CONFIGURATION GUIDE | PUBLIC
SAP TM 9.6 SP00
2018-12-14

Configuration Guide for International Inbound Logistics

THE BEST RUN **SAP**

Content

Legal Disclaimer

> ⚠ **Caution**
>
> This document contains sample configuration content. Unless expressly stated otherwise in your agreements with SAP, this sample content is not part of SAP product documentation and you may not infer any product documentation claims against SAP based on this information.

1 Configuration Guide for International Inbound Logistics

This document contains the configuration settings for the *International Inbound Logistics* scenario. You must implement this scenario as described and once you have verified the functionality, you can modify the data to suit your own environment and operating conditions.

Change History

Version	Date	Description
1.0	December 2010	Initial version
1.1	April 2011	Harmonized configuration and master data; scenarios based on IDES
1.2	November 2011	Update to Creating Dangerous Goods Master Data [page 31]
2.0	September 2012	- The Defining Schedule Types [page 40] section has been added. - Defining Means of Transport [page 37] and Defining Schedules [page 41] have been updated as part of the SAP TM 9.0 setup: - The *Defining Departure Calendar* section has been removed.
3.0	December 2013	Updated for SAP Transportation Management 9.1

Version	Date	Description
4.0	December 2014	Updated for SAP Transportation Management 9.2
		The following chapters have been moved to the *Basic Settings for SAP Transportation Management*:
• Configuring EH&S Basic Services
• Specifying Validity Area Categories
• Specifying Validity Areas
• Specifying Dangerous Goods Regulations
• Specifying Dangerous Goods Classes

The following chapters have been removed:
• Activating EH&S Business Functions |

Important SAP Notes

You must read the following SAP Notes before you start using this test scenario. These SAP Notes contain the most recent corrections required to test the scenario.

Make sure that you have the current version of each SAP Note, which you can find on SAP Service Marketplace at http://service.sap.com/notes .

SAP Note Number	Description
1738013	TM: Integration with ERP Enhancement Packages

2   The Scenario

Use

Some settings in this guide can be copied from the existing SAP ERP configuration. In particular, SAP ERP Customizing settings can be reused for the following:

- Enterprise structure definition and relevant assignments
- Financial Accounting
- Controlling

If you require a scenario-specific enterprise structure, we recommend that you copy the existing, standard configuration settings (such as *Country Template for Company Codes incl. G/L Accounts*) and change them as necessary (such as addresses).

---

i Note

Business system groups, logical systems, RFC connections, and system connections used throughout this guide are examples only. Replace these with your own data.

This guide also assumes the use of Business Add-Ins (BAdIs), which add a prefix or suffix to master data objects transferred from SAP ERP to SAP TM (see SAP Note 458914). An overview of the prefixes and suffixes used is provided in the table below:

Business Object	Prefix	Suffix
Carrier	CA–	None
Customer	CU–	None
Plant	PL–	None
Shipping Point	SP–	None
Supplier	SU–	None
System	None	–@ERP001

Example:

Shipping point name in SAP ERP: 1200

Shipping point name in SAP TM: SP1200@ERP001

If you have not implemented the corresponding BAdI in your system, the names of the objects will not be changed.

Prerequisites

Before you begin to configure the *International Inbound Logistics* scenario, you must have configured the following guides in SAP Solution Manager under ▶ *SAP Transportation Management* ❯ *Configuration Structures* ❯ *Basic Settings for SAP TM 9.1* ❯:

- Basic Settings and Integration for ERP
- Basic Settings for SAP TM
- Integration of SAP TM and SAP Event Management
- Integration of Output Management
- Basic Settings for Visual Business

Your SAP ERP system must also be configured to run the following processes:

- MM: Purchase-to-pay
    - Purchase order entry
    - Inbound delivery creation
    - Posting goods receipt
    - Logistics invoice verification
    - Invoice document creation (ERS settlement)
    - Transfer to accounting
- FI/CO
    - Supporting the processes listed above
    - Country-specific legal requirements (such as tax calculation)

If you want to integrate SAP TM with SAP EHS Dangerous Goods Management, you must configure your SAP ERP system to run this process:

- EHS – DGP
    - Dangerous goods master
    - Dangerous goods checks
    - Dangerous goods documents

User Profile

Before you begin to configure the *International Inbound Logistics* scenario, you must configure user profile `TM_INVOICE_CLERK` in your SAP ERP system. To do so, proceed as follows:

1. In SAP ERP, choose ▶ *System* ❯ *User Profile* ❯ *Own Data* ❯.
2. Choose the *Parameters* tab page.
3. In the *Parameter ID* column, enter **TM_INVOICE_CLERK**.
4. Save your entries.

Geography

The *International Inbound Logistics* scenario assumes an international overseas transportation network with two vendors located in China, ocean transport from the port in Shanghai to Hamburg, and a receiving/ordering plant located in Dresden, Germany.
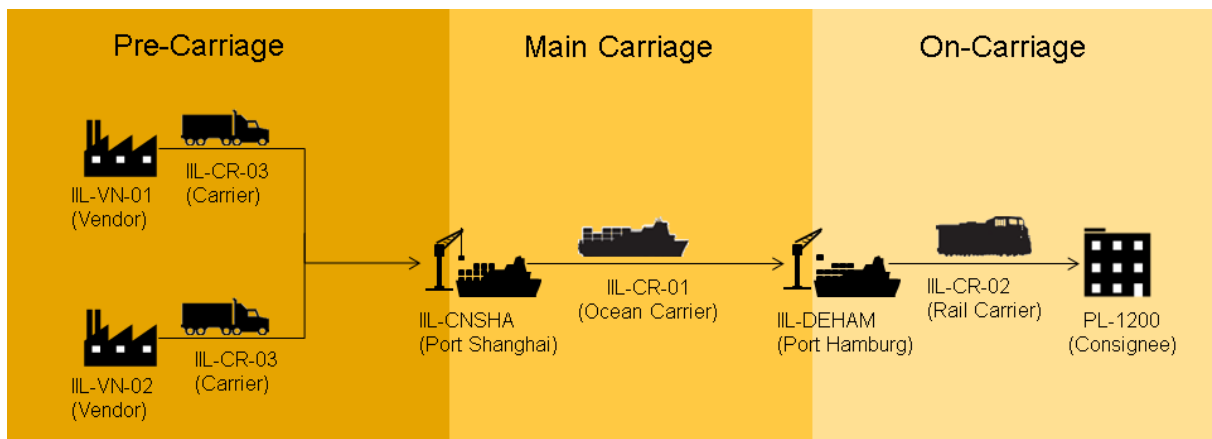
Three Stages of the International Inbound Logistics Scenario

To use the transportation network as described in this document, you must ensure that the vendors and plant used in the customer system are located in the same vicinity.

The following organizational structures and document types are used by default, and you must change these to customer-specific organizational structures as required:

Company code	1000
Controlling area	1000
Plant	1200
Storage location	0001
Shipping point/receiving point	1200
Purchasing organization	1000
Sales organization	1000
Distribution channel	10
Purchase order document type	IIL4

3   Defining Organizational Setup in ERP

The following IDES data is used throughout this document:

- Controlling area 1000
- Company code 1000

You can also define your own organizational structure as required.

Defining Organizational Setup comprises the following processes:

- Assigning Goods Receiving Points for Inbound Deliveries [page 11]
- Defining Material Type Attributes [page 12]

3.1   Assigning Goods Receiving Points for Inbound Deliveries

Context

In this Customizing activity, you assign goods receiving points to the combination of plant and storage location.

Procedure

1. In Customizing for SAP ERP, choose ▌▶ *Logistics Execution* ❯ *Shipping* ❯ *Basic Shipping Functions* ❯ *Shipping Point and Goods Receiving Point Determination* ❯ *Assign Goods Receiving Points for Inbound Deliveries* ❯.
2. Create an entry with the following data:

Plant	Storage Location	Shipping Point
1200	0001	1200

3.2 Defining Material Type Attributes

Context

In this Customizing activity, you define the attributes for material type `HALB`.

Procedure

1. In Customizing for SAP ERP, choose ▶ *Logistics – General* ❯ *Material Master* ❯ *Basic Settings* ❯ *Material Types* ❯ *Define Attributes of Material Types* ❯.
2. For material type `HALB`, create the following entry:

Val. Area	Matl Type	Qty Updating	Value Updating
1200	HALB	X	X

3.3 Mapping Organizational Units for Purchasing

Context

In this Customizing activity, you define how organizational units for purchasing in SAP TM are mapped to those in SAP ERP. You also configure additional settings for creating service purchase orders from freight settlement documents.

Procedure

1. In Customizing for SAP ERP, choose ▶ *Integration with Other SAP Components* ❯ *Transportation Management* ❯ *Invoice Integration* ❯ *Invoicing* ❯ *Mapping of Organizational Units* ❯ *Assign Organizational Units for Purchasing* ❯.
2. Choose *New Entries*.

3. Add the following entry:

Field	Value
Logical System	Logical system ID for your SAP TM system, for example, TM1CLNT001
TM Pur. Organization	Enter the internal number of the purchasing organization that you created in Creating Organizational Data in TM [page 55]
TM Purchasing Group	Enter the internal number of the purchasing group that you created in Creating Organizational Data in TM [page 55]
Settlement Type	`IIL5`
Purchasing Org.	`1000`
Purch. Group	`002`
Plant	`1200`
Company Code	`1000`
Document Type	`IIL4`
Material Group	`007`

4. Save your entries.

4 Defining Master Data in ERP: Material and Vendor

- Defining Vendor Master Data [page 14]
- Defining Material Master Data [page 16]

4.1 Defining Vendor Master Data

Context

In this procedure, you create vendor master data. The vendor master is then transferred to SAP TM via CIF. The corresponding locations with location type 1011 (Vendor) are created in SAP TM.

Procedure

1. On the *SAP Easy Access* screen for SAP ERP, choose ▌▶ *Logistics* ❯ *Materials Management* ❯ *Purchasing* ❯ *Master Data* ❯ *Vendor* ❯ *Central* ❯ *Create* ▌.
2. Create the vendors assigned to the purchasing organization 1000 according to the tables below:

Vendor ID	Company Code	Purch. Organization	Account Group
IIL-VN-01	1000	1000	0001
IIL-VN-02	1000	1000	0001
IIL-CR-01	1000	1000	0005
IIL-CR-02	1000	1000	0005
IIL-CR-03	1000	1000	0005
IIL-CR-04	1000	1000	0005

On the *Create Vendor: Address* enter the following address data for each vendor:

Vendor ID	Name	Search Term	Address
IIL-VN-01	IIL Vendor 1	IIL VENDOR	4711 Main Street 100621 Beijing CN
IIL-VN-02	IIL Vendor 2	IIL VENDOR	7589 Main Street 518128 Shenzhen CN
IIL-CR-01	Ocean Carrier	Ocean Carrier	Musterstrasse 5570 60326 Frankfurt am Main DE
IIL-CR-02	DE Rail Carrier	DE Rail Carrier	Musterstrasse 1000 20095 Hamburg DE
IIL-CR-03	CN Truck Carrier	CN Truck Carrier	CN
IIL-CR-04	CN Forwarding Agent	CN Forwarding Agent	CN

On the *Create Vendor: Accounting Information Accounting* screen, enter the following data for each vendor:

Vendor ID	Recon. Account	Cash Mgmnt Group
IIL-VN-01	160000	A1
IIL-VN-02	160000	A1
IIL-CR-01	160000	A1
IIL-CR-02	160000	A1
IIL-CR-03	160000	A1
IIL-CR-04	160000	A1

On the *Create Vendor: Payment Transactions Accounting* screen, enter the following data for each vendor:

Vendor ID	Payment Terms
IIL-VN-01	Blank

Vendor ID	Payment Terms
IIL-VN-02	Blank
IIL-CR-01	0002
IIL-CR-02	0002
IIL-CR-03	0002
IIL-CR-04	0002

On the *Create Vendor: Purchasing Data* screen, enter the following data for each vendor:

Field	IIL-VN-01	IIL-VN-02	IIL-CR-01	IIL-CR-02	IIL-CR-03	IIL-CR-04
Order Crcy	EUR	EUR	EUR	EUR	EUR	EUR
Terms of Payment	0001	0001	0002	0002	0002	0002
Incoterms	FOB / Shang-hai (IIL-CNSHA)	FOB / Shang-hai (IIL-CNSHA)	Blank	Blank	Blank	Blank
Purch. Group	002	002	Blank	Blank	Blank	Blank
Plnd Dely Time	32 days	32 days	Blank	Blank	Blank	Blank
Conf. Ctrl	0004	0004	Blank	Blank	Blank	Blank
Shpg Cond.	01	01	Blank	Blank	Blank	Blank

4.2   Defining Material Master Data

1. On the *SAP Easy Access* screen for SAP ERP, choose ▌▶ *Logistics* ❯ *Materials Management* ❯ *Material Master* ❯ *Material* ❯ *Create (Special)* ❯ *Semifinished Product* ❯.
2. Create the material master for your semifinished product according to the tables below:

Material	Industry Sector
IIL-PROD-01	C Chemical Industry
IIL-PROD-02	C Chemical Industry

Material	Industry Sector
IIL-PROD-03	C Chemical Industry
IIL-PROD-04	C Chemical Industry

3. Choose *Select View(s)* and select the following views:
   - Basic Data 1
   - Basic Data 2
   - Sales: General/Plant Data
   - Purchasing
   - Accounting 1
4. In the *Organizational Levels* dialog box, enter the following data:
   - Plant: `1200`
   - Sales Org.: `1000`
   - Distr. Channel: `10`
5. Enter the data as shown in the following tables:
   On the *Basic Data 1* tab page:

Material ID	Description	Base Unit of Measure	Material Group	Gross Weight	Volume
IIL-PROD-01	Polymer Bulk (Int. Inbound Logistic)	TO	01	1000 kg	1 M3
IIL-PROD-02	DG Polymer Bulk (Int. Inbound Logistic)	TO	01	1000 kg	1 M3
IIL-PROD-03	DG Fertilizer Liquid (Int. Inbound Log.)	TO	01	1000 kg	1 M3
IIL-PROD-04	DG Fertilizer Bulk (Int. Inbound Log.)	TO	01	1000 kg	1 M3

On the *Basic Data 2* tab page:

Material ID	DG Indicator Profile
IIL-PROD-01	Blank
IIL-PROD-02	GPP
IIL-PROD-03	GPP

Material ID	DG Indicator Profile
IIL-PROD-04	GPP

On the *Sales: General/Plant* tab page:

Material ID	Plant/Sales Org./ Distr. Channel	Availability Check	Transport Group	LoadingGrp
IIL-PROD-01	1200/none/none	KP (no check)	0001 (bulk)	0001 (Crane)
IIL-PROD-02	1200/none/none	KP (no check)	0001 (bulk)	0001 (Crane)
IIL-PROD-03	1200/none/none	KP (no check)	0002 (liquid)	0001 (Crane)
IIL-PROD-04	1200/none/none	KP (no check)	0001 (bulk)	0001 (Crane)

On the *Purchasing* tab page:

Material ID	Purchasing Group	Material Group	Material Freight Grp (Optional)
IIL-PROD-01	002	01	2821
IIL-PROD-02	002	01	2821
IIL-PROD-03	002	01	1475
IIL-PROD-04	002	01	1475

On the *Accounting 1* tab page:

Material ID	Valuation Class	Standard Price
IIL-PROD-01	7900	1000
IIL-PROD-02	7900	1100
IIL-PROD-03	7900	1200
IIL-PROD-04	7900	1300

> **i Note**
>
> If you want to use material freight groups, you must create them as follows:
>
> 1. In Customizing for SAP ERP, choose ▷ *Logistics Execution* ❯ *Transportation* ❯ *Basic Transportation Functions* ❯ *Maintain Freight Code Sets and Freight Codes* ❯.
> 2. Choose *Define Material Freight Groups*.
> 3. Enter a material freight group and a description.

> ⚠ **Caution**
>
> The material master and vendor master must be transferred to SAP TM via CIF. This process is not included in the scope of this document.

5 Setting Up Customizing for Purchase Document Transfer in ERP

- Defining Purchase Order Types [page 20]
- Activating Transfer of Purchase Orders [page 20]

5.1 Defining Purchase Order Types

Procedure

1. In Customizing for SAP ERP, choose ▶ *Materials Management* ❯ *Purchasing* ❯ *Purchase Order* ❯ *Define Document Types* ❮.
2. Copy type `NB` to a new order type `IIL4` and enter the description **Internat. Purchasing**.

5.2 Activating Transfer of Purchase Orders

Use

In this Customizing activity, you activate the transfer of purchase orders to SAP TM.

Procedure

1. In Customizing for SAP ERP, choose ▶ *Integration with Other SAP Components* ❯ *Transportation Management* ❯ *Order Integration* ❯ *Activate Transfer of Purchase Orders* ❮.

20   PUBLIC

Configuration Guide for International Inbound Logistics
Setting Up Customizing for Purchase Document Transfer in ERP

2. Assign control key 0006 to purchasing organization 1000, purchasing group 002, and purchase order type IIL4:

Field	Value
POrg	**1000**
PGr	**002**
OTyp	**IIL4**
Ctrl Key	**0006**
TM No.	**B050**
Control Key Description	As required

i Note

In the PI settings, you must use technical transportation management number (TM No.) B050 to connect to the SAP TM system.

6 Setting Up Dangerous Goods

6.1 Defining Dangerous Goods Profiles

Context

In this Customizing activity, you define profiles for processing dangerous goods. The *Only Errors Read* and *All Messages Read* profiles are provided. You define general conditions for processing dangerous goods, for example, by specifying which messages are allowed to process certain dangerous goods or whether you are permitted to define dangerous goods manually.

You assign the profile when you define business object types for freight units or freight orders.

You can also specify the default modes of transport that have to be used for the dangerous goods check in case the information is not available in the business document.

Procedure

1. In Customizing for SAP TM, choose ▌▶ *Basic Functions* ❯ *Dangerous Goods* ❯ *Define Dangerous Goods Profile* ❯ .
2. Enter the following data:

Field	Value
DG Profile	IIL_DG_PR1

Field	Value
Short Desc.	`Dangerous Goods Profile – Int. Inbound L`
DG Check Active	Selected
DG Ind. Ctrl	**1** – Manual Entry Not Allowed
Message Level	**1** – All Messages
Default TrM	**03** (Sea)
Default TrM Pre-Carr	**01** (Road)
Default TrM On-Carr	**02** (Rail)

3. Save your entries.

6.2 Configuring Phrase Management

- Specifying Number Ranges for Phrases [page 23]
- Specifying Phrase Libraries and Phrase Groups [page 24]
- Editing Dangerous Goods Phrases [page 25]
- Editing Phrase Sets [page 25]
- Activating Phrase Assignments [page 26]
- Editing Phrase Set-Attribute Assignments [page 26]

6.2.1 Specifying Number Ranges for Phrases

Context

In this Customizing activity, you define number ranges for phrase keys. Each phrase is uniquely identified by a phrase key within one client.

Procedure

1. In Customizing for SAP TM, choose ▌ *SCM Basis* ❯ *EH&S Services* ❯ *Phrase Management* ❯ *Specify Number Ranges for Phrases* ❯ .
2. Enter the following data:

No.	From Number	To Number	Ext
0E	000000000000001	500000000000000	x

3. Save your entries.

6.2.2 Specifying Phrase Libraries and Phrase Groups

Context

In this Customizing activity, you define an active phrase library. Make sure that the active phrase library is `CUST` (customer phrase library).

Procedure

1. In Customizing for SAP TM, choose ▌ *SCM Basis* ❯ *EH&S Services* ❯ *Phrase Management* ❯ *Specify Phrase Libraries and Phrase Groups* ❯ .
2. Check that the active phrase library is `CUST`:

PhrLib	Description for Phrase Library	Active Library
CUST	Customer Phrase Library	X

6.2.3 Editing Dangerous Goods Phrases

Procedure

1. In SAP NetWeaver Business Client, choose ❙▶ *Master Data* ❯ *Dangerous Goods Management* ❯ *Phrase Management* ❯ *Edit Phrases* ▶❙.
2. Enter the following data:

Phrase

Library-No.	Phrase Group	Language key	Phrase Text
CUST-000000000000001	DG-TEXT	EN	Dangerous Goods Phrase
CUST-400000000000000	DG-TEXT	EN	Dangerous Goods Phrase with Long text

6.2.4 Editing Phrase Sets

Procedure

1. On the SAP NetWeaver Business Client, choose ❙▶ *Master Data* ❯ *Dangerous Goods Management* ❯ *Phrase Management* ❯ *Edit Phrase Sets* ▶❙.
2. Enter the following data:

Phrase Set	Language Key	Phrase Set Name
IIL_PHRASE_SET1	EN	Phrase Set – Int. Inbound Logistics

3. Assign phrases CUST-000000000000001 and CUST-400000000000000 to the phrase set.

6.2.5 Activating Phrase Assignments

Procedure

1. In Customizing for SAP TM, choose ▌ *SCM Basis* ❯ *EH&S Services* ❯ *Dangerous Goods Management* ❯ *Dangerous Goods Master* ❯ *Activate Phrase Assignment* ❯.
2. Select *Attribute Activation* and choose *Execute*.

6.2.6 Editing Phrase Set-Attribute Assignments

Procedure

1. On the SAP NetWeaver Business Client, choose ▌ *Master Data* ❯ *Dangerous Goods Management* ❯ *Phrase Management* ❯ *Edit Phrase Set-Attribute Assignment* ❯.
2. Choose *DGTMD* (DG: Dangerous Goods Master).
3. Assign phrase set `IIL_PHRASE_SET1` to field name `PDGNUD`.
4. Save your entries.

7 Transferring Master Data from SAP ERP to SAP TM

Procedure

1. On the *SAP Easy Access* screen for SAP ERP, choose ▌ *Logistics* ❯ *Central Functions* ❯ *Supply Chain Planning Interface* ❯ *Core Interface Advanced Planner and Optimizer* ❯ *Integration Model* ❯ *Create* ▌ or enter transaction `CFM1` in the command field.

2. Create separate integration models for transferring materials, plant, vendor, and shipping point and take the following information into account:
   - IIL-IM-MAT (`<logical TM system name>`) for material and plant
   - IIL-IM-DAT (`<logical TM system name>`) for vendor and shipping point
   - Use the following details for both models:
     - Use the same logical TM system name
     - Use APO application TM
   - Prefix your material selection with the initial letters of the material and vendors: IIL*. Make sure that only material and plant are highlighted for model IIL-IM-MAT and that only shipping point and vendor are highlighted for model IIL-IM-DAT.
   - In model IIL-IM-DAT, make sure that you activate the creation of business partners in the *Vendors* section by entering **2** (create both) in the *Create Loc/BP* field.
   - Execute and save the models.

3. On the *SAP Easy Access* screen for SAP ERP, choose ▌ *Logistics* ❯ *Central Functions* ❯ *Supply Chain Planning Interface* ❯ *Core Interface Advanced Planner and Optimizer* ❯ *Integration Model* ❯ *Activate* ▌ or enter transaction `CFM2` in the command field.

4. Activate the two data models, and use transaction `SMQ1` to verify that all data is transported. Use transaction `SMQ2` in TM system to verify that data transfer completed successfully.

> **i Note**
>
> When you transfer vendors to the SAP TM system, you must ensure that the *Create Loc./BP* function (create BPs in TM for location) is set to *2* on the Vendors tab page so that business partners are generated for vendors.

> **i Note**
>
> You can also create business partners for plants and shipping conditions automatically by implementing a BAdI. For more information, see SAP Note 1410353 .

> **i Note**
>
> If the same master data is present in more than one model, only one of the models must be activated at a time. Otherwise, data is not transferred properly.

Checking/Updating Data Transported to SAP TM

1. In SAP NetWeaver Business Client, choose ❯ *Master Data* ❯ *Transportation Network* ❯ *Locations* ❯ *Define Location* ❯.
2. Verify the plant, receiving point, and vendors:

ERP Data	TM Data
Plant 1200	*PL*1200*@ERP001*
Receiving Point 1200	*SP*1200*@ERP001*
Vendor IIL-VN-01	*SU*IIL-VN-01*@ERP001*
Vendor IIL-VN-02	*SU*IIL-VN-02*@ERP001*
Carrier IIL-CR-01	*CA*IIL-CR-01*@ERP001*
Carrier IIL-CR-02	*CA*IIL-CR-02*@ERP001*

3. Maintain the geocoordinates for the locations as follows:

Location	Longitude	Latitude
*PL*1200*@ERP001*	7	50
*SP*1200*@ERP001*	7	50
*SU*IIL-VN-01*@ERP001*	116	39
*SU*IIL-VN-02*@ERP001*	114	22

4. In SAP NetWeaver Business Client, choose ❯ *Master Data* ❯ *Dangerous Goods Management* ❯ *Dangerous Goods Master* ❯ *Create Dangerous Goods Master* ❯.
5. Verify the following materials:

ERP Data	TM Data
IIL-PROD-03	IIL-PROD-03*@ERP001*
IIL-PROD-02	IIL-PROD-02*@ERP001*
IIL-PROD-01	IIL-PROD-01*@ERP001*
IIL-PROD-04	IIL-PROD-04*@ERP001*

> **i Note**
>
> Remember to replace the suffix `@ERP001` with your own to check that the master data has been created correctly.

6. On the *SAP Easy Access* screen for SAP Transportation Management, choose ▌▶ *Transportation Management* ❯ *Master Data* ❯ *Maintain Business Partner* ▌.

7. Verify that the following carriers have the business partner role *Vendor* (`BBP000`):

   ○ `IIL-CR-01`

   ○ `IIL-CR-02`

   ○ `IIL-CR-03`

   ○ `IIL-CR-04`

   ○ `IIL-VN-01`

   ○ `IIL-VN-02`

> **i Note**
>
> To add a new business partner role, select the relevant role from the *Display in BP role* dropdown box and then save your changes.

More Information

- Defining Business Partners for Plants and Shipping Points [page 29]
- Assigning Business Partners to Plants [page 30]
- Creating Dangerous Goods Master Data [page 31]

7.1 Defining Business Partners for Plants and Shipping Points

Context

> **i Note**
>
> If you have not implemented the BAdI for automatically creating business partners, you must create the business partners manually. For more information about creating business partners automatically, see SAP Note 1410353 .

Procedure

1. In SAP NetWeaver Business Client, choose ▌▶ *Master Data* ❯ *General* ❯ *Define Business Partner* ▌.

2. Create a business partner of type *Organization* using the following data:

   ○ BP Number: `PL-1200`

   ○ Country: `DE`

   ○ BP Role: *000000 Business Partner (Gen.)*

3. Save your entries.

4. Create a business partner of type *Organization* using the following data:

   ○ BP Number: `SP-1200`

   ○ Country: `DE`

   ○ BP Role: *000000 Business Partner (Gen.)*
     BP Role: *CRM002 Ship-to Party*

5. Create a business partner of type *Organization* using the following data:

   ○ BP Number: `IIL-VN-01`

   ○ Country: `CN`

   ○ BP Role: *000000 Business Partner (Gen.)*
     BP Role: *CRM002 Ship-to Party*
     BP Role: *FS0000 Financial Services BP*

7.2 Assigning Business Partners to Plants and Shipping Points

Procedure

1. In SAP NetWeaver Business Client, choose ▐▶ *Master Data* ❭ *Transportation Network* ❭ *Locations* ❭ *Define Location* ❭.

2. Edit location *PL*1200*@ERP001*.

Location	BP Number
*PL*1200*@ERP001*.	`PL-1200`
*SP*1200*@ERP001*	`SP-1200`

3. On the *General* tab page, enter `PL-1200` in the *BP Number* field.

4. Assign business partner `SP-1200` in the same way to location *SP*1200*@ERP001*.

7.3   Creating Dangerous Goods Master Data

Procedure

1. In SAP NetWeaver Business Client, choose ▶ *Master Data* ❯ *Dangerous Goods Management* ❯ *Dangerous Goods Master* ❯ *Create Dangerous Goods Master* ❯.
2. Enter the following data:

Product	DG Regulation	Ty.	ID No.
IIL-PROD-03@*ERP001*	ADR	UN	1456
IIL-PROD-03@*ERP001*	IMDG	UN	1456
IIL-PROD-03@*ERP001*	RID	UN	1456
IIL-PROD-03@*ERP001*	CN	UN	1456
IIL-PROD-02@*ERP001*	ADR	UN	1456
IIL-PROD-02@*ERP001*	IMDG	UN	1456
IIL-PROD-02@*ERP001*	RID	UN	1456
IIL-PROD-02@*ERP001*	CN	UN	1456
IIL-PROD-04@*ERP001*	ADR	UN	1456
IIL-PROD-04@*ERP001*	IMDG	UN	1456
IIL-PROD-04@*ERP001*	RID	UN	1456
IIL-PROD-04@*ERP001*	CN	UN	1456

3. Choose *Detail Views*.
4. Enter the following data on the *Classification* tab page:

Product	Regulation	Description	Class	Processing Status
IIL-PROD-03@*ERP001*	ADR	CUST-00000000000 0001	3	10 (Released)
IIL-PROD-03@*ERP001*	IMDG	CUST-00000000000 0001	3	10 (Released)

Product	Regulation	Description	Class	Processing Status
IIL-PROD-03@*ERP001*	RID	CUST-00000000000 0001	3	10 (Released)
IIL-PROD-03@*ERP001*	CN	CUST-00000000000 0001	3	10 (Released)
IIL-PROD-02@*ERP001*	ADR	CUST-40000000000 0000	5.2	10 (Released)
IIL-PROD-02@*ERP001*	IMDG	CUST-40000000000 0000	5.2	10 (Released)
IIL-PROD-02@*ERP001*	RID	CUST-40000000000 0000	5.2	10 (Released)
IIL-PROD-02@*ERP001*	CN	CUST-40000000000 0000	5.2	10 (Released)
IIL-PROD-04@*ERP001*	ADR	CUST-00000000000 0001	3	10 (Released)
IIL-PROD-04@*ERP001*	IMDG	CUST-00000000000 0001	3	10 (Released)
IIL-PROD-04@*ERP001*	RID	CUST-00000000000 0001	3	10 (Released)
IIL-PROD-04@*ERP001*	CN	CUST-00000000000 0001	3	10 (Released)

5. Enter the following data on the *Mixed Loading* tab page:

Product	Regulation	Segregation Key – Seg key 1
IIL-PROD-02@*ERP001*	ADR	5.2
IIL-PROD-02@*ERP001*	IMDG	5.2
IIL-PROD-02@*ERP001*	RID	5.2
IIL-PROD-02@*ERP001*	CN	5.2
IIL-PROD-03@*ERP001*	ADR	3
IIL-PROD-03@*ERP001*	IMDG	3
IIL-PROD-03@*ERP001*	RID	3
IIL-PROD-03@*ERP001*	CN	3

Product	Regulation	Segregation Key – Seg key 1
IIL-PROD-04*@ERP001*	ADR	3
IIL-PROD-04*@ERP001*	IMDG	3
IIL-PROD-04*@ERP001*	RID	3
IIL-PROD-04*@ERP001*	CN	3

8 Setting Up Transportation Network in SAP TM

8.1 Defining Locations

Procedure

1. In SAP NetWeaver Business Client, choose ▌▶ *Master Data* ❯ *Transportation Network* ❯ *Locations* ❯ *Define Location* ❯ .
2. Create locations `IIL-CNSHA` and `IIL-DEHAM` with the following data:

Location	Name	Location Type	Time Zone	Address
IIL-CNSHA	Port of Shanghai	1002	UTC+8	Yanggao No.1 Road 88 200040 Shanghai CN
IIL-DEHAM	Port of Hamburg	1002	CET	Neuer Wandrahm 4 20457 Hamburg DE

3. For each port, enter the geocoordinates as follows:

Location	Longitude	Latitude
IIL-CNSHA	105	35
IIL-DEHAM	9	51

4. Save your entries.

8.2   Assigning Locations to Incoterm Locations in SAP TM

1. In SAP NetWeaver Business Client, choose ❙▶ *Master Data* ❭ *Transportation Network* ❭ *Locations* ❭ *Assign Location to Incoterm Location* ❭.
2. Create an entry with the following data:

Incoterm Location (Free Text)	Incoterm Location
Shanghai (IIL-CNSHA)	IIL-CNSHA

> ⚠ Caution
>
> The Incoterm location text can be freely defined in SAP ERP. Make sure that the value in the *Incoterm Location (Free Text)* field is exactly the same as the value entered for the Incoterm (in this case FUB) for the vendor used to create the purchase order. In this scenario, the vendor is IIL-VN-01. To display the vendor information, call transaction XK01 in the SAP ERP system and choose the *Purchasing data* option).

This setting is used during the planning phase.

8.3   Defining Transportation Zones

Context

In this scenario, two transportation zones are used: IIL-CN-CHINA and IIL-DE-GERMANY. If these zones do not exist in your system, you can use this procedure to define them.

A transportation zone is a business object that groups a number of locations. The system can partly transfer the properties that you assign to a transportation zone to all its locations. This function reduces the volume of master data that is stored in the system.

Procedure

1. In SAP NetWeaver Business Client, choose ❙▶ *Master Data* ❭ *Transportation Network* ❭ *Transportation Zones* ❭ *Define Transportation Zones* ❭.
2. Choose *Create* and create zone IIL-CN-CHINA as follows:

Zone	Description	Zone Type
IIL-CN-CHINA	China	M Mixed Zone

3. On the *Zone – Location* tab page, create the following locations:
   - SUIIL-VN-01*@ERP001*
   - SUIIL-VN-02*@ERP001*
   - IIL-CNSHA

4. Create zone IIL-DE-GERMANY as follows:

Zone	Description	Zone Type
IIL-DE-GERMANY	Germany	M Mixed Zone

5. On the *Zone – Location* tab page, create the following locations:
   - PL1200*@ERP001*
   - IIL-DEHAM

9 Defining Resources in SAP TM

9.1 Defining Means of Transport

Procedure

1. In Customizing for SAP TM, choose ▐ *Master Data* ❯ *Resources* ❯ *Define Means of Transport* ▐.
2. Define the following means of transport if they do not yet exist in the system:

Means of Transport	IIL_VESSEL	IIL_RAIL	IIL_FCL
Description	Scheduled Vessel Shanghai – Hamburg	European Scheduled Train	Truckload (China)
Transportation Mode	03 SEA	02 RAIL	01 ROAD
Low Speed	20	35	35
Medium Speed	30	45	45
High Speed	40	55	55
Average Speed	30	45	45
Distance Factor	1	1	1

Means of Transport	IIL_VESSEL	IIL_RAIL	IIL_FCL
Scheduled Means of Transport	Selected	Selected	Not selected
GIS Quality	Not selected	Not selected	Not selected

> **i Note**
>
> This scenario setup does not use a geographical information system (GIS) and so you must enter a distance factor and an average speed. If you have a GIS provider connected to your system, you can select the GIS quality attribute and the three average speeds.
>
> When you save your data, the system may issue a warning that the IGS or GIS tool is unavailable. You can ignore this message.

3. For means of transport IL_VESSEL, enter the following additional data:

Means of Transport	Multires.	No. Res.
IIL_VESSEL	Selected	15
IIL_RAIL	Blank	Blank
IIL_FCL	Blank	Blank

9.2 Assigning Transportation Modes to Equipment Groups

Procedure

1. In Customizing for *Transportation Management*, choose ▌ *Master Data* ❯ *Resources* ❯ *Define Equipment Groups and Equipment Types* ❯.
2. Select *CN Container* and choose *Mode of Transport Assignment*.
3. Choose *New Entries* and select *2 Rail*.
4. Save your entries.

9.3   Creating Vehicle Resources

Procedure

1. In SAP NetWeaver Business Client, choose ▶ *Master Data* ❯ *Resources* ❯ *Define Resource* ▶.
2. Use the following data for IIL-MS:

Field	Value
Factory Calendar	**01**
Time Zone	**CET**
Means of Transport	**IIL_VESSEL**
Start Date/Time	**1970-01-01**
End Date/Time	**9999-12-31**
In Service Date	**1970-01-01**
Continuous Dim.	No dimension
Capacity	**14 TEU**

3. Use the following data for IIL-EU-RAIL-01:

Field	Value
Factory Calendar	**01**
Time Zone	**CET**
Means of Transport	**IIL_RAIL**
Start Date/Time	**1970-01-01**
End Date/Time	**9999-12-31**
In Service Date	**1970-01-01**
Continuous Dim.	No dimension

Field	Value
Capacity	**20 TEU**

9.4 Defining Carrier Profiles

1. In SAP NetWeaver Business Client, choose ▌ *Master Data* ❭ *General* ❭ *Define Carrier Profile* ❭ .
2. Define a carrier profile for business partner IIL-CR-02.
3. Select the partner and complete the data on the *Transportation* tab page as follows:

Setting	Value
Start Loc./Zone	**IIL-DEHAM**
Dest. Loc./Zone	*PL*1200*@ERP001*
Means of Transport	**IIL_RAIL**
Valid On	**2010-01-01**

> **i Note**
>
> The carrier profile will be created automatically as a by-product of the definition of the trade lanes as described in 8.9.

9.5 Defining Schedule Types

Procedure

1. In Customizing for *Transportation Management*, choose ▌ *Master Data* ❭ *Transportation Network* ❭ *Schedule* ❭ *Define Schedule Types* ❭ .
2. Create a new schedule with the following parameters:

Field	Value
Schedule Type	IILR
Description	IIL Rail Schedule Type
Transp. Mode	02 (Rail)
Document Type	IIL9
	For information about creating this document type, see Defining Freight Order Types [page 70].
Header No. Range	07
Voyage No. Range	01
Offset Time Type	A – Absolute

3. Save your entries.

9.6 Defining Schedules

Procedure

1. In SAP NetWeaver Business Client, choose ▌▶ *Master Data* ❯ *Transportation Network* ❯ *Schedule* ❯ *Create Schedule* ▶.
2. Create schedule IIL-SCHED-OCEAN as schedule type **1000** using the following data:

Schedule	Description	Valid From	Valid To	Means of Transport	Carrier
IIL-SCHED-OCEAN	Shanghai – Hamburg	2012–01–01	2099–01–31	IIL_VESSEL	IIL-CR-01

3. Enter the following standard port sequence (choose create for each line in the sequence):

Seq	Location	Port of Entry	Port of Exit
10	IIL-CNSHA	Selected	Not selected

Seq	Location	Port of Entry	Port of Exit
20	IIL-DEHAM	Not selected	Selected

4. Enter the departure rules for the voyages as follows:

Rule	First Day of Validity	Last Day of Validity	Depature Frequency	Day	Vessel	Departure Time	Factory Calendar
1	2012–01–01	2099–12–31	Weekly	5	IIL_VESSEL	10:00:00	W8

5. Save your schedule.
6. Create schedule `IIL-SCHED-TRAIN` as schedule type **IILR** using the following data:

Schedule	Description	Valid From	Valid To	Means of Transport	Carrier
IIL-SCHED-TRAIN	European Scheduled Train	**\<Today\>**	**\<Today + 1 Year\>**	IIL_RAIL	IIL-CR-02

7. Enter the following standard stop sequence (choose create for each line in the sequence):

Seq	Location	Transit Duration (Hours)	Cargo Cut-Off Time	Availability Time	Time Zone
10	IIL-DEHAM	4	17:00:00	Not applicable	CET
20	SP1200@ERP001	Not applicable	Not applicable	23:00:00	CET

8. Enter the departure rules as follows:

Rule	First Day of Validity	Last Day of Validity	Monday	Wednesday	Friday	Departure Time	Time Zone
1	First day of current month	Last day of current year	Selected	Selected	Selected	18:00:00	CET

9. Select the new row and choose *Generate Departures*.
10. Choose the *Departures* tab page and check that departures have been created automatically.
11. Save your schedule.

9.7 Assigning Transshipment Locations

1. In SAP NetWeaver Business Client, choose ▮▶ *Master Data* ❯ *Transportation Network* ❯ *Locations* ❯ *Assign Transshipment Location* ❯.
2. Assign location `IIL-CNSHA` to zone `IIL-CN-CHINA` and location `IIL-DEHAM` to zone `IIL-DE-GERMANY`.

> ✤ Example
>
> To do so, enter **IIL-CN-CHINA** in the *Transportation Zone Selection* screen area and enter **IIL-CNSHA** and **IIL-CN-CHINA** in the *Transshipment Location Selection* screen area.

9.8 Defining Default Route

Procedure

1. In SAP NetWeaver Business Client, choose ▮▶ *Master Data* ❯ *Transportation Network* ❯ *Default Route* ❯ *Create Default Route* ❯.
2. Create a new default route with default route type 3000 and enter the following data:

Description	Value
Default Route	`IIL-ROUTE-01 *)1` > i Note > > If you cannot enter a name for the default route, change the number range of the header of default route type 3000 to **07** in Customizing.
Description	`IIL Default Route`
Valid From	`01.01.2011`
Valid To	`31.12.2099`
Dangerous Goods	Deselect

3. In the *Transportation Stops* section, create the following stages:

Sequence	10	20	30	40
Location	`IIL-CN-CHINA`	`IIL-CNSHA`	`IIL-DEHAM`	`IIL-DEHAM`
Transport Mode	`01 Road`	`03 Sea`	`02 Rail`	
Stage Type	`01 - Pick-Up`	`03 - Main Carriage`	`05 - Delivery`	
Schedule			`IIL-SCHED-TRAIN`	
Carrier	`IIL-CR-03`	`IIL-CR-01`	`IIL-CR-02`	
Planning and Execution Org.				

4. Save your entries.

9.9 Defining Transportation Lanes

Procedure

1. In SAP NetWeaver Business Client, choose ▌▶ *Master Data* ❯ *Transportation Network* ❯ *Transportation Lanes* ❯ *Define Transportation Lane* ❯.
2. Choose the *Intra-Zone/Loc. Transp. Lane* tab page, enter *Loc-/Transp. Zone* `IIL-CN-CHINA`, and choose *Create*.
3. In the *Means of Transport* area, create an entry with the following data:

Means of Trans	Start Date	End Date
IIL_FCL	<01-01-current year>	<31-12-next year>

Strategy	Value
Relevant to Carrier Selection	Blank
Priority / Costs	X Neither Costs Nor Priority
Cost Origin	Internal Cost

Strategy	Value
Continuous Movement Type	No Continuous Move

4. In the *Carrier for Means of Transport* area, create an entry with the following data:

BP Number	Transportation Costs	per	Transportation Costs per KM	Priority
IIL-CR-04	1000	KM	1000	1
IIL-CR-03	500	KM	500	2

5. Save your entries.
6. Choose the *Tr.Lane* tab page and create two transportation lanes as follows:
    ○ Lane 1: *Start Location/Zone SU*IIL-VN-01*@ERP001*, *Dest. Loc./Zone* IIL-CNSHA
    ○ Lane 2: *Start Location/Zone SU*IIL-VN-02*@ERP001*, *Dest. Loc./Zone* IIL-CNSHA
7. Configure the following settings for both lanes.
8. In the *Means of Transport* area, create an entry with the following data:

Means of Trans	Start Date	End Date
IIL_FCL	<01-01-current year>	<31-12-next year>

Control Indicator	Value
Fixed Trsp. Duration	Selected
Fixed Trsp. Distance	Selected

9. Enter the following parameters:

Parameters	Value
Transportation Distance	**1512**
Trsp. Duration	**34** hrs
Precision	**1000**

Strategy	Value
Relevant to Carrier Selection	Selected
Priority / Costs	X Neither Costs Nor Priority

Strategy	Value
Cost Origin	Internal Cost
Continuous Movement Type	No Continuous Move

10. In the *Carrier for Means of Transport* area, create a new entry with the following data:

BP Number	Transportation Costs	per	Transportation Costs per KM	Priority
IIL-CR-04	1000	KM	1000	1
IIL-CR-03	500	KM	500	2

11. Choose the *Intra-Zone/Loc. Transp. Lane* tab page, enter *Loc-/Transp. Zone* **IIL-DE-GERMANY** and choose *Create*.

12. In the *Means of Transport* area, create an entry with the following data:

Means of Trans	Start Date	End Date
IIL_RAIL	<01-01-current year>	<31-12-next year>

Control Indicator	Value
Fixed Trsp. Duration	Selected
Fixed Trsp. Distance	Blank

Parameters	Value
Transportation Distance	**250**
Trsp. Duration	**2** hrs
Precision	**1000**

Strategy	Value
Relevant to Carrier Selection	Selected
Priority / Costs	X Neither Costs Nor Priority
Cost Origin	Internal Cost
Continuous Movement Type	No Continuous Move

13. In the *Carrier for Means of Transport* area, create an entry with the following data:

BP Number	Transportation Costs	per	Transportation Costs per KM
IIL-CR-02	500	KM	500

14. Save your entries.

15. Choose the *Tr.Lane* tab page, enter *Start Location/Zone* **IIL-DEHAM**, and *Dest. Loc./Zone* **SP1200@ERP001**, and choose *Create*.

16. In the *Means of Transport* area, create an entry with the following data:

Means of Trans	Start Date	End Date
IIL_RAIL	<01-01-current year>	<31-12-next year>

Control Indicator	Value
Fixed Trsp. Duration	Selected
Fixed Trsp. Distance	Selected

Parameters	Value
Transportation Distance	**250**
Trsp. Duration	**2** hrs
Precision	**1000**

Strategy	Value
Relevant to Carrier Selection	Selected
Priority / Costs	X Neither Costs Nor Priority
Cost Origin	Internal Cost
Continuous Movement Type	No Continuous Move

17. In the *Carrier for Means of Transport* area, create an entry with the following data:

BP Number	Transportation Costs	per	Transportation Costs per KM	Priority
IIL-CR-02	500	KM	500	1

18. Save your entries.

9.10 Defining Transport Containers

Procedure

1. In Customizing for SAP TM, choose ❚▶ *Master Data* ❯ *Resources* ❯ *Define Means of Transport* ❚.
2. Create the following entry:

Mtr	Description	Transp. Mode	Passive
IIL_CONT	Container	SEA	X

3. Save your entries.

9.11 Defining Resources in TM

1. In SAP NetWeaver Business Client, choose ❚▶ *Master Data* ❯ *Resources* ❯ *Define Resource* ❚.
2. Create the following TU resources as follows. Use resource category T (Transportation) and resource type 9 (Vehicle Resource).

Resource: IIL-CN-T03-TRUCK1

Field	Value
Resource	**IIL-CN-T03-TRUCK1**
Location	Blank
Means of Transport	**IIL_FCL**
Time Zone	**UTC+6**
Continuous Dimension	**Mass**
Factory Calendar	**01**
Capacity	**40** TO
Passive Means of Transport	Deselected
Number of Individual Resources	Blank

Field	Value
Multiresource	Deselected

Resource: IIL-CN-T03-TRUCK2

Field	Value
Resource	**IIL-CN-T03-TRUCK2**
Location	Blank
Means of Transport	**IIL_FCL**
Time Zone	**UTC+6**
Continuous Dimension	**Mass**
Factory Calendar	**01**
Capacity	**40** TO
Passive Means of Transport	Deselected
Number of Individual Resources	Blank
Multiresource	Deselected

Resource: IIL-EU-T03-RAIL01

Field	Value
Resource	**IIL-EU-T03-RAIL01**
Location	Blank
Means of Transport	**IIL_RAIL**
Time Zone	**CET**
Continuous Dimension	No Dimension
Factory Calendar	**01**
Capacity	**25** TEU **1200** TO **1000** M3
Passive Means of Transport	Deselected

Field	Value
Number of Individual Resources	Blank
Multiresource	Deselected

Resource: IIL-T03-MS

Field	Value
Resource	**IIL-T03-MS**
Location	Blank
Means of Transport	**IIL_VESSEL**
Time Zone	**CET**
Continuous Dimension	No Dimension
Factory Calendar	01
Capacity	**14000** TEU
Passive Means of Transport	Deselected
Number of Individual Resources	**15**
Multiresource	Selected

10 Setting Up Customizing for Output Management in TM

Prerequisites

You have entered your e-mail data under ▌▶ *System* ❯ *User Profile* ❯ *Own Data* ▐ or in transaction `SU01`.

More Information

10.1 Defining PPF Settings for Output Management

Context

In this Customizing activity, you configure the settings for the post processing framework (PPF). Since PPF is an output management framework, it helps you set up output that is specific to your installation. PPF generates output triggers based on the settings you configure for particular application data records. Based on these configuration settings, the system processes the triggers to send the actual output.

Procedure

1. In Customizing for SAP TM, choose ▌▶ *Cross-Application Components* ❯ *Processes and Tools for Enterprise Applications* ❯ *Reusable Objects and Functions for BOPF Environment* ❯ *PPF Adapter for Output Management* ❯ *Maintain PPF Settings* ▐ or enter transaction `SPPFCADM`.
2. Select Appl. `/SCMTMS/TRANSPORTATION` and choose *Condition Configuration (Transportable Conditions).*
3. Select the action profile *Actions for Print Documents Sea Freight* (`/SCMTMS/TOR_PRINT_SEA`) and action definition `/SCMTMS/PRINT_HBL`.
4. On the *Processing Details* tab page, select the *Recipients* subtab page.
5. Enter your e-mail information and choose *U Internet address* as the recipient type.
6. On the *Printer* subtab page, enter your printer in the *Printer* field.

7. Once the Customizing settings for action profiles have been completed, you will need to add the action profile `/SCMTMS/TOR_PRINT_SEA` to your freight order type in the output profile field.

11 Setting Up SAP Event Management

Use

> **i Note**
>
> For technical information about how SAP Event Management is integrated with SAP Transportation Management, see the dedicated integration guide.

More Information

Assigning Users to Web Transactions [page 53].

11.1 Assigning Users to Web Transactions

Context

In this Customizing activity, you assign a user to a Web interface transaction and to an existing user profile so that the appropriate Web layout for sending event messages and querying event handler information is available to the user.

Procedure

1. In Customizing for SAP Event Management, choose ▶ *Event Messages, Status Queries, and Web Interface* ▶ *Web Interface* ▶ *Assign User Profiles and Web Interface Transactions to Users* ▶.
2. Enter your user name.
3. Assign the Web interface transaction, user profile, and order Web to your user as follows:

Web Int. Tran.	User Profile	Order Web
ODT30_CONS_FO	ODT30_CONSIGNEE_FO	4
ODT20_CONS_FU	ODT20_CONSIGNEE_FU	3
ODT20_SHIP_FO	ODT20_SHIPPER_FO	2
ODT20_SHIP_FU	ODT20_CONSIGNEE_FU	1

12 Creating Organizational Data in TM

1. In SAP NetWeaver Business Client, choose ▌ *Master Data* ❯ *Organization* ❯ *Create Organization and Staffing* ▌.
2. Enter the validity period of January 1, 2010 to December 31, 9999 and choose *Continue*.
3. Create the purchasing organization *IIL-PORG-1* as follows:
   1. On the *Basic Data* tab page, press the create button and enter organizational unit **IIL-PORG-1** and the description **IIL CHEMIC DE Purch. Org**.
   2. On the *Org. Data* tab page, enter the following data:

Field	Value
Org. Unit Function	**Purchasing**
Org. Unit Role	**Organization**
Org. ID	**IIL-PORG-1**

   3. Choose the *Address* tab page and enter the city **Hamburg** and the country **DE**.

4. Select your purchase organization in the top-right window and choose *Create*.
5. In the *Choose Relationship* dialog box, choose *Is line supervisor of*.
6. Create purchasing group *IIL-PGRP-1* as follows:
   1. On the *Basic Data* tab page, enter organizational unit **IIL-PGRP-1** and the description **IIL Purchase Group**.
   2. Choose the *Org. Data* tab page and enter organizational unit function **2** (purchasing) and organizational unit role **3** (group).
   3. Choose the *Address* tab page and enter city **Hamburg** and country **DE**.
7. Save your entries.

> **i Note**
>
> Use the purchasing group organization ID `IIL-PGRP-01` as shown on the *Org. Data* tab page for SAP TM transactions.

13 Assigning Business Partners to Purchasing Organizations

Procedure

1. In SAP NetWeaver Business Client, choose ▌▶ *Master Data* ❯ *General* ❯ *Define Business Partner* ▌.

2. Edit business partner `IIL-CR-04`.

3. In the *Display in BP role* field, choose *Carrier*.

4. On the *Vendor Org. Data* tab page, enter the purchasing organization by using the input help (`F4`). Select the organization with the description *IIL CHEMIC DE Purch. Org* (see Creating Organizational Data in TM [page 55]).

5. Save your entries.

14 Setting Up Customizing in SAP TM

14.1 Defining Conditions

Context

In this procedure, you define a condition to determine dependent values for incompatibilities.

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose ▌▶ *Application Administration* ❯ *General Settings* ❯ *Conditions* ❯ *Create Condition* ❱.
2. Choose *Continue*.
3. In the header area, enter the following data:

Field	Value
Condition	`IIL-INC-COND-TRA-GRP`

Field	Value
Description	**Incompatible Transportation Groups**
Condition Type	**/SCMTMS/INC_TR_ITEM**
Origin of Condition	**Direct Business Object Access**

4. On the *Data Access Definition* tab page, choose *Create* and enter the following data:

Column Position	Data Access Definition for Condition	Data Element Used for Input Help
00	/SCMTMS/TRQ_TRAN_GRP	/SCMTMS/PROD_TRANSP_GRP_CD

5. In the area below the table, enter the following data:

Field	Value
Name of BO Used in Condition	**/SCMTMS/TRQ**
Name of BO Node Used in Condition	**ITEM**
Name of Field of the BO Node	**PRD_TRANSP_GRP**

6. Save your entries.

14.2 Creating Incompatibilities

Context

You use this procedure to define the compatibility of planning data that the system is to take into account during transportation planning, for example:

- Freight units with different Incoterms must not be transported together.
- Refrigerated goods must only be transported in appropriate means of transport (refrigerated trucks).
- A certain means of transport cannot be unloaded at a location, since the location does not have a suitable loading ramp.

In this way, you can control the assignment of freight units to transportation plans (in other words, planned transportation activities) and transportation plans to means of transport, for example.

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose ▌▶ *Application Administration* ❯ *Planning* ❯ *General Settings* ❯ *Incompatibility Definitions* ❯ *Create Incompatibility* ❯ .
2. In the *Incompatibility Definition* screen area, enter the following data:

Field	Value
Incompatibility	**IIL_INCOMP_TRANSP_GROUP**
Description	**Incompatible Transportation Groups**
Determination Method	Condition-Based Incompatibility
Identical Values Only	Selected
Incompatibility Area	**04** Freight Unit Building
Incompatibility Type	**52** Transportation Request Item
Manual Violation	Incompatibility Must Not Be Violated
Automatic Violation	Incompatibility Must Not Be Violated

3. In the *Conditions* screen area, enter the first condition **IIL-INC-COND-TRA-GRP**.
4. Save your entries.

14.3 Defining Incompatibility Settings

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose ▌▶ *Application Administration* ❯ *Planning* ❯ *General Settings* ❯ *Incompatibility Settings* ❯ *Create Incompatibility Settings* ❯ .
2. In the *General Data* screen area, enter the following data:

Field	Value
Incompatibility Settings	**IIL-INCOMP-SET-TRA-GROUP**
Description	Incompatible Transportation Groups

Field	Value
Incompatibility Area	Freight Unit Building

3. In the *Incompatibility Selection* table, enter the following data:

Incompatibility	Violation in Manual Planning	Violation in Automatic Planning
IIL_INCOMP_TRANSP_GROUP	According to Incompatibility Definition	According to Incompatibility Definition

4. Save your entries.

14.4 Defining Freight Unit Types

Prerequisites

You have defined the freight order type as **IIL9**. For more information, see Defining Freight Order Types [page 70]

Procedure

1. In Customizing for SAP TM, choose ▌▶ *Planning* ❯ *Freight Unit* ❯ *Define Freight Unit Types* ▌.
2. Create a new freight unit type as follows:
   1. In the header area, enter freight unit type **IIL1** and the description **Freight Unit – Inbound Logistic**.
   2. In the *Change Controller Settings* screen area, enter **DEF_CHACO** in the *Default Change Strategy* field.
   3. In the *Execution Settings* screen area, select *3 Execution Tracking with External Event Management* in the *Execution Track. Relevance*.
   4. In the *Event Management Settings* subscreen area, enter the application object type **ODT30** and the last expected event **ARRIV_DEST**.
   5. In the *Additional Settings* screen area, enter the dangerous goods profile **IIL_DG_PR1** and set the rule for the PU/DLV window to *A Earliest Pick-Up at Req. Day/Latest Delivery at Req. Day*.
   6. In the *Number Range Settings* screen area, select *I Draw Numbers Immediately* as the time for drawing and specify number range interval **02**.
   7. In the *Direct Shipment Options* screen area, enter the direct shipment option type as *No Determination of Direct Shipment* and the freight order type as *IIL9 Int. Inbound Logistics Freight Order*.
   8. In the *Organizational Unit Determination* screen area, enter purchasing organization **IIL-PORG-1**.

3. Save your entries.

14.5   Defining Freight Unit Building Rules

Context

In this procedure, you define a freight unit building rule that determines how the system is to consolidate freight units. Freight units are the smallest units in transportation and cannot be split during transportation.

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose ▌ *Application Administration* ❯ *Planning* ❯ *General Settings* ❯ *Freight Unit Building Rule* ▐.
2. Choose *Create Freight Unit Building Rule*.
3. Enter the following data:

   On the *General Data* tab page:

Field	Value
Freight Unit Building Rule	**IIL-FUBR-20FOOT**
Description	**Inbound Logistics 20' Container**
Document Type	**IIL1**
Incompatibility Settings	**IIL-INCOMP-SET-TRA-GROUP**
Freight Unit Building Strategy	Consolidate as Much as Possible
Critical Quantity	Gross Weight
Item Split Allowed	Selected
Equipment Group	**CN**
Equipment Type	**22G0**

On the *Advanced Settings* tab page:

Field	Value
Process Controller Strategy	**FUB_DG**

On the *Planning Quantities* tab page, the system automatically completes the data using values specified in Customizing for the container. The split quantity is the maximum payload value from the corresponding equipment type.

4. Save your entries.
5. Create a second freight unit building rule using the following data:

On the *General Data* tab page:

Field	Value
Freight Unit Building Rule	**IIL-FUBR-40FOOT**
Description	**Inbound Logistics 40' Container**
Document Type	**IIL1**
Incompatibility Settings	**IIL-INCOMP-SET-TRA-GROUP**
Freight Unit Building Strategy	Consolidate as Much as Possible
Critical Quantity	Gross Weight
Item Split Allowed	Selected
Equipment Group	CN
Equipment Type	**42G0**

On the *Advanced Settings* tab page:

Field	Value
Process Controller Strategy	**FUB_DG**

On the *Planning Quantities* tab page, the system automatically completes the data using values specified in Customizing for the container. The split quantity is the maximum payload value from the corresponding equipment type.

14.6 Defining Conditions for Freight Unit Building Rule Determination

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose ▌▶ *Application Administration* ▶ *General Settings* ▶ *Conditions* ▶ *Create Condition* ▌.

2. Enter the following data and choose *Continue*:

Field	Value
Condition	**IIL-FUBR-DETCON-VEND**
Description	**Inbound Logistics: FUBR Based on Vendor**
Condition Type	**/SCMTMS/FUBR**
Origin of Condition	Condition Based on BRFplus Decision Table

3. Choose the *Data Access Definition* pushbutton and enter the following data:

Column Position	Data Access Definition for Condition	Data Element Used for Input Help
00	Blank	/SCMTMS/SOURCE_LOCATION

4. In the area below the table, enter the following data:

Field	Value
Name of BO Used in Condition	**/SCMTMS/TRQ**
Name of BO Node Used in Condition	**ROOT**
Name of Field of the BO Node	**SRC_LOC_ID**

5. Return to the decision table and create the following entries:

Srce Loc.	FUB Rule
*SU*IIL-VN-01@*ERP001*	IIL-FUB-20FOOT

Srce Loc.	FUB Rule
*SU*IIL-VN-02@*ERP001*	IIL-FUB-40FOOT

14.7 Defining Order-Based Transportation Requirement Types

Context

In this procedure, you specify types of order-based transportation requirements (OTR). You then use these types to define certain parameters of the OTR that influence how the system processes this business document.

Procedure

1. In Customizing for SAP TM, choose ▶ *Integration* ❯ *ERP Logistics Integration* ❯ *Order-Based Transportation Requirement* ❯ *Define Order-Based Transportation Requirement Types* ▶.
2. Choose *New Entries*.
3. Enter the following data:

Field	Value
OTR Type	**IIL2**
Description	**PO Transport Requirements**
Number Range Interval	**01**
Automatic Freight Unit Building	Selected
EM Web Interface Transaction	**ODT20_SHIP_FU**
EM Integration Active	Selected
DG Profile	**IIL_DG_PR1**

Field	Value
Propagate Changes:	**B** Synchronous Propagation of Changes; Fallback to Asynchronous
Plan on Req/Cnf Qty	**01** Plan on Requested Quantities
FU Building Rule Condition	`IIL-FUBR-DETCON-VEND`

4. Save your entries.

14.8 Defining Delivery-Based Transportation Requirement Types

Context

In this procedure, you specify types of delivery-based transportation requirements (DTR). You then use these types to define certain parameters of the DTR that influence how the system processes this business document.

Procedure

1. In Customizing for SAP TM, choose ❙▶ *Integration* ❯ *ERP Logistics Integration* ❯ *Delivery-Based Transportation Requirement* ❯ *Define Delivery-Based Transportation Requirement Types* ❭.
2. Choose *New Entries* and enter the following data:

Field	Value
Transp. Reqmt Type	`IIL3`
Description	`Int. Inbound Logistics - Delivery`
Number Range Interval	`02`
Automatic Freight Unit Building	Selected
EM Web Interface Transaction	`ODT20_SHIP_FU`

Field	Value
DG Profile	`IIL_DG_PR1`
Propagate Changes	**B** Synchronous Propagation of Changes; Fallback to Asynchronous
FU Building Rule Condition	`IIL-FUBR-DETCON-VEND`

3. Save your entries.

14.9   Defining Conditions for OTR Type Determination

Prerequisites

You have defined the OTR document types.

Context

When the SAP TM system receives a sales order, it creates an order-based transportation requirement (OTR). This requirement must be mapped to a document in the SAP TM system, which then determines the subsequent workflow process.

In this configuration step, the OTR type is determined when an order is transferred from SAP ERP to SAP TM.

Procedure

1. On the *SAP Easy Access* screen, call transaction `NWBC` to open the SAP Business Client.
2. Choose ▶ *Application Administration* ❭ *General Settings* ❭ *Conditions* ❭ *Create Condition* ❭.
3. Choose *Continue.*

   > **i** Note
   >
   > If the system issues a message stating that the condition already exists, continue this process from the point at which you maintain values on the *Decision Table* tab page.

4. On the *New Condition Definition* screen, enter the data below:

In the *General Data* screen area:

Field	Description	Value
Condition	Condition type supplied by the system	`ZOTR_TYPE`
Description	Description of the condition type	**OTR Type Determination Condition**

In the *Settings* screen area:

Field	Description	Value
Condition Type	Condition type supplied by the system	`/SCMTMS/OTR_TYPE`
Origin of Condition	Source of the condition information	Condition based on BRFplus Decision Table

5. Choose the *Data Access Definition* tab page and enter the following data:

Field	Description	Value
Line 10	Select this row for further mainte-nance	Data Access Definition: `/SCMTMS/TRQ_ORD_CAT`
Line 20	Select this row for further mainte-nance	Data Access Definition: `/SCMTMS/TRQ_ORD_TYPE`

6. Choose the *Decision Table* tab page and enter the following data:

Field	Description	Value
Proc Type	Procedure type (incoming parameter)	**IIL4** Parameter: "is equal to"
BseDoc. Ty.	Incoming base document type	Parameter: "is equal to" Value: **001** – Purchase Order
OTR Type	Specify the data for integration here – the document type that is identified and used in SAP TM for OTR.	**IIL2**

> **i Note**
>
> To enter values on the *Decision Table* tab page, you may have to switch to edit mode and choose *Insert New Row*.

7. Save your changes.

Results

You have configured the integration settings between the incoming sales document and the OTR document type.

14.10 Defining Conditions for DTR Type Determination

Procedure

1. On the *SAP Easy Access* screen, call transaction `NWBC` to open the SAP Business Client.
2. Choose ❙▶ *Application Administration* ❯ *General Settings* ❯ *Conditions* ❯ *Create Condition* ◀❙.
3. Choose *Continue.*

   > **i Note**
   >
   > If the system issues a message stating that the condition already exists, continue this process from the point at which you maintain values on the *Decision Table* tab page.

4. On the *New Condition Definition* screen, enter the data below:

   In the *General Data* screen area:

Field	Description	Value
Condition	Condition type supplied by the system	`ZDTR_TYPE`
Description	Description of the condition type	**DTR Type Determination Condition**

   In the *Settings* screen area:

Field	Description	Value
Condition Type	Condition type supplied by the system	`/SCMTMS/DTR_TYPE`
Origin of Condition	Source of the condition information	Condition based on BRFplus Decision Table

5. Choose the *Data Access Definition* tab page and enter the following data:

Field	Description	Value
Line 10	Select this row for further mainte-nance	Data Access Definition: `/SCMTMS/TRQ_ORD_CAT`
Line 20	Select this row for further mainte-nance	Data Access Definition: `/SCMTMS/TRQ_ORD_TYPE`

6. Choose the *Decision Table* tab page and enter the following data:

Proc Type	DTR Type
LF	IIL3
EL	IIL3

> **i Note**
>
> To enter values on the *Decision Table* tab page, you may have to switch to edit mode and choose *Insert New Row*.

7. Save your changes.

14.11 Defining Freight Settlement Document Types

Context

In this procedure, you define types of freight settlement documents (FSDs). You can use these types to specify certain parameters for certain types of FSDs, for example:

- Number ranges of freight settlement documents
- Freight settlement document categories
- Tracking of changes

You can also assign default FSD types to FSD categories. The system uses the default FSD type if you do not enter a FSD type when creating an FSD.

Procedure

1. In Customizing for SAP TM, choose ❱ *Settlement* ❱ *Freight Settlement* ❱ *Define Freight Settlement Document Types.* ❱

2. Add a new entry as follows:

Field	Value
FSD Type	**IIL5**
FSD Category	**10** Freight Settlement Documents
Description	**Carrier Invoice Freight Settlement**
No. Range Interval	**01**
Weight UoM	**TO**
Default Volume UoM	**M3**
Default Quantity UoM	**EA**
Output Profile	/SCMTMS/TOR_INV_PREP
Add. Output *Profile*	/SCMTMS/SFIR_PRINT

14.12 Defining Freight Order Types

Context

In this Customizing activity, you define new freight order types that contain an enhanced save strategy. These freight order types are used to create freight orders for the pre-carriage and on-carriage stages. Execution and settlement for these stages are based on the freight orders.

Procedure

1. In Customizing for *Transportation Management*, choose ❯ *Freight Order Management* ❯ *Freight Order* ❯ *Define Freight Order Types* ❯.
2. Create a new freight order type for the pre-carriage stage using the following data:

Field	Value
Freight Order Type	**IIL9**
Description	**Int. Inbound Logistics FO (CN)**
Basic Settings	
Freight Order Can Be Subcontracted	**02 - Not Relevant for Subcontracting**
Shipper/Consignee Determination	**P Determination based on Predecessor Documents**
Enable Settlement	Select
Enable Charge Calculation	Select
Number Range Settings	
Time for Drawing	**I Draw Number Immediately**
Number Range Interval	**04**
Change Controller Settings	
Default Change Strategy	**DEF_CHACO**
Execution Settings	
Execution Track. Relev.	**3 Execution Tracking with External Event Management**
Immediate Processing	Select
Propagate Execution Info	Select
Event Management Settings	
Application Object Type	**ODT30_TO**
Last Exp. Event	**ARRIV_DEST**
Default MTr Determination	
Default MTr for Type	**IIL_RAIL**
Transportation Mode	**02**
Tendering Settings	
Use Default Settings	Select

Field	Value
Output Options	
Output Profile	**/SCMTMS/TOR_PRINT_ROAD**
Additional Settings	
Dangerous Goods Profile	**IIL_DG_PR1**
Default FSD Type	**IIL5**
Organizational Unit Determination	
Purchase Org.	**<IIL-PORG-1>**

3. Save your entries.
4. Create a second freight order type for the on-carriage stage using the following data:

Field	Value
Freight Order Type	**IIL6**
Description	**Int. Inbound Logistics FO (DE)**
Basic Settings	
Freight Order Can Be Subcontracted	**01 - Relevant for Subcontracting**
Shipper/Consignee Determination	**P Determination Based on Predecessor Documents**
Enable Settlement	Select
Enable Charge Calculation	Select
Number Range Settings	
Time for Drawing	**I Draw Number Immediately**
Number Range Interval	**04**
Change Controller Settings	
Default Change Strategy	**DEF_CHACO**
Execution Settings	
Execution Track. Relev.	**3 Execution Tracking with External Event Management**

Field	Value
Immediate Processing	Select
Propagate Execution Info	Select
Event Management Settings	
Application Object Type	`ODT30_TO`
Last Exp. Event	`ARRIV_DEST`
Default MTr Determination	
Default MTr for Type	`IIL_FCL`
Transportation Mode	`01`
Tendering Settings	
Use Default Settings	Select
Output Options	
Output Profile	`/SCMTMS/TOR_PRINT_ROAD`
Additional Settings	
Dangerous Goods Profile	`IIL_DG_PR1`
Default FSD Type	`IIL5`
Organizational Unit Determination	
Purchase Org.	`<IIL-PORG-1>`

5. Save your entries.

14.13 Defining Freight Booking Types

Context

You use the freight booking that is created from this document type as the main document in this scenario. In particular, the freight booking is used to plan, execute, and settle the main-carriage stage.

Procedure

1. In Customizing for SAP TM, choose ▌▶ *Freight Order Management* ❯ *Freight Booking* ❯ *Define Freight Booking Types* ❯.

2. Create a freight booking type for execution booking as follows:

    1. Enter the freight booking type **IIL7** and the description **Ocean Booking – Int. Inbound Logistics**.

    2. In the *Transportation Mode* field, choose *3 Sea*.

    3. In the *Basic Settings* screen area, set the *Shipper/Consignee Determination* field to *L Determine Based on First and Last Location* and select the *Booking Can Be Deleted* checkbox.

    4. In the *Charge Calculation* and *Settlement Document Settings* area, select the *Enable Charge Calculation* checkbox.

    5. Enter IIL5 Carrier Invoice Freight Settlement as the *Default FSD Type*.

    6. In the *Change Controller Settings* screen area, enter the default change strategy **DEF_CHACO**.

    7. In the *Execution Settings* screen area:

        ○ Set the *Exec. Track. Relevance* field to *3 Execution Tracking with External Event Management*.

        ○ Set the *Immediate Processing* field to *X Life Cycle Is to Be Set to "In Process" Immediately*.

        ○ Select the *Propagate Execution Info* checkbox.

        ○ Enter the application object type **ODT30_TO**.

        ○ Enter the last expected event **ARRIV_DEST**.

    8. In the *Additional Settings* screen area, enter the dangerous goods profile **IIL_DG_PR1** and the Web dynpro application configuration **/SCMTMS/FRE_BOOK_OCEAN**.

    9. In the *Number Range Settings* screen area:

        ○ Set the *Time for Drawing* field to *I Draw Numbers Immediately*.

        ○ Enter number range interval **05**.

    10. In the *Service Definition* screen area, set the *Consolidation (Source / Dest.)* fields to *P Without Consolidation*.

    11. In the *Output Options* screen area, enter the output profile **/SCMTMS/TOR_PRINT_SEA**.

    12. In the *Organization Unit Determination* screen area, enter the purchasing organization that you created in Creating Organizational Data in TM [page 55]. In this scenario, the purchasing organization is **IIL-PORG-1**.

3. Save your entries.

4. Create a new freight booking type for pre-booking as follows:

    1. Enter the freight booking type **IIL8** and the description **Ocean Pre-Booking – Int. Inbound Logistics**.

    2. In the *Transportation Mode* field, choose *3 Sea*.

    3. In the *Basic Settings* screen area, set the *Shipper/Consignee Determination* field to *L Determine Based on First and Last Location* and select the *Booking Can Be Deleted* checkbox.

    4. In the *Change Controller Settings* screen area, enter the default change strategy **DEF_CHACO**.

    5. In the *Execution Settings* screen area:

        ○ Set the *Exec. Track. Relevance* field to *3 Execution Tracking with External Event Management*.

        ○ Set the *Immediate Processing* field to *X Life Cycle Is to Be Set to "In Process" Immediately*.

        ○ Enter the application object type **ODT30_TO**.

        ○ Enter the last expected event **ARRIV_DEST**.

6. In the *Additional Settings* screen area:
   ○ Enter the dangerous goods profile **IIL_DG_PR1**.
   ○ Choose the default FSD type *IIL5 Carrier Invoice Freight Settlement*.
   ○ Enter the Web dynpro application configuration **/SCMTMS/FRE_BOOK_OCEAN**.
7. In the *Number Range Settings* screen area:
   ○ Set the *Time for Drawing* field to *I Draw Numbers Immediately*.
   ○ Enter number range interval **05**.
   ○ Enter the HBL number range **05**.
8. In the *Service Definition* screen area, set the *Consolidation (Source)* and *Consolidation (Dest.)* fields to *P - Without Consolidation*.
9. In the *Output Options* screen area, enter the output profile **/SCMTMS/TOR_PRINT_SEA**.
10. In the *Organization Unit Determination* screen area, enter the purchasing organization that you created in Creating Organizational Data in TM [page 55]. In this scenario, the purchasing organization is **IIL-PORG-1**.

5. Save your entries.

15 Setting Up Application Administration

15.1 Defining Carrier Selection Settings

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose ▶ *Application Administration* ❯ *Planning* ❯ *Planning Profile Settings* ❯ *Carrier Selection Settings* ❯ *Create Carrier Selection Settings* ▶ .
2. Create carrier selection setting IIL-CAR-SEL-OCSP with the following data:

Field	Value
Carrier Selection Settings	**IIL-CAR-SEL-OCSP**
Description	**Int. Inbound Logistics Ocean Carrier Selection Profile**
Check Incompatibilities	Deselected
Type of Carrier Selection Settings	General Carrier Selection
Alloc. Usage	Use Transportation Allocations
BS Usage	Do Not Use Business Shares
Strategy	Costs
Carrier Cost Origin	Use Internal Costs

3. On the *Advanced Settings* tab page, enter the following data:

Field	Value
Planning Strategy	TSPS_DEF
Optimizer Runtime	**6**
Action for Manual Rankings	Remove
Transportation Charge Interpretation	Accept Carrier with Charges of Zero
Action After Carrier Selection Run	No Action
Continuous Move Type	Use Transportation Lane Settings
Check Dist. and Dur.	Selected
CM Cost Recalculation of TCM	No Recalculation

4. Save your entries.

15.2 Defining Capacity Settings

Context

You can use this procedure to define a user-specific grouping of capacities that is taken into account during transportation planning.

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose ▐ *Application Administration* ❭ *Planning* ❭ *Planning Profile Settings* ❭ *Capacity Selection Settings* ❭ *Create Capacity Selection Settings* ▐.
2. Create capacity selection setting IIL-CAP-SEL-STD with the following data:

   Description: Inbound Logistic – Capa. Prof.

   Vehicle Resource

Veg. Res. Sel. Attr.	Sign	Option	Lower Limit
VEHICLERES_ID	Inclusive	Pattern	IIL*

Schedules

Attr. For Schd. Sel.	Sign	Option	Lower Limit
SCH_ID	Inclusive	Pattern	IIL*

3. Save your entries.

15.3 Defining Optimizer Settings

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose ▌▶ *Application Administration* ❭ *Planning* ❭ *Planning Profile Settings* ❭ *Optimizer Settings* ❭ *Create Optimizer Settings.* ❭
2. Create optimizer setting `IIL-OPT-SET-STD` using the following data:

Field	Value
Optimizer	**IIL-OPT-SET-STD**
Description	**Inbound Logistics – Optimizer Settings**
Planning Strategy	**VSR_DEF**
FO Building Rule	New Freight Order when Resource is Empty
Accept Transp. Prop	Save Route and Freight Documents
Planning Strategy for Transp. Prop	**VSR_DEF**
Max. Number of Trans Proposals	**5**
Max. No. of Parallel Processes	**2**
Maximum No of Transshipment Loc	**2**
Maximum Runtime (Seconds)	**10**
Consider Capacity During Optimization	Consider Capacities During Optimization

3. Save your entries.

15.4 Defining Planning Profiles

Context

In this procedure, you define a planning profile that contains all of the relevant settings for optimizer planning and creating transportation proposals using the routing guide.

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose ▌▶ *Application Administration* ❯ *Planning* ❯ *Planning Profiles* ❯ *Create Planning Profile* ▌.
2. On the *Planning Profile* tab page, create planning profile `IIL-PLAN-PROF-STD` as follows:
    1. In the *General Data* screen area, enter planning profile **IIL-PLAN-PROF-STD** and the description **Inbound Logistic Planning Prof**.
    2. In the *Planning Horizon* screen area, enter the following data:

Field	Value
Duration in Days	**180**
Round Horizon to Full Days	Selected
Time Zone for Rounding the Horizon	**CET**

    3. In the *Profile Assignments* screen area, enter the following data:

Field	Value
Capacity Selection Settings	**IIL-CAP-SEL-STD**
Optimizer Settings	**IIL-OPT-SET-STD**
Carrier Selection Settings	**IIL-CAR-SEL-OCSP**

    4. In the *Business Document Type* screen area, enter the following data:

Field	Value
Type Determination Rule	Defined per Category in Planning Profile

Field	Value
Default Type for Road FO	**IIL6**
Default Type for Bookings (Ocean)	**IIL7**
Default Type for Road FO	**IIL9**

5. In the *Manual Planning* screen area, enter the following data:

Field	Value
Manual Planning Strategy	**VSRI_DEF**
Consider Fixing Status	Error When Changing Fixed Document

6. In the *Scheduling* screen area, enter the following data:

Field	Value
Scheduling Strategy	**VSS_DEF**
Consider Freight Unit Dates	Do Not Consider Freight Unit Dates
Scheduling Direction	**Backward**

7. In the *Check* screen area, enter the following data:

Field	Value
Check Strategy	**VSR_CHECK**
Take Capacities into Account	Warning

8. In the *Loading* and *Unloading* screen area, enter the following data:

Field	Value
Dependence	Freight Unit and MTr Independent
Loading/Unloading Duration	**00:00:00**

9. Save your entries.

15.5 Defining Selection Profiles

Context

In this procedure, you create selection profiles, which define the selection of the freight units based on geography, pick-up dates, and delivery dates. You need to create three selection profiles for each stage. This leads to stage level planning, so that transportation planners with regional expertise may select only those transportation requirements for which they are responsible.

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose ▌ *Application Administration* 〉 *Planning* 〉 *Selection Profile Attributes* 〉 *Geographical Selection Attributes* 〉 *Create Geographical Selection Attributes* ▌.
2. Create selection profile `IIL-GEO-SEL-MAIN` for main carriage as follows:
   1. In the *General Data* screen area, enter the following data:

Field	Value
Geographical Sel. Attributes	**IIL-GEO-SEL-MAIN**
Description	**Inbound Logistic – MainLeg Selection Profile**
Both Locations	Selected

   2. Choose the *Source Zones* tab page and enter the following data:

Sign	Option	Lower Value	Upper Value
Inclusive	=	IIL-CN-CHINA	Blank

   3. Choose the *Destination Locations* tab page and enter the following data:

Sign	Option	Lower Value	Upper Value
Inclusive	=	IIL-DEHAM	Blank
Inclusive	=	*SP1200@ERP001*	Blank

3. Create selection profile `IIL-GEO-SEL-PRE` for pre-carriage as follows:

1. In the *General Data* screen area, enter the following data:

Field	Value
Geographical Sel. Attributes	**IIL-GEO-SEL-PRE**
Description	**Inbound Logistic – Pre-Carriage**
Both Locations	Selected

2. Choose the *Source Locations* tab page and enter the following data:

Sign	Option	Lower Value	Upper Value
Inclusive	Within Range	*SU*IIL-VN-01*@ERP001*	*SU*IIL-VN-02*@ERP001*

3. Choose the *Destination Locations* tab page and enter the following data:

Sign	Option	Lower Value	Upper Value
Inclusive	=	IIL-CNSHA	Blank

4. Create selection profile `IIL-GEO-SEL-ON` for on-carriage as follows:
   1. In the *General Data* screen area, enter the following data:

Field	Value
Geographical Sel. Attributes	IIL-GEO-SEL-ON
Description	**Inbound Logistic – On-Carriage**
Both Locations	Selected

   2. Choose the *Source Locations* tab page and enter the following data:

Sign	Option	Lower Value	Upper Value
Inclusive	=	IIL-DEHAM	Blank

   3. Choose the *Destination Locations* tab page and enter the following data:

Sign	Option	Lower Value	Upper Value
Inclusive	=	*SP*1200*@ERP001*	Blank

5. In SAP NetWeaver Business Client (NWBC), choose ▌▶ *Application Administration* ❯ *Planning* ❯ *Selection Profile Attributes* ❯ *Additional Selection Attributes* ❯ *Create Additional Selection Attributes* ❰ .

6. Create additional selection attributes `IIL-ADD-SEL-EXCLUDE-PLANNED` by entering the following data in the *General Data* screen area:

Field	Value
Additional Sel. Attributes	**IIL-ADD-SEL-EXCLUDE-PLANNED**
Description	Exclude Planned Req.
Planned Requirements	Exclude in Selection

7. In SAP NetWeaver Business Client (NWBC), choose ▌ *Application Administration* ❯ *Planning* ❯ *Selection Profiles* ❯ *Create Selection Profile* ▌.

8. Create selection profile `IIL-GEN-SEL-MAIN-WO-TIME` for main carriage with the following data:

Field	Value
Selection Profile	**IIL-GEN-SEL-MAIN-WO-TIME**
Description	**Inbound Logistics – Main Carriage**
Maximum Number of Selected Objects	**100**
Geographical Sel. Attributes	**IIL-GEO-SEL-MAIN**
Additional Sel. Attributes	**IIL-ADD-SEL-EXCLUDE-PLANNED**

9. Create selection profile `IIL-GEN-SEL-PRE-WO-TIME` for precarriage with the following data:

Field	Value
Selection Profile	**IIL-GEN-SEL-PRE-WO-TIME**
Description	Inbound Logistics – Pre-Carriage
Maximum Number of Selected Objects	**42**
Geographical Sel. Attributes	**IIL-GEO-SEL-PRE**
Additional Sel. Attributes	**IIL-ADD-SEL-EXCLUDE-PLANNED**

10. Create selection profile `IIL-GEN-SEL-ON-WO-TIME` for on-carriage with the following data:

Field	Value
Selection Profile	**IIL-GEN-SEL-ON-WO-TIME**
Description	**Inbound Logistics – On-Carriage**

Field	Value
Maximum Number of Selected Objects	**42**
Geographical Sel. Attributes	**IIL-GEO-SEL-ON**
Additional Sel. Attributes	**IIL-ADD-SEL-EXCLUDE-PLANNED**

11. Save your entries.

16 Setting Up Transportation Charge Management

16.1 Defining Calculation Sheets

Context

You use this procedure to define a calculation sheet. This informs the TM system of the transportation charges to be calculated and how to calculate them. This helps to bill the customer for transportation services and to pay the supplier for subcontracted transportation services.

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose ▶ *Master Data* ❯ *Charge Management and Service Product Catalogs* ❯ *Calculation Sheets* ❯ *Create Calculation Sheet* ❯.
2. Choose *Continue* without entering a template.
3. Create calculation sheet **IIL-TCCS-FCL-SHIP**.
4. Enter description **IIL-TCCS-FCL-SHIP**.

   Charge Usage: *Service Provider*.
5. In the *Items* screen area, choose ▶ *Insert* ❯ *Single Item* ❯ and enter the following data

Line No.	Instruction Type	Charge Type	Amount	Currency	Resolution Base
20	Standard	THCO	156	USD	STAGE
30	Standard	IPSO	16	USD	BOOKING
40	Standard	BSF	850	USD	STAGE

Line No.	Instruction Type	Charge Type	Amount	Currency	Resolution Base
50	Standard	THCD	156	EUR	STAGE
60	Standard	IPSD	16	EUR	BOOKING

6. Create calculation sheet IIL-TCCS-ONCARR-RAIL.

7. Enter description **IIL-TCCS-ONCARR-RAIL**.

   Charge Usage: *Service Provider*.

8. In the *Items* screen area, choose ▌▶ *Insert* ❯ *Single Item* ◗ and enter the following data

Line No.	Instruction Type	Charge Type	Amount	Currency	Resolution Base
20	Standard	BSF	337	EUR	STAGE

9. Create new calculation sheet IIL-TCCS-CN-A184.

10. Enter description **IIL-TCCS-CN-A184**.

   Charge Usage: *Service Provider*.

11. In the *Items* screen area, choose ▌▶ *Insert* ❯ *Single Item* ◗ and enter the following data

Line No.	Instruction Type	Charge Type	Amount	Currency
20	Standard	BASE	500	EUR

12. Create new calculation sheet IIL-TCCS-CN-A183.

13. Enter description **IIL-TCCS-CN-A183**.

   Charge Usage: *Service Provider*.

14. Enter the following data:

Line No.	Instruction Type	Charge Type	Amount	Currency
20	Standard	BASE	600	EUR

15. Save your entries.

16.2 Defining Freight Agreement Types

Context

You use this Customizing activity to define freight agreement types. You must specify a freight agreement type when you create freight agreements.

Procedure

1. In Customizing for SAP TM, choose ▶ *Transportation Management* ❯ *Master Data* ❯ *Agreements and Service Products* ❯ *Define Freight Agreement Types* ◀.
2. Enter the following values that will apply to all your freight agreements.

Field	Description	User Action and Values
Type	Blank	**IILA**
Short Description	Blank	**IIL Freight Agreement Type**
Dflt Type	Default Type	Deselected
TrackChang	Blank	Deselected
Mul Pty	Blank	Deselected
Txt Schema	Blank	Blank
Calc. Sheet Template	Blank	Blank

16.3 Defining Freight Agreements

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose ▶ *Freight Agreement Management* ❯ *Freight Agreements.* ❯
2. Create new freight agreement `IIL-FA-SEA-CAR-01` as follows:
   1. On the *New Freight Agreement* screen, enter the type **IILA** and choose *Continue*.
   2. On the *General Data* tab page, enter the following data:

Field	Value
Agreement	IIL-FA-SEA-CAR-01
Description	**IIL-FA-SEA-CAR-01**
Time Zone	**CET**
Valid From	As required
Valid To	As required
Purchase Organization	**IIL-PORG-1**
Carrier	**IIL-CR-01**

   3. In the *Items* screen area, add calculation sheet `IIL-TCCS-FCL-SHIP` to the table.
   4. Choose ▶ *Set Status* ❯ *Released* ❯.
   5. Save the freight agreement.

3. Create freight agreement `IIL-FA-RAIL-CAR-01` as follows:
   1. On the *New Freight Agreement* screen, enter the type **IILA** and choose *Continue*.
   2. On the *General Data* tab page, enter the following data:

Field	Value
Agreement	**IIL-FA-RAIL-CAR-01**
Description	**IIL-FA-RAIL-CAR-01**
Time Zone	**CET**

Field	Value
Valid From	As required
Valid To	As required
Purchase Organization	**IIL-PORG-1**
Carrier	**IIL-CR-02**

3. In the *Items* screen area, add calculation sheet `IIL-TCCS-ONCARR-RAIL` to the table.
4. Choose ❙▶ *Set Status* ❭ *Released* ❭.
5. Save the freight agreement.

4. Create freight agreement `IIL-FA-CN-A183-01` as follows:

   1. On the *New Freight Agreement* screen, enter the type **IILA** and choose *Continue*.
   2. On the *General Data* tab page, enter the following data:

Field	Value
Agreement	**IIL-FA-CN-A183-01**
Description	**IIL-FA-CN-A183-01**
Time Zone	**CET**
Valid From	As required
Valid To	As required
Purchase Organization	**IIL-PORG-1**
Carrier	**IIL-CR-04**

   3. In the *Items* screen area, add calculation sheet `IIL-TCCS-CN-A183` to the table.
   4. Choose ❙▶ *Set Status* ❭ *Released* ❭.
   5. Save your freight agreement.

5. Create freight agreement `IIL-FA-CN-A184-01` as follows:

   1. On the *New Freight Agreement* screen, enter the type **IILA** and choose *Continue*.
   2. On the *General Data* tab page, enter the following data:

Field	Value
Agreement	**IIL-FA-CN-A184-01**
Description	**IIL-FA-CN-A184-01**

Field	Value
Valid From	As required
Valid To	As required
Purchase Organization	**IIL-PORG-1**
Carrier	IIL-CR-03

3. In the *Items* screen area, add calculation sheet IIL-TCCS-CN-A183 to the table.

4. Choose ▶ *Set Status* ❯ *Released* ❯.

5. Save your entries.

17 Setting Up Customizing for Freight Settlements

17.1 Defining Settlement Profiles

Context

In this Customizing activity, you define the profile for creating invoices. The settlement profile consists of a set of parameters with which you can control how the system creates invoices.

Procedure

1. In Customizing for SAP TM, choose ▌ *Transportation Management* ❯ *Settlement* ❯ *Define Settlement Profile.* ❯.
2. Create an entry with the following data:

Field	Value
Settlement Prof	**IIL_SP_01**
Medium Desc.	**<Your description>**
Data Source	**01** Planned Data
Split/Cons.	**FSD_CREAT**
Calculation Option	**A** Copy Fixed Charges and Redetermine Others
Invoicing Level	**2** (Settlement on Item)

Field	Value
Collective Settlement	Selected

17.2 Defining Charge Calculation Profiles

Procedure

1. In Customizing for SAP TM, choose ▌❯ *Transportation Management* ❯ *Basic Functions* ❯ *Charge Calculation* ❯ *Basic Settings* ❯ *Define Calculation Profile* ▌.
2. Choose *New Entries* to create a new entry with the following data:

Field	Value
Calculation Profile	**IIL_CLCPRF**
Description	**IIL: Charge Calculation Profile**
Calculation Date Type	**EET_DATE** (Expected End Date of Complete Carriage)
Calculation Level	**1** (Calculation on Header Level)
Freight Agreement Determination Rule	Blank
Calculation Sheet Determination Rule	Blank
Through Rate	Deselected
Dimensional Weight Profile	Blank
Dimensional Weight Condition	Blank
Exchange Rate Type	Blank
Data Source	Actual Route

3. Save your entries.

17.3 Defining Charges Profile

Prerequisites

You have defined the organizational units.

Context

You can specify a default assignment of different charge calculation parameters such as the settlement profile, currency, and exchange rate for the purchasing organization units.

Procedure

1. In Customizing for SAP TM, choose ▶ *Transportation Management* ❯ *Basic Functions* ❯ *Charge Calculation* ❯ *Basic Settings* ❯ *Define Charges Profiles* ❯.

2. Enter the following data:

Field	Value
Charges Profile	`IIL_CP`
Description	`Charges Profile for IIL`
Default Purchase Org.	`IIL-PORG-1`
Settlement Prof.	`IIL_SP_01`
Calculation Profile	`IIL_CLCPRF`
Purch. Calc. Profile	`IIL_CLCPRF`
Local Currency	`EUR`

3. Save your entries.

4. In SAP NetWeaver Business Client, choose ▶ *Master Data* ❯ *Organization* ❯ *Edit Organization and Staffing* ❯.

5. In the *Find by* screen area, choose *Organizational unit* and enter `IIL-PORG-1` as the object of your search.

6. On the *Org. Data* tab page of your purchase organization, enter your charges profile `IIL_CP`.

7. Save your entries.

18   Integrating ERP Invoices

18.1   Defining Service Masters

Context

You use this procedure to store frequently procured services centrally as master records and use them on a cross-application basis.

Procedure

1. On the *SAP Easy Access* screen for SAP ERP, choose ▶ *Logistics* ❯ *Materials Management* ❯ *Service Master* ❯ *Service* ❯ *Service Master* ❯.
2. Enter your data using the example provided in the table below for each of the following four service masters
   - Rail freight (internal number range) IIL-RAIL
   - Port Charges Destination (SIT_PORTD) IIL-PORTD
   - Port Charges Origin (SIT_PORTO) IIL-PORTO
   - Ocean freight (SIT_OCEAN) IIL-OCEAN

> **i Note**
>
> You can identify these service masters either by system-generated numbers or names, but whichever numbers or names you use will need to be supplied in following procedures.

Field	Value
Service Category	**SERV** Service: Purchasing
Base Unit of Measure	**AU** (Activ. Unit)

Field	Value
Mat/Srv. Grp	**01** (Material Group 1)
Valuation Class	**3200** (Services)

18.2 Assigning Organizational Units for Purchasing

Prerequisites

You have created organizational unit IDs in SAP TM.

Context

In this procedure, you can assign the purchasing business areas from an external transportation management system to the organizational units in purchasing in the ERP system.

Procedure

1. In Customizing for SAP ERP, choose ▐▶ *Integration with Other SAP Components* ❯ *Transportation Management* ❯ *Invoice Integration* ❯ *Invoicing* ❯ *Mapping of Organizational Units* ❯ *Assign Organizational Units for Purchasing* ◀▌.
2. Create an entry with the following data:

   > **i Note**
   >
   > The values given in this table are for illustration purposes only.

Field	Value
Logical System	`<logical system name of your TM system>`
TM Pur. Organization	Purchasing organization that you created in Creating Organizational Data in TM [page 55]

Field	Value
Purchasing Org.	IIL-PORG-1
Purch. Group	001
Plant	1200
Company Code	1000

18.3 Defining PPF Settings for ERP Invoicing Integration

Context

In this procedure, you configure the settings for the post processing framework (PPF). Since PPF is an output management framework, it helps you set up output that is specific to your installation. PPF generates output triggers based on the settings you configure for particular application data records. Based on the configuration settings, the system processes these triggers to send the actual output.

Procedure

1. In Customizing for SAP TM, choose ▶ *Cross-Application Components* ❯ *Processes and Tools for Enterprise Applications* ❯ *Reusable Objects and Functions for BOPF Environment* ❯ *PPF Adapter for Output Management* ❯ *Maintain PPF Settings* ❯.
2. Select entry Appl. `/SCMTMS/TRANSPORTATION` and choose *Condition Configuration (Transportable Conditions)*.
3. In the *Scheduling of Actions* table, select *Transfer Freight Settlement Document to ERP* (`/SCMTMS/TOR_INV_PREP`).
4. Create action definitions `/SCMTMS/TOR_INV_PREP_CANCEL` and `/SCMTMS/TOR_INV_PREP_REQUEST`.
5. Select action definition `/SCMTMS/TOR_INV_PREP_CANCEL` and select the *Schedule Condition* tab page.
6. Enter schedule condition `/BOFU/EVAL_SCHEDULE_CONDITION`.
7. Select action definition `/SCMTMS/TOR_INV_PREP_REQUEST` and choose the *Schedule Condition* tab page.
8. Enter schedule condition `/BOFU/EVAL_SCHEDULE_CONDITION`.
9. Choose the *Start Condition* tab page and enter start condition `/BOFU/EVAL_START_CONDITION`.

Important Disclaimers and Legal Information

Hyperlinks

Some links are classified by an icon and/or a mouseover text. These links provide additional information.
About the icons:

- Links with the icon   : You are entering a Web site that is not hosted by SAP. By using such links, you agree (unless expressly stated otherwise in your agreements with SAP) to this:

    - The content of the linked-to site is not SAP documentation. You may not infer any product claims against SAP based on this information.
    - SAP does not agree or disagree with the content on the linked-to site, nor does SAP warrant the availability and correctness. SAP shall not be liable for any damages caused by the use of such content unless damages have been caused by SAP's gross negligence or willful misconduct.

- Links with the icon : You are leaving the documentation for that particular SAP product or service and are entering a SAP-hosted Web site. By using such links, you agree that (unless expressly stated otherwise in your agreements with SAP) you may not infer any product claims against SAP based on this information.

Beta and Other Experimental Features

Experimental features are not part of the officially delivered scope that SAP guarantees for future releases. This means that experimental features may be changed by SAP at any time for any reason without notice. Experimental features are not for productive use. You may not demonstrate, test, examine, evaluate or otherwise use the experimental features in a live operating environment or with data that has not been sufficiently backed up.
The purpose of experimental features is to get feedback early on, allowing customers and partners to influence the future product accordingly. By providing your feedback (e.g. in the SAP Community), you accept that intellectual property rights of the contributions or derivative works shall remain the exclusive property of SAP.

Example Code

Any software coding and/or code snippets are examples. They are not for productive use. The example code is only intended to better explain and visualize the syntax and phrasing rules. SAP does not warrant the correctness and completeness of the example code. SAP shall not be liable for errors or damages caused by the use of example code unless damages have been caused by SAP's gross negligence or willful misconduct.

Gender-Related Language

We try not to use gender-specific word forms and formulations. As appropriate for context and readability, SAP may use masculine word forms to refer to all genders.

THE BEST RUN SAP