SAP ERP, choose Logistics Execution → Transportation → Basic Transportation Functions → Output Control → Maintain Output Determination for Shipments → Maintain Output Types .
2. Copy the SEDI output type as ZEWM and enter a description for the new output type, for example ERP2EWM.
3. On the Default values tab page, change the partner function from CR (Forwarding Agent) to LS (Logical System)
5. Select copy all and confirm the message by pressing Enter.
6. Select the ZEWM output type and choose the Partner functions view.
7. Delete the existing partner function for CR.
8. Choose New Entries and enter the following data:
   a. Medium: EDI
   b. Function: LS (Logical system)
9. Save your entries.
4.1.20 Add new output type ZEWM to determination procedure (BC Set)

You use this procedure to add the new output type ZEWM to the determination procedure assigned to shipment type 0001.

Procedure

1. Check which output determination procedure is assigned to shipment type 0001:
2. In Customizing for SAP ERP, 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 this output determination procedure:
5. For the output determination procedure assigned to shipment type 0001, add a new entry under control data for the new condition type ZEWM.
6. Save your entries.

4.1.21 Assign Output Determination Procedure to Shipment types (BC Set)

You use this procedure to assign the output determination procedure which is assigned to shipment type 0001 e.g. V7STRA to the new shipment type ZERP.

Procedure

1. In customizing for SAP ERP choose Logistics Execution → Transportation → Basic Transportation Functions → Output Control → Maintain Output Determination for Shipments → Assign Output Determination Procedure.
2. Create the following entry:

<table>
<thead>
<tr>
<th>ShipmentType</th>
<th>Description</th>
<th>OutDetProc</th>
<th>Description</th>
<th>OutputType</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZERP</td>
<td>Indiv.Shipment - Road</td>
<td>V7STRA</td>
<td>Transportation Output - Road</td>
<td>ZEWM</td>
<td>ERP2EWM</td>
</tr>
</tbody>
</table>

3. Save your entry.

4.1.22 Create condition record for output type ZEWM (Mandatory)

You use this procedure to create a condition record for output type ZEWM.

Procedure

1. Create a condition record for output type ZEWM:
2. In the Easy Access Menu for SAP ERP, choose Logistics → Logistics Execution → Master Data → Output → Shipment → Create.
3. Enter output type ZEWM.
4. Create the following condition record:
**Field Name** | **Value**
--- | ---
Shipment type | ZERP
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 default system language, for example EN

5. Save your entries.

### 4.2 Configuring EDI Communication with EWM in SAP ERP (Mandatory)

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

**Overview of EDI communication between ERP and EWM in the EWM-ERP integration processes:**

**EDI communication for processes with transportation planning in ERP:**

<table>
<thead>
<tr>
<th>Event</th>
<th>Message Type</th>
<th>Sender</th>
<th>Receiver</th>
<th>Trigger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shipment creation</td>
<td>SHPMNT</td>
<td>ERP</td>
<td>EWM</td>
<td>Output type ZEWM</td>
</tr>
<tr>
<td>Shipment change/update</td>
<td>SHPMNT</td>
<td>EWM</td>
<td>ERP</td>
<td>ALE Distribution Model in EWM</td>
</tr>
<tr>
<td>Shipment deletion</td>
<td>SHIPPL</td>
<td>EWM</td>
<td>ERP</td>
<td>ALE Distribution Model in EWM</td>
</tr>
</tbody>
</table>

The shipment created in ERP 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:**

<table>
<thead>
<tr>
<th>Event</th>
<th>Message Type</th>
<th>Sender</th>
<th>Receiver</th>
<th>Trigger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shipment creation</td>
<td>SHPMNT</td>
<td>EWM</td>
<td>ERP</td>
<td>ALE Distribution Model in EWM</td>
</tr>
</tbody>
</table>

**Note**

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.

**Note**

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 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.

1. You have defined an RFC destination in ERP for EWM on the SAP Easy Access screen under Tools → Administration → Administration → Network → RFC Destinations.
   - If you use EWM on an own server, you have set up an RFC destination in ERP for EWM, e.g. <EWMCLNT001>.
   - If you use EWM as an add-on application to ERP, you have set up an RFC destination, e.g. <ABTEWMM001> as an internal connection called NONE.

2. 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:
   - 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 <ABTEWMM001> if EWM is installed on top of ERP), assigned to the RFC destination for EWM

4.2.1 Create the Port (Mandatory)
You use this procedure to create a port for EWM as follows:
   - If you use EWM on an own server, you set up a port in ERP for EWM that carries the RFC destination for EWM, e.g. <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.

Procedure
1. Create a port for EWM
2. In the Easy Access menu for SAP ERP choose Tools → ALE → ALE Administration → Runtime Settings → Port Maintenance.
3. Position the cursor on Transactional RFC and choose Create
4. 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 press Continue
5. 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)
6. Save your entries

4.2.2 Create the Partner Profiles (Mandatory)

4.2.2.1 Partner Profiles (EWM as an own Server)
You use this procedure to set up the partner profiles if you use EWM on an own server

Procedure
1. On the SAP Easy Access screen choose Tools → ALE → ALE Administration → Runtime Settings → Partner Profiles
2. Choose Create
3. Enter the logical system for EWM as partner number, for example <EWMCLNT001> and partner type LS.
4. Enter a user type (for example US for User) and an agent (<user name>) to be notified in case of processing errors
5. Save the partner profile
6. Choose *Create outbound parameter* for sending IDoc SHPMNT to EWM via output determination for output type **ZEWM**:
7. Enter the following data on the *Outbound Options* tab:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partner Role</td>
<td>LS</td>
</tr>
<tr>
<td>Message Type</td>
<td>SHPMNT</td>
</tr>
<tr>
<td>Message Code</td>
<td></td>
</tr>
<tr>
<td>Receiver Port</td>
<td>EWM Port, for example &lt;EWMCLNT001&gt;</td>
</tr>
<tr>
<td>Output Mode</td>
<td>Transfer IDoc Immediately</td>
</tr>
<tr>
<td>Basic Type</td>
<td>SHPMNT05</td>
</tr>
<tr>
<td>Package Size</td>
<td>1</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application</td>
<td>V7</td>
</tr>
<tr>
<td>Message Type</td>
<td>ZEWM</td>
</tr>
<tr>
<td>Process Code</td>
<td>SD11</td>
</tr>
</tbody>
</table>

10. Choose *Create inbound parameter* for receiving IDoc SHPMNT from EWM:
11. Enter the following data on the *Inbound Options* tab:

<table>
<thead>
<tr>
<th>Field name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partner Role</td>
<td></td>
</tr>
<tr>
<td>Message Type</td>
<td>SHPMNT</td>
</tr>
<tr>
<td>Message Code</td>
<td></td>
</tr>
<tr>
<td>Process Code</td>
<td>SHPM</td>
</tr>
</tbody>
</table>

13. Choose *Create inbound parameter* for receiving IDoc TPSSHT from EWM:
14. Enter the following data on the *Inbound Options* tab:

<table>
<thead>
<tr>
<th>Field name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partner Role</td>
<td></td>
</tr>
<tr>
<td>Message Type</td>
<td>SHIPPL</td>
</tr>
<tr>
<td>Message Code</td>
<td></td>
</tr>
<tr>
<td>Process Code</td>
<td>SHIP</td>
</tr>
</tbody>
</table>

15. Save your entries

4.2.2.2 Partner Profiles for Sending Idocs (Add-On to ERP)
You use this procedure to set up the partner profiles for sending IDocs as follows if you use EWM as an add-on application to ERP

**Procedure**
1. On the Easy Access menu for SAP ERP choose Tools → ALE → ALE Administration → Runtime Settings → Partner Profiles
2. Choose Create
3. Enter the logical system for EWM as partner number, for example <ABTEWM001> and partner type LS
4. Enter a user type (for example US for User) and an agent (<user name>) to be notified in case of processing errors
5. Save the partner profile
6. Choose Create outbound parameter for sending IDoc SHPMNT to EWM via output determination for output type ZEWM
7. Enter the following data on the Outbound Options tab:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partner Role</td>
<td>LS</td>
</tr>
<tr>
<td>Message Type</td>
<td>SHPMNT</td>
</tr>
<tr>
<td>Message Code</td>
<td>ERP</td>
</tr>
<tr>
<td>Receiver Port</td>
<td>V-NONE</td>
</tr>
<tr>
<td>Output Mode</td>
<td>Transfer IDoc Immediately</td>
</tr>
<tr>
<td>Basic Type</td>
<td>SHPMNT05</td>
</tr>
<tr>
<td>Package Size</td>
<td>1</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Field Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application</td>
<td>V7</td>
</tr>
<tr>
<td>Message Type</td>
<td>ZEWM</td>
</tr>
<tr>
<td>Process Code</td>
<td>SD11</td>
</tr>
</tbody>
</table>

9. Choose Create outbound parameter for sending IDoc SHPMNT to ERP
10. Enter the following data on the Outbound Options tab:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Field Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partner Role</td>
<td>-</td>
</tr>
<tr>
<td>Message Type</td>
<td>SHPMNT</td>
</tr>
<tr>
<td>Message Code</td>
<td>-</td>
</tr>
<tr>
<td>Receiver Port</td>
<td>V-NONE</td>
</tr>
<tr>
<td>Output Mode</td>
<td>Transfer IDoc Immediately</td>
</tr>
<tr>
<td>Basic Type</td>
<td>SHPMNT05</td>
</tr>
<tr>
<td>Package Size</td>
<td>1</td>
</tr>
</tbody>
</table>

11. Choose Create outbound parameter for sending IDoc TPSSHT to ERP:
12. Enter the following data on the Outbound Options tab:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Field Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partner Role</td>
<td>-</td>
</tr>
<tr>
<td>Message Type</td>
<td>SHIPPL</td>
</tr>
<tr>
<td>Message Code</td>
<td>-</td>
</tr>
</tbody>
</table>
Receiver Port | V-NONE
--- | ---
Output Mode | Transfer IDoc Immediately
Basic Type | TPSSHT01
Package Size | 1

### 4.2.2.3 Partner Profiles for Receiving Idocs (Add-On to ERP)

You use this procedure to set up the partner profiles for receiving IDocs as follows if you use EWM as an add-on application to ERP

**Procedure**

1. On the Easy Access menu for SAP ERP choose Tools → ALE → ALE Administration → Runtime Settings → Partner Profiles
2. Choose Create
3. Enter the own logical system as partner number, for example <ABTCLNT001> and partner type LS
4. Enter a user type (for example US for User) and an agent (<user name>) to be notified in case of processing errors
5. Save the partner profile
6. Choose Create inbound parameter for receiving IDoc SHPMNT from ERP
7. Enter the following data on the Inbound Options tab:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Field Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partner Role</td>
<td>-</td>
</tr>
<tr>
<td>Message Type</td>
<td>SHPMNT</td>
</tr>
<tr>
<td>Message Code</td>
<td>ERP</td>
</tr>
<tr>
<td>Process Code</td>
<td>/SCWM/SHPM</td>
</tr>
</tbody>
</table>

9. Choose Create inbound parameter for receiving IDoc SHPMNT from EWM
10. Enter the following data on the Inbound Options tab:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Field Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partner Role</td>
<td>-</td>
</tr>
<tr>
<td>Message Type</td>
<td>SHPMNT</td>
</tr>
<tr>
<td>Message Code</td>
<td>-</td>
</tr>
<tr>
<td>Process Code</td>
<td>SHPM</td>
</tr>
</tbody>
</table>

12. Choose Create inbound parameter for receiving IDoc TPSSHT from EWM
13. Enter the following data on the Inbound Options tab:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Field Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partner Role</td>
<td>-</td>
</tr>
<tr>
<td>Message Type</td>
<td>TPSSHT</td>
</tr>
<tr>
<td>Message Code</td>
<td>-</td>
</tr>
<tr>
<td>Process Code</td>
<td>SHIP</td>
</tr>
</tbody>
</table>

14. Save your entries
4.2.3 Scheduling Report for Reprocessing failed IDOCs in SAP ERP (Mandatory)

In the 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.

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

Procedure

Schedule report RBDMANI2 to reprocess failed IDOCs: schedule with current data 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:
2. On the Easy Access menu for SAP ERP choose System → Services → Reporting.
3. Enter program RBDMANI2 and choose Execute.
4. Enter the message type SHPMNT, message class VII and message number 007. If you cannot find the message number in the value help, check that OSS note 1665773 is implemented in the system.
5. Save as a variant, for example, VSHPMNT.
6. On the variant attributes screen, choose for field name Created On the selection variable D and choose the following variable name:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Field Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>I/E</td>
<td>I</td>
</tr>
<tr>
<td>Option</td>
<td>EQ</td>
</tr>
<tr>
<td>Variable Name</td>
<td>Current Date</td>
</tr>
</tbody>
</table>

7. Define a background job for program RBDMANI2. In this example, the job runs every three minutes:
9. Enter the name of the job, for example, EWMSPMNT.
10. Create step number 1 by choosing Step.
11. In the ABAP program screen area, enter program RBDMANI2 and variant VSHPMNT.
12. Save your entries.
13. The Step List Overview screen appears.
15. Choose Start Condition.
16. The Start Time screen appears.
17. Choose Date/Time.
18. Enter the scheduled start date and time.
19. Select the Periodic job checkbox.
20. Choose Period values.
21. The Period Values screen appears.
22. Select Other Period, enter 3 minutes and save your entries.
23. On the Period Values screen, save your entries.
25. On the Define Background Job screen, save your entries.

### 4.3 Configuration in SAP EWM

#### 4.3.1 Activate the BC-Set /SCWM/PRE_LETRA_05 (Mandatory)

You use this procedure to activate the following BC Sets in SAP EWM

- /SCWM/PRE_LETRA_05

**Procedure**

1. In the Easy Access menu for SAP EWM choose Tools → Customizing → Business Configuration Sets → Activation of BC Sets or use transaction SCPR20
2. Enter BC Set /SCWM/PRE_LETRA_05
3. Press activate
4. Enter the following data as variables to be used by the BC Set during activation
   a. Enter your ERP Business System e.g. <ERP_001>
   b. Enter your EWM warehouse number e.g. W002
   c. Enter your ERP warehouse number e.g. W02
5. Press copy values

**Tip**

Do the activation twice. Because of sequential problems within the BC Set you might get error messages after the first activation. After the second activation only warning messages should occur which have no negative implications.

#### 4.3.2 Create Item Types in EWM (BC-Set)

You use this procedure to create additional item types for the outbound delivery process in EWM by copying ODLV to ODTM

**Procedure**

2. Select entry for Item Type ODLV and Doc. Cat. FDO
3. Copy the entry to Item Type ODTM and Doc. Cat. FDO.
4. Save the data.
5. Select entry for Item Type ODLV and Doc. Cat. ODR
6. Copy the entry to Item Type ODTM and Doc. Cat. ODR.
7. Save the data.
8. Select entry for Item Type ODLV and Doc. Cat. PDO
9. Copy the entry to Item Type ODTM and Doc. Cat. PDO.
10. Save the data.

#### 4.3.3 Create Document Types in EWM (BC-Set)
You use this procedure to create additional document types for outbound delivery process in SAP EWM by copying OUTB to ZDOA, ZDOB, ZLOA and ZLOB

**Procedure**

2. Select entry for Doc. Type OUTB and Doc. Cat. FDO
3. Copy the entry to Doc. Type ZDOA and Doc. Cat. FDO.
4. Save the data.
5. Select entry for Doc. Type OUTB and Doc. Cat. ODR
6. Copy the entry to Doc. Type ZDOA and Doc. Cat. ODR.
7. Save the data.
8. Select entry for Doc. Type OUTB and Doc. Cat. PDO
9. Copy the entry to Doc. Type ZDOA and Doc. Cat. PDO.
10. Save the data.
11. Do the steps above for ZDOB, ZLOA and ZLOB as well

### 4.3.4 Change Document Type in EWM (BC Set)

You use this procedure to change document type ZDOA in such a way that the blocked status for transportation can be used.

**Procedure**

2. Change the following entry as displayed:

<table>
<thead>
<tr>
<th>Document Type</th>
<th>Doc.Cat.</th>
<th>Item Cat.</th>
<th>Status Profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZDOA</td>
<td>PDO</td>
<td>DLV</td>
<td>/SCWM/OUT_PRD_DLV_Transp_Int</td>
</tr>
</tbody>
</table>

3. Save your changes.

### 4.3.5 Change Item Types in EWM (BC-Set)

You use this procedure to change item type ODTM in such a way that the blocked status for transportation can be used.

**Procedure**

2. Change the following entry as displayed:

<table>
<thead>
<tr>
<th>Item Type</th>
<th>Doc.Cat.</th>
<th>Item Cat.</th>
<th>Status Profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>ODTM</td>
<td>PDO</td>
<td>DLV</td>
<td>/SCWM/OUT_PRD_DLV_Transp_Int</td>
</tr>
</tbody>
</table>

3. Save your changes.
Result
The document type \texttt{ZDOA} and item type \texttt{ODTM} contain status type \texttt{DBT}, which is used to block a delivery until it is assigned to a TU. This means that for ERP-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.

4.3.6 Map Document Types from ERP to EWM in EWM (BC-Set)

You use this procedure to map document types from ERP system to EWM in SAP EWM

**Procedure**
1. In Customizing for SAP EWM choose \textit{Extended Warehouse Management} \rightarrow \textit{Interfaces} \rightarrow \textit{ERP Integration} \rightarrow \textit{Delivery Processing} \rightarrow \textit{Map Document Types from ERP System to EWM}
2. Create the following entries:

<table>
<thead>
<tr>
<th>Business System</th>
<th>DocTypeERP</th>
<th>Doc. Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>ZLFA</td>
<td>ZDOA</td>
</tr>
<tr>
<td>-</td>
<td>ZLOA</td>
<td>ZLDOA</td>
</tr>
<tr>
<td>-</td>
<td>ZLOB</td>
<td>ZLDOB</td>
</tr>
<tr>
<td>-</td>
<td>ZLFB</td>
<td>ZDOB</td>
</tr>
</tbody>
</table>

3. Save your entries.

4.3.7 Map Item Types from ERP to EWM in EWM (BC-Set)

You use this procedure to map item types from ERP system to EWM in SAP EWM

**Procedure**
1. In Customizing for SAP EWM choose \textit{Extended Warehouse Management} \rightarrow \textit{Interfaces} \rightarrow \textit{ERP Integration} \rightarrow \textit{Delivery Processing} \rightarrow \textit{Map Item Types from ERP System to EWM}
2. Create the following entries:

<table>
<thead>
<tr>
<th>Business System</th>
<th>DocTypeERP</th>
<th>ItmTpERP</th>
<th>Doc. Type</th>
<th>Item Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>ZLFA</td>
<td>TAN</td>
<td>ZDOA</td>
<td>ODTM</td>
</tr>
<tr>
<td>-</td>
<td>ZLFA</td>
<td>TATX</td>
<td>ZDOA</td>
<td>OTXT</td>
</tr>
<tr>
<td>-</td>
<td>ZLOA</td>
<td>DLN</td>
<td>ZLDOA</td>
<td>ODTM</td>
</tr>
<tr>
<td>-</td>
<td>ZLOA</td>
<td>DLTX</td>
<td>ZLDOA</td>
<td>OTXT</td>
</tr>
<tr>
<td>-</td>
<td>ZLOB</td>
<td>DLN</td>
<td>ZLDOB</td>
<td>ODLV</td>
</tr>
<tr>
<td>-</td>
<td>ZLOB</td>
<td>DLTX</td>
<td>ZLDOB</td>
<td>OTXT</td>
</tr>
<tr>
<td>-</td>
<td>ZLFB</td>
<td>TAN</td>
<td>ZDOB</td>
<td>ODLV</td>
</tr>
<tr>
<td>-</td>
<td>ZLFB</td>
<td>TATX</td>
<td>ZDOB</td>
<td>OTXT</td>
</tr>
</tbody>
</table>

3. Save your entries.

4.3.8 Map Date Types from ERP to EWM in EWM (BC-Set)

You use this procedure to map date types from ERP system to EWM in SAP EWM
**Procedure**

1. In Customizing for SAP EWM choose *Extended Warehouse Management* → *Interfaces* → *ERP Integration* → *Delivery Processing* → *Map Date Types from ERP System to EWM*

2. Create the following entries:

<table>
<thead>
<tr>
<th>Business System</th>
<th>DocTypeERP</th>
<th>Doc. Type</th>
<th>End Date</th>
<th>Conf.D/T</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>WSHDRLFDAT</td>
<td>ZDOA</td>
<td>TDELIVERY</td>
<td>Do not Confirm Date/Time</td>
</tr>
<tr>
<td>-</td>
<td>WSHDRLFDAT</td>
<td>ZDOB</td>
<td>TDELIVERY</td>
<td>Do not Confirm Date/Time</td>
</tr>
<tr>
<td>-</td>
<td>WSHDRLFDAT</td>
<td>ZLOA</td>
<td>TDELIVERY</td>
<td>Do not Confirm Date/Time</td>
</tr>
<tr>
<td>-</td>
<td>WSHDRLFDAT</td>
<td>ZLOB</td>
<td>TDELIVERY</td>
<td>Do not Confirm Date/Time</td>
</tr>
</tbody>
</table>

### 4.3.9 Control Message Processing Dependent on Recipient (BC-Set)

You use this procedure to control message processing dependent on recipient.

**Procedure**

1. In Customizing for SAP EWM choose *Extended Warehouse Management* → *Interfaces* → *ERP Integration* → *Delivery Processing* → *Control Message Processing Dependent on Recipient*

2. Create the following entries:

<table>
<thead>
<tr>
<th>Business System</th>
<th>DocTypeERP</th>
<th>HU Parametr</th>
<th>Int</th>
<th>ItmlIncr</th>
<th>SPro</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>ZDOA</td>
<td>Report HU Data</td>
<td>01</td>
<td>10</td>
<td>0003</td>
</tr>
<tr>
<td>-</td>
<td>ZDOB</td>
<td>Report HU Data</td>
<td>01</td>
<td>10</td>
<td>0003</td>
</tr>
<tr>
<td>-</td>
<td>ZLOA</td>
<td>Report HU Data</td>
<td>01</td>
<td>10</td>
<td>0003</td>
</tr>
<tr>
<td>-</td>
<td>ZLOB</td>
<td>Report HU Data</td>
<td>01</td>
<td>10</td>
<td>0003</td>
</tr>
</tbody>
</table>

3. Save your entries.

### 4.3.10 Map Routes and Route Schedule from ERP System to EWM (BC-Set)

You use this procedure to map routes and route schedule from ERP System to EWM in SAP EWM.

**Procedure**

1. In Customizing for SAP EWM choose *Extended Warehouse Management* → *Interfaces* → *ERP Integration* → *Delivery Processing* → *Map Routes and Route Schedule from ERP System to EWM*

2. Change the following entry as displayed:
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<table>
<thead>
<tr>
<th>Business System</th>
<th>Whse No. ERP</th>
<th>Mapping Route</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;ERP_001&gt;</td>
<td>W02</td>
<td>1 Use Route (SD) If Route (SCM) Is Initial</td>
</tr>
</tbody>
</table>

3. Save your changes.

4.3.11 Activate or Deactivate Route Determination (BC-Set)

You use this procedure to activate or deactivate route determination in SAP EWM

Procedure

1. In Customizing for SAP EWM choose Extended Warehouse Management → Goods Issue Process → Outbound Delivery → Route Determination → Activate or Deactivate Route Determination
2. Create the following entries:

<table>
<thead>
<tr>
<th>Warehouse No.</th>
<th>Doc.Type</th>
<th>Doc. Cat.</th>
<th>RD Status</th>
<th>RD Seq.</th>
<th>RD ERP</th>
</tr>
</thead>
<tbody>
<tr>
<td>W002</td>
<td>ZDOA</td>
<td>PDO</td>
<td>3 Route Determination Inactive</td>
<td>Standard Logic</td>
<td>No Determination If Route Origin is in ERP (SD)</td>
</tr>
<tr>
<td>W002</td>
<td>ZDOB</td>
<td>PDO</td>
<td>3 Route Determination Inactive</td>
<td>Standard Logic</td>
<td>No Determination If Route Origin is in ERP (SD)</td>
</tr>
<tr>
<td>W002</td>
<td>ZLOA</td>
<td>PDO</td>
<td>3 Route Determination Inactive</td>
<td>Standard Logic</td>
<td>No Determination If Route Origin is in ERP (SD)</td>
</tr>
<tr>
<td>W002</td>
<td>ZLOB</td>
<td>PDO</td>
<td>3 Route Determination Inactive</td>
<td>Standard Logic</td>
<td>No Determination If Route Origin is in ERP (SD)</td>
</tr>
</tbody>
</table>

4.3.12 Define Allowed Item Types for Document Type (BC Set)

You use this procedure to define allowed item types for document types

Procedure

1. In Customizing for SAP EWM choose Extended Warehouse Management → Goods Issue Process → Outbound Delivery → Define Allowed Item Types in Outbound Delivery Process
2. Create the following entries:

<table>
<thead>
<tr>
<th>Document Type</th>
<th>Item Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>OTM</td>
<td>ODTM</td>
</tr>
<tr>
<td>OTM</td>
<td>OTXT</td>
</tr>
</tbody>
</table>
4.3.13 Define Status Profile for Transportation Planning (BC Set)

You use this procedure to define a status profile for transportation planning.

Procedure

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:

<table>
<thead>
<tr>
<th>Status Type</th>
<th>Short Text</th>
<th>Inactive</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBT</td>
<td>Blocked (Transp. Plan)</td>
<td>-</td>
</tr>
<tr>
<td>DCO</td>
<td>Completion</td>
<td>-</td>
</tr>
<tr>
<td>DER</td>
<td>Planned Picking</td>
<td>-</td>
</tr>
<tr>
<td>DLO</td>
<td>Loading</td>
<td>-</td>
</tr>
<tr>
<td>DPC</td>
<td>Packing</td>
<td>-</td>
</tr>
<tr>
<td>DPI</td>
<td>Picking</td>
<td>-</td>
</tr>
<tr>
<td>DTU</td>
<td>Assign Transportation Unit</td>
<td>-</td>
</tr>
<tr>
<td>DWA</td>
<td>Warehouse Act.</td>
<td>-</td>
</tr>
</tbody>
</table>

**Note**

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

4.3.14 Define Transportation Planning Type (BC Set)

You use this procedure to define the transportation planning type for transportation planning in ERP.

Procedure
1. In Customizing for SAP EWM, choose Goods Issue Process → Outbound Delivery → Integration with Transportation → Define Transportation Planning Type (Outbound)

2. Create the following entry:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PDO</td>
<td>ZDOA</td>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>PDO</td>
<td>ZLOA</td>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>PDO</td>
<td>ZDOB</td>
<td></td>
<td></td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>PDO</td>
<td>ZLOB</td>
<td></td>
<td></td>
<td>B</td>
</tr>
</tbody>
</table>

3. Save your entry

4.3.15 Allow Execution without Transportation Planning (BC Set)

You use this procedure to allow manual release for execution without transportation planning.

Procedure

1. In Customizing for SAP EWM, choose Goods Issue Process → Outbound Delivery → Integration with Transportation → Allow EWM Execution Without Transportation Planning (Outbound)

2. Create the following entry:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PDO</td>
<td>ZDOA</td>
<td></td>
<td>A</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>PDO</td>
<td>ZLOA</td>
<td></td>
<td>A</td>
<td>X</td>
</tr>
</tbody>
</table>

3. Save your entry

4.3.16 Configuring Packaging Material Type in EWM (BC Set)

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 Cross-Process Settings → Handling Units → Basics → Define Packaging Material Types

2. Create the following entry

<table>
<thead>
<tr>
<th>Packaging Material Type</th>
<th>Description</th>
<th>Packaging material Category</th>
<th>Control for Handling Units About to become Empty</th>
<th>Type of External Handling Unit Number Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTR2</td>
<td>Transportation Unit</td>
<td>A (Means of Transport)</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

3. Save your entry

4.3.17 Configuring Means of Transport in SAP EWM (BC Set)

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.
Procedure

1. In customizing for SAP EWM choose SCM Basis → Master Data → Transportation Lane → Maintain Means of Transport
2. Create the following entry

<table>
<thead>
<tr>
<th>Means of Transport</th>
<th>Description</th>
<th>Standard Code</th>
<th>Average Speed</th>
<th>Average Working Time</th>
<th>Transportation Mode</th>
<th>Mode of Transport Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTR2</td>
<td>Truck</td>
<td>031</td>
<td>60.000</td>
<td>24:00</td>
<td>ROAD</td>
<td>1</td>
</tr>
</tbody>
</table>

3. In Customizing for SAP EWM choose Cross-Process Settings → Shipping and Receiving → General Settings → Define Control Parameters for Forming Vehicles/Transportation Units
4. Create the following entries

<table>
<thead>
<tr>
<th>Means of Transport</th>
<th>Vehicle/TU</th>
<th>No. Range No.</th>
<th>Action Profile</th>
<th>Status Profile</th>
<th>Default Owner</th>
<th>Max. No. of Seals</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTR2</td>
<td>TU (Transportation Unit)</td>
<td>01</td>
<td>/SCWM/TU</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>MTR2</td>
<td>VEH (Vehicle)</td>
<td>01</td>
<td>/SCWM/VEH</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

5. Save your entries.

4.3.18 Defining the Link between Packaging Material and MTR in SAP EWM (Mandatory)

You use this procedure to create the necessary link between the packaging material and the means of transport for the creation of a TU/Vehicle.

Procedure

1. In the easy access menu for SAP EWM choose Extended Warehouse Management → Settings → Shipping and Receiving → Link Between Packaging Material (TU) and Means of Transport
2. Create the following entry if not already existing

<table>
<thead>
<tr>
<th>MTr</th>
<th>Pack.Material</th>
<th>Optional</th>
<th>Seq.PMs</th>
<th>No. PMs in MTr</th>
<th>Cont. PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTR2</td>
<td>MTR</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>X</td>
</tr>
</tbody>
</table>

3. Save your entry.

4.3.19 Determine Warehouse Process Type (BC-Set)

You use this procedure to determine warehouse process types in SAP EWM.

Procedure

1. In Customizing for SAP EWM choose Extended Warehouse Management → Cross-Process Settings → Warehouse Task → Determine Warehouse Process Type
2. Create the following entries:
### 4.3.20 Assign Determination Procedure (BC-Set)

You use this procedure to assign determination procedures in SAP EWM

#### Procedure

1. In Customizing for SAP EWM choose *Extended Warehouse Management → Cross-Process Settings → Delivery Processing → Actions → Configure Action Scheduling → Assign Determination Procedure*

2. Create the following entries:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>/SCWM/PDO_02_WAVE</td>
<td>PDO</td>
<td>ZDOA</td>
<td></td>
<td>0DWTP</td>
</tr>
<tr>
<td>/SCWM/PDO_01_PRINT</td>
<td>PDO</td>
<td>ZDOA</td>
<td></td>
<td>0DDNP</td>
</tr>
<tr>
<td>/SCWM/PDO_02_WAVE</td>
<td>PDO</td>
<td>ZDOB</td>
<td></td>
<td>0DWTP</td>
</tr>
<tr>
<td>/SCWM/PDO_01_PRINT</td>
<td>PDO</td>
<td>ZDOB</td>
<td></td>
<td>0DDNP</td>
</tr>
<tr>
<td>/SCWM/PDO_02_WAVE</td>
<td>PDO</td>
<td>ZLOA</td>
<td></td>
<td>0DWTP</td>
</tr>
<tr>
<td>/SCWM/PDO_01_PRINT</td>
<td>PDO</td>
<td>ZLOA</td>
<td></td>
<td>0DDNP</td>
</tr>
<tr>
<td>/SCWM/PDO_02_WAVE</td>
<td>PDO</td>
<td>ZLOB</td>
<td></td>
<td>0DWTP</td>
</tr>
<tr>
<td>/SCWM/PDO_01_PRINT</td>
<td>PDO</td>
<td>ZLOB</td>
<td></td>
<td>0DDNP</td>
</tr>
</tbody>
</table>

3. Save your entries.
4.3.21 Assign Wave Determination Procedure (BC-Set)

You use this procedure to assign wave determination procedure in SAP EWM.

Procedure

1. In Customizing for SAP EWM choose Extended Warehouse Management → Goods Issue Process → Wave Management → Wave Template Determination → Assign Procedure to Document Type
2. Create the following entries:

<table>
<thead>
<tr>
<th>Warehouse No.</th>
<th>Doc. Cat</th>
<th>Doc. Type</th>
<th>Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>W002</td>
<td>PDO</td>
<td>ZDOA</td>
<td>0OODL</td>
</tr>
<tr>
<td>W002</td>
<td>PDO</td>
<td>ZDOB</td>
<td>0OODL</td>
</tr>
<tr>
<td>W002</td>
<td>PDO</td>
<td>ZLOA</td>
<td>0OODL</td>
</tr>
<tr>
<td>W002</td>
<td>PDO</td>
<td>ZLOB</td>
<td>0OODL</td>
</tr>
</tbody>
</table>

3. Save your entries.

4.3.22 Create Condition Records for Printing of Delivery Notes (Mandatory)

You use this procedure to create condition records for printing of delivery notes

Procedure

1. In the Easy Access menu for SAP EWM choose Extended Warehouse Management → Delivery Processing → Actions → Maintain Condition Records for PPF Schedule Conditions (Validity Today's Date to 31.12.9999)
2. Create the following entries for application DPP, maintenance group DLVP and maintenance context GCM:

<table>
<thead>
<tr>
<th>Condition Type</th>
<th>Action Definition</th>
<th>DocTy.</th>
<th>GM Sts</th>
<th>ChgMod</th>
<th>SH;WhN</th>
</tr>
</thead>
<tbody>
<tr>
<td>0DDN</td>
<td>/SCWM/FDO_0_1_PRINT</td>
<td>-</td>
<td>NSFI</td>
<td>I</td>
<td>-;W002</td>
</tr>
<tr>
<td>0DDN</td>
<td>/SCWM/FDO_0_1_PRINT</td>
<td>-</td>
<td>NSFI</td>
<td>U</td>
<td>-;W002</td>
</tr>
</tbody>
</table>

3. Save your entries.

4.3.23 Create Storage Bins for Doors (Mandatory)

You use this procedure to create storage bins for doors.

Procedure

1. In the Easy Access menu for SAP EWM choose Extended Warehouse Management → Master Data → Storage Bin → Create Storage Bin
2. Create the following entries:

<table>
<thead>
<tr>
<th>Warehouse No.</th>
<th>Storage Bin</th>
<th>Storage Type</th>
<th>Storage Bin Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>W002</td>
<td>DOOR-004</td>
<td>T940</td>
<td>D030</td>
</tr>
<tr>
<td>W002</td>
<td>DOOR-005</td>
<td>T940</td>
<td>D030</td>
</tr>
</tbody>
</table>
### 4.3.24 Assign Door Storage Bin and Supply Chain Unit (Mandatory)

You use this procedure to assign door storage bin and Supply Chain Unit

**Procedure**

1. In the Easy Access menu for SAP EWM choose *Extended Warehouse Management → Master Data → Shipping and Receiving → Assign Door Storage Bin and Supply Chain Unit*
2. Create the following entries:

<table>
<thead>
<tr>
<th>Warehouse No.</th>
<th>Whse Door</th>
<th>Storage Bin</th>
</tr>
</thead>
<tbody>
<tr>
<td>W002</td>
<td>DO04</td>
<td>DOOR-004</td>
</tr>
<tr>
<td>W002</td>
<td>DO05</td>
<td>DOOR-005</td>
</tr>
<tr>
<td>W002</td>
<td>DO06</td>
<td>DOOR-006</td>
</tr>
<tr>
<td>W002</td>
<td>DO07</td>
<td>DOOR-007</td>
</tr>
<tr>
<td>W002</td>
<td>DO08</td>
<td>DOOR-008</td>
</tr>
<tr>
<td>W002</td>
<td>DO09</td>
<td>DOOR-009</td>
</tr>
</tbody>
</table>

3. Save your entries.

### 4.3.25 Staging Area and Door Determination Outbound (Mandatory)

You use this procedure to configure the staging area and door determination (Outbound)

**Procedure**

1. In the Easy Access menu for SAP EWM choose *Extended Warehouse Management → Settings → Shipping and Receiving → Staging Area and Door Determination (Outbound)*
2. Create the following entry:

<table>
<thead>
<tr>
<th>Route</th>
<th>WPT</th>
<th>Dep.Cal</th>
<th>ShipTo</th>
<th>StgArea Group</th>
<th>StgArea</th>
<th>StgBay</th>
<th>Door</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>P212</td>
<td>-</td>
<td>-</td>
<td>T920</td>
<td>S001</td>
<td>STAGE-002</td>
<td>-</td>
</tr>
</tbody>
</table>

3. Save your entry.

### 4.3.26 Configuring Action Profiles for TU and Vehicle in SAP EWM (BC Set)

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

2. Select the Action Profile /SCWM/TU and choose action definition in the dialog structure and switch to change mode.
3. Change the following entries (Activate them):

<table>
<thead>
<tr>
<th>Action Definition</th>
<th>Inactive</th>
</tr>
</thead>
<tbody>
<tr>
<td>/SCWM/SR_SEND_SHIPPL</td>
<td>-</td>
</tr>
<tr>
<td>/SCWM/SR_SEND_SHPMNT</td>
<td>-</td>
</tr>
</tbody>
</table>

4. Save your changes
5. Select the Action Profile /SCWM/VEH and choose action definition in the dialog structure and switch to change mode.
6. Change the following entries (Activate them):

<table>
<thead>
<tr>
<th>Action Definition</th>
<th>Inactive</th>
</tr>
</thead>
<tbody>
<tr>
<td>/SCWM/SR_SEND_SHIPPL_VEH</td>
<td>-</td>
</tr>
</tbody>
</table>

7. Save your changes

4.4 Configuring EDI Communication with ERP in SAP 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.

**Note**

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

1. You have defined an RFC destination, for example ERPCLNT001, in EWM for ERP
2. In the Easy Access menu choose Tools → Administration → Administration → Network → RFC Destinations.
3. You have defined two logical systems in Customizing for SAP NetWeaver
4. In Customizing for SAP NetWeaver choose Application Server → IDoc Interface / Application Link Enabling (ALE) → Basic Settings → Logical Systems → Define Logical System:
   - EWM logical system, e.g. <EWMCLNT001>, assigned as own logical system to the client
   - ERP logical system, e.g. <ERPCLNT001>, assigned to the RFC destination for ERP

**Note**

If you use EWM as an add-on application for ERP, the prerequisites are the same as described in chapter Configuring EDI Communication with EWM in SAP ERP.

4.4.1 Create the Distribution Model (Mandatory)

You use this procedure to set up the distribution model

Procedure
   - 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 the own logical system (for example <ABTCLNT001>) to the EWM logical system (for example <ABTEWM001>).

   **Note**
   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 point 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>).

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

<table>
<thead>
<tr>
<th>Sender</th>
<th>Own logical system, for example &lt;EWMCLNT001&gt; (or &lt;ABTCLNT001&gt; if EWM is installed as Add-On to ERP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receiver</td>
<td>ERP logical system, for example &lt;ERPCLNT001&gt; (or &lt;ABTEWM001&gt; if EWM is installed as Add-On to ERP)</td>
</tr>
<tr>
<td>Message Type</td>
<td>SHPMNT</td>
</tr>
</tbody>
</table>

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

**4.4.2 Create the Port (Mandatory)**

You use this procedure to create a port for ERP.
   - If you use EWM on an own server, you set up a port in EWM for ERP that carries the RFC destination for ERP, e.g. <ERPCLNT001>.
   - If you use EWM as an add-on application for ERP, you have already made this setting in chapter Configuring EDI Communication with EWM in SAP ERP.

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

**Procedure**

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

4. Enter a description and the RFC destination for EWM, for example `<ERPCLNT001>`

5. Save your entries

### 4.4.3 Create the Partner Profile (Mandatory)

You use this procedure to create an ALE partner profile for ERP as follows if you use EWM on an own server.

**Note**

If you use EWM as an add-on application for ERP, you have already made this setting in chapter *Configuring EDI Communication with EWM in SAP ERP*.

**Procedure**

1. On the SAP Easy Access screen choose *Tools → ALE → ALE Administration → Runtime Settings → Partner Profiles*
2. Choose *Create*
3. Enter the logical system for ERP as partner number, for example `<ERPCLNT001>` and partner type *LS*.
4. Enter a user type (for example *US* for User) and an agent (*<user name>*)) to be notified in case of processing errors
5. Save the partner profile
6. Choose *Create outbound parameter* for sending IDoc SHPMNT to ERP via ALE distribution model
7. Enter the following data on the *Outbound Options* tab:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Field Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partner Role</td>
<td>-</td>
</tr>
<tr>
<td>Message Type</td>
<td>SHPMNT</td>
</tr>
<tr>
<td>Message Code</td>
<td>-</td>
</tr>
<tr>
<td>Receiver Port</td>
<td>ERP Port, for example <code>&lt;ERPCLNT001&gt;</code></td>
</tr>
<tr>
<td>Output Mode</td>
<td>Transfer IDoc Immediately</td>
</tr>
<tr>
<td>Basic Type</td>
<td>SHPMNT06</td>
</tr>
<tr>
<td>Package Size</td>
<td>1</td>
</tr>
</tbody>
</table>

8. Choose *Create outbound parameter* for sending IDoc TPSSHT to ERP via ALE distribution model
9. Enter the following data on the *Outbound Options* tab:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Field Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partner Role</td>
<td>-</td>
</tr>
<tr>
<td>Message Type</td>
<td>SHIPPL</td>
</tr>
<tr>
<td>Message Code</td>
<td>-</td>
</tr>
<tr>
<td>Receiver Port</td>
<td>ERP Port, for example <code>&lt;ERPCLNT001&gt;</code></td>
</tr>
<tr>
<td>Output Mode</td>
<td>Transfer IDoc Immediately</td>
</tr>
<tr>
<td>Basic Type</td>
<td>TPSSHT01</td>
</tr>
<tr>
<td>Package Size</td>
<td>1</td>
</tr>
</tbody>
</table>
10. Choose Create inbound parameter for receiving IDoc SHPMNT from ERP:
11. Enter the following data on the Inbound Options tab:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Field Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partner Role</td>
<td>-</td>
</tr>
<tr>
<td>Message Type</td>
<td>SHPMNT</td>
</tr>
<tr>
<td>Message Code</td>
<td>-</td>
</tr>
<tr>
<td>Process Code</td>
<td>/SCWM/SHPM</td>
</tr>
</tbody>
</table>

12. Save your entries

**4.4.4 Defining Default Values for IDoc Outbound in EWM (BC Set)**

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

**Procedure**

1. In Customizing for SAP EWM, choose Interfaces → ERP Integration → Transportation → Define Default Values for IDoc Outbound.
2. Check the following entries:

<table>
<thead>
<tr>
<th>Business System</th>
<th>Message Type</th>
<th>Means of Transport</th>
<th>Shipment Type</th>
<th>TPPt</th>
<th>Keep Shipment Open</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;ERP_001&gt;</td>
<td>SHIPL</td>
<td>-</td>
<td>ZWM1</td>
<td>ZDEL</td>
<td>-</td>
</tr>
<tr>
<td>&lt;ERP_001&gt;</td>
<td>SHPMNT</td>
<td>-</td>
<td>ZWM1</td>
<td>0001</td>
<td>X</td>
</tr>
</tbody>
</table>

**4.4.5 Checking External Numbering for TU/Vehicle in EWM (BC Set)**

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. In customizing for SAP EWM choose EWM → Interfaces → ERP Integration → Transportation → Map Shipment Number and TU Number.
2. Create the following entries:

<table>
<thead>
<tr>
<th>Business System</th>
<th>Map Shpmnt</th>
<th>Map TU No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

3. Save your entry.
5. Appendix

Test Cases
The following test case offers the possibility to test the integration of SAP EWM and the ERP Transportation module (LE-TRA) and the new shipping cockpit.

Prerequisites
1. Stock Upload
   You need to upload stock of your products into the warehouse in order to be able to pick and ship stocks. You can use the csv-file ISU_LETRA_SCO.csv attached to note 1888397 as an example template for the stock upload.

   ![Note]
   It might be necessary to change the data of the csv-file according to the data that fits to your preconfigured warehouse, e.g. owner and entitled. See also note 974852 for further information about stock upload via transaction /SCWM/ISU.

   a. In the Easy Access menu of SAP EWM choose Extended Warehouse Management → Interfaces → Data Upload → Stock Data Transfer
   b. Enter warehouse number W002 and choose Local File
   c. Press pushbutton Open Folder
   d. Select the adapted file ISU_LETRA_SCO.csv
   e. Press Upload
   f. In case of a green status press Start Stock Data Transfer...

2. Settings for Web Dynpro Application ‘Shipping Cockpit’
   You need to set up your user-specific settings in the web dynpro application shipping cockpit for example as follows:
   **General Settings:**
   - Warehouse Number: W002
   - Shipping Office: SP0001
   - Weight Unit: TO
   - Volume Unit: M3
   **Hierarchy:**
   - Object on Level 1: Transportation Unit
   - Object on Level 2: Route
   - Object on Level 3: Ship To Party
   - Object on Level 4: Delivery

3. User Interface
   SAPGUI for ERP transactions and NWBC for EWM

4. Necessary user role /necessary user authorization
   EWM standard warehouse role /SCWM/EXPERT, ERP tester role
# Process Testcase for Shipping Cockpit using LE-TRA Based Planning

**Execution and Checks:**

<table>
<thead>
<tr>
<th>Step</th>
<th>Step description</th>
<th>Step Processor</th>
<th>Input data</th>
<th>Expected results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Create a sales order (ERP)</td>
<td>Sales clerk</td>
<td>1. In SAP ERP, start transaction VA01. 2. Enter the following data:   1. Order type: ZORA   2. Sales Organisation: 0001   3. Distribution Channel: 02   4. Division: 01   3. Choose Enter.   4. Enter the following data:   1. Sold-To Party: For example, CUST021   2. PO Number: For example, &lt;4500000001&gt;   3. Requested Delivery Date: &lt;Enter the current date&gt;   4. Material: For example, PROD-S01   5. Order Quantity: For example, 3 PAL   6. Amount: For example, 10 EUR (needed for condition PR00)   7. Plant: for example PL02   8. Storage Location: AFS</td>
<td>A sales order is created.</td>
</tr>
<tr>
<td>2</td>
<td>Create outbound deliveries (ERP)</td>
<td>Automatic step</td>
<td>-</td>
<td>An outbound delivery, for example, 80000022, is created in SAP ERP. You can check the document flow of the sales order with transaction VA03</td>
</tr>
</tbody>
</table>
### Execution and Checks:

<table>
<thead>
<tr>
<th>Step</th>
<th>Step description</th>
<th>Step Processor</th>
<th>Input data</th>
<th>Expected results</th>
</tr>
</thead>
</table>
| 3    | Create outbound delivery request and outbound delivery order (EWM) | Automatic step | - | The outbound delivery from SAP ERP, for example, 80000022, is sent to SAP Extended Warehouse Management (EWM) and outbound delivery request and outbound delivery order is created.  
You can check the outbound delivery request in EWM in transaction /SCWM/ODR with a selection based on Outb. DR (Active) and entering the ERP outbound delivery number. (Note: You have to maintain warehouse number e.g. W002 in the user settings of the transaction accordingly)  
You can check the outbound delivery order in EWM in transaction /SCWM/PRDO with a selection based on the ERP Document number. Choose ERP Document for that purpose in the DDLB for the Find field. Note down the outbound delivery order document number, for example 310000000012. (Note: You have to maintain warehouse number e.g. W002 in the user settings of the transaction accordingly)  
Check the following data:  
- Document Type: ZDOA  
- ERP Route: 000012  
- ERP Route Schedule: MON1800  
- TransPlan Type: A  
- Item Type: ODTM  
- Warehouse Process Type: P212 |
## Execution and Checks:

<table>
<thead>
<tr>
<th>Step</th>
<th>Step description</th>
<th>Step Processor</th>
<th>Input data</th>
<th>Expected results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 4    | Create shipment and assign outbound deliveries (ERP) | Transportati on Planner | 1. In SAP ERP, start transaction VT01N.  
2. Enter the following data:  
   o Transportation Planning Point 0001  
   o Shipment type: ZERP  
3. Choose Enter.  
4. Enter the following data:  
   o Forwarding Agent: For example, CARR001  
   o Shipment Route: For example, 000012  
5. Assign outbound delivery  
   o Outbound delivery: For example, <80000022>  
6. Create a transport HU  
   o Packaging material: For example, MTR  
7. Choose Enter.  
8. Save your entries. | A shipment, for example, 6100002418 is created in SAP ERP  
For the shipment a Handling Unit is created and the outbound delivery, for example 80000022 is assigned to the shipment.  
You can check the shipment, the Handling Unit and the assigned deliveries in ERP in transaction VT03N by entering the shipment number. For Handling Unit information choose button Packaging Materials (Shift+F9), for information about assigned deliveries choose button Shipments and Deliveries (F7). |
| 5    | Create TU and assign outbound delivery orders (EWM) | Automatic step | - | A TU is created in EWM. The external TU number Transportation Unit is the same number as the ERP shipment number, for example 6100002418. The outbound delivery orders are assigned to the TU.  
You can check this in EWM with transaction /SCWM/TU. Select for the external TU number Transportation Unit, for example 6100002418. The TU is displayed and the outbound delivery order (noted in a previous step), for example 310000000012 is displayed in the Assigned |
## Execution and Checks:

<table>
<thead>
<tr>
<th>Step</th>
<th>Step description</th>
<th>Step Processor</th>
<th>Input data</th>
<th>Expected results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Del. tabstrip.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Check that the TU has TransPlan Type A and the Receiver is filled with the logical system of the ERP.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Navigate to the outbound delivery order display by choosing the button with the puzzle icon and select Delivery Details.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>The means of transport MTR2 is displayed in the outbound delivery order header. The Header Status DBT Blocked (Transp. Plan) is '-'</td>
</tr>
<tr>
<td>6</td>
<td>Planning activities in the shipping cockpit</td>
<td>-</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>6.1</td>
<td>Assign a planned door to the TU</td>
<td>Shipping office clerk</td>
<td>1. In SAP EWM start web dynpro application Shipping Cockpit Planning</td>
<td>A door for example DO02 is assigned to your TU and to your outbound delivery order.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Enter search criteria to select your TU. For example in the search area Transport search via Transportation Unit</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. Select the TU and press Assign Door</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4. Select one of the doors displayed for example DO02</td>
<td></td>
</tr>
<tr>
<td>6.2</td>
<td>Assign your TU to a wave</td>
<td>Shipping office clerk</td>
<td>1. Select the TU and press Create Wave → Manually – Template/TU</td>
<td>The outbound delivery items of your TU are assigned to a wave.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Enter Wave Template e.g. 100 and Wave Option e.g. 5</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. Press OK</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Release the waves (EWM)</td>
<td>Automatic step</td>
<td>This step is carried out automatically at the wave release time defined in the wave template option used for your wave.</td>
<td>The waves are released.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>For the test case it might be necessary to release the waves manually.</td>
<td>The pick-WOs are created.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1. Start transaction /SCWM/WAVE.</td>
<td>On the tabstrip Warehouse Orders you can find the created warehouse order numbers. Note them down for later use.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Open advanced search and select for the TU</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. Execute the search</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4. Select all waves and choose</td>
<td></td>
</tr>
</tbody>
</table>
## Execution and Checks:

<table>
<thead>
<tr>
<th>Step</th>
<th>Step description</th>
<th>Step Processor</th>
<th>Input data</th>
<th>Expected results</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Pick and stage the goods (EWM)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>8.1</td>
<td>Prepare pick-HUs</td>
<td>Warehouse worker</td>
<td>This step is carried out outside of the system.</td>
<td>-</td>
</tr>
<tr>
<td>8.2</td>
<td>Pick the goods</td>
<td>Warehouse worker</td>
<td>1. Start transaction /SCWM/RFUI. 2. Log on to warehouse for example W002 as resource HLOP1 with presentation device PD01. 3. Choose <em>Manual Selection</em> → <em>Selection by WO</em> (fast path 21). 4. Enter the warehouse order number noted in step 12 and press <em>Enter</em>. 5. Create the pick-HU based on packaging material proposal EUROPALLET and choose HUCr (F2). 6. Press <em>Next</em> (F4) 7. Verify the actual quantity. 8. Verify the destination HU (with the source data). 9. Verify the destination HU (with the destination data). 10. Repeat this procedure for all pick-WOs. 11. After you are finished press <em>F7</em> (Back) until you come to the logoff screen and press <em>Logoff</em> (F1) and <em>Save</em> (F1).</td>
<td>The pick-HUs are created. HU label is printed once the HU is created next to the place where the pick europallet is taken. The shipping HU label is printed on printer near the staging area upon confirmation You can check the spool requests in transaction SP01. The pick-WOs are confirmed. The pick-HUs are moved to the staging area.</td>
</tr>
<tr>
<td>9</td>
<td>A truck arrives at the checkpoint and drives to the door (EWM)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>9.1</td>
<td>Post the arrival at the door</td>
<td>Shipping office clerk</td>
<td>1. Start web dynpro application <em>Shipping Cockpit Execution</em>. 2. Open the <em>Transport</em> search criteria 3. Search for the TU. 4. Press button <em>Arrival at Door</em> By posting <em>Arrival at Door</em>, you post <em>Arrival at Checkpoint</em> automatically.</td>
<td>The TU has the status <em>Arrival at Checkpoint</em> and <em>Arrival at Door</em>.</td>
</tr>
</tbody>
</table>
### Execution and Checks:

<table>
<thead>
<tr>
<th>Step</th>
<th>Step description</th>
<th>Step Processor</th>
<th>Input data</th>
<th>Expected results</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Load the truck (EWM)</td>
<td>Warehouse worker</td>
<td>1. Start transaction /SCWM/RFUI. &lt;br&gt;2. Log on to warehouse for example W002 as resource FLT1 with presentation device PD01. &lt;br&gt;3. Choose <strong>Outbound Processes → Loading → Loading by TU</strong> (fast path 433). &lt;br&gt;4. Enter the Door for example DO02, the door bin DOOR-002 or the <strong>TU number</strong>. &lt;br&gt;5. Enter the HU you are loading on the truck. &lt;br&gt;6. Verify the door bin. &lt;br&gt;7. Repeat this step for all shipping HUs. &lt;br&gt;8. After loading the last HU answer the question <strong>Finish Loading?</strong> With <strong>yes</strong> (press enter or F1) &lt;br&gt;9. After you are finished press <strong>F7</strong> (Back) until you come to the logoff screen and press <strong>Logoff</strong> (F1) and <strong>Save</strong> (F1).</td>
<td>The shipping HUs are loaded. &lt;br&gt;The TU has status <strong>Loading Started</strong>. &lt;br&gt;The TU has status <strong>Loading Completed</strong>.</td>
</tr>
<tr>
<td>11</td>
<td>Post the goods issue and print the delivery notes and waybill (EWM)</td>
<td>Shipping office clerk</td>
<td>1. Start web dynpro application <strong>Shipping Cockpit Execution</strong>. &lt;br&gt;2. Open the <strong>Transport search criteria</strong>. &lt;br&gt;3. <strong>Search for the TU</strong>. &lt;br&gt;4. <strong>Select the TU</strong>. &lt;br&gt;5. <strong>Press Post GI</strong></td>
<td>The goods issue is posted for all shipping HUs. &lt;br&gt;The TU has status <strong>Goods Issue Posted</strong>. &lt;br&gt;Outbound deliveries are created. &lt;br&gt;The delivery notes and the waybill is printed. You can check the spool requests in transaction <strong>SP01</strong>.</td>
</tr>
<tr>
<td>12</td>
<td>Complete outbound deliveries (ERP)</td>
<td>Automatic step</td>
<td>-</td>
<td>The goods movement status of the outbound deliveries, for example delivery 80000022 is set to <strong>C Completely processed</strong>. &lt;br&gt;You can check the outbound delivery in ERP in transaction <strong>VL03N</strong> by entering the outbound delivery number.</td>
</tr>
<tr>
<td>13</td>
<td>Complete shipment (ERP)</td>
<td>Automatic step</td>
<td>-</td>
<td>The execution dates are filled in the shipment. &lt;br&gt;You can check this in ERP transaction <strong>VT03N</strong> by entering the shipment number. On the <strong>Deadl.</strong> tabstrip the execution dates</td>
</tr>
</tbody>
</table>
## Execution and Checks:

<table>
<thead>
<tr>
<th>Step</th>
<th>Step description</th>
<th>Step Processor</th>
<th>Input data</th>
<th>Expected results</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>The truck leaves (EWM)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
| 14.1 | Post the departure from the checkpoint | Shipping office clerk | 1. Start web dynpro application *Shipping Cockpit Execution*.  
2. Open the *Transport* search criteria  
3. Search for the TU  
4. Select the TU  
5. Press *Departure from Checkpoint*  
   By posting *Departure from Checkpoint*, you post *Departure from Door* automatically. | The TU is completed, and the status *Departure* is set. The status *At Door* is reset. |
| 14.2 | The truck leaves | Truck driver | This step is carried out outside of the system. | - |

Note: It could be that the IDOC for the shipment update fails due to the fact, that the delivery is locked. IDOC processing needs to be retrigged in *BD87*. In the real business process this is done via rescheduling of erroneous IDOCs End of note.