SAP Transportation Management

Configuration Guide for LCL Ocean Freight

Copyright

Icons in Body Text

Icon	Meaning
	Caution
	Example
	Note
	Recommendation
	Syntax

Additional icons are used in SAP Library documentation to help you identify different types of information at a glance. For more information, see *Help on Help → General Information Classes and Information Classes for Business Information Warehouse* on the first page of any version of *SAP Library*.

Typographic Conventions

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

Table of Contents

Configuration Guide for LCL Ocean Freight

About this Document

This configuration guide describes a scenario for LCL (Less than Container Load) Ocean Freight. You should 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	August 2011	Initial release
2.0	September 2012	Master data and Customizing settings renamed to correspond to those in the air freight scenario.
2.1	February 2013	Updated calculation sheets and rate tables
3.0	December 2013	Updated for SAP Transportation Management 9.1

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

1 The Scenario

This document describes the configuration settings for the LCL (Less than Container Load) Ocean Freight scenario of SAP Transportation Management (TM).

Some settings in this guide can be copied from the existing SAP ERP configuration. In particular, you can reuse SAP ERP Customizing settings 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 including. G/L Accounts) and change them as necessary (such as addresses).

Business system groups, logical systems, RFC (remote function call) 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 number 458914). An overview of the prefixes and suffixes used is in the following table (this document uses the system ID ERP001 as an example. Substitute this with your own system ID):

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

For 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 are not changed. To add a prefix or suffix to the master data objects that are transferred from SAP ERP to SAP TM, implement SAP Note 458914 (*Consulting note: Sample code for inbound user exit locations*).

If you implement this SAP Note, locations for carriers are created with the relevant prefix and suffix (for example, a location of type 1020 = TSP). However, business partners retain the original name used in SAP ERP:

Business Object	Prefix/Suffix for Location	Prefix/Suffix for Business Partner
Carrier	CA- / —@ERP001	None / None

For example:

- Carrier name in SAP ERP: OAF-CR-01

- Carrier location name in SAP ERP: CAOAF-CR-01@ERP001

- Carrier name in SAP TM: OAF-CR-01

Prerequisites

Before you begin to configure the *LCL Ocean Freight* scenario, see the following guides in SAP Solution Manager under ▶ *SAP Transportation Management* ▶ *Configuration Structures* ▶ *Basic Settings for SAP TM <release level>* ▶:

- 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

    o Purchase order entry

    o Inbound delivery creation

    o Posting goods receipt

    o Logistics invoice verification

    o Invoice document creation (ERS settlement)

    o Transfer to accounting

- FI/CO

    o Supporting the processes listed above

    o Country-specific legal requirements (such as tax calculation)

If you want to integrate SAP TM with SAP Environmental Health and Safety (EHS) Dangerous Goods Management (DGP), 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 test the *LCL Ocean Freight* scenario, you must configure the user profile `TM_INVOICE_CLERK` in your SAP ERP system for your test user. 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 "LCL Ocean Freight" scenario assumes an international overseas transportation network with four shippers located in Japan, ocean transport from the port in Yokohama to Los Angeles, and four customers located in the western part of the United States.
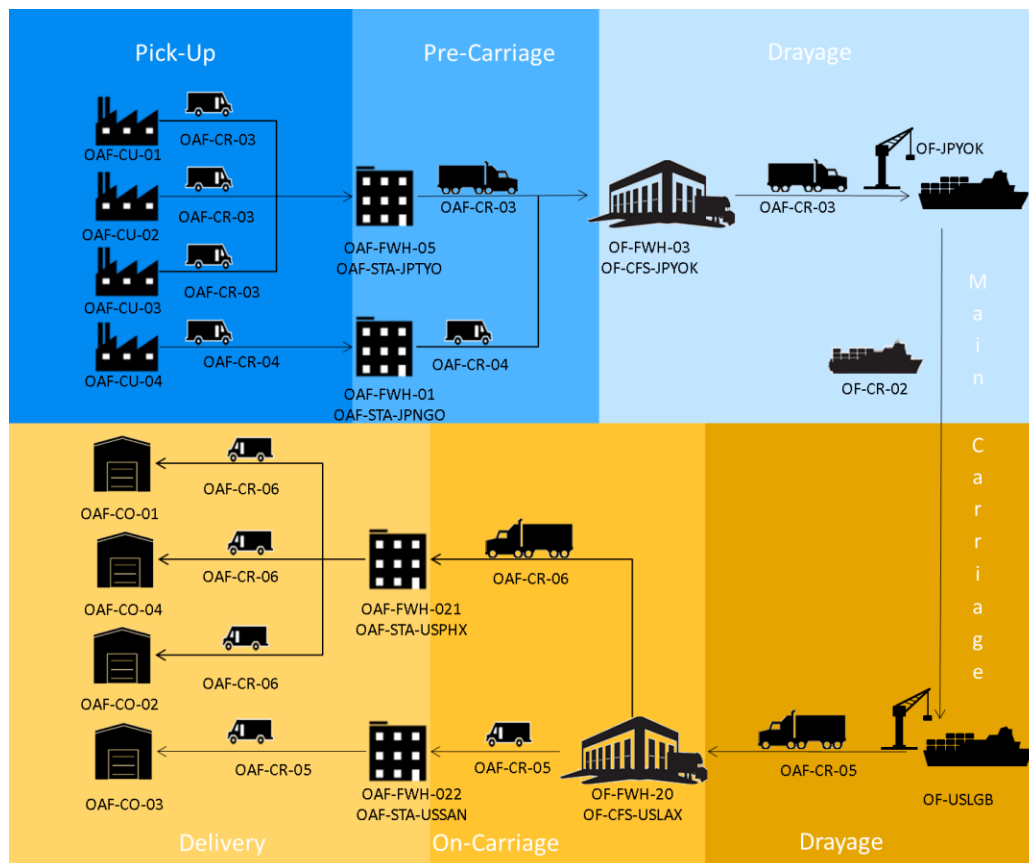
Stages in the "LCL Ocean Freight" Scenario

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 must be changed to customer-specific organizational structures as required:

- Organizational data – Japan

Parameter	Value
Company Code	5000 (IDES Japan)
Controlling Area	5000 (CO Japan)
Plant	5000 Tokyo
Purchasing Organization	5000 (IDES Japan)
Sales Organization	5000 (IDES Japan)
Distribution Channel	10 (Final Customer Sales)

- Organizational data – United States

Parameter	Value
Company Code	3000 (IDES USA Inc.)
Controlling Area	3000 (CO North America)
Plant	3300 Los Angeles
Purchasing Organization	3000 (IDES USA Inc.)
Sales Organization	3000 (IDES USA Philadelphia)
Distribution Channel	10 (Final Customer Sales)

2 SAP ERP Master Data: Customers and Vendors

After defining master data for customers and vendors, you can transfer the data from SAP ERP to SAP TM.

The process involves the following tasks:

- Defining vendor master data [Page 12]

  In this scenario, vendors represent the carriers.

- Defining customer master data [Page 15]

- Transferring master data from SAP ERP to SAP TM [Page 18]

❱❱ 2.1 Defining Vendor Master Data in SAP ERP

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

Procedure

1. On the *SAP Easy Access* screen for SAP ERP, choose ❱ *Logistics* ❱ *Materials Management* ❱ *Purchasing* ❱ *Master Data* ❱ *Vendor* ❱ *Central* ❱ *Create* ❱ or call transaction XK01.

2. Create the vendors assigned to the purchasing organizations 3000 and 5000 according to the following table:

Vendor ID	Company Code	Purchasing Organization	Account Group
OAF-CR-01	5000	5000	0005
OAF-CR-02	3000 and 5000	3000 and 5000	0005
OAF-CR-03	5000	5000	0005
OAF-CR-04	5000	5000	0005
OAF-CR-05	3000	3000	0005
OAF-CR-06	3000	3000	0005

3. On the *Create Vendor: Address* screen, enter the following address data for each vendor:

Vendor ID	Name	Search Term	Address
OAF-CR-01	EASC – East Asia Shipping Corp	Ocean Carrier JP	Nippon Costal Highway 101, 2300054 Yokohama, JP, Region 14 (Kanagawa)
OAF-CR-02	SOCAL Shipping Corporation	Ocean Carrier US	Main Street 25, 90745 Long Beach, United States, Region CA
OAF-CR-03	Uchida Trucking	Truck Carrier JP	Tome Nagi 7-53-12, 1020021, Ota-ku, JP, Region 13 (Tokyo)
OAF-CR-04	Ich-Ni Express	Truck Carrier JP	Hadaka-Jime 15, 4600001 Nagoya, JP Region 23

			(Aichi)
OAF-CR-05	ACME Lines	Truck Carrier US	Beach Street 10, 90745-1246 Long Beach, United States, Region CA
OAF-CR-06	Desert Express Lines	Truck Carrier US	First 355, 85025-8848 Phoenix, United States, Region AZ

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

Vendor ID	Recon. Account	Cash Management Group
OAF-CR-01	141100	A1
OAF-CR-02 (company code 3000)	196300	A1
OAF-CR-02 (company code 5000)	141100	A1
OAF-CR-03	141100	A1
OAF-CR-04	141100	A1
OAF-CR-05	196300	A1
OAF-CR-06	196300	A1

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

Vendor ID	Payment Terms
OAF-CR-01	0002
OAF-CR-02	0002
OAF-CR-03	0002
OAF-CR-04	0002
OAF-CR-05	0002
OAF-CR-06	0002

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

Vendor ID	OAF-CR-01	OAF-CR-02	OAF-CR-03	OAF-CR-04	OAF-CR-05	OAF-CR-06
Order Currency	JPY	USD	JPY	JPY	USD	USD
Terms of Payment	0002	0002	0002	0002	0002	0002
Incoterms	Blank	Blank	Blank	Blank	Blank	Blank
Purchase Group	Blank	Blank	Blank	Blank	Blank	Blank
Planned Delivery Time	Blank	Blank	Blank	Blank	Blank	Blank
Conf. Control	Blank	Blank	Blank	Blank	Blank	Blank
Shipping Condition	Blank	Blank	Blank	Blank	Blank	Blank

2.2 Defining Customer Master Data in SAP ERP

Procedure

1. On the *SAP Easy Access* screen for SAP ERP, choose ▶ *Logistics* ▶ *Sales and Distribution* ▶ *Master Data* ▶ *Business Partner* ▶ *Customer* ▶ *Create* ▶ *Complete* ▶ or call transaction XD01.

2. On the initial screen, enter the data shown in the following table:

Japanese Customers

Customer ID	OAF-CU-01	OAF-CU-02	OAF-CU-03	OAF-CU-04
Account Group	KUNA: General Customers	KUNA: General Customers	KUNA: General Customers	KUNA: General Customers
Company Code	5000	5000	5000	5000
Sales Organization	5000	5000	5000	5000
Distribution Channel	10	10	10	10
Division	00	00	00	00

3. Choose *Continue*.

4. Enter the following address data:

Japanese Customers: Address Data

Customer ID	OAF-CU-01	OAF-CU-02	OAF-CU-03	OAF-CU-04
Name	KAN XINSON CLOTHING CO. LTD.	Wabei Electronics Factory	Japan Cable LTD	Samurai Fireworks LTD
Street	Kioi-cho	Denenchofu	Kawabe	Shirokane
House Number	7-1	2-53-12	3-25	1-27-6
Postal Code	1020094	1020021	5011198	1080072
City	Chiyoda-ku	Ota-ku	Gifu	Minato-ku
Region	13	13	23	13
Country	JP	JP	JP	JP
Time Zone	JAPAN	JAPAN	JAPAN	JAPAN

5. Choose ▶ *Goto* ▶ *Sales Area Data* ▶ and enter the following data for all customers:

Japanese Customers: Sales Area Data		
Tab Page	**Field**	**Entry**
Sales	*Price Group*	01
	Cust. pric. proc.	1
Shipping	*Order combination*	Activate
	Shipping Condition	01
Billing Documents	*Tax Classification* for all Tax Codes	0 (Tax Exempt)
	Incoterms	Blank
	Incoterm Locations	Blank
	Terms of Payment	Blank

6. Choose ▶ *Goto* ▶ *Company Code Data* ◀ and enter the following information for all customers:

Japanese Customers: Company Code Data

Tab Page	**Field**	**Entry**
Account Management	*Reconciliation Account*	145200
Payment Transactions	*Terms of Payment*	0001

7. Repeat the steps above to create the following U.S. customers:

U.S. Customers

Customer ID	OAF-CO-01	OAF-CO-02	OAF-CO-03	OAF-CO-04
Company Code	3000	3000	3000	3000
Sales Organization	3000	3000	3000	3000
Distribution Channel	10	10	10	10
Division	00	00	00	00
Name	Dosena Clothing Co Factory	Ten Media Inc.	Soutwire CO.	Scottsdale Fireworks Inc.
Street	State Route	Stallard Pl	West Main Street	Alma School Road
House Number	1710 W	10940 N	575	2012 N
Postal Code	86336	85737	92227	85256

City	Sedona	Tucson	Brawley	Scottsdale
Region	AZ	AZ	CA	AZ
Country	US	US	US	US
Time Zone	MSTNO	MSTNO	PST	MSTNO
Price Group	01	01	01	01
Cust. pric. proc.	1	1	1	1
Shipping Conditions	01	01	01	01
Order combination	Activate	Activate	Activate	Activate
Incoterm	Blank	Blank	Blank	Blank
Incoterm Locations	Blank	Blank	Blank	Blank

8. Save your entries.

2.3 Transferring Master Data from SAP ERP to SAP TM

Procedure

Creating the Integration Models

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 call transaction `CFM1`.

2. Create separate integration models for transferring materials for plant, and vendor and shipping point. Take the following information into account:

   o Model name: OAF-IM-ORG for plants

   o Model name: OAF-IM-DAT for vendors, customers and shipping points

   o Use the following details for both models:

     ▪ Use the same logical TM system name, for example, TM1CLNT001 (input help [`F4`] is available)

     ▪ Use APO application TM (for example, APO)

   o Prefix your selection with the initial letters, `OF*`, for customers and vendors

     Make sure that only plant is highlighted for model OAF-IM-ORG and that only shipping point, customer and vendor are highlighted for model OAF-IM-DAT.

     In OAF-IM-ORG select the corresponding plants for the transfer (3300 Los Angeles and 5000 Tokyo).

     In OAF-IM-DAT select the corresponding shipping points (3300 Los Angeles and 5000 Tokyo).

   o In model OAF-IM-DAT, make sure that you activate the creation of business partners in the *Vendors and Customers* section by entering `2` (create both) in the *Create Loc/BP* field.

3. Execute the model.

4. Generate the integration model (*Generate IM*).

5. Save the model.

6. To activate the models, 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 call transaction `CFM2`.

7. Activate the two data models. Use transaction `SMQ1` in SAP ERP to verify that all data has been transported. Use transaction `SMQ2` in SAP TM system to verify data transfer.

   i

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

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

⚠️

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

Checking and Updating Transported Data in SAP TM

1. On the *SAP Easy Access* screen for SAP TM, choose ▶ *Master Data* ▶ *Transportation Network* ▶ *Define Location* ▶ or call transaction /SCMTMS/LOC3.

2. Verify the plant, receiving point, vendors, and customers as shown in the following table:

ERP Data	TM Data
Plant 3300, 5000	PL3300@ERP001; PL5000@ERP001
Receiving Point 5000 , 3300	SP3300@ERP001; SP5000@ERP001
Customer OAF-CU-01, OAF-CO-01	CUOAF-CU-01@ERP001, CUOAF-CO-01@ERP001

3. Verify the customer and vendor master data by selecting ▶ *Master Data* ▶ *Transportation Network* ▶ *Define Location* ▶. Change the geocoordinates to the following values:

Location Name	Longitude	Latitude
CUOAF-CU-01@ERP001	+ 139: 44: 16	+ 35: 40: 53
CUOAF-CU-02@ERP001	+ 139: 30: 00	+ 35: 45: 00
CUOAF-CU-03@ERP001	+ 137: 15: 00	+ 35: 00: 00
CUOAF-CU-04@ERP001	+ 139: 44: 16	+ 35: 40: 52
CUOAF-CO-01@ERP001	− 111: 46: 25	+ 34: 50: 38
CUOAF-CO-02@ERP001	− 110: 56: 51	+ 32: 24: 15
CUOAF-CO-03@ERP001	− 115: 33: 05	+ 32: 58: 44
CUOAF-CO-04@ERP001	− 111: 51: 23	+ 33: 28: 11

4. On the *SAP Easy Access* screen for SAP TM, choose ▶ *Master Data* ▶ *General* ▶ *Define Business Partner* ▶ or call transaction BP.

5. Verify the customers as shown in the following table:

SAP ERP Data	SAP TM Data
Carrier OAF-CR-01	CAOAF-CR-01@ERP001

3 Application Administration in SAP TM

Application administration comprises defining the following settings and profiles:

- Carrier selection settings [Page 22]

- Optimizer settings [Page 23]

- Capacity settings [Page 24]

  Define a user-specific grouping of capacities that is taken into account during transportation planning.

- Planning profiles [Page 26]

  Define a planning profile that contains all of the relevant settings for optimizer planning and creating transportation proposals using the routing guide.

- Selection profiles [Page 30]

  Selection profiles define the selection of the freight units based on geography, pickup dates, and delivery dates.

- Transportation cockpit layouts [Page 33]

  You can create layouts for displaying capacities and requirements in your transportation cockpit.

3.1 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 the carrier selection setting OF-CAR-SEL-TRSP and enter the following data:

Field	Value
Carrier Selection Settings	OF-CAR-SEL-TRSP
Description	Ocean Freight LCL Truck Carrier Selection
Check Incompatibilities	Deselect
Parallel Processing Profile	Blank
Type of Carrier Selection Settings	General Carrier Selection
Transportation Allocation Usage	Do Not Use Transportation Allocations
Business Share Usage	Do Not Use Business Shares
Strategy	Costs
Carrier Cost Origin	Use Internal Costs

3. In the *Advanced Settings* screen area, 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	Assign Best Carrier
Continuous Move Type	Use Transportation Lane Settings
Continuous Move Information	Select
Check Distance and Duration	Select
CM Cost Recalculation of TCM	No Recalculation

4. Save your entries.

3.2 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 the optimizer setting OF-OPT-SET-STD and enter the following data:

Field	Value
Optimizer	`OF-OPT-SET-STD`
Description	`Ocean Freight – Optimizer Settings`
Planning Strategy	`VSR_DEF`
FO Building Rule	`New Freight Order when Resource is Empty`
Accept Transport Prop	`Save Route and Freight Orders`
Planning Strategy for Transport 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	`Yes`

3. Save your entries.

3.3 Defining Capacity Settings

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 `OF-CAP-SEL-PRE` with the following data:

   Description: `Ocean Freight – Capa. Prof. Pre-Carriage`

Vehicle Resource

Field	Value
Veg. Res. Sel. Attr	`VEHICLERES_ID`
Sign	`Inclusive`
Option	`Pattern`
Lower Limit	`OF-JP*`

and:

Schedules

Field	Value
Attr. For Schd. Sel.	`SCH_ID`
Sign	`Inclusive`
Option	`Equal (=)`
Lower Limit	`OAF-TRUCKSCHED-01`

and:

Schedules

Field	Value
Attr. For Schd. Sel.	`SCH_ID`
Sign	`Inclusive`
Option	`Equal (=)`
Lower Limit	`OAF-TRUCKSCHED-02`

3. Save your entries.

4. Create the capacity selection setting `OF-CAP-SEL-ON` with the following data:

Description: `Ocean Freight – Capa. Prof. On-Carriage`

Vehicle Resource

Field	Value
Veg. Res. Sel. Attr	`VEHICLERES_ID`
Sign	`Inclusive`
Option	`Pattern`
Lower Limit	`OF-US*`

and:

Schedules

Field	Value
Attr. For Schd. Sel.	`SCH_ID`
Sign	`Inclusive`
Option	`Equal (=)`
Lower Limit	`OF-TRUCKSCHED-03`

and:

Schedules

Field	Value
Attr. For Schd. Sel.	`SCH_ID`
Sign	`Inclusive`
Option	`Equal (=)`
Lower Limit	`OF-TRUCKSCHED-04`

5. Save your entries.

◀◀ 3.4 Defining Planning Profiles

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.

Prerequisites

You have defined the following settings:

- Freight order type OF05 (OF: Pickup/Delivery freight order)

- Freight order type OF10 (OF: Pre-carriage/On-carriage freight order)

- Freight booking type OF04 (OF: Ocean booking)

Note that these settings are described in the sections <u>Defining Freight Order Types</u> [Page 43] and <u>Defining Freight Booking Types</u> [Page 49]. We recommend that you configure these settings and then return to this section to proceed.

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose ▶ *Planning* ▶ *Planning Profiles* ▶ *Create Planning Profile* ▶.

2. On the *Planning Profile* tab page, create the planning profiles as described below.

OF-PLAN-PROF-PRE

1. In the *General Data* screen area, enter the planning profile `OF-PLAN-PROF-PRE` and the description `Ocean Freight Planning Prof Pre-Carriage`.

2. In the *Planning Horizon* screen area, enter the following data:

Field	Value
Duration in Days	`180`
Factory Cal. for Offs./Dur. Calc.	`W8`
Round Horizon to Full Days	Select
Time Zone for Rounding the Horizon	`CET`

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

Field	Value
Capacity Selection Settings	`OF-CAP-SEL-PRE`
Optimizer Settings	`OF-OPT-SET-STD`
Carrier Selection Settings	`OF-CAR-SEL-TRSP`

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

Field	Value
Type Determination Rule	Defined per Category in Planning Profile
Default Type for Vehicle Resource	OF10
Default Type for Bookings (Ocean)	OF04

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.

OF-PLAN-PROF-ON

1. In the *General Data* screen area, enter the planning profile `OF-PLAN-PROF-ON` and the description `Ocean Freight Planning Prof On-Carriage`.

2. In the *Planning Horizon* screen area, enter the following data:

Field	Value
Duration in Days	180
Factory Cal. for Offs./Dur. Calc.	W8

Round Horizon to Full Days	Select
Time Zone for Rounding the Horizon	`CET`

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

Field	Value
Capacity Selection Settings	`OF-CAP-SEL-ON`
Optimizer Settings	`OF-OPT-SET-STD`
Carrier Selection Settings	`OF-CAR-SEL-TRSP`

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

Field	Value
Type Determination Rule	`Defined per Category in Planning Profile`
Default Type for Vehicle Resource	`OF10`
Default Type for Bookings (Ocean)	`OF04`

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.

⏭ 3.5 Defining Selection Profiles

In this procedure, you create selection profiles, which define the selection of the freight units based on geography, pickup dates, and delivery dates. You need to create three selection profiles for each stage as the stages are planned by different execution organizations. 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 the SAP NetWeaver Business Client (NWBC), choose ▶ *Application Administration* ▶ *Planning* ▶ *Selection Profile Attributes* ▶ *Geographical Selection Attributes* ▶ *Create Geographical Selection Attributes* ▶.

2. Create the selection profile `OF-GEO-SEL-PRE` for pre-carriage as follows:

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

Field	Value
Geographical Sel. Attributes	`OF-GEO-SEL-PRE`
Description	`Ocean Freight – Pre-Carriage`
Both Locations	Select

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

Sign	Option	Lower Value	Upper Value
Inclusive	=	`OAF-STA-JPNGO`	Blank
Inclusive	=	`OAF-STA-JPTYO`	Blank

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

Sign	Option	Lower Value	Upper Value
Inclusive	=	`OF-CFS-JPYOK`	Blank

4. Save your entries.

3. Create the selection profile `OF-GEO-SEL-MAIN` for main carriage as follows:

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

Field	Value
Geographical Sel. Attributes	`OF-GEO-SEL-MAIN`
Description	`Ocean Freight – Main Carriage`
Both Locations	Select

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

Sign	Option	Lower Value	Upper Value
Inclusive	=	OF-CFS-JPYOK	Blank

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

Sign	Option	Lower Value	Upper Value
Inclusive	=	OF-CFS-USLAX	Blank

4. Save your entries.

4. Create the selection profile OF-GEO-SEL-ON for on-carriage as follows:

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

Field	Value
Geographical Sel. Attributes	OF-GEO-SEL-ON
Description	Ocean Freight – on-carriage
Both Locations	Select

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

Sign	Option	Lower Value	Upper Value
Inclusive	=	OF-CFS-USLAX	Blank
Inclusive	=	OF-USLGB	Blank

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

Sign	Option	Lower Value	Upper Value
Inclusive	=	OAF-STA-USPHX	Blank
Inclusive	=	OAF-STA-USSAN	Blank

4. Save your entries.

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 for OF-ADD-SEL-EXCLUDE-PLANNED by entering the following data in the *General Data* screen area:

Field	Value
Additional Sel. Attributes	OF-ADD-SEL-EXCLUDE-PLANNED
Description	Include Planned Req.
Planned Requirements	Include in Selection

Blocked Documents	`Exclude in Selection`

7. Save your entries.

8. In SAP NetWeaver Business Client (NWBC), choose ▶ *Application Administration* ▶ *Planning* ▶ *Selection Profiles* ▶ *Create Selection Profile* ▶.

9. Create the selection profile `OF-GEN-SEL-PRE-WO-TIME` for pre-carriage by entering the following data:

Field	**Value**
Selection Profile	`OF-GEN-SEL-PRE-WO-TIME`
Description	`Ocean Freight – Pre-Carriage`
Maximum Number of Selected Objects	`50`
Geographical Sel. Attributes	`OF-GEO-SEL-PRE`
Additional Sel. Attributes	`OF-ADD-SEL-EXCLUDE-PLANNED`

10. Create the selection profile `OF-GEN-SEL-MAIN-WO-TIME` for main carriage by entering the following data:

Field	**Value**
Selection Profile	`OF-GEN-SEL-MAIN-WO-TIME`
Description	`Ocean Freight – Main Carriage`
Maximum Number of Selected Objects	`50`
Geographical Sel. Attributes	`OF-GEO-SEL-MAIN`
Additional Sel. Attributes	`OF-ADD-SEL-EXCLUDE-PLANNED`

11. Create the selection profile `OF-GEN-SEL-ON-WO-TIME` for on-carriage by entering the following data:

Field	**Value**
Selection Profile	`OF-GEN-SEL-ON-WO-TIME`
Description	`Ocean Freight – on-carriage`
Maximum Number of Selected Objects	`50`
Geographical Sel. Attributes	`OF-GEO-SEL-ON`
Additional Sel. Attributes	`OF-ADD-SEL-EXCLUDE-PLANNED`

12. Save your entries.

3.6 Defining Layouts for the Transportation Cockpit

In this procedure, you can create layouts for displaying capacities and requirements in your transportation cockpit. Layout settings are made at user level.

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose ▶ *Planning* ▶ *Planning* ▶ *Transportation Cockpit* ◢.

   The *Profile and Layout Sets* screen is displayed. If, however, the system forwards you directly to the cockpit, choose ▶ *Change Profile Selection* ▶ *Profile Selection Screen* ◢ to return to the *Profile and Layout Sets* screen.

2. Choose *Layout Personalization*.

3. Choose *New*.

4. In the *Page Layout – General Data* section, create new layout OF-LAYO-01.

5. In the *Page Layout – Validity* section, select field validity *All*.

6. In the *Requirements List* section:

   1. In the *Position of Screen Area* field, enter *Top Left*.

   2. In the *Width* field, enter *50%*.

   3. Choose *Sequence 1 – Freight Unit Stages* and select the *Display* checkbox.

   4. In the *Details of Freight Unit Stages* section, ensure that all checkboxes for *Set OI Status for FUs* are selected.

7. In the *Capacity Lists* section:

   1. In the *Position of Screen Area* field, select *Bottom Left*

   2. In the *Width* field, select *50%*.

   3. Choose *Sequence 3 – Schedules* and select the *Display* checkbox.

   4. Deselect the other display checkboxes (*Vehicles* and *Trailer*).

8. In the *Order Lists* section:

   1. In the *Position of Screen Area* field, select *Top Right*.

   2. In the *Width* field, enter *50%*.

   3. Choose *Sequence 1 – Freight Orders* and select the *Display* checkbox.

9. In the *Order Details* section:

   1. In the *Position of Screen Area* field, select *Bottom Right*.

   2. In the *Width* field, enter *50%*.

3. Select the *Display* checkbox for sequences 1 – 5.

10. Save your profile.

4 SAP TM Customizing

You customize SAP TM to define and set up the management of freight. Customizing includes the following procedures:

- Defining freight unit types [Page 37]

- Creating freight unit building rules [Page 38]

  Freight unit building rules define how the system should create freight units based on the forwarding order.

- Defining package type codes [Page 40]

- Defining item types for forwarding order management [Page 41]

  Item types define specific measures, which are used later in forwarding order management.

- Defining freight order types [Page 43]

  A new freight order type contains an enhanced save strategy.

- Defining freight booking types [Page 49]

  - Defining freight settlement document types [Page 51]

  - Defining forwarding settlement document types [Page 52]

  - Defining dimensional weight profiles [Page 53]

The following document types must be customized in the SAP TM system:

- OF01 – OF: Forwarding Order Export

- OF02 – OF: Freight Unit

- OF03 – Packages with Specific Dimensions

- OF04 – OF: Ocean Booking Export

- OF05 – OF: Pickup/Delivery Freight Order

- OF06 – OF: Carrier Settlement Document

- OF07 – OF: Forwarding Agreement

- OF08 – OF: Freight Agreement

- OF09 – OF: Forwarding Settlement Document

- OF10 – OF: Pre/On-Carriage Freight Order

- OF11 – OF: Inland Trucking Schedule

- OF12 – OF: Ocean Carrier Schedule

- OF13 – OF: Sailing Schedule with reference

- OF14 – OF: Forwarding Order Import

- OF15 – OF: Ocean Booking Import

- OF16 – OF: Ocean Freight Internal Agreement

© SAP AG   36

4.1 Defining Freight Unit Types

Procedure

1. In Customizing for *Transportation Management*, choose ▶ *Planning* ▶ *Freight Unit* ▶ *Define Freight Unit Types* ▶.

2. Enter the following data:

Field	Value
Freight Unit Type	`OF02`
Description	`OF: Freight Unit`
Is Default Type	Deselect
Basic Settings	
Freight Unit can be deleted	Select
Change Controller Settings	
Default Change Strategy	`DEF_CHACO`
Execution Settings	
Execution Tr. Relevance	`2 - Execution Tracking`
Immediate Processing	Select
Event Management Settings	
Appl. Obj. Type	`ODT20_FU`
Last Exp. Event	`POD`
Number Range Settings	
Time For Drawing	`Draw Number when saving document`
Number Range Interval	`FU`
Freight Order Determination	
Freight Order Type	`OF05 – OF: Pickup/Delivery Freight Order`
Determination Rules	
Consider Organization Unit of User	Deselect

3. Save your entries.

⟩⟩ 4.2 Creating Freight Unit Building Rules

Freight unit building rules (FUBs) define how the system should create freight units based on the forwarding order. In addition, FUBs define the dimensions that are transferred from the forwarding order to the freight unit as capacity requirements for planning. If there are more than one freight unit building rules, you can define a condition on how to determine the appropriate freight unit building rule.

For this scenario, you need one freight unit building rule:

- `OF-FUBR-01`: freight unit consolidated in container (OF)

Prerequisites

You have defined a freight unit type.

Procedure

1. On the *SAP Easy Access* screen for SAP TM (or, alternatively, from NetWeaver Business Client), choose ⟩ *Application Administration* ⟩ *Planning* ⟩ *General Settings* ⟩ *Freight Unit Building Rule* ⟩ *Create Freight Unit Building Rule* ⟩.

2. Create a new rule by entering the following data:

   General Data

Field	Value
Freight Unit Building Rule	`OF-FUBR-01`
FUB Rule Description	`FU per container`
FU Building Strategy	`Consolidate per item`
Critical Quantity	`Gross Weight`
Item Split Allowed	Select
Document Type	`OF02` (Enter the freight unit type that you created in the section Defining Freight Unit Types [Page 37].)
Incompatibility Settings	Not applicable
Equipment Group	Blank
Equipment Type	Blank

General Data – Planning Quantities

Planning Qty	UoM of Split Qty	Split Qty	Rounding Qty
Gross Weight	`TO`	`22`	Blank

Advanced Settings

Field	Value
Doc. Type Det. Cnd:	
Process Controller Strategy	FUB_AUTO

3. Save your entries.

4.3 Defining Package Type Codes

Package type codes allow for a standardization of the packages used to transport cargo. For this scenario, the following package type is required:

- `112`: BOX(ES)

Procedure

1. In Customizing for SAP TM, choose ▶ *SAP Transportation Management* ❯ *Transportation Management* ❯ *Basic Functions* ❯ *Type Codes and Role Codes* ❯ *Master Data-Related Type Codes and Role Codes* ❯ *Define Package Type Codes* ◀.

2. Create a new entry. Enter the following data:

Field	Value
Package Type	`112`
Description	`BOX(ES)`

3. Save your entries.

4.4 Defining Item Types for Forwarding Order Management

Item types define specific measures that are later used in a forwarding order. By defining item types, you specify the height, width, volume and weight of a transportable item category.

For this scenario, the following item type is required:

- `OF03`: packages with specific dimensions

Procedure

1. In Customizing for *Transportation Management*, choose ▶ *Forwarding Order Management* ▶ *Define Item Types for Forwarding Order Management* ◀.

2. Enter the following data:

Field	Value
Item Type	`OF03`
Item Type Descr.	`Packages with specific dimensions`
Item Category	`PKG Package`
Package Type	`112`
Text Schema	Blank
DG UI Profile Name	Blank
Equipment Group	Blank
Equipment Type	Blank
One Piece Only	Deselect
Default Weight UoM	`KG`
Default Volume UoM	`M3`
Default Pieces UoM	`EA`

3. Save your entries.

4.5 Defining Default Agreement Party Roles for Stages

In the standard Customizing settings for Incoterms FOB (free on board) and DDP (delivered duty paid), only the three main stages are defined.

Procedure

1. In Customizing for *Transportation Management*, choose ▶ *Forwarding Order Management* ▶ *Define Default Agreement Party Roles for Stages* ▶.

2. Enter the following data:

Incoterm	Stage Type	Agmt Type
FOB	Pick-up	Prepaid Agreement
FOB	Pre-Carriage	Prepaid Agreement
FOB	Main Carriage	Collect Agreement
FOB	On-Carriage	Collect Agreement
FOB	Delivery	Collect Agreement
DDP	Pick-up	Prepaid Agreement
DDP	Pre-Carriage	Prepaid Agreement
DDP	Main Carriage	Prepaid Agreement
DDP	On-Carriage	Prepaid Agreement
DDP	Delivery	Prepaid Agreement

⧠ 4.6 Defining Freight Order Types

In this Customizing activity, you define a new freight order type that contains an enhanced save strategy.

Prerequisites

You have configured the following settings:

- You have defined freight settlement document type `OF06` *OF: Carrier Settlement Document*

- You have defined means of transport `OAF_TRUCK` and `OAF_TRUK_S`

Note that these settings are described in the sections Defining Freight Settlement Document Types [Page 51] and Defining Means of Transport [Page 73]. We recommend that you configure these settings and then return to this section to proceed.

If you have already completed the section Defining Planning Profiles [Page 26], the information given in this section may already be complete.

Procedure

1. In Customizing for *Transportation Management*, choose ▶ *Freight Order Management* ▶ *Freight Order* ▶ *Define Freight Order Types* ▶.

2. Create a new freight order type as follows:

   1. Enter freight order type `OF05` and description `OF: Pickup/Delivery Freight Order.`

   2. In the *Basic Settings* screen area, choose the following settings:

Field	Value
Freight Order Can Be Subcontracted	`01`
Shipper/Consignee Determination	`P`
Freight Order Can Be Deleted	Select
Enable Settlement	Select
Enable Internal Settlement	Select
Enable Cost Distribution	Select
Enable Charge Calculation	Select
Enable Internal Charge Calculation	Select

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

---

4. In the *Additional Settings* screen area, set the *Default FSD Type* (freight settlement document type) field to `OF06 OF: Carrier Settlement Document`.

5. Choose `OF-CAR-SEL-TRSP` in the *Deflt Carrier Selection Settings* field.

6. Deselect *Enable Compliance Check*.

7. In the *Number Range Settings* screen area, set the *Time for Drawing* option to `I Draw Numbers Immediately` and enter the number range interval as `04`.

8. In *Additional Strategies* select `CALC_CHARG` as *Save Strategy*.

9. In the *Default MTr Determination* area enter means of transport `OAF_TRUCK` and transportation mode `01 Road`.

10. In the *Output Options* screen area, enter output profile `/SCMTMS/TOR_PRINT_ROAD`.

11. In the *Organizational Unit Determination* screen area, deselect *Consider Organizational Unit of User*.

3. Save your entries.

4. Create a new freight order type as follows:

    1. Enter freight order type `OF10` and description `OF: Pre/On-Carriage Freight Order`.

    2. In the *Basic Settings* screen area, choose the following settings:

Field	Value
Freight Order Can Be Subcontracted	`01`
Shipper/Consignee Determination	`P`
Freight Order Can Be Deleted	*Select*
Enable Settlement	*Select*
Enable Internal Settlement	*Select*
Enable Cost Distribution	*Select*
Enable Charge Calculation	*Select*
Enable Internal Charge Calculation	*Select*

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

    4. In the *Additional Settings* screen area, set the *Default FSD Type* field to `OF06 OF: Carrier Settlement Document`.

    5. Choose `OF-CAR-SEL-TRSP` in the *Deflt Carrier Selection Settings* field.

---

6. In the *Number Range Settings* screen area, set the *Time for Drawing* option to `I Draw Numbers Immediately` and enter the number range interval as `04`.

7. In *Additional Strategies* select `CALC_CHARG` as *Save Strategy* and deselect *Enable Compliance Check*.

8. In the default *MTr Determination* area enter means of transport `OAF_TRUK_S` and transportation mode `01 Road`.

9. In the *Output Options* screen area, enter the output profile `/SCMTMS/TOR_PRINT_ROAD`.

10. In the *Organizational Unit Determination* screen area, for both the *Purchasing Organization* and the *Execution Organization* enter `OF-FWOH-03` and deselect *Consider Organizational Unit of User*.

5. Save your entries.

i

If necessary, return to the Defining Planning Profiles [Page 26] section to continue.

4.7 Defining Freight Booking Types for Export

Prerequisites

You have created an organizational model for the sales and purchasing organization, including the associated business partners, forwarding houses, positions, and units.

Note that this process is described in the section Creation of Organizational Models [Page 61]. We recommend that you complete this first before returning to the current section to proceed.

If you have already completed the Defining Planning Profiles [Page 26] section, the information given in this section may already be complete.

Procedure

1. In Customizing for *Transportation Management*, 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 `OF04` and the description `OF: Ocean Booking Export`.

   2. In the *Transportation Mode* field, choose `03 Sea`.

   3. In the *Transportation Mode Category* field, choose `3 Sea`.

   4. In the *Basic Settings* screen area, enter the following data:

Field	Value
Shipper/Consignee Determination	`P`
Booking Can Be Deleted	*Select*
Enable Settlement	*Select*
Enable Cost Distribution	*Select*
Enable Charge Calculation	*Select*

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

   6. In the *Execution Settings* screen area:

      - Set the *Carrier Confirmation* to `Carrier Confirmation Not Required`

      - Set the *Exec. Track. Relevance* field to `Execution Tracking`

      - Select the *Immediate Processing* checkbox

      - Select the *Propagate Execution Info* checkbox

   7. In the *Additional Setting* screen area:

- Enter the *Default Freight Settlement Type*: `OF06 - Carrier Settlement Document`.

- For both the *Default FO Type for Pickup* and the *Default FO Type for Delivery* , enter `OF05 - OF: Pickup/Delivery Freight Order`.

- As the *Web Dynpro Application Configuration*, enter `/SCMTMS/FRE_BOOK_OCEAN`.

- Deselect the *Enable Compliance Check* field.

8. As the import booking type, enter `OF15` *(OF: Ocean Booking Import)*.

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

- Set the *Time for Drawing* field to `Draw Numbers when Saving Document`

- Enter number range interval `05`

- Enter the *HBL* (House Bill of Lading) number range `05`

10. In the *Service Definition* screen area:

- Set the *Consolidation (Source)* field to `With Consolidation`.

- Set the *Consolidation (Dest.)* field to `With Consolidation`.

- Select *Shipping Type 3- FCL (Full Container Load)*

- Leave the movement type blank.

- Set the traffic direction to `1 - Export`.

11. In the *Output Options* screen area, enter the output profile `/SCMTMS/TOR` and the additional output profile `/SCMTMS/TOR_PRINT_SEA`. Deselect the *Dynamic determination of output* option.

12. In the *Organization Unit Determination* screen area, enter the purchasing organization that you create in [Creating an Organizational Model in SAP TM](#) [Page 61]. In this scenario, the purchasing organization is `OF-FWH-03` (FH CFS Yokohama).

13. Deselect the *Consider Organizational Unit of User* field.

14. Save your entries.

i

If required, you can return to the [Defining Planning Profiles](#) [Page 26] section to continue.

More Information

- [Defining freight settlement document types](#) [Page 51]

- [Defining forwarding settlement document types](#) [Page 52]

- [Defining dimensional weight profiles](#) [Page 53]

4.8 Defining Freight Booking Types for Import

Procedure

1. In Customizing for *Transportation Management*, choose ▶ *Freight Order Management* ▶ *Freight Booking* ▶ *Define Freight Booking Types* ▶.

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

   1. Enter freight booking type `OF15` and description `OF: Ocean Booking Import.`

   2. In the *Transportation Mode* field, enter `03 Sea`.

   3. In the *Transportation Mode Category* field, choose `3 Sea`.

   4. In the *Basic Settings* screen area, enter the following data:

Field	Value
Shipper/Consignee Determination	`P`
Booking can be deleted	*Select*
Enable Settlement	*Select*
Enable Cost Distribution	*Select*
Enable Charge Calculation	*Select*

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

   6. In the *Execution Settings* screen area:

      - Set the *Carrier Confirmation* to *Carrier Confirmation Not Required*.

      - Set the *Exec. Track. Relevance* field to *Execution Tracking*.

      - Select the *Immediate Processing* checkbox.

      - Select the *Propagate Execution Info* checkbox.

   7. In the *Additional Setting* screen area:

      - Enter the default freight settlement document type (FSD type) `OF: Carrier Settlement Document.`

      - For both the *Default FO Type for Pickup* and the *Default FO Type for Delivery*, enter `OF05 - OF: Pickup/Delivery Freight Order.`

      - As the Web Dynpro Application Configuration. enter `/SCMTMS/FRE_BOOK_OCEAN`.

      - Deselect the *Enable Compliance Check* field.

- For the container item source, select *Container Item Is Defined in Booking*.

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

   - Set the *Time for Drawing* field to *I Draw Numbers when Saving Document*.

   - Enter number range interval `05`.

   - Enter the *HBL* (House Bill of Lading) number range `05`.

9. In the *Service Definition* screen area:

   - Set the *Consolidation (Source)* field to `With Consolidation`.

   - Set the *Consolidation (Dest.)* field to `With Consolidation`.

   - Select shipping type `3` (FCL – Full Container Load).

   - Set movement type `CC` (CFS to CFS).

   - Set the traffic direction to `2 - Import`.

10. In the *Output Options* screen area, enter the output profile `/SCMTMS/TOR_PRINT_SEA` and the additional output profile `/SCMTMS/TOR`. Deselect the *Dynamic Determination of Output* option.

11. In the *Organization Unit Determination* screen area, enter the purchasing organization that you created in the [Creation of Organizational Models](#) [Page 61] section. In this scenario, the purchasing organization is `OF-FWH-20` (FH CFS Los Angeles). Deselect the *Consider Organization Unit of User* field.

3. Save your entries.

ⅰ

If required, you can return to the [Defining Planning Profiles](#) [Page 26] section to proceed.

More Information

- [Defining freight settlement document types](#) [Page 51]

- [Defining forwarding settlement document types](#) [Page 52]

- [Defining dimensional weight profiles](#) [Page 53]

4.8.1 Defining Freight Settlement Document Types

If you have already completed the Defining Freight Order Types [Page 43] section, the information given in this section may already be complete.

Procedure

1. In Customizing for *Transportation Management*, choose ▶ *Settlement* ▶ *Freight Settlement* ▶ *Define Freight Settlement Document Types* ◀.

2. Choose *New Entries*.

3. Enter the following data:

Field	Value
FSD Type	OF06
Description	OF: Carrier Settlement Document
FSD Category	10
Bus. Warehouse	Select
No. Range Interval	01
Output Profile	/SCMTMS/TOR_INV_PREP
Add. Output Profile	/SCMTMS/SFIR_PRINT
Dynamic Determination of Output Profile	Deselect

4. Save your entries.

i

If required, you can return to the Defining Freight Order Types [Page 43] section to continue.

4.8.2 Defining Forwarding Settlement Document Types

Procedure

1. In Customizing for *Transportation Management*, choose ▶ *Settlement* ▶ *Forwarding Settlement* ▶ *Define Forwarding Settlement Document Types* ▶.

2. Choose *New Entries*.

3. Enter the following data:

Field	Value
FWSD Type	OF09
Description	OF: Forwarding Settlement Document
FSD Category	Forwarding Settlement Document
No. Range Interval	01
BW Relevance	Select
Output Profile	/SCMTMS/CFIR
Add. Output Profile	/SCMTMS/CFIR_PRINT
Dynamic Determination of Output Profile	Deselect

4. Save your entries.

4.8.3 Defining Dimensional Weight Profiles

Depending upon factors, such as mode of transport, different chargeable weight calculations are implemented. Land transport uses a factor of 1:3, and ocean transport uses a factor of 1:1.

Procedure

1. In Customizing for *Transportation Management*, choose ▶ *Basic Functions* ▶ *Charge Calculation* ▶ *Data Source Binding for Charge Calculation* ▶ *Define Dimensional Weight Profile* ▶.

2. Choose *New Entries*.

3. Enter the following data for land transport:

Field	Value
Dimensional Weight Profile	ZOAF_LAND3
Profile Description	Chargeable Weight Land Freight 333 kg = 1 cbm
Dimal Weight Factor	3
Volume UoM	CCM
Weight UoM	KG
Calc. Base	GROSS_VOLUME
Rounding Profile	0000

4. Save your entries.

5. Choose *New Entries*.

6. Enter the following data for ocean transport:

Field	Value
Dimensional Weight Profile	ZOF_SEA
Profile Description	Chargeable Weight Sea Freight 1000 kg = 1 cbm
Dimal Weight Factor	1
Volume UoM	CCM
Weight UoM	KG
Calc. Base	GROSS_VOLUME
Rounding Profile	0000

7. Save your entries.

5 Order Management

Order management concerns the definition of forwarding and freight orders and the maintenance to the supporting documentation. The following processes are involved:

- Defining forwarding order types [Page 55]

  This procedure specifies types of forwarding orders. You can use these types to define certain parameters of the forwarding order that influence how the system processes this business document.

- Assign item types to forwarding order types [Page 59]

  Assign an item type to the forwarding order type.

- Define default freight document types for stages [Page 60]

  This procedure specifies which freight document type (freight order type/freight booking type) is used for generating settlement documents through the shortcuts in the forwarding order.

5.1 Defining Forwarding Order Types

In this procedure, you specify types of forwarding orders. You can use these types to define certain parameters of the forwarding order that influence how the system processes this business document.

For example, the forwarding order type can determine the number range interval that is used to generate a number of the forwarding order, or it can define whether freight units are created automatically when you save the forwarding order. Furthermore, you can assign profiles, for example planning profile and dangerous goods profile, that determine how follow-up steps such as planning and dangerous goods checks are performed.

You can select and assign the types that you have defined in this procedure on the user interface of the forwarding order in SAP NetWeaver Business Client. You can also specify a default forwarding order type that is used when the forwarding order is created automatically based on electronic data interchange (EDI).

Prerequisites

You have set up the number ranges for the forwarding order types. In this case standard number ranges are used which are included in delivery customizing.

You have defined a freight building rule, which is considered for automatic freight unit building.

You have defined a forwarding house, for example `OAF-FWH-05`, as an organizational element in transaction `PPOME`.

Procedure

1. In Customizing for *Transportation Management*, choose ▌▶ *Forwarding Order Management* ▶ *Forwarding Order* ▶ *Define Forwarding Order Types* ▌.

2. Create an entry for the export FWO using the following data:

Field	Value
Forwarding Order Type	`OF01`
Short Description	`OF: Forwarding Order Export`
Number Range Interval	`01`
Template No. Range Interval	`01`
Process Control/Business Object Mode	
BW Relevance	Deselect
Enable Forwarding Settlement	Select
Automatic Confirmation	Deselect
EM Integrat. Active	Deselect
Dangerous Goods Profile	`DG1`

Automatic Freight Unit Building	Select
Transportation Mode	`03 – Sea`
Shipping Type	`2 – LCL` (Less than Container Load)
Traffic Direction	`1`
Default FWSD Type	`OF09`
Default Conf. Type	`O – Order-based Confirmation`
Import FWO Type	`OF14`
Event Manager	
EM Web Interface Transaction	Blank
Output Profile	`/SCMTMS/TRQ_FWO`
Additional Output Profile	`/SCMTMS/TRQ_FWO_PRINT`
Accept Transp. Prop.	`Save Route only`
Propagate Changes	`B – Synchronous Propagation of changes, fallback to asynchronous`
Customs Handling	`Manual`
Default Values	
Default Weight UoM	`KG`
Default Volume UoM	`M3`
Default Pieces UoM	`PC`
Freight Unit Building Rule	`OF-FUBR-01`
Planning Profile	Blank
Organization Unit Determination	
Consider User Assignment	Blank
Sales Organization	`OAF-FWH-05`

3. Create an entry for the import forwarding order using the following data:

Field	Value
Forwarding Order Type	`OF14`
Short Description	`OF: Forwarding Order Import`
Number Range Interval	`01`

Template No. Range Interval	`01`
Process Control/Business Object Mode	
BW Relevance	Deselect
Enable Forwarding Settlement	Select
Automatic Confirmation	Deselect
EM Integrat. Active	Deselect
Dangerous Goods Profile	`DG1`
Automatic Freight Unit Building	Select
Transportation Mode	`03 - Sea`
Shipping Type	`2 - LCL (Less than Container Load)`
Traffic Direction	`2`
Stage Determination	`P Stage Determination by Stage` `Profile`
Stage Profile	`OFIM`
Default FWSD Type	`OF09`
Default Conf. Type	`O - Order-Based Confirmation`
Event Manager	
EM Web Interface Transaction	Blank
Output Profile	`/SCMTMS/TRQ_FWO`
Additional Output Profile	`/SCMTMS/TRQ_FWO_PRINT`
Accept Transp. Prop.	`Save Route Only`
Propagate Changes	`B - Synchronous Propagation of` `changes, fallback to asynchronous`
Customs Handling	`Manual`
Default Values	
Default Weight UoM	`KG`
Default Volume UoM	`M3`
Default Pieces UoM	`PC`
Freight Unit Building Rule	`OF-FUBR-01`
Planning Profile	Blank

Organization Unit Determination	
Consider User Assignment	Blank
Sales Organization	`OAF-FWH-21`

4. Save your entries.

5.2 Assigning Item Types to Forwarding Order Types

Assign an item type to the forwarding order (FWO) type. With this assignment the item type is usable in any forwarding order with type OF01.

For this scenario, the following item type is assigned:

- `OF03`: packages with specific dimensions are assigned to the export forwarding order type `OF01` and the import forwarding order type `OF14`.

Procedure

Create Freight Unit Building Rule

1. In Customizing for *Transportation Management*, choose ▶ *Forwarding Order Management* ▶ *Forwarding Order* ▶ *Assign Item Types to Forwarding Order Types* ▶.

2. Create the following entries:

Field	Value
FWO Type	OF01
Item Type	OF03
Default Item Type	Select
Item Category	Package

Field	Value
FWO Type	OF14
Item Type	OF03
Default Item Type	Select
Item Category	Package

3. Save your entries.

5.3 Defining Default Freight Document Types for Stages

In this procedure, you specify which freight document type (freight order type or freight booking type) is used to generate settlement documents through the shortcuts in the forwarding order.

You can specify different freight order types for each stage type and transportation mode.

Prerequisites

- You have set up the required freight document type in the system or you are using the standard values.

- You have specified the required stage types and transportation modes or you are using the standard values.

Procedure

1. In Customizing for *Transportation Management*, choose ▶ *Forwarding Order Management* ▶ *Forwarding Order* ▶ *Define Default Freight Document Types for Stages* ◀.

2. Create an entry using the following data:

Seq. No.	Shipping Type	Stage Type	Transportation Mode	Planning and Execution Organization	Document Type
1	LCL (Less than Container Load)	01	01	Blank	OF05
2	LCL (Less than Container Load)	02	01	Blank	OF10
3	LCL (Less than Container Load)	03	03	Blank	OF04
4	LCL (Less than Container Load)	04	01	Blank	OF10
5	LCL (Less than Container Load)	05	01	Blank	OF05

3. For all cases, select the following checkboxes:

   o Create FD (Freight Document)

   o Select FD (Freight Document)

   o Sel. Schedule (Select Schedule)

---

6 Creation of Organizational Models

SAP Transportation Management uses functions from human resources to create and maintain organizational units. You use the organizational model to model the sales organization, purchasing organization, and transportation execution organization.

You also use the organizational model to assign the responsible organizational units to transportation documents such as a transportation request, a freight order, and so on. Assigning the order to an organizational unit is necessary to allocate the costs and profits incurred by the order to a business unit. It is also necessary for profit analysis of various groups and organizations of the logistics service provider (LSP). It helps analyze the costs that the company incurs for various carriers, routes, customers, and so on. The analysis can also lead to improved demand forecasting.

You need to maintain the organizational model in the SAP TM system since it is not transferred from the organizational units in SAP ERP. This scenario uses the organizational element *Forwarding House* (FH), which functions as a sales, purchasing, and transportation planning organization. Each forwarding house represents a station or branch office of an LSP.

Creating the organizational model includes the following operations:

- Creating companies [Page 62]

  In SAP ERP, you have two different companies representing the Japan and U.S. organizations. In SAP TM, these companies also have to be created. Forwarding houses are assigned to these companies.

- Defining business partners for forwarding houses [Page 63]

- Creating forwarding houses [Page 65]

  Forwarding houses represent the individual stations, or business units of the LSP. Each station can sell transportation services, procure subcontracted services from chosen carriers and plan and execute the transport Thus each forwarding house acts as a sales, purchasing, and transport planning/execution unit.

- Assigning positions and users to forwarding houses [Page 68]

  Each forwarding house has its own representative user with a one-to-one relationship with the corresponding forwarding house.

6.1 Creating Companies

In SAP ERP, you have two different companies representing the Japan and U.S. organizations. In SAP TM, these companies also have to be created. Forwarding houses are assigned to these companies.

Procedure

Creating a Company

1. On the SAP Easy Access screen for SAP TM (or, alternatively, in SAP NetWeaver Business Client), choose ▶ *Master Data* ❯ *Organization* ❯ *Create Organization and Staffing* ❯.

2. In the dialog box, set the validity period from *<the first day of current year>* to `31.12.9999`, and press ENTER.

3. On the *Basic Data* tab page, in the *Organizational Unit* fields, enter `OAF-COMP-JP` and `Interforwarders Japan` as description.

4. On the *Org. Data* tab page, choose *Create*.

5. For *Organizational Unit Function*, enter `24`, for *Organizational Unit Role*, enter `1`, and select *Intra Comp. Settlement*.

6. Choose the *Address* tab page and enter the city `Tokyo, Region 13` and the country `JP`.

7. Save your entries.

8. For the U.S. company, create a new organizational unit with the validity period `01.01.<current year>` to `31.12.9999` and press ENTER.

9. On the *Basic Data* tab page, in the *Organizational Unit* fields, enter `OAF-COMP-US` and `Interforwarders Inc. United States` as description.

10. On the *Org. Data* tab page, choose *Create*.

11. For *Organizational Unit Function*, enter `24`, for *Organizational Unit Role*, enter `1`, and select *Intra Comp, Settlement*.

12. Choose the *Address* tab page and enter the city `Los Angeles`, region `CA`, and country `US`.

13. Save your entries.

6.2 Defining Business Partners for Forwarding Houses

ℹ

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 Number 1410353 or 1540288.

Procedure

Create Business Partners

1. On the *SAP Easy Access* screen for *SAP Transportation Management*, choose ▶ *SAP Transportation Management* ▶ *Transportation Management* ▶ *Master Data* ▶ *Maintain Business Partner* ▶ or call transaction `BP`.

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

Abbreviation of Organizational Unit	Address	Search Term 1	Search Term 2
OAF-FWH-01	8-3 Kanayama Cho 1, Atsuta-ku Nagoya-shi, 4560002, JP, Region 23 (Aichi)	FH Station	JP
OF-FWH-03	3-12-1 Shin-Yamashita, Naka-ku, Yokohama, 2318682, JP, Region 14 (Kanagawa)	FH CFS	JP
OAF-FWH-04	3-36 Higashikojin-machi, Minam-ku, Hiroshima, 7320805, JP, Region 34 (Hiroshima)	FH Station	JP
OAF-FWH-05	6-23-15 Shiba, Minato-ku, Tokyo, 1080014, JP, Region 13 (Tokyo)	FH Station	JP
OF-FWH-20	180 South Pico Avenue, Long Beach, 90802-6247, United States, Region CA (California)	FH CFS	US
OAF-FWH-21	8123 South Hardy Drive, Tempe, 85284-1106, US, Region AZ(Arizona)	FH Station	US
OAF-FWH-22	2296 Niels Bohr Court, San Diego, 92154, US, Region CA (California)	FH Station	US
OAF-FWH-25	213 El Camino Real, Milbrae, 94030-2607, US, Region CA (California)	FH Station	US

Assign Business Partner Roles

1. On the *SAP Easy Access* screen for *SAP Transportation Management*, choose ▶ *SAP Transportation Management* ▶ *Transportation Management* ▶ *Master Data* ▶ *Maintain Business Partner* ▶ or call transaction `BP`.

2. In the *Business Partner* field, enter `OF-FWH-20` and press `ENTER`.

   The details of the business partner appear.

3. Switch to change mode and choose the following options from the *Change in BP role* dropdown box:

   o   CRM010 Carrier (New)

   o   CRM002 Ship-to Party

4. Save your entries.

⟫ 6.3 Creating Forwarding Houses

Forwarding houses represent the individual stations, or business units of the LSP. Each station can sell transportation services, procure subcontracted services from chosen carriers, and plan and execute the transport Thus each forwarding house acts as a sales, purchasing, and transport planning/execution unit.

All of the following organizational units are created as line supervisors of (lower level) units of the corresponding company code.

The following forwarding houses are created within the company OAF-COMP-JP:

Abbreviation of Organizational Unit	**OAF-FWH-01**	**OF-FWH-03**	**OAF-FWH-04**	**OAF-FWH-05**
Name of Organizational Unit	FH Station Nagoya	FH CFS Yokohama	FH Station Hiroshima	FH Station Tokyo
Supervisor Of	None	None	None	None
Organizational Unit Function	89 (Forwarding House)	89 (Forwarding House)	89 (Forwarding House)	89 (Forwarding House)
Organizational Unit Role	1 (Organization)	1 (Organization)	1 (Organization)	1 (Organization)
Address	8-3 Kanayama Cho 1, Atsuta-ku, Nagoya-shi, 4560002, JP, Region 23 (Aichi)	3-12-1 Shin-Yamashita, Naka-ku, Yokohama, 2318682, JP, Region 14 (Kanagawa)	3-36 Higashikojin-machi, Minami-ku, Hiroshima, 7320805, JP ,Region 34 (Hiroshima)	6-23-1 Shiba, Minato-ku, 1080014, JP, Region 13 (Tokyo)

The following forwarding houses are created within company OAF-COMP-US:

Abbreviation of Organizational Unit	**OF-FWH-20**	**OAF-FWH-21**	**OAF-FWH-22**	**OAF-FWH-25**
Name of Organizational Unit	FH CFS Los Angeles	FH Station Phoenix	FH Station San Diego	FH Station San Francisco
Supervisor Of	None	None	None	None
Organizational Unit Function	89 (Forwarding House)	89 (Forwarding House)	89 (Forwarding House)	89 (Forwarding House)
Organizational Unit Role	1 (Organization)	1 (Organization)	1 (Organization)	1 (Organization)
Address	180 South Pico Avenue, Long	8123 South Hardy Drive,	2296 Niels Bohr Court, San	213 El Camino Real, Milbrae,

	Beach, 90802-6247, United States, Region CA (California)	Tempe, 85284-1106, United States, Region AZ (Arizona)	Diego, 92154, United States, Region CA (California)	94030-2607, United States,Region CA (California)

Procedure

Create Organizational Units

1. In SAP NetWeaver Business Client (NWBC), choose ▶ *Master Data* ▶ *Organization* ▶ *Create Organization and Staffing* ◢.

2. Enter a valid period for your organizational unit.

3. Select (double-click) the appropriate company (*OAF-COMP-JP* or *OAF-COMP-US*).

4. Choose *Create*.

5. Choose *is line supervisor of Organizational Unit*. The new entry is created and is visible in the structure of the company.

6. On the *Basic Data* tab page, in the *Organizational Unit* fields, enter the abbreviation and name of the organization unit in the above tables.

7. On the *Org. Data* tab page, choose *Create* and define the *Organizational Unit Function* and *Organizational Unit Role* according to the above tables.

8. On the *Address* tab page, define the main address of the organization according to the above tables.

9. Save your entries.

   An organizational unit number is generated along with the corresponding business partner number, which is visible on the *Org. Data* tab page of the organizational unit.

10. Create the remaining forwarding houses with the data in the above tables.

Rename Organizational Units

When you create organizational units, the system allocates organization unit IDs to the units. You can rename these IDs to be the same as the abbreviation from the tables above. Make a note of the system numbers as they are required for later reference.

1. In SAP NetWeaver Business Client (NWBC), choose ▶ *Master Data* ▶ *Organization* ▶ *Edit Organization and Staffing* ◢.

2. Choose *Organizational unit* and enter a search term of `OAF-FWH*`. Choose *Find*.

3. Double-click `FH Station Nagoya` in the *Hit list* panel.

4. Choose the *Org. data* tab page and note the `Org-ID` in the table below.

5. Rename the `Org.ID` to `OAF-FWH-01`.

6. Choose *Save*.

7. Repeat steps 1-6 for all the organizational units listed in the following table:

Company	Forwarding Houses			Old Org. ID (Generated Automatically)	New Org. ID (To Be Entered Manually)
OAF-COMP-JP	OAF-FWH-01	FH Station	Nagoya	<8 digit number>	OAF-FWH-01
	OF-FWH-03	FH CFS	Yokohama	<8 digit number>	OF-FWH-03
	OAF-FWH-04	FH Station	Hiroshima	<8 digit number>	OAF-FWH-04
	OAF-FWH-05	FH Station	Tokyo	<8 digit number>	OAF-FWH-05
OAF-COMP-US	OF-FWH-20	FH CFS	Los Angeles	<8 digit number>	OF-FWH-20
	OAF-FWH-21	FH Station	Phoenix	<8 digit number>	OAF-FWH-21
	OAF-FWH-22	FH Station	San Diego	<8 digit number>	OAF-FWH-22
	OAF-FWH-25	FH Station	San Francisco	<8 digit number>	OAF-FWH-25

6.4 Assigning Positions and Users to Forwarding Houses

Forwarding houses represent different organizational units in the Ocean Freight scenario, and there is an automatic determination that considers user-specific organizations. This means that each forwarding house has its own representative user with a one-to-one relationship with the corresponding forwarding house. Therefore, you must maintain one user for each organizational unit (Forwarding House). Later in this process, each process step is then executed by a different user.

Prerequisites

Copy Roles to your Namespace

For this scenario, copy the following Standard roles to your namespace:

- `/SCMTMS/PLANNER`

- `/SCMTMS/BOOKING_AGENT`

- `/SCMTMS/CUSTOMER_SERVICE_AGENT`

Create and Generate Authorization Profiles

For each role, maintain authorization profiles and generate them. For detailed information about authorization levels, see Creation of Organizational Models [Page 61] to check the organizational units used in this scenario.

Procedure

Create User Profiles

1. On the *SAP Easy Access* screen for SAP TM, choose ▶ *Application Administration* ▶ *General Settings* ▶ *User Maintenance* ▶.

2. Create the following users :

User ID	Name	First Name	Assigned Roles
JONES	Jones	Brian	/YOUR_NAMESPACE/PLANNER /YOUR_NAMESPACE/BOOKING_AGENT
BARKLEY	Barkley	Charles	/YOUR_NAMESPACE/CUSTOMER_SERVICE_AGENT
JIME	Jime	Hadaka	SAP_QAP_TESTER_NEW ZTEST_CUSTOMER_SERVICE_AGENT
GARI	Gari	Osoto	/YOUR_NAMESPACE/PLANNER /YOUR_NAMESPACE/BOOKING_AGENT

Assign Users to Forwarding Houses

1. On the *SAP Easy Access* screen for SAP TM, choose ▶ *Master Data* ▶ *Organization* ▶ *Edit Organization and Staffing* ▶.

---

2. Choose one of the forwarding houses (for example. `OF-FWH-20`).

3. In the *Task Assignment* field highlight the forwarding house and choose *New*.

4. In the pop-up for new relationships choose *Incorporates Position*.

5. Name the new position either *Transportation Planner* or *Customer Service Agent*. For the correct naming convention, see the table below.

6. Highlight the new position and choose *Assign Holder-User*.

7. Assign the users as indicated in the following table:

Abbreviation of Organizational Unit	Name of the Organizational Unit	Position ID	Position Description	Assigned User
OF-FWH-20	FH CFS Los Angeles	CustServA_US	Customer Service Agent US	Brian Jones
OAF-FWH-21	FH Station Phoenix	TransPlan_US	Transportation Planner US	Charles Barkley
OAF-FWH-22	FH Station San Diego	None	None	None
OAF-FWH-25	FH Station San Francisco	None	None	None
OAF-FWH-01	FH Station Nagoya	None	None	None
OAF-FWH-05	FH Station Tokyo	CustServA_JP	Customer Service Agent JP	JIME
OF-FWH-03	FH CFS Yokohama	TransPlan_JP	Transportation Planner JP	OSOTOGARI
OAF-FWH-04	FH Station Hiroshima	None	None	None

If required, you can return to the Defining Freight Booking Types for Export [Page 46] section to continue.

7 Transportation Network Setup in SAP TM

Setting up the transportation network requires the following definition procedures:

7.1 Defining Locations

Procedure

1. On the *SAP Easy Access* screen for SAP TM, choose ▶ *Master Data* ▶ *Transportation Network* ▶ *Define Location* ▶.

2. Create locations with the following data:

    Japanese locations

Japanese Locations

Location	OF-JPYOK	OAF-STA-JPNGO	OAF-STA-JPTYO	OAF-STA-JPHIJ	OF-CFS-JPYOK
Description	Yokohama Port	FH Station Nagoya	FH Station Tokyo	FH Station Hiroshima	Container Freight Station Yokohama
Location Type	1100	1002	1002	1002	1130
Time Zone	JAPAN	JAPAN	JAPAN	JAPAN	JAPAN
Search Term	Ocean Port	FH Station	FH Station	FH Station	Container Station
Address	Sakuragicho, Yokohama, 2310005	8-3 Kanayama Cho 1, Atsuta-ku Nagoya-shi, 4560002	6-23-15 Shiba, Minato-ku, Tokyo, 1080014	3-36 Higashikojin-machi, Minamiku, Hiroshima, 7320805	3-12-1 Shin-Yamashita, Naka-ku, 2318682
Country	JP	JP	JP	JP	JP
Region	14 (Kanagawa)	23 (Aichi)	13 (Tokyo)	34 (Hiroshima)	14 (Kanagawa)
UN/LOCODE	JPYOK	JPNGO	JPTYO	JPHIJ	JPYOK
Business Partner	None	OAF-FWH-01	OAF-FWH-05	None	OAF-FWH-03

U.S. locations

U.S. Locations

Location	OF-USLGB	OAF-STA-USSAN	OAF-STA-USSFO	OAF-STA-USPHX	OF-CFS-USLAX

Description	Long Beach Port	FH Station San Diego	FH Station San Francisco	FH Station Phoenix	Container Freight Station Los Angeles
Location Type	1100	1002	1002	1002	1130
Time Zone	UTC-8	UTC-8	UTC-8	MSTNO	UTC-8
Search Term	Ocean Port	FH Station	FH Station	FH Station	Container Station
Address	Long Beach	2296 Niels Bohr Court, San Diego, 92154	213 El Camon Real, Milbrae, 94030-2607	8123 South Hardy Drive, Tempe, 85284-1106	180 South Pico Avenue, Long Beach, 90802-6247
Country	US	US	US	US	US
Region	CA (California)	CA (California)	CA (California)	AZ (Arizona)	CA (California)
UN/LOCODE	USLGB	USSAN	USSFO	USPHX	USLAX
Business Partner	None	OAF-FWH-22	None	OAF-FWH-21	OAF-FWH-20

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

Geocoordinates

Location	Longitude	Latitude
OF-JPYOK	+ 139: 41: 00	+ 35: 24: 00
OAF-STA-JPTYO	+ 139: 30: 00	+ 35: 45: 00
OAF-STA-JPHIJ	+ 132: 28: 00	+ 34: 23: 00
OF-USLGB	- 119: 30: 00	+ 33: 46: 00
OAF-STA-JPNGO	+ 137: 15: 00	+ 35: 00: 00
OAF-STA-USSAN	- 119: 30: 00	+ 37: 30: 00
OAF-STA-USPHX	- 112: 05: 44	+ 33: 33: 31
OF-CFS-JPYOK	+ 139: 30: 00	+ 35: 30: 00
OF-CFS-USLAX	- 119: 30: 00	+ 37: 30: 00
OAF-STA-USSFO	- 122: 23: 00	+ 37: 34: 00

4. Save your entries.

7.2 Defining Means of Transport

If you have already completed the Defining Freight Order Types [Page 43] section, the information given in this section may already be complete.

Procedure

1. In Customizing for *Transportation Management*, choose ▶ *Master Data* ▶ *Resources* ▶ *Define Means of Transport* ▶.

2. Define the following means of transport if they do not yet exist in the system:

Description		Value		
Means of Transport		`OF_VESSEL`	`OAF_TRUCK`	`OAF_TRUK_S`
MTr Description		`Scheduled Vessel JP – US`	`Truckload`	`Truckload Schedule (Feeder Trucks)`
Transp. Mode		`03 SEA`	`01 ROAD`	`01 ROAD`
Speed	Low	`20`	`35`	`35`
	Med	`30`	`45`	`45`
	High	`40`	`55`	`55`
	Avg	`20`	`45`	`45`
Distance Factor		`1`	Blank	Blank
Multires		Select	Blank	Blank
No. of Individual Res		`15`	Blank	Blank
Schedule MTr		Select	Blank	Select
GIS Quality		Deselect	Deselect	Deselect

If required, you can return to the Defining Freight Order Types [Page 43] section to continue.

7.3 Defining Transportation Zones

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.

In this scenario, two transportation zones are used: *OAF-US-WEST* and *OAF-JP-ALL*. If these zones do not exist in your system, you can use this procedure to define them.

Procedure

1. On the *SAP Easy Access* screen for SAP TM, choose ▶ *Master Data* ▶ *Transportation Network* ▶ *Define Transportation Zones* ◀.

2. Choose *Create* and create the zone *OAF-US-WEST* as follows:

Zone	Description
OAF-US-WEST	Ocean Freight Zone Trucking US-West

3. On the *Zone – Location* tab page, create the following locations:

   o CUOAF-CO-01@ERP001

   o CUOAF-CO-02@ERP001

   o CUOAF-CO-03@ERP001

   o CUOAF-CO-04@ERP001

   o OAF-STA-USPHX

   o OAF-STA-USSAN

   o OAF-STA-USSFO

4. Create the zone *OAF-JP-ALL* as follows:

Zone	Description
OAF-JP-ALL	Ocean Freight Zone Trucking Japan All

5. On the *Zone – Location* tab page, create the following locations:

   o CUOAF-CU-01@ERP001

   o CUOAF-CU-02@ERP001

   o CUOAF-CU-03@ERP001

   o CUOAF-CU-04@ERP001

   o OAF-STA-JPNGO

   o OAF-STA-JPTYO

o   OAF-STA-JPHIJ

⟫ 7.4 Defining Transportation Lanes

Procedure

1. On the *SAP Easy Access* screen for SAP TM, choose ▶ *Master Data* ▶ *Transportation Network* ▶ *Define Transportation Lane* ▶.

2. Choose the *Intra-Zone/Loc. Transp. Lane* tab page, enter transportation zone `OAF-US-WEST`, and choose *Create*.

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

Means of Transport	Start Date	End Date
OAF_TRUCK	2011-01-01	9999-12-31

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

4. Press *Copy and Close*.

5. When asked to create a transportation proposal, choose *No*.

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

Business Partner	Transportation Costs per KM	Priority
OAF-CR-05	1000	1

7. Press *Copy and Close*.

8. Create another carrier for means of transport with the following data:

Business Partner	Transportation Costs per KM	Priority
OAF-CR-06	1000	2

9. Press *Copy and Close*.

10. Save your entries.

11. Create an entry for means of transport `OAF_TRUK_S` using the same information provided above (again for both carriers).

---

12. On the *SAP Easy Access* screen for SAP TM, choose ▶ *Master Data* ▶ *Transportation Network* ▶ *Define Transportation Lane* ◀.

13. Choose the *Intra-Zone/Loc. Transp. Lane* tab page, enter transportation zone `OAF-JP-ALL`, and choose *Create*.

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

Means of Transport	Start Date	End Date
`OAF_TRUCK`	`2011-01-01`	`9999-12-31`

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

15. Press *Copy and Close*.

16. When asked to create a transportation proposal, choose *No.*

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

BP Number	Transportation Costs per KM	Priority
`OAF-CR-03`	`1000`	`1`

18. Press *Copy and Close*.

19. Create another carrier for means of transport with the following data:

Business Partner	Transportation Costs per KM	Priority
`OAF-CR-04`	`500`	`2`

20. Press *Copy and Close*.

21. Save your entries.

22. Create an entry for means of transport `OAF_TRUK_S` using the same information provided above.

---

8 Resources

For SAP TM, defining resources includes defining the vehicle and carrier resources and the appropriate scheduling. This is achieved with the following procedures:

- Defining Vehicle Resources [Page 79]

- Defining Ocean Carrier Schedules [Page 84]

- Defining Sailing Schedules [Page 86]

- Defining Schedules [Page 88]

8.1 Defining Vehicle Resources

Procedure

On the *SAP Easy Access* screen for SAP TM, choose ▶ *Master Data* ▶ *Resources* ▶ *Define Resource* ▶.

Resource: OAF-JP-TRUCK1

1. On the initial screen, create the following transportation unit resources:

Field	Value
Resource	`OAF-JP-TRUCK1`
Resource Type	`09 (Vehicle Resource)`
Resource Category	`T (Transportation)`

2. In the table below *0 Vehicle*, enter the following information:

Field	Value
Resource	`OAF-JP-TRUCK1`
Location	Blank
Means of Transport	`OAF_TRUK_S`
Time Zone	`JAPAN`
Continuous Dimension	`Mass`
Factory Calendar	`JP`
Capacity	`40`
Unit	`TO`

3. On the *General Data* tab page, configure the following settings:

Field	Value
Passive Means of Transport	Deselect
Number of Individual Resources	Blank (0)
Multiresource	Deselect

4. Save your entries.

Resource: OAF-US-TRUCK1

1. On the initial screen, create the following transportation unit resources:

Field	Value

Resource	OAF-US-TRUCK1
Resource Type	09 (Vehicle Resource)
Resource Category	T (Transportation)

2. In the table below *0 Vehicle*, enter the following information:

Field	Value
Resource	OAF-US-TRUCK1
Location	Blank
Means of Transport	OAF_TRUK_S
Time Zone	UTC-8
Continuous Dimension	Mass
Factory Calendar	US
Capacity	40
Unit	TO

3. On the *General Data* tab page, configure the following settings:

Field	Value
Passive Means of Transport	Deselect
Number of Individual Resources	Blank (0)
Multiresource	Deselect

4. Save your entries.

❱❱ 8.2 Defining Ocean Resources

Procedure

On the *SAP Easy Access* screen for SAP TM, choose ❱ *Master Data* ❱ *Resources* ❱ *Define Resource* ❱.

Resource: OF-MS1

1. On the initial screen, create the following transportation resources:

Field	Value
Resource	OF-MS1
Resource Type	09 (Vehicle Resource)
Resource Category	T (Transportation)

2. In the table below *0 Vehicle*, enter the following information:

Field	Value
Resource	OF-MS1
Location	Blank
Means of Transport	OF_VESSEL
Time Zone	JAPAN
Continuous Dimension	AAAADL (no dimensions)
Factory Calendar	JP
Capacity	14000
Unit	TEU
Resource / Description	OF-MS1 / OF-JP-US

3. On the *General Data* tab page, configure the following settings:

Field	Value
Passive Means of Transport	Deselect
Number of Individual Resources	15
Multiresource	Select

4. Save your entries.

© SAP AG

8.3 Defining Inland Trucking Schedule Types

Procedure

1. In Customizing for *Transportation Management*, choose ▶ *Master Data* ❯ *Transportation Network* ❯ *Schedule* ❯ *Define Schedule Type* ❯ .

2. Copy the standard "2200 Road Gateway Schedule" schedule type to create schedule type "OF11 – OF: Inland Trucking Schedule".

3. Enter the following data:

Field	Value
Schedule Type	OF11
Description	OF: Inland Trucking Schedule
Default Type	Deselect
Transp. Mode	01 - ROAD
Header Number Range	07
Voyage Number Range	01
Offset Time Type	A Absolute
Gateway	Select
Direct	Select
Document Type	OF10

4. Save your entries.

5. Copy the standard "1000 — Ocean Carrier Schedule" schedule type to create schedule type "OF12 OF: Ocean Carrier Schedule".

6. Enter the following data:

Field	Value	Comment
Schedule Type	OF12	None
Description	OF: Ocean Carrier Schedule	None
Default Type	Select	None
Transp. Mode	03 - SEA	None
Header Number Range	07	Changed from standard entry
Voyage Number Range	01	None

Offset Time Type	A Absolute	Changed from standard entry
Gateway	Deselect	None
Direct	Deselect	None
Document Type	OF04	Changed from standard entry

7. Save your entries.

8. Copy the standard "2100 Sailing Schedule with Reference" schedule type to create schedule type "OF13 OF: Sailing Schedule with Reference".

9. Enter the following data:

Field	Value	Comment
Schedule Type	OF13	None
Description	OF: Sailing Schedule with Reference	None
Default Type	Deselect	None
Transp. Mode	03 – SEA	None
Header Number Range	07	Changed from standard entry
Voyage Number Range	01	None
Offset Time Type	A Absolute	Changed from standard entry
Gateway	Select	None
Reference	Select	None
Direct	Deselect	None
Document Type	OF04	Changed from standard entry

10. Save your entries.

⏭ 8.4 Defining Ocean Carrier Schedules

Procedure

1. In SAP NetWeaver Business Client for SAP TM, choose ⏵ *Master Data* ⏵ *Transportation Network* ⏵ *Schedules* ⏵ *Create Schedule* ⏴.

2. Create new schedule OF-SCHED-CR-02 using type `OF12` – OF: Ocean Carrier Schedule.

3. Enter the following data:

Field	Value
Schedule	`OF-SCHED-CR-02`
Description	`JPYOK – USLGB SOCAL`
Valid From	`2011-01-01`
Valid To	`2099-12-31`
Schedule Type	`OF12`
Transportation Mode	`03 – Sea`
Transportation Group	Blank
Carrier	`OAF-CR-02`
Standard Carrier Alpha Code	Blank
Loop	Blank

4. Create a standard port sequence by adding the following locations:

Field	Value	Value
Sequence	10	20
Location	`OF-JPYOK`	`OF-USLGB`
Cargo Cut Off (Offset in Days)	`1`	Blank
Cargo Cut-Off Time	`12:00:00`	Blank
Transit Duration in Days	`12`	Blank
Days to Availability	Blank	`1`
Availability Time	Blank	`20:00:00`

5. Create voyages by adding the following departure rule (in the *Voyages* screen area, choose *Departure Rules*):

Field	Value
First Day of Validity	`<first day of the current month>`
Last Day of Validity	`<last day of the next year>`
Day	`Friday`
Vessel	Blank (see below)
Departure Time	`14:00:00`
Time Zone	`JAPAN`

6. Select the departure rule and choose *Generate Voyages*. The voyages are automatically added to the *Voyages* tab page.

7. After creating the voyages, you need to enter the vessel names manually for each voyage. Select the *Voyages* tab page, and then enter the following vessel names (one vessel name to one voyage):

    o   Astoria

    o   Dagmar

    o   La Jolla

    o   SOCAL Princess

    Use each vessel in turn so, after four voyages, you start with vessel Astoria again.

8. Save your entries.

8.5 Defining Sailing Schedules

Procedure

1. On the *SAP Easy Access* screen for SAP TM, choose ▶ *Master Data* ▶ *Transportation Network* ▶ *Schedules* ▶ *Create Schedule* ▶.

2. Create schedule OF-SAILSCHED-CR-02 using type `OF13`(OF: Sailing Schedule with Reference).

3. Enter the following data:

Field	Value
Schedule	`OF-SAILSCHED-CR-02`
Description	`CFS_JPYOK - CFS_USLAX SOCAL`
Valid From	`<today>`
Valid To	`<one year in the future>`
Schedule Type	`OF13`
Transportation Mode	`03 - Sea`
Carrier	`OAF-CR-02`
Carrier Schedule	`OF-SCHED-CR-02`
Loop	`SOCAL SPEED`

4. Create a pair of standard container freight stations (CFS) by adding the following locations:

Field	Value	Value
Source CFS	`OF-CFS-JPYOK`	Not applicable
Destination CFS	Not applicable	`OF-CFS-USLAX`
Transit Duration (Days)	`1`	Not applicable
Transit Duration (Hours)	`5`	Not applicable
Cargo Cut-Off (Offset in Days)	`1`	Not applicable
Cargo Cut-Off Time	`10:00:00`	Not applicable
Days to Availability	Not applicable	`1`
Availability Time	Not applicable	`22:00:00`

5. Enter the corresponding ports using the input help (`F4`). Also see the recommendation below.

Port of Loading Sequence	`OF-JPYOK`
Port of Discharge Sequence	`OF-USLGB`

6. Create departure rules by copying them from the ocean carrier schedule. To do so, choose ▌ *Copy Data from Ocean Carrier Schedule* ❯ *Departure Rules* ◤.

7. Check the data copied from the ocean carrier schedule by choosing *Departure Rules* on the *Voyages* tab page.

8. Create voyages by copying them from the ocean carrier schedules. To do so, choose ▌ *Copy Data Ocean from Carrier Schedule* ❯ *Voyages* ◤. Check the data copied from the ocean carrier schedule by choosing *Voyages* on the *Voyages* tab page.

9. Save your entries.

➡

If the fields for the port of loading and the port of discharge are not displayed, check the Customizing settings for default schedule type `2100` and make sure that the *Direct* checkbox is not set. To do so, proceed as follows:

1. In Customizing for *Transportation Management*, choose ▌ *Master Data* ❯ *Transportation Network* ❯ *Schedule* ❯ *Define Schedule Types* ◤.

2. Choose schedule type `2100` and display details

8.6 Defining Truck Schedules

For the daily feeder trucks from the station to the CFS and from the CFS to the station, a schedule is required to plan the pre-carriage and on-carriage stages. The schedule uses schedule type `OF03` (*Inland Trucking Schedule*) in the SAP TM system.

Procedure

Schedule for OAF-STA-JPNGO to OF-CFS-JPYOK

1. On the *SAP Easy Access* screen for SAP TM, choose ▶ *Master Data* ▶ *Transportation Network* ▶ *Schedule* ▶ *Create Schedule* ▶.

2. Choose the standard schedule type `OF11` and then choose *Continue*.

3. Create new schedule `OAF-TRUCKSCHED-01`:

Field	Value
Schedule	`OF-TRUCKSCHED-01`
Description	`Schedule Trucking STA-JPNGO to CFS-JPYOK`
Valid From	`<today>`
Valid To	`<one year in the future>`
Schedule Type	`OF11`
Transportation mode	`01 - Road`
Carrier	`OAF-CR-04`
Carrier Schedule	Blank

4. Create a standard CFS by adding the following locations

Field	Value	Value
Source CFS	`OAF-STA-JPNGO`	Not applicable
Destination CFS	Not applicable	`OF-CFS-JPYOK`
Transit Duration (Hours)	5	Not applicable
Cargo Cut-Off Time	`07:00:00`	Not applicable
Document Cut-Off Time	`08:00:00`	Not applicable
Availability Time	Not applicable	`14:00:00`
Time Zone	`Japan`	`Japan`

5. Create voyages by adding the following departure rule in the *Departures* area. On the *Departure Rules* tab page, choose *Create*.

---

6. Add the following entry:

Field	Value
First Day of Validity	`<first day of the actual month>`
Last Day of Validity	`<last day of this year>`
Departure Frequency	`Daily` (select the checkbox for each weekday)
Departure Time	`09:00:00`
Time Zone	`JAPAN`

7. Select the new line and choose *Generate Departures*. On the *Departures* tab page, check that the departures have been automatically added.

8. Save your entries.

Schedule for OAF-STA-JPTYO to OF-CFS-JPYOK

1. On the *SAP Easy Access* screen for SAP TM, choose ▶ *Master Data* ▶ *Transportation Network* ▶ *Schedule* ▶ *Create Schedule* ▶.

2. Choose the standard schedule type `OF11` and then choose *Continue*.

3. Create schedule `OAF-TRUCKSCHED-02`:

Field	Value
Schedule	`OAF-TRUCKSCHED-02`
Description	`Schedule Trucking STA-JPTYO to CFS-JPYOK`
Valid From	`<today>`
Valid To	`<one year in the future>`
Schedule Type	`OF11`
Transportation mode	`01 - Road`
Carrier	`OAF-CR-03`
Carrier Schedule	Blank

4. Create a standard CFS by adding the following locations

Field	Value	Value
Source CFS	`OAF-STA-JPTYO`	
Destination CFS		`OF-CFS-JPYOK`
Transit Duration (Hours)	`2`	
Cargo Cut-Off Time	`07:00:00`	

Document Cut-Off Time	`08:00:00`	
Availability time		`11:00:00`
Time Zone	`Japan`	`Japan`

5. Create voyages by adding the following departure rule in the *Departures* area. On the *Departure Rules* tab page, choose *Create*.

6. Add the following entry:

Field	**Value**
First Day of Validity	`<first day of the actual month>`
Last Day of Validity	`<last day of this year>`
Departure Frequency	`Daily` (select the checkboxes for each weekday)
Departure Time	`09:00:00`
Time Zone	`JAPAN`

7. Select the new line and choose *Generate Departures*. On the *Departures* tab page, check that the departures have been automatically added.

8. Save your entries.

Schedule for OF-CFS-USLAX to OAF-STA-USSAN

1. On the *SAP Easy Access* screen for SAP TM, choose ▌ *Master Data* ▸ *Transportation Network* ▸ *Schedule* ▸ *Create Schedule* ▌.

2. Choose the standard schedule type `OF11` and then choose *Continue*.

3. Create schedule `OAF-TRUCKSCHED-03`:

Field	**Value**
Schedule	`OAF-TRUCKSCHED-03`
Description	`Schedule Trucking CFS-USLAX to STA-USSAN`
Valid From	`<today>`
Valid To	`<one year in the future>`
Schedule Type	`OF11`
Transportation mode	`01 – Road`
Carrier	`OAF-CR-05`
Carrier Schedule	Blank

4. Create a standard CFS by adding the following locations

Field	Value	Value
Source CFS	`OF-CFS-USLAX`	
Destination CFS		`OAF-STA-USSAN`
Transit Duration (Hours)	`4`	
Cargo Cut-Off Time	`08:00:00`	
Document Cut-Off Time	`08:00:00`	
Availability time		`14:00:00`
Time Zone	`PST`	`PST`

5. Create voyages by adding the following departure rule in the *Departures* area. On the *Departure Rules* tab page, choose *Create*.

6. Add the following entry:

Field	Value
First Day of Validity	`<first day of the actual month>`
Last Day of Validity	`<last day of this year>`
Departure Frequency	`Daily` (select the checkboxes for each weekday)
Departure Time	`10:00:00`
Time Zone	`PST`

7. Select the new line and choose *Generate Departures*. On the *Departures* tab page, check that the departures have been automatically added.

8. Save your entries.

Schedule for OF-CFS-USLAX to OAF-STA-USPHX

1. On the *SAP Easy Access* screen for SAP TM, choose ▌ *Master Data* ▶ *Transportation Network* ▶ *Schedule* ▶ *Create Schedule* ▌.

2. Choose the standard schedule type `OF11` and then choose *Continue*.

3. Create new schedule `OF-TRUCKSCHED-04`:

Field	Value
Schedule	`OF-TRUCKSCHED-04`
Description	`Schedule Trucking CFS-USLAX to STA-USPHX`
Valid From	`<today>`

Valid To	<one year in the future>
Schedule Type	OF11
Transportation mode	01 – Road
Carrier	OAF-CR-06
Carrier Schedule	Blank

4. Create a standard CFS by adding the following locations

Field	Value	Value
Source CFS	OF-CFS-USLAX	
Destination CFS		OAF-STA-USPHX
Transit Duration (Hours)	6	
Cargo Cut-Off Time	06:00:00	
Document Cut-Off Time	06:00:00	
Availability time		15:00:00
Time Zone	PST	PST

5. Create voyages by adding the following departure rule in the *Departures* area. On the *Departure Rules* tab page, choose *Create*.

6. Add the following entry:

Field	Value
First Day of Validity	<first day of the actual month>
Last Day of Validity	<last day of this year>
Departure Frequency	Daily (select the checkboxes for each weekday)
Departure Time	08:00:00
Time Zone	PST

7. Select the new line and choose *Generate Departures*. On the *Departures* tab page, check that the voyages are automatically added.

8. Save your entries.

8.7 Defining Default Routes

i

If you are not able to enter the route name specified below, change the default route type in Customizing.

In Customizing for SAP TM, choose ▶ *SAP Transportation Management* ▶ *Master Data* ▶ *Transportation Network* ▶ *Define Default Route Types* ▶.

- Change the number range used for type `3000` to `07`.

- Enter transportation mode `03`.

Procedure

Route 1 – Nagoya to Phoenix (OAF-STA-JPNGO to OAF-STA-USPHX)

1. In SAP NetWeaver Business Client (NWBC), choose ▶ *Master Data* ▶ *Transportation Network* ▶ *Default Route* ▶ *Create Default Route* ▶

2. Select default route type `3000` and choose *Continue*.

3. On the *General Data* tab page, create an entry with the following data:

Description	Value
Default Route	`OF-ROUTE-01`
Description	`OF ROUTE JPNGO-USPHX`
Valid From	2011–01–01
Valid To	2099–12–31
Source Trade Region	Blank
Destination Trade Region	Blank
Transportation Mode	`03`
Dangerous Goods	Deselect

4. In the *Transportation Stop* area, maintain the following stages:

Sequence	10	20	30	40
Location	`OAF-STA-JPNGO`	`OF-CFS-JPYOK`	`OF-CFS-USLAX`	`OAF-STA-USPHX`
Transport Mode	`01 Road`	`03 Sea`	`01 Road`	Not relevant
Stage Type	`02 – pre-carriage`	`03 – Main Carriage`	`04 – on-carriage`	

Schedule	OF-TRUCKSCHED-01	OF-SAILSCHED-02	OF-TRUCKSCHED-04
Carrier	OAF-CR-04	OAF-CR-02	OAF-CR-06
Planning and Execution Org.	OF-FWH-03	OF-FWH-03	OF-FWH-20
To Be Checked	Deselect	Select	Deselect

5. Save your entries.

Route 2 – Nagoya to San Diego (OAF-STA-JPNGO to OAF-STA-USSAN)

1. In SAP NetWeaver Business Client (NWBC), choose ▶ *Master Data* ▶ *Transportation Network* ▶ *Default Route* ▶ *Create Default Route* ▶

2. Select default route type 3000 and choose *Continue*.

3. On the *General Data* tab page, create an entry with the following data:

Description	Value
Default Route	OF-ROUTE-02
Description	OF ROUTE JPNGO-USSAN
Valid From	2011-01-01
Valid To	2099-12-31
Source Trade Region	Blank
Destination Trade Region	Blank
Transportation Mode	03
Dangerous Goods	Deselect

4. In the *Transportation Stop* area, maintain the following stages:

Sequence	10	20	30	40
Location	OAF-STA-JPNGO	OF-CFS-JPYOK	OF-CFS-USLAX	OAF-STA-USSAN
Transport Mode	01 Road	03 Sea	01 Road	Not relevant
Stage	02 – pre-carriage	03 – Main Carriage	04 – on-carriage	
Schedule	OF-TRUCKSCHED-01	OF-SAILSCHED-CR-02	OF-TRUCKSCHED-03	
Carrier	OAF-CR-03	OAF-CR-02	OAF-CR-05	

Planning and Execution Org.	`OF-FWH-03`	`OF-FWH-03`	`OF-FWH-20`	
To Be Checked	Deselect	Select	Deselect	

5. Save your entries.

Route 3 – Tokyo to Phoenix (OAF-STA-JPTYO to OAF-STA-USPHX)

1. In SAP NetWeaver Business Client (NWBC), choose ⯈ *Master Data* ⯈ *Transportation Network* ⯈ *Default Route* ⯈ *Create Default Route* ⯈

2. Select default route type `3000` and choose *Continue*.

3. On the *General Data* tab page, create an entry with the following data:

Description	Value
Default Route	`OF-ROUTE-03`
Description	`OF ROUTE JPTYO-USPHX`
Valid From	`2011-01-01`
Valid To	`2099-12-31`
Source Trade Region	Blank
Destination Trade Region	Blank
Transportation Mode	`03`
Dangerous Goods	Deselect

4. In the *Transportation Stop* area, maintain the following stages:

Sequence	`10`	`20`	`30`	`40`
Location	`OAF-STA-JPTYO`	`OF-CFS-JPYOK`	`OF-CFS-USLAX`	`OAF-STA-USPHX`
Transport Mode	`01 Road`	`03 Sea`	`01 Road`	Not relevant
Stage	`02 – Pre-Carriage`	`03 – Main Carriage`	`04 – on-carriage`	
Schedule	`OF-TRUCKSCHED-02`	`OF-SAILSCHED-CR-02`	`OF-TRUCKSCHED-04`	
Carrier	`OAF-CR-03`	`OAF-CR-02`	`OAF-CR-06`	
Planning and Execution Org.	`OF-FWH-05`	`OF-FWH-03`	`OF-FWH-20`	
To Be Checked	Deselect	Select	Deselect	

5. Save your entries.

Route 4 – Tokyo to San Diego (OAF-STA-JPTYO to OAF-STA-USSAN)

1. In SAP NetWeaver Business Client (NWBC), choose ▶ *Master Data* ▶ *Transportation Network* ▶ *Default Route* ▶ *Create Default Route* ▶

2. Select default route type `3000` and choose *Continue*.

3. On the *General Data* tab page, create an entry with the following data:

Description	Value
Default Route	OF-ROUTE-04
Description	OF ROUTE JPTYO-USSAN
Valid From	2011-01-01
Valid To	2099-12-31
Source Trade Region	Blank
Destination Trade Region	Blank
Transportation Mode	03
Dangerous Goods	Deselect

4. In the *Transportation Stop* area, maintain the following stages:

Sequence	10	20	30	40
Location	OAF-STA-JPTYO	OF-CFS-JPYOK	OF-CFS-USLAX	OAF-STA-USSAN
Transport Mode	01 Road	03 Sea	01 Road	Not relevant
Stage Type	02 – pre-carriage	03 – Main Carriage	04 – on-carriage	
Schedule	OF-TRUCKSCHED-02	OF-SAILSCHED-CR-02	OF-TRUCKSCHED-03	
Carrier	OAF-CR-04	OAF-CR-02	OAF-CR-05	
Planning and Execution Org.	OF-FWH-03	OF-FWH-03	OF-FWH-20	
To Be Checked	Deselect	Select	Deselect	

5. Save your entries.

---

9 Charge Management: Basic Settings

To configure charge management, you need to define basic setting parameters. The settings are described in the *Basic Settings for SAP TM* document:

- Define category codes

- Define subcategory codes

- Define charge type codes

9.1 Charge Management: Forwarding Order

To configure charge management, you need to complete the following steps:

- Defining scales [Page 100]

- Defining rate tables [Page 104]

- Defining calculation sheets [Page 129]

- Freight order charge management [Page 164]

- Defining freight agreement types [Page 142]

- Defining forwarding agreement types [Page 153]

- Defining settlement profiles [Page 160]

- Configuring organizational settings for charge elements [Page 161]

Prerequisites

Complete the settings described in the document *Basic Settings for SAP TM*. Charge type codes and subcategory codes for Transportation Charge Management (TCM) have to be maintained before TCM can be set up.

Features

The charge elements used in this scenario are:

- Through rate for pickup and pre-carriage stages:

    - Land pre-carriage

    - Fuel surcharge

    - Toll fee fixed

- Main carriage stage

    - Ocean freight

    - B/L fix fee (Bill of Lading Fix Fee)

    - CAF (Currency Adjustment Factor)

    - BAF (Bunker Adjustment Factor)

    - Piracy Risk Surcharge

    - EBAF (Emergency Bunker Adjustment Factor)

    - IPSD (International Port Security)

    - THCD (Terminal Handling Charge – Destination)

- o   AMS fee (Automated Manifest Submission)

- Through rate for on-carriage and delivery stages

    - o   Land on-carriage

    - o   Fuel surcharge

9.1.1 Defining Scales

Scales are parameters that you can use to specify freight rates when they are assigned to freight conditions.

Procedure

1. On the *SAP Easy Access* screen for SAP TM, choose ▶ *Master Data* ▶ *Charge Management and Service Product Catalogs* ▶ *Scales* ▶ *Create Scale* ▶.

2. Choose *Continue* without selecting a template.

3. Create a scale for the destination location.Enter the following data:

Field	Description	Value
Scale	Scale ID	`OAF-SCALE-DEST-LOC`
Description	Description of the scale	`OAF Destination Location`
Scale Base	Defines the basis of scale, for example, location, distance, duration, and so on.	`LOC – Location`

4. In line one of the *Item* tab page, enter the following information:

Field	Description	Value
Location	Specifies the locations for which the rates are determined	Line 1: `OF-JPYOK` Line 2: `OF-USLGB` Line 3: `OF-CFS-JPYOK` Line 4: `OF-CFS-USLAX` Line 5: `OAF-STA-JPTYO` Line 6: `OAF-STA-JPNGO` Line 7: `OAF-STA-USSAN` Line 8: `OAF-STA-USPHX` Line 9: `OAF-STA-JPHIJ` Line 10: `CUOAF-CO-01@ERP001` Line 11: `CUOAF-CO-02@ERP001` Line 12: `CUOAF-CO-03@ERP001`

		Line 13: `CUOAF-CO-04@ERP001`
		Line 14: `CUOAF-CU-01@ERP001`
		Line 15: `CUOAF-CU-02@ERP001`
		Line 16: `CUOAF-CU-03@ERP001`
		Line 17: `CUOAF-CU-04@ERP001`
		Line 18: `OAF-STA-USSFO`
Calculation Type	Defines how the scale values are read	For all lines: `Absolute` (values are read directly)

5. Save your entries.

6. Create a scale for the source location.Enter the following data:

Field	Description	Value
Scale	Scale ID	`OAF-SCALE-SOURCE-LOC`
Description	Description of the scale	`OAF – Source Truck Locations`
Scale Base	Defines the basis of scale, for example, location, distance, duration, and so on.	`LOC – Location`

7. In line one of the *Item* tab page, enter the following information:

Field	Description	Value
Location	Specifies the locations for which the rates are determined	Line 1: `OF-JPYOK`
		Line 2: `OF-USLGB`
		Line 3: `OF-CFS-JPYOK`
		Line 4: `OF-CFS-USLAX`
		Line 5: `OAF-STA-JPTYO`
		Line 6: `OAF-STA-JPNGO`
		Line 7: `OAF-STA-USSAN`
		Line 8: `OAF-STA-USPHX`
		Line 9: `OAF-STA-JPHIJ`

		Line 10: `CUOAF-CO-01@ERP001`
		Line 11: `CUOAF-CO-02@ERP001`
		Line 12: `CUOAF-CO-03@ERP001`
		Line 13: `CUOAF-CO-04@ERP001`
		Line 14: `CUOAF-CU-01@ERP001`
		Line 15: `CUOAF-CU-02@ERP001`
		Line 16: `CUOAF-CU-03@ERP001`
		Line 17: `CUOAF-CU-04@ERP001`
		Line 18: `OAF-STA-USSFO`
Calculation Type	Defines how the scale values are read	For all lines:`Absolute` (values are read directly)

8. Save your entries.

9. Create a weight scale for the chargeable weights.Enter the following data:

Field	**Description**	**Value**
Scale	Scale ID	`OAF-WEIGHT`
Description	Description of the scale	`Chargeable Weight`
Scale Base	Defines the basis of scale, for example, location, distance, duration, and so on.	`WEIGHT`
Scale Type		Base Scale (>=)
Scale Unit of Measure		`TO`

10. In line one of the *Item* tab page, enter the following information:

Field	**Description**	**Value**
Weight	Specifies the weight values for which the rates are determined	Line 1: `0.1` Line 2: `0.2` Line 3: `0.3` Line 4: `0.4`

Calculation Type	Defines how the scale values are read	For all lines:`Relative`

11. Save your entries.

12. Create an equipment scale for equipment types.Enter the following data:

Field	Description	Value
Scale	Scale ID	`OF-SCALE-EQU`
Description	Description of the scale	`Equipment Scale`
Scale Base	Defines the basis of scale, for example, location, distance, duration, and so on.	`EQPTYP`

13. In line one of the *Item* tab page, enter the following information:

Field	Description	Value
Equipment Type	Specifies the equipment types for which the rates are determined	Line 1: `22GP` Line 2: `44G0`
Calculation Type	Defines how the scale values are read	For all lines: `Absolute`

14. Save your entries.

9.1.2 Rate Tables

Rates are maintained in rate tables, which use the scales specified in Defining Scales [Page 100].

In this scenario, the following scales are assigned to the rate tables:

Rate Table	Used Scales	Charge Type Assigned	Procedure
OAF-RATE-569	• OAF-SCALE-SOURCE-LOC • OAF-SCALE-DEST-LOC • OAF-WEIGHT	PRE – Land Pre-Carriage	Defining Rate Table: Pre Carriage [Page 106]
OF-RATE-574	• OAF-SCALE-SOURCE-LOC • OAF-SCALE-DEST-LOC • OAF-WEIGHT	BSF – Base Sea Freight	Defining Rate Table: Main Carriage [Page 110]
OAF-RATE-574-1	• OAF-SCALE-DEST-LOC • OAF-WEIGHT	THCD – Terminal Handling Charge – Destination	Defining Rates for Terminal Handling Charge for Destination [Page 113]
OF-RATE-575	• OAF-SCALE-SOURCE-LOC • OAF-SCALE-DEST-LOC • OAF-WEIGHT	BAF – Bunker Adjustment Factor	Defining Rates for Bunker Adjustment Factor [Page 116]
OF-RATE-576	• OAF-SCALE-SOURCE-LOC • OAF-SCALE-DEST-LOC • OAF-WEIGHT	PRS – Piracy Risk Surcharge	Defining Rates for Piracy Risk Surcharge [Page 119]
OF-RATE-577	• OAF-SCALE-SOURCE-LOC • OAF-SCALE-DEST-LOC • OAF-WEIGHT	EBAF – Emergency Bunker Adj. Factor	Defining Rates for Emergency Bunker Adjustment Factor [Page 122]
OAF-	• OAF-SCALE-	ON – On-Carriage	Defining Rate Table: On Carriage

RATE-584	SOURCE-LOC		
	• OAF-SCALE-DEST-LOC		
	• OAF-WEIGHT		

9.1.2.1 Defining Rate Table: Pre-Carriage

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose ▌ *Master Data* ▌ *Charge Management and Service Product Catalogs* ▌ *Rate Tables* ▌ *Create Rate Table Definition* ▌.

2. On the *Create Rate Table* screen, create the following entry:

Field	Description	Value
General Data		
Rate Table	Unique identifier for the rate table	`OAF-RATE-569`
Description	Description of the table	`Rate Table for OAF 569`
Charge Usage	This indicator identifies in which situation this rate table can be used. It can be used for Customer Billing integration and/or Supplier Invoice integration, or neither.	`Customer`
Charge Type	This is where the charge type is linked for integration with SAP ERP.	`PRE`
Charge Category	This defaults from the charge type definition above.	`014`
Charge Subcategory	This defaults from the charge type definition above.	`100000 - Freight Charges`
Positive/Negative	This defaults from the charge type definition above.	Positive or Negative Value
Value	This defaults from the charge type definition above.	Absolute value
Scales		
Note that you add a line for an additional dimension by choosing *Insert*.		
Dimension	On the rate table, this defines a row (x-axis) or a column (y-axis). You can have multiple scales (up to 9) in a rate table.	`1` for the first scale (Region based)
Reference Scale	Assign the scales here for all carriers, which were defined above. This enables the entries in the rate table as in	1. `OAF-SCALE-SOURCE-LOC` 2. `OAF-SCALE-DEST-LOC`

	the sequence.	3. `OAF-WEIGHT`
Calculation Base	This determines how the values are stored and determined for this dimension. There are predefined sources of information based on the object.	1. `SOURCELOC` 2. `DESTLOC` 3. `CHRG_WEIGHT`
Scale Type	Manually defined or defaults from the reference scale definition above.	1. `Same Scale (=)` 2. `Same Scale (=)` 3. `Base Scale (>=)`
Scale Unit of Measure	Manually defined or defaults from the reference scale definition above.	1. Blank 2. Blank 3. `TO`
Minimum Value	Minimum value	Deselect
Maximum Value	Maximum value	Deselect
Rel. Calc. Method	Relative Calculation method	Deselect
Rounding Profile	Rounding profile	Blank

ℹ

After maintaining the lines in the *Create Rate Table*, highlight each line and choose *Add Scale*.

Save your entries.

Dates and Values

Note that you can add a line for each new entry by choosing *Insert*.

Valid From	The valid-from date for the rate table	`2011-01-01`
Valid To	The valid-to date for the rate table	`2099-12-31`
Aggreg. Rate Description	Aggregated rate description	`Pre-Carriage`
Currency	A currency that is applicable for this rate table	`JPY`

3. On the *Dates and Values* tab page, highlight the newly created line. A new table appears below, where you can enter the specific rates.

4. On the *Rates* tab page, choose *Insert* and enter the following rates:

Source Location	Destination Location	Value

CUOAF-CU-01@ERP001	OF-CFS-JPYOK	Depending on the relative interval, enter different values.
		
		`>= 0.1: 3237.00`
		
		`>= 0.2: 3400.00`
		
		`>= 0.3: 3677.00`
		
		`>= 0.4: 4451.00`

CUOAF-CU-02@ERP001	OF-CFS-JPYOK	Depending on the relative interval, enter different values.
		
		`>= 0.1: 3237.00`
		
		`>= 0.2: 3400.00`
		
		`>= 0.3: 3677.00`
		
		`>= 0.4: 4451.00`

CUOAF-CU-03@ERP001	OF-CFS-JPYOK	Depending on the relative interval, enter different values.
		
		`>= 0.1: 3237.00`
		
		`>= 0.2: 3400.00`
		
		`>= 0.3: 3677.00`
		
		`>= 0.4: 4451.00`

CUOAF-CU-04@ERP001	OF-CFS-JPYOK	Depending on the relative interval, enter different values.
		
		`>= 0.1: 3237.00`
		
		`>= 0.2: 3400.00`
		
		`>= 0.3: 3677.00`
		
		`>= 0.4: 4451.00`

5. On the *Calculation Rules* tab page, enter the following data:

Field	Description	Value
Calculation Base	Provides the calculation base for this rate. In our rate table, the rates are specified as per/mile from source to destination locations. However, the calculation base must be determined to apply these rates. In this case, the	`CHRG_WEIGHT`

	calculation base is distance. There are various bases such as business partner role, weight, destination location, and so on.	
Application Level of Calc. Rule	Defines on which level the rates are calculated	`Rate table`
Price Unit	Defines the multiplier for the calculation base. For example, the applicable rate could be *per mile* or *per 100 miles*.	`1000`
Unit of Measure	The unit of measure specifies the unit to which the multiplier is applied.	`KG`

6. Once you have entered your data, release the rate table by choosing ▌▶ *Set Status* ❯ *Released* ❘.

7. Save your entries.

9.1.2.2 Defining Rate Table: Main Carriage

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose ▶ *Master Data* ▶ *Charge Management and Service Product Catalogs* ▶ *Rate Tables* ▶ *Create Rate Table Definition* ▶.

2. On the *Create Rate Table* screen, create a new entry.Enter the following data:

Field	Description	Value
General Data		
Rate Table	Unique identifier for the rate table	`OF-RATE-574`
Description	Description of the table	`Rate Table for OF 574`
Charge Usage	This indicator identifies in which situation this rate table can be used. It can be used for Customer Billing integration and/or Supplier Invoice integration, or neither.	`Customer`
Charge Type	This is where the charge type is linked for integration with SAP ERP.	`BSF`
Charge Category	This defaults from the charge type definition above.	`003`
Charge Subcategory	This defaults from the charge type definition above.	`101021`
Positive/Negative	This defaults from the charge type definition above.	Positive Value
Value	This defaults from the charge type definition above.	Absolute value
Scales		
Dimension	On the rate table, this defines a row (x-axis) or a column (y-axis). You can have multiple scales (up to 9) in a rate table.	`1` for the first scale (Region based)
Reference Scale	Assign the scales here for all carriers, which were defined above. This enables the entries in the rate table according to the sequence.	1. `OAF-SCALE-SOURCE-LOC` 2. `OAF-SCALE-DEST-LOC` 3. `OAF-WEIGHT`

Scale Type	Manually defined or defaults from the reference scale definition above.	1. `Same Scale (=)` 2. `Same Scale (=)` 3. `Base Scale (>=)`
Scale Unit of Measure	Manually defined or defaults from the reference scale definition above.	1. Blank 2. Blank 3. `TO`
Calculation Base	This determines how the values are stored and determined for this dimension. There are predefined sources of information based on the object.	1. `SOURCELOC` 2. `DESTLOC` 3. `CHRG_WEIGHT`
Minimum Value	Minimum value	Deselect
Maximum Value	Maximum value	Deselect
Rel. Calc. Method	Relative Calculation method	Deselect
Rounding Profile	Rounding profile	Blank
i After maintaining the lines in the *Create Rate Table*, highlight each line and choose *Add Scale*. Save your entries.		
Dates and Values		
Valid From	The valid-from date for the rate table	`2011-01-01`
Valid To	The valid-to date for the rate table	`2099-12-31`
Aggreg. Rate Description	Aggregated rate description	`Main Carriage`
Currency	A currency that is applicable for this rate table	`USD`

3. On the *Dates and Values* tab page, highlight the newly created line. A new table appears below, where you can enter the specific rates.

4. Choose *Insert*, and maintain the following rates:

Source Location (=)	**Destination Location (=)**	**Value**
OF-CFS-JPYOK	OF-CFS-USLAX	`>= 0.1: 90.00`

		`>= 0.2: 110.00`
		`>= 0.3: 130.00`
		`>= 0.4: 150.00`

5. On the *Calculation Rules* tab page, enter the following data:

Field	Description	Value
Calculation Base	Provides the calculation base for this rate. In our rate table, the rates are specified as per mile from source to destination locations. However, the calculation base must be determined to apply these rates. In this case, the calculation base is distance. There are various bases such as business partner role, weight, destination location, and so on.	`CHRG_WEIGHT`
Application Level of Calc. Rule	Defines on which level the rates are calculated	`Rate table`
Price Unit	Defines the multiplier for the calculation base. For example, the applicable rate could be *per mile* or *per 100 miles*.	`1000`
Unit of Measure	The unit of measure specifies the unit to which the multiplier is applied.	`KG`

6. Once you have entered your data, release the rate table by choosing ▶ *Set Status* ▶ *Released* ◣.

7. Save your entries.

9.1.2.2.1 Defining Rates for Terminal Handling Charge for Destination

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose ▶ *Master Data* ▶ *Charge Management and Service Product Catalogs* ▶ *Rate Tables* ▶ *Create Rate Table Definition* ▶.

2. On the *Create Rate Table* screen, create a new entry. Enter the following data:

Field	Description	Value
General Data		
Rate Table	Unique identifier for the rate table	`OAF-RATE-574-1`
Description	Description of the table	`Rate Table for OAF 574-1`
Charge Usage	This indicator identifies in which situation this rate table can be used. It can be used for Customer Billing integration and/or Supplier Invoice integration, or neither.	`Customer`
Charge Type	This is where the charge type is linked for integration with SAP ERP.	`THCD`
Charge Category	This defaults from the charge type definition above.	`007`
Charge Subcategory	This defaults from the charge type definition above.	`104007`
Positive/Negative	This defaults from the charge type definition above.	Positive Value
Value	This defaults from the charge type definition above.	Absolute value
Scales		
Dimension	On the rate table, this defines a row (x-axis) or a column (y-axis). You can have multiple scales (up to 9) in a rate table.	`1` for the first scale (Region based)
Reference Scale	Assign the scales here for all carriers, which were defined above. This enables the entries in the rate table as in	1. `OAF-SCALE-DEST-LOC` 2. `OAF-WEIGHT`

	the sequence.	
Calculation Base	This determines how the values are stored and determined for this dimension. There are predefined sources of information based on the object.	1. `DESTLOC` 2. `CHRG_WEIGHT`
Scale Type	Manually defined or defaults from the reference scale definition above.	1. `Same Scale (=)` 2. `Base Scale (>=)`
Scale Unit of Measure	Manually defined or defaults from the reference scale definition above.	1. Blank 2. `TO`
Minimum Value	Minimum value	Deselect
Maximum Value	Maximum value	Deselect
Rel. Calc. Method	Relative Calculation method	Deselect
Rounding Profile	Rounding profile	Blank

ℹ

After maintaining the lines in the *Create Rate Table*, highlight each line and choose *Create Scale*.

Save your entries.

Dates and Values		
Valid From	The valid-from date for the rate table	`2011-01-01`
Valid To	The valid-to date for the rate table	`2099-12-31`
Aggreg. Rate Description	Aggregated rate description	`THCD Main Carriage`
Currency	A currency that is applicable for this rate table	`USD`

3. On the *Dates and Values* tab page, highlight the newly created line. A new table appears below, where you can enter the specific rates.

4. Choose *Insert*, and maintain the following rates:

Source Loc. Transp. Zone	Destination Loc.	Value

Not applicable	OF-CFS-USLAX	`> 0.1: 17.00`
		
		`> 0.2: 22.00`

| | | > 0.3: 25.00 |
| | | > 0.4: 27.00 |

5. On the *Calculation Rules* tab page, enter the following data:

Field	Description	Value
Calculation Base	Provides the calculation base for this rate. In our rate table, the rates are specified as per/mile from source to destination locations. However, the calculation base must be determined to apply these rates. In this case, the calculation base is distance. There are various bases such as business partner role, weight, destination location, and so on.	CHRG_WEIGHT
Application Level of Calc. Rule	Defines on which level the rates are calculated	Rate table
Price Unit	Defines the multiplier for the calculation base. For example, the applicable rate could be *per mile* or *per 100 miles*.	1000
Unit of Measure	The unit of measure specifies the unit to which the multiplier is applied.	KG

6. Once you have entered your data, release the rate table by choosing the *Release* pushbutton.

7. Save your entries.

9.1.2.2.2 Defining Rates for Bunker Adjustment Factor

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose ▶ *Master Data* ▶ *Charge Management and Service Product Catalogs* ▶ *Rate Tables* ▶ *Create Rate Table Definition* ▶.

2. On the *Create Rate Table* screen, create the following entry:

Field	Description	Value
General Data		
Rate Table	Unique identifier for the rate table	`OF-RATE-575`
Description	Description of the table	`Rate Table for OF 575`
Charge Usage	This indicator identifies in which situation this rate table can be used. It can be used for Customer Billing integration and/or Supplier Invoice integration, or neither.	`Customer`
Charge Type	This is where the charge type is linked for integration with SAP ERP.	`BAF`
Charge Category	This defaults from the charge type definition above.	`012`
Charge Subcategory	This defaults from the charge type definition above.	`103001`
Positive/Negative	This defaults from the charge type definition above.	Positive Value
Value	This defaults from the charge type definition above.	Absolute value
Scales		
Dimension	On the rate table, this defines a row (x-axis) or a column (y-axis). You can have multiple scales (up to 9) in a rate table.	`1` for the first scale (Region based)
Reference Scale	Assign the scales here for all carriers, which were defined above. This enables the entries in the rate table	1. `OAF-SCALE-SOURCE-LOC` 2. `OAF-SCALE-DEST-LOC`

		3. OAF-WEIGHT
Calculation Base	This determines how the values are stored and determined for this dimension. There are predefined sources of information based on the object.	1. SOURCELOC 2. DESTLOC 3. CHRG_WEIGHT
Scale Type	Manually defined or defaults from the reference scale definition above.	1. Same Scale (=) 2. Same Scale (=) 3. Base Scale (>=)
Scale Unit of Measure	Manually defined or defaults from the reference scale definition above.	1. Blank 2. Blank 3. TO
Minimum Value	Minimum value	Deselect
Maximum Value	Maximum value	Deselect
Rel. Calc. Method	Relative Calculation method	Deselect
Rounding Profile	Rounding profile	Blank

i

After maintaining the lines in the *Create Rate Table*, highlight each line and choose *Add Scale*.

Save your entries.

Dates and Values		
Valid From	The valid-from date for the rate table	2011-01-01
Valid To	The valid-to date for the rate table	2099-12-31
Aggreg. Rate Description	Aggregated rate description	BAF
Currency	A currency that is applicable for this rate table	USD

3. On the *Dates and Values* tab page, highlight the newly created line. A new table appears below, where you can enter the specific rates.

4. Choose *Insert*, and maintain the following rates:

Source Loc.	Destination Loc.	Value

OF-CFS-JPYOK	OF-CFS-USLAX	> 0.1: 30
		> 0.2: 60
		> 0.3: 90
		> 0.4: 120

5. On the *Calculation Rules* tab page, enter the following data:

Field	Description	Value
Calculation Base	Provides the calculation base for this rate. In our rate table, the rates are specified as per mile from source to destination locations. However, the calculation base must be determined to apply these rates. In this case, the calculation base is distance. There are various bases such as business partner role, weight, destination location, and so on.	CHRG_WEIGHT
Application Level of Calc. Rule	Defines on which level the rates are calculated	Rate table
Price Unit	Defines the multiplier for the calculation base. For example, the applicable rate could be *per mile* or *per 100 miles*.	1000
Unit of Measure	The unit of measure specifies the unit to which the multiplier is applied.	KG

6. Once you have entered your data, release the rate table by choosing ▶ *Set Status* ▶ *Released* ◢.

7. Save your entries.

⟫ 9.1.2.2.3 Defining Rates for Piracy Risk Surcharge

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose ▶ *Master Data* ▶ *Charge Management and Service Product Catalogs* ▶ *Rate Tables* ▶ *Create Rate Table Definition* ▶.

2. On the *Create Rate Table* screen, create the following entry:

Field	Description	Value
General Data		
Rate Table	Unique identifier for the rate table	`OF-RATE-576`
Description	Description of the table	`Rate Table for OF 576`
Charge Usage	This indicator identifies in which situation this rate table can be used. It can be used for Customer Billing integration and/or Supplier Invoice integration, or neither.	`Customer`
Charge Type	This is where the charge type is linked for integration with SAP ERP.	`PRS`
Charge Category	This defaults from the charge type definition above.	`012`
Charge Subcategory	This defaults from the charge type definition above.	`103009`
Positive/Negative	This defaults from the charge type definition above.	Positive Value
Value	This defaults from the charge type definition above.	Absolute value
Scales		
Dimension	On the rate table, this defines a row (x-axis) or a column (y-axis). You can have multiple scales (up to 9) in a rate table.	`1` for the first scale (Region based)
Reference Scale	Assign the scales here for all carriers, which were defined above. This enables the entries in the rate table according to the sequence.	1. `OAF-SCALE-SOURCE-LOC` 2. `OAF-SCALE-DEST-LOC` 3. `OAF-WEIGHT`

Calculation Base	This determines how the values are stored and determined for this dimension. There are predefined sources of information based on the object.	1. SOURCELOC 2. DESTLOC 3. CHRG_WEIGHT
Scale Type	Manually defined or defaults from the reference scale definition above.	1. Same Scale (=) 2. Same Scale (=) 3. Base Scale (>=)
Scale Unit of Measure	Manually defined or defaults from the reference scale definition above.	1. Blank 2. Blank 3. TO
Minimum Value	Minimum value	Deselect
Maximum Value	Maximum value	Deselect
Rel. Calc. Method	Relative Calculation method	Deselect
Rounding Profile	Rounding profile	Blank

> ℹ
>
> After maintaining the lines in the *Create Rate Table*, highlight each line and choose *Create Scale*.
>
> Save your entries.

Dates and Values		
Valid From	The valid-from date for the rate table	2011-01-01
Valid To	The valid-to date for the rate table	2099-12-31
Aggreg. Rate Description	Aggregated rate description	PRS
Currency	A currency that is applicable for this rate table	USD

3. On the *Dates and Values* tab page, highlight the newly created line. A new table appears below, where you can enter the specific rates.

4. Choose *Insert*, and maintain the following rates:

Source Loc.	Destination Loc.	Value
OF-CFS-JPYOK	OF-CFS-USLAX	> 0.1: 1

		> 0.2: 2
		> 0.3: 3
		> 0.4: 4

5. On the *Calculation Rules* tab page, enter the following data:

Field	Description	Value
Calculation Base	Provides the calculation base for this rate. In our rate table, the rates are specified as per mile from source to destination locations. However, the calculation base must be determined to apply these rates. In this case, the calculation base is distance. There are various bases such as business partner role, weight, destination location, and so on.	CHRG_WEIGHT
Application Level of Calc. Rule	Defines on which level the rates are calculated	Rate table
Price Unit	Defines the multiplier for the calculation base. For example, the applicable rate could be *per mile* or *per 100 miles*.	1000
Unit of Measure	The unit of measure specifies the unit to which the multiplier is applied.	KG

6. Once you have entered your data, release the rate table by choosing ▶ *Set Status* ❯ *Released* ◢.

7. Save your entries.

9.1.2.2.4 Defining Rates for Emergency Bunker Adjustment Factor

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose ▶ *Master Data* ▶ *Charge Management and Service Product Catalogs* ▶ *Rate Tables* ▶ *Create Rate Table Definition* ▶ .

2. On the *Create Rate Table* screen, create the following entry:

Field	Description	Value
General Data		
Rate Table	Unique identifier for the rate table	`OF-RATE-577`
Description	Description of the table	`Rate Table for OF 577`
Charge Usage	This indicator identifies in which situation this rate table can be used. It can be used for Customer Billing integration and/or Supplier Invoice integration, or neither.	`Customer`
Charge Type	This is where the charge type is linked for integration with SAP ERP.	`EBAF`
Charge Category	This defaults from the charge type definition above.	`002`
Charge Subcategory	This defaults from the charge type definition above.	`103001`
Positive/Negative	This defaults from the charge type definition above.	Positive Value
Value	This defaults from the charge type definition above.	Absolute value
Scales		
Dimension	On the rate table, this defines a row (x-axis) or a column (y-axis). You can have multiple scales (up to 9) in a rate table.	`1` for the first scale (Region based)
Reference Scale	Assign the scales here for all carriers, which were defined above. This enables the entries in the rate table	1. `OAF-SCALE-SOURCE-LOC` 2. `OAF-SCALE-DEST-LOC`

	according to the sequence.	3. `OAF-WEIGHT`
Calculation Base	This determines how the values are stored and determined for this dimension. There are predefined sources of information based on the object.	1. `SOURCELOC` 2. `DESTLOC` 3. `CHRG_WEIGHT`
Scale Type	Manually defined or defaults from the reference scale definition above.	1. `Same Scale (=)` 2. `Same Scale (=)` 3. `Base Scale (>=)`
Scale Unit of Measure	Manually defined or defaults from the reference scale definition above.	1. Blank 2. Blank 3. `TO`
Minimum Value	Minimum value	Deselect
Maximum Value	Maximum value	Deselect
Rel. Calc. Method	Relative Calculation method	Deselect
Rounding Profile	Rounding profile	Blank

ℹ

After maintaining the lines in the *Create Rate Table*, highlight each line and choose *Create Scale*.

Save your entries.

Dates and Values		
Valid From	The valid-from date for the rate table	`2011-01-01`
Valid To	The valid-to date for the rate table	`2099-12-31`
Aggreg. Rate Description	Aggregated rate description	`EBAF`
Currency	A currency that is applicable for this rate table	`USD`

3. On the *Dates and Values* tab page, highlight the newly created line. A new table appears below, where you can enter the specific rates.

4. Choose *Insert*, and maintain the following rates:

Source Loc.	Destination Loc.	Value
OF-CFS-JPYOK	OF-CFS-USLAX	> 0.1: 12 > 0.2: 24 > 0.3: 36 > 0.4: 48

5. On the *Calculation Rules* tab page, enter the following data:

Field	Description	Value
Calculation Base	Provides the calculation base for this rate. In our rate table, the rates are specified as per mile from source to destination locations. However, the calculation base must be determined to apply these rates. In this case, the calculation base is distance. There are various bases such as business partner role, weight, destination location, and so on.	CHRG_WEIGHT
Application Level of Calc. Rule	Defines on which level the rates are calculated	Rate table
Price Unit	Defines the multiplier for the calculation base. For example, the applicable rate could be *per mile* or *per 100 miles*.	1000
Unit of Measure	The unit of measure specifies the unit to which the multiplier is applied.	KG

6. Once you have entered your data, release the rate table by choosing ▶ *Set Status* ▶ *Released* ◢.

7. Save your entries.

9.1.2.3 Defining Rate Table: On-Carriage

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose ▶ *Master Data* ▶ *Charge Management and Service Product Catalogs* ▶ *Rate Tables* ▶ *Create Rate Table Definition* ▶.

2. On the *Create Rate Table* screen, create the following entry:

Field	Description	Value
General Data		
Rate Table	Unique identifier for the rate table	`OAF-RATE-584`
Description	Description of the table	`Rate Table for OAF 584`
Charge Usage	This indicator identifies in which situation this rate table can be used. It can be used for Customer Billing integration and/or Supplier Invoice integration, or neither.	`Customer`
Charge Type	This is where the charge type is linked for integration with SAP ERP.	`ON`
Charge Category	This is defaulted from the charge type definition above.	`014`
Charge Subcategory	This defaults from the charge type definition above.	`100000`
Positive/Negative	This defaults from the charge type definition above.	Positive or Negative Value
Value	This defaults from the charge type definition above.	Absolute value
Scales		
Dimension	On the rate table, this defines a row (x-axis) or a column (y-axis). You can have multiple scales (up to 9) in a rate table.	`1` for the first scale (Region based)
Reference Scale	Assign the scales here for all carriers, which were defined above. This enables the entries in the rate table as in the sequence.	1. `OAF-SCALE-SOURCE-LOC` 2. `OAF-SCALE-DEST-LOC` 3. `OAF-WEIGHT`

Calculation Base	This determines how the values are stored and determined for this dimension. There are predefined sources of information based on the object.	1. SOURCELOC 2. DESTLOC 3. CHRG_WEIGHT
Scale Type	Manually defined or defaults from the reference scale definition above.	1. Same Scale (=) 2. Same Scale (=) 3. Base Scale (>=)
Scale Unit of Measure	Manually defined or defaults from the reference scale definition above.	1. Blank 2. Blank 3. TO
Minimum Value	Minimum value	Deselect
Maximum Value	Maximum value	Deselect
Rel. Calc. Method	Relative Calculation method	Deselect
Rounding Profile	Rounding profile	Blank

> **i**
>
> After maintaining the lines in the *Create Rate Table*, highlight each line and choose *Create Scale*.
>
> Save your entries.

Dates and Values		
Valid From	The valid-from date for the rate table	2011-01-01
Valid To	The valid-to date for the rate table	2099-12-31
Aggreg. Rate Description	Aggregated rate description	On-Carriage
Currency	A currency that is applicable for this rate table	USD

3. On the *Dates and Values* tab page, highlight the newly created line. A new table appears below, where you can enter the specific rates.

4. Choose *Insert*, and maintain the following rates:

Source Loc. Transp. Zone	Destination Loc.	Value
OF-CFS-USLAX	CUOAF-CO-01@ERP001	> 0.1: 14.00

		> 0.2: 15.00
		> 0.3: 16.00
		> 0.4: 18.00
OF-CFS-USLAX	CUOAF-CO-02@ERP001	> 0.1: 14.00
		> 0.2: 15.00
		> 0.3: 16.00
		> 0.4: 18.00
OF-CFS-USLAX	CUOAF-CO-03@ERP001	> 0.1: 11.00
		> 0.2: 12.00
		> 0.3: 13.00
		> 0.4: 14.00
OF-CFS-USLAX	CUOAF-CO-04@ERP001	> 0.1: 11.00
		> 0.2: 12.00
		> 0.3: 13.00
		> 0.4: 14.00

5. On the *Calculation Rules* tab page, enter the following data:

Field	Description	Value
Calculation Base	Provides the calculation base for this rate. In our rate table, the rates are specified as per mile from source to destination locations. However, the calculation base must be determined to apply these rates. In this case, the calculation base is distance. There are various bases such as business partner role, weight, destination location, and so on.	CHRG_WEIGHT
Application Level of Calc. Rule	Defines on which level the rates are calculated	Rate table
Price Unit	Defines the multiplier for the calculation base. For example, the applicable rate could be *per mile* or *per 100 miles*.	1000

Unit of Measure	The unit of measure specifies the unit to which the multiplier is applied.	KG

6. Once you have entered your data, release the rate table by choosing ▶ *Set Status* ❯ *Released* ❯.

7. Save your entries.

9.1.3 Defining Calculation Sheets

Within a freight order or forwarding order, the applicable charges are calculated on the basis of the calculation sheet.

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*.

3. On the *New Calculation Sheet* screen, enter your data based on the following tables.

i

For this scenario, we create four calculation sheets (one for each carrier)

Pre-Carriage

1. On the *General Data* tab page, enter the following data in the *Basic Data* screen area:

Field	Description	Value
Calculation Sheet	Unique identifier for the calculation sheet to be defined	OAF-TCCS-PRE
Description	Description of the calculation sheet	Calculation sheet pre-carriage
Charge Usage	Indicates whether the calculation sheet is used for customers, vendors (carriers), both, or neither. Furthermore, indicates whether the calculation sheet is used only for decision making during tendering, and so on.	Customer

2. In the *Items* screen area, choose ▶ *Insert* ▶ *Single Item* ▶ to add a new line item.

3. Select the line for *20*.

   Enter data in the area at the bottom of the screen.

4. On the *Basic Data* tab page, enter the following data:

Field	Description	Value
Instruction Type	Rule to indicate how the charge item is applied for the calculation	Standard

Description	Description of the charge item in the calculation sheet	Land Pre-Carriage
Charge Type	Assigned charge type	PRE
Line No	Line number of the item	20
Calculation Resolution Base	Indicates the level at which the calculation sheet is to be applied. For example, it can be applied at the header level for the whole freight order or at a particular stage only	Blank
Leading Charge Type	Identifies leading charge type	Select
Calculation Method Type	Calculation method type	Standard
Stage Category	Stage category	P - Pre-Carriage
Shipping Type	Shipping type	2 (LCL)

5. On the *Rate* tab page, enter the following data:

Field	Description	Value
Currency	Unit of measure for the quantitative rate amount	JPY
Rate Table	Assigned rate table	OAF-RATE-569

6. Select the line for *30*.

   Enter data in the area at the bottom of the screen.

7. On the *Basic Data* tab page, enter the following data:

Description	Value
Rule to indicate how the charge item is applied for the calculation	Standard
Description of the charge item in the calculation sheet	Fuel Surcharge
Assigned charge type	FUEL
Line number of the item	30
Reference line number to	20
Indicates the level at which the calculation sheet is to be applied. For example, it can be applied at the header level for the whole freight order or at a particular stage only	Blank
Calculation method type	Standard

Stage category	P - Pre-Carriage
Shipping type	2 (LCL)

8. On the *Rate* tab page, enter the following data:

Field	Description	Value
Amount	Quantitative rate amount	3
Currency	Unit of measure for the quantitative rate amount. Note that this value is not available from the input help (F4); you must enter it manually.	%
Ref-From Line No.	Reference from line number	20
Ref-To Line Number	Reference to line number	20

9. Select the line for *40*.

   Enter data in the area at the bottom of the screen.

10. On the *Basic Data* tab page, enter the following data:

Field	Description	Value
Instruction Type	Rule to indicate how the charge item is applied for the calculation	Standard
Description	Description of the charge item in the calculation sheet	Toll Fee Fix
Charge Type	Assigned charge type	TOLL
Line No	Line number of the item	40
Calculation Resolution Base	Indicates the level at which the calculation sheet is to be applied. For example, it can be applied at the header level for the whole freight order or at a particular stage only	Blank
Calculation Method Type	Calculation method type	Standard
Stage Category	Stage category	P - Pre-Carriage
Shipping Type	Shipping type	2 (LCL)

11. On the *Rate* tab page, enter the following data:

Field	Description	Value
Amount	Rate amount	2023

Currency	Unit of measure for quantitative rate amount	`JPY`

12. Save your entries.

Main Carriage

1. On the *General Data* tab page, enter the following data in the *Basic Data* screen area:

Field	**Description**	**Value**
Calculation Sheet	Unique identifier for the calculation sheet to be defined	`OF-TCCS-MAIN`
Description	Description of the calculation sheet	`Calculation sheet main carriage`
Charge Usage	Indicates whether the calculation sheet is used for customers, vendors (carriers), both, or neither. Furthermore, indicates whether the calculation sheet is used only for decision making during tendering, and so on.	`Customer`

2. In the *Items* screen area, choose ▶ *Insert* ❯ *Single Item* ▶ to add a new line item.

3. Select the line for *20*.

    Enter data in the area at the bottom of the screen.

4. On the *Basic Data* tab page, enter the following data:

Field	**Description**	**Value**
Instruction Type	Rule to indicate how the charge item is applied for the calculation	`Standard`
Description	Description of the charge item in the calculation sheet	`Base Sea Freight`
Charge Type	Assigned charge type	`BSF`
Line No	Line number of the item	`20`
Calculation Resolution Base	Indicates the level at which the calculation sheet is to be applied. For example, it can be applied at the header level for the whole freight order or at a particular stage only	Blank
Leading Charge Type	Identifies leading charge type	Select
Calculation Method Type	Calculation method type	`Standard`

Stage Category	Stage category	M – Main carriage
Shipping Type	Shipping type	2 (LCL)

5. On the *Rate* tab page, enter the following data:

Field	Description	Value
Rate Table	Assigned rate table	OF-RATE-574
Currency	Unit of measure for quantitative amount	USD

6. Select the line for *30*.

   Enter data in the area at the bottom of the screen.

7. On the *Basic Data* tab page, enter the following data:

Field	Description	Value
Instruction Type	Rule to indicate how the charge item is applied for the calculation	Standard
Description	Description of the charge item in the calculation sheet	B/L Fee Fix
Charge Type	Assigned charge type	BLAD
Line No	Line number of the item	30
Calculation Resolution Base	Indicates the level at which the calculation sheet is to be applied. For example, it can be applied at the header level for the whole freight order or at a particular stage only	Blank
Calculation Method Type	Calculation method type	Standard
Stage Category	Stage category	M – Main carriage
Shipping Type	Shipping type	2 (LCL)

8. On the *Rate* tab page, enter the following data:

Field	Description	Value
Amount	Rate amount	100
Currency	Unit of measure for quantitative measure	USD

9. Select the line for *40*.

   Enter data in the area at the bottom of the screen.

10. On the *Basic Data* tab page, enter the following data:

Field	Description	Value
Instruction Type	Rule to indicate how the charge item is applied for the calculation	`Standard`
Description	Description of the charge item in the calculation sheet	`Currency Adjustment Factor`
Charge Type	Assigned charge type	`CAF`
Line No	Line number of the item	`40`
Calculation Resolution Base	Indicates the level at which the calculation sheet is to be applied. For example, it can be applied at the header level for the whole freight order or at a particular stage only	Blank
Calculation Method Type	Calculation method type	`Standard`
Stage Category	Stage category	`M - Main carriage`
Shipping Type	Shipping type	`2 (LCL)`

11. On the *Rate* tab page, enter the following data:

Field	Description	Value
Amount	Rate amount	`14.60`
Currency	Unit of measure for the quantitative rate amount. Note that this value is not available from the input help (`F4`); you must enter it manually.	`%`
Ref.-From Line No.	Reference from line number	`20`
Ref.-To Line Number	Reference to line number	`20`

12. Select the line for *50*.

   Enter data in the area at the bottom of the screen.

13. On the *Basic Data* tab page, enter the following data:

Field	Description	Value
Instruction Type	Rule to indicate how the charge item is applied for the calculation	`Standard`
Description	Description of the charge item	`Bunker Adjustment`

	in the calculation sheet	`Factor`
Charge Type	Assigned charge type	`BAF`
Line No	Line number of the item	`50`
Calculation Resolution Base	Indicates the level at which the calculation sheet is to be applied. For example, it can be applied at the header level for the whole freight order or at a particular stage only	Blank
Calculation Method Type	Calculation method type	`Break Weight`
Stage Category	Stage category	`M - Main carriage`
Shipping Type	Shipping type	`2 (LCL)`

14. On the *Rate* tab page, enter the following data:

Field	Description	Value
Rate Table	Assigned rate table	`OF-RATE-575`
Currency	Unit of measure for quantitative amount	`USD`

15. Select the line for *60*.

Enter data in the area at the bottom of the screen.

16. On the *Basic Data* tab page, enter the following data:

Field	Description	Value
Instruction Type	Rule to indicate how the charge item is applied for the calculation	`Standard`
Description	Description of the charge item in the calculation sheet	`Piracy Risk Surcharge`
Charge Type	Assigned charge type	`PRS`
Line No	Line number of the item	`60`
Calculation Resolution Base	Indicates the level at which the calculation sheet is to be applied. For example, it can be applied at the header level for the whole freight order or at a particular stage only	Blank
Calculation Method Type	Calculation method type	`Standard`
Stage Category	Stage category	`M - Main carriage`

Shipping Type	Shipping type	2 (LCL)

17. On the *Rate* tab page, enter the following data:

Field	Description	Value
Rate Table	Assigned rate table	OF-RATE-576
Currency	Unit of measure for quantitative amount	USD

18. Select the line for *70*.

Enter data in the area at the bottom of the screen.

19. On the *Basic Data* tab page, enter the following data:

Field	Description	Value
Instruction Type	Rule to indicate how the charge item is applied for the calculation	Standard
Description	Description of the charge item in the calculation sheet	Emergency Bunker Adjustment Factor
Charge Type	Assigned charge type	EBAF
Line No	Line number of the item	70
Calculation Resolution Base	Indicates the level at which the calculation sheet is to be applied. For example, it can be applied at the header level for the whole freight order or at a particular stage only	Blank
Calculation Method Type	Calculation method type	Standard
Stage Category	Stage category	M - Main carriage
Shipping Type	Shipping type	2 (LCL)

20. On the *Rate* tab page, enter the following data:

Field	Description	Value
Rate Table	Assigned rate table	OF-RATE-577
Currency	Unit of measure for quantitative amount	USD

21. Select the line for *80*.

Enter data in the area at the bottom of the screen.

22. On the *Basic Data* tab page, enter the following data:

Field	Description	Value
Instruction Type	Rule to indicate how the charge item is applied for the calculation	`Standard`
Description	Description of the charge item in the calculation sheet	`International Port Security Destination`
Charge Type	Assigned charge type	`ISPD`
Line No	Line number of the item	`80`
Calculation Resolution Base	Indicates the level at which the calculation sheet is to be applied. For example, it can be applied at the header level for the whole freight order or at a particular stage only	Blank
Calculation Method Type	Calculation method type	`Standard`
Stage Category	Stage category	`M - Main carriage`
Shipping Type	Shipping type	`2 (LCL)`

23. On the *Rate* tab page, enter the following data:

Field	Description	Value
Amount	Rate amount	`3`
Currency	Unit of measure for quantitative amount	`USD`

24. Select the line for *90*.

Enter data in the area at the bottom of the screen.

25. On the *Basic Data* tab page, enter the following data:

Field	Description	Value
Instruction Type	Rule to indicate how the charge item is applied for the calculation	`Standard`
Description	Description of the charge item in the calculation sheet	`Terminal Handling Charge Destination`
Charge Type	Assigned charge type	`THCD`
Line No	Line number of the item	`90`
Calculation Resolution Base	Indicates the level at which the calculation sheet is to be applied. For example, it can be	Blank

	applied at the header level for the whole freight order or at a particular stage only	
Calculation Method Type	Calculation method type	`Standard`
Stage Category	Stage category	`M - Main carriage`
Shipping Type	Shipping type	`2 (LCL)`

26. On the *Rate* tab page, enter the following data:

Field	Description	Value
Rate	Rate	`OAF-RATE-574-1`
Currency	Unit of measure for quantitative amount	`USD`

27. Select the line for *100*.

Enter data in the area at the bottom of the screen.

28. On the *Basic Data* tab page, enter the following data:

Field	Description	Value
Instruction Type	Rule to indicate how the charge item is applied for the calculation	`Standard`
Description	Description of the charge item in the calculation sheet	`AMS Fee`
Charge Type	Assigned charge type	`Automated Manifest Submission Fee`
Line No	Line number of the item	`100`
Calculation Resolution Base	Indicates the level at which the calculation sheet is to be applied. For example, it can be applied at the header level for the whole freight order or at a particular stage only	Blank
Calculation Method Type	Calculation method type	`Standard`
Stage Category	Stage category	`M - Main carriage`
Shipping Type	Shipping type	`2 (LCL)`

29. On the *Rate* tab page, enter the following data:

Field	Description	Value
Amount	Rate amount	`25`

Currency	Unit of measure for quantitative amount	USD

30. Save your entries.

On-Carriage

1. On the *General Data* tab page, enter the following data:

Field	Description	Value
Calculation Sheet	Unique identifier for the calculation sheet to be defined	OAF-TCCS-ON
Description	Description of the calculation sheet	Calculation sheet on-carriage
Charge Usage	Indicates whether the calculation sheet is used for customers, vendors (carriers), both, or neither. Furthermore, indicates whether the calculation sheet is used only for decision making during tendering, and so on.	Customer

2. In the *Items* screen area, choose ▶ *Insert* ▶ *Single Item* ▶ to add a new line item.

3. Select the line for *20*.

   Enter data in the area at the bottom of the screen.

4. On the *Basic Data* tab page, enter the following data:

Field	Description	Value
Instruction Type	Rule to indicate how the charge item is applied for the calculation	Standard
Description	Description of the charge item in the calculation sheet	On-Carriage
Charge Type	Assigned charge type	ON
Line No	Line number of the item	20
Calculation Resolution Base	Indicates the level at which the calculation sheet is to be applied. For example, it can be applied at the header level for the whole freight order or at a particular stage only	Blank
Leading Charge Type	Identifies leading charge type	Select
Calculation Method Type	Calculation method type	Standard

Stage Category	Stage category	`O - On-Carriage`
Shipping Type	Shipping type	`2 (LCL)`

5. On the *Rate* tab page, enter the following data:

Field	Description	Value
Rate Table	Assigned rate table	`OAF-RATE-584`
Currency	Unit of measure for quantitative amount	`USD`

6. Select the line for *30*.

Enter data in the area at the bottom of the screen.

7. On the *Basic Data* tab page, enter the following data:

Field	Description	Value
Instruction Type	Rule to indicate how the charge item is applied for the calculation	`Standard`
Description	Description of the charge item in the calculation sheet	`Fuel Surcharge`
Charge Type	Assigned charge type	`FUEL`
Shipping Type	Shipping type	`2 (LCL)`
Line No	Line number of the item	`30`
Reference from	Reference from line number	`20`
Reference to	Reference to line number	`20`
Calculation Resolution Base	Indicates the level at which the calculation sheet is to be applied. For example, it can be applied at the header level for the whole freight order or at a particular stage only	Blank
Calculation Method Type	Calculation method type	`Standard`
Stage Category	Stage category	`O - On-Carriage`

8. On the *Rate* tab page, enter the following data:

Field	Description	Value
Amount	Rate amount	`10`
Currency	Unit of measure for the quantitative rate amount. Note	`%`

	that this value is not available from the input help (F4); you must enter it manually.	
Ref.-From Line No.	Reference from line number	20
Ref.-To Line Number	Reference to line number	20

9. Select the line for *40*.

Enter data in the area at the bottom of the screen.

10. On the *Basic Data* tab page, enter the following data:

Field	Description	Value
Instruction Type	Rule to indicate how the charge item is applied for the calculation	Standard
Description	Description of the charge item in the calculation sheet	Automated Manifest Submission Fee
Charge Type	Assigned charge type	AMS
Line No	Line number of the item	40
Calculation Resolution Base	Indicates the level at which the calculation sheet is to be applied. For example, it can be applied at the header level for the whole freight order or at a particular stage only	Blank
Calculation Method Type	Calculation method type	Standard
Stage Category	Stage category	O - On-Carriage
Shipping Type	Shipping type	2 (LCL)

11. On the *Rate* tab page, enter the following data:

Field	Description	Value
Amount	Rate amount	25
Currency	Unit of measure for quantitative amount	USD

12. Save your entries.

9.1.4 Defining Freight Agreement Types

Procedure

1. In Customizing for *Transportation Management*, choose ▶ *Master Data* ▶ *Agreements and Service Products* ▶ *Define Freight Agreement Types* ▶.

2. Choose *New Entries*.

3. Enter the following data:

Field	Description	Value
Type	Freight agreement type	OF08
Short Desc.	Short description (free text)	OF: Freight Agreement
FA No. Range	Number range interval	03

4. Save your entries and ignore any warning messages.

5. Select freight agreement OF08 and choose *Specify Preconditions*.

6. Create new entry for precondition:

    o   MOT

    o   MOVEM_TYPE

    o   SHIPMENT

    o   STAGE_CAT

7. Save your entries.

More Information

Defining Freight Agreements: Ocean Carrier [Page 143]

Defining Freight Agreements: Trucking [Page 146]

9.1.4.1 Defining Freight Agreements: Ocean Carrier

Freight agreements contain all of the information that you require to calculate freight charges.

Prerequisites

You have defined a freight agreement type.

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose ▶ *Master Data* ▶ *Charge Management and Service Product Catalogs* ▶ *Freight Agreements* ▶ *Create Freight Agreement* ▶

2. On the *New Freight Agreement* screen, enter the relevant freight agreement type in the *Agreement Type* field. For example, `OF08`.

3. Choose *Continue*.

4. Create an agreement for ocean carrier `OF-CR-02`. Enter the following data:

Field	Description	Value
Agreement	Agreement ID	`OF-FA-CR-02`
Description	Description of the freight agreement	`OF Main CR-02`
Purchasing Organization	Default purchasing organization	`OF-FWH-03`
Carrier	Carrier for which this freight agreement is to be defined	`OAF-CR-02`
Valid From	Validity date range	`2011-01-01`
Valid To		`2099-12-31`
Agreement Priority	Priority of the agreement	`5`
Document currency	Agreement currency	`USD`

5. In the *Items* screen area, enter the following data by choosing ▶ *Insert* ▶ *Insert Product* ▶:

Field	Description	Value
Item Hierarchy	Item hierarchy	`Product`
Item Number	Item number	`100`
Dimensional Weight Profile	Dimensional weight profile	
Stage Category	Stage category type P: pre-carriage	`Main Carriage`

	M: Main carriage	
	O: On-carriage	
Calculation Sheet	Assign the calculation sheet once only. The details from this sheet are copied for each item.	`OF-TCCS-CR-MAIN`

6. Once you have entered your data, release the freight agreement by choosing ▷ *Set Status* ▷ *Released* ▷.

7. Choose *Save*.

8. Create another freight agreement for ocean carrier `OF-CR-01`. Enter the following data:

Field	Description	Value
Agreement	Agreement ID	`OF-FA-CR-01`
Description	Description of the freight agreement	`OF Main CR-01`
Purchasing Organization	Default purchasing organization	`OF-FWH-03`
Carrier	Carrier for which this freight agreement is to be defined	`OAF-CR-01`
Valid From	Validity date range	`2011-01-01`
Valid To		`2099-12-31`
Agreement Priority	Priority of the agreement	`5`
Document currency	Agreement currency	`USD`

9. In the *Items* screen area, enter the following data:

Field	Description	Value
Item Number	Item number	`100`
Dimensional Weight Profile	Dimensional weight profile	
Stage Category	Stage category type P: pre-carriage M: Main carriage O: On-carriage	`Main Carriage`
Calculation Sheet	Assign the calculation sheet once only. The details from this sheet are copied for each item.	`OF-TCCS-CR-MAIN`

10. Once you have entered your data, release the freight agreement by choosing ▶ *Set Status* ❯ *Released* ❯.

11. Choose *Save*.

❱❱ 9.1.4.2 Defining Freight Agreements: Trucking

Freight agreements contain all of the information that you require to calculate freight charges.

You need to maintain the freight agreements for all your carriers (truckers) and for both stage types LTL and FTL. This procedure defines freight agreements for the carriers in Japan and the United States.

The procedure maintains the following forwarding house (purchasing organization) and carrier combinations:

Purchasing Org.	Carrier	Type	Agreement ID
OAF-FWH-05	OAF-CR-03	LTL Pickup	OF-FA-CR-03-01
OAF-FWH-01	OAF-CR-04	LTL Pickup	OF-FA-CR-04-01
OF-FWH-03	OAF-CR-03	FTL pre-carriage	OF-FA-CR-03
OF-FWH-03	OAF-CR-04	FTL pre-carriage	OF-FA-CR-04
OF-FWH-20	OAF-CR-05	FTL on-carriage	OF-FA-CR-05
OF-FWH-20	OAF-CR-06	FTL on-carriage	OF-FA-CR-06
OAF-FWH-22	OAF-CR-05	LTL Delivery	OF-FA-CR-05-01
OAF-FWH-21	OAF-CR-06	LTL Delivery	OF-FA-CR-06-01

Prerequisites

You have defined a freight agreement type.

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose ❱ *Master Data* ❱ *Charge Management and Service Product Catalogs* ❱ *Freight Agreements* ❱ *Create Freight Agreement* ❱

2. On the *New Freight Agreement* screen, enter the relevant freight agreement type in the *Agreement Type* field. For example, `OF08`.

3. Choose *Continue*.

4. Create an FTL agreement. Enter the following data:

Field	Description	Value
Agreement	Agreement ID	`OF-FA-CR-03`
Description	Description of the freight agreement	`OF FTL Japan`
Purchasing Organization	Default purchasing organization	`OF-FWH-03`

Carrier	Carrier for which this freight agreement is to be defined	`OAF-CR-03`
Valid From	Validity date range	`2011-01-01`
Valid To		`2099-12-31`
Agreement Priority	Priority of the agreement	`5`
Document currency	Agreement currency	`JPY`

5.   In the *Items* screen area, enter the following data by choosing ▌*Insert* ▌ *Insert Product* ▌:

Field	Description	Value
Item Number	Item number	`100`
Dimensional Weight Profile	Dimensional weight profile	`ZOAF_LAND3`
Calculation Sheet	Assign the calculation sheet once only. The details from this sheet are copied for each item.	`OAF-TCCS-CR-FTL-JP`

6.   Once you have entered your data, release the freight agreement by choosing ▌*Set Status* ▌ *Released* ▌.

7.   Choose *Save*.

8.   Create another freight agreement for the FTL stage type. Enter the following data:

Field	Description	Value
Agreement	Agreement ID	`OF-FA-CR-04`
Description	Description of the freight agreement	`OF FTL Japan`
Purchasing Organization	Default purchasing organization	`OF-FWH-03`
Carrier	Carrier for which this freight agreement is to be defined	`OAF-CR-04`
Valid From	Validity date range	`2011-01-01`
Valid To		`2099-12-31`
Agreement Priority	Priority of the agreement	`5`
Document currency	Agreement currency	`JPY`

9.   In the *Items* screen area, enter the following data by choosing ▌*Insert* ▌ *Insert Product* ▌:

Field	Description	Value
Item Number	Item number	`100`

Calculation Sheet	Assign the calculation sheet once only. The details from this sheet are copied for each item.	OAF-TCCS-CR-FTL-JP
Dimensional Weight Profile	Dimensional weight profile	ZOAF_LAND3

10. Once you have entered your data, release the freight agreement by choosing ▌▶ *Set Status* ▶ *Released* ▶.

11. Choose *Save*.

12. Create another freight agreement for the FTL stage type. Enter the following data:

Field	Description	Value
Agreement	Agreement ID	OF-FA-CR-05
Description	Description of the freight agreement	OF FTL USA
Purchasing Organization	Default purchasing organization	OF-FWH-20
Carrier	Carrier for which this freight agreement is to be defined	OAF-CR-05
Valid From	Validity date range	2011-01-01
Valid To		2099-12-31
Agreement Priority	Priority of the agreement	5
Document currency	Agreement currency	USD

13. In the *Items* screen area, enter the following data by choosing ▌▶ *Insert* ▶ *Insert Product* ▶:

Field	Description	Value
Item Number	Item number	100
Calculation Sheet	Assign the calculation sheet once only. The details from this sheet are copied for each item.	OAF-TCCS-CR-FTL-US
Dimensional Weight Profile	Dimensional weight profile	ZOAF_LAND3

14. Once you have entered your data, release the freight agreement by choosing ▌▶ *Set Status* ▶ *Released* ▶.

15. Choose *Save*.

16. Create another freight agreement for the FTL stage type. Enter the following data:

Field	Description	Value
Agreement	Agreement ID	OF-FA-CR-06
Description	Description of the freight agreement	OF FTL USA
Purchasing Organization	Default purchasing organization	OF-FWH-20
Carrier	Carrier for which this freight agreement is to be defined	OAF-CR-06
Valid From	Validity date range	2011-01-01
Valid To		2099-12-31
Agreement Priority	Priority of the agreement	5
Document currency	Agreement currency	USD

17. In the *Items* screen area, enter the following data by choosing ▶ *Insert* ▶ *Insert Product* ▶:

Field	Description	Value
Item Number	Item number	100
Calculation Sheet	Assign the calculation sheet once only. The details from this sheet are copied for each item.	OAF-TCCS-CR-FTL-US
Dimensional Weight Profile	Dimensional weight profile	ZOAF_LAND3

18. Once you have entered your data, release the freight agreement by choosing ▶ *Set Status* ▶ *Released* ▶.

19. Choose *Save*.

20. Create another freight agreement for the LTL stage type. Enter the following data:

Field	Description	Value
Agreement	Agreement ID	OF-FA-CR-03-01
Description	Description of the freight agreement	OF LTL Japan
Purchasing Organization	Default purchasing organization	OAF-FWH-05
Carrier	Carrier for which this freight agreement is to be defined	OAF-CR-03
Valid From	Validity date range	2011-01-01
Valid To		2099-12-31

Agreement Priority	Priority of the agreement	5
Document currency	Agreement currency	JPY

21. In the *Items* screen area, enter the following data by choosing ▌*Insert*❯ *Insert Product*❯:

Field	Description	Value
Item Number	Item number	100
Calculation Sheet	Assign the calculation sheet once only. The details from this sheet are copied for each item.	OAF-TCCS-CR-LTL-JP
Dimensional Weight Profile	Dimensional weight profile	ZOAF_LAND3

22. Once you have entered your data, release the freight agreement by choosing ▌*Set Status*❯ *Released*❯.

23. Choose *Save*.

24. Create another freight agreement for the LTL stage type. Enter the following data:

Field	Description	Value
Agreement	Agreement ID	OF-FA-CR-04-01
Description	Description of the freight agreement	OF LTL Japan
Purchasing Organization	Default purchasing organization	OAF-FWH-01
Carrier	Carrier for which this freight agreement is to be defined	OAF-CR-04
Valid From	Validity date range	2011-01-01
Valid To		2099-12-31
Agreement Priority	Priority of the agreement	5
Document currency	Agreement currency	JPY

25. In the *Items* screen area, enter the following data by choosing ▌*Insert*❯ *Insert Product*❯:

Field	Description	Value
Item Number	Item number	100
Calculation Sheet	Assign the calculation sheet once only. The details from this sheet are copied for each item.	OAF-TCCS-CR-LTL-JP
Dimensional Weight Profile	Dimensional weight profile	ZOAF_LAND3

26. Once you have entered your data, release the freight agreement by choosing ▶ *Set Status* ▶ *Released* ▶.

27. Choose *Save*.

28. Create another freight agreement for the LTL stage type. Enter the following data:

Field	Description	Value
Agreement	Agreement ID	`OF-FA-CR-05-01`
Description	Description of the freight agreement	`OF LTL USA`
Purchasing Organization	Default purchasing organization	`OAF-FWH-22`
Carrier	Carrier for which this freight agreement is to be defined	`OAF-CR-05`
Valid From	Validity date range	`2011-01-01`
Valid To		`2099-12-31`
Agreement Priority	Priority of the agreement	`5`
Document currency	Agreement currency	`USD`

29. In the *Items* screen area, enter the following data by choosing ▶ *Insert* ▶ *Insert Product* ▶:

Field	Description	Value
Item Number	Item number	`100`
Calculation Sheet	Assign the calculation sheet once only. The details from this sheet are copied for each item.	`OAF-TCCS-CR-LTL-US`
Dimensional Weight Profile	Dimensional weight profile	`ZOAF_LAND3`

30. Once you have entered your data, release the freight agreement by choosing ▶ *Set Status* ▶ *Released* ▶.

31. Choose *Save*.

32. Create another freight agreement for the LTL stage type. Enter the following data:

Field	Description	Value
Agreement	Agreement ID	`OF-FA-CR-06-01`
Description	Description of the freight agreement	`OF LTL USA`
Purchasing Organization	Default purchasing organization	`OAF-FWH-21`

Carrier	Carrier for which this freight agreement is to be defined	`OAF-CR-06`
Valid From	Validity date range	`2011-01-01`
Valid To		`2099-12-31`
Agreement Priority	Priority of the agreement	`5`
Document currency	Agreement currency	`USD`

33. In the *Items* screen area, enter the following data by choosing ▶ *Insert* ▶ *Insert Product* ▶:

Field	**Description**	**Value**
Item Number	Item number	`100`
Calculation Sheet	Assign the calculation sheet once only. The details from this sheet are copied for each item.	`OAF-TCCS-CR-LTL-US`
Dimensional Weight Profile	Dimensional weight profile	`ZOAF_LAND3`

34. Once you have entered your data, release the freight agreement by choosing ▶ *Set Status* ▶ *Released* ▶.

35. Choose *Save*.

9.1.5 Defining Forwarding Agreement Types

You use the forwarding agreement type to define the shipper/consignee-relevant pricing structure. The forwarding agreement type is determined in the charge calculation process in the forwarding order

Procedure

1. In Customizing for *Transportation Management*, choose ▶ *Master Data* ▶ *Agreements and Service Products* ▶ *Define FWA and Service Product Catalog Types* ▶

2. Enter the following data:

Field	Value
Forw. Ord Type	OF07
Short Description	OF: Forwarding Agreement
Default Agr.Type	Deselect
Track Changes	Select
Multiple Parties	Select
Agr. No. Range	01

3. Save your entries and ignore any warning messages.

4. Highlight the line of the forwarding agreement OF07 and choose *Specify Preconditions*.

5. Create two new entries for preconditions:

   o SHIPMENT (shipment type)

   o STAGE_CAT (stage category)

6. Save your entries.

More Information

Defining Forwarding Agreements [Page 154]

⟫ 9.1.5.1 Defining Forwarding Agreements

Procedure

Creating a Forwarding Agreement for a Consignee (Main and On-Carriage)

1. In SAP NetWeaver Business Client (NWBC), choose ▶ *Forwarding Agreement Management* ▶ *Forwarding Agreements* ▶ *Create Forwarding Agreement* ▶.

2. Select agreement type `OF07`, and choose *Continue*.

3. Enter the following data:

Field	Value
Agreement	`OF-FWA-CO`
Agreement Desc:	`FWA for OF-CO`
Valid From	`2011-01-01`
Valid To	`2012-12-31`
Document Currency	`USD`
Shipping Type	`2 (LCL)`
Organizational Unit	`OF-FWH-21` `OF-FWH-22`
Business Partner	`OAF-CO-01` `OAF-CO-02` `OAF-CO-03` `OAF-CO-04`

4. Navigate to the *Item* tab page. Enter the following data by choosing ▶ *Insert* ▶ *Insert Service Product* ▶:

Field	Value
Item Number	`100`
Calculation Sheet	`OF-TCCS-MAIN`
Stage Category	`Main Carriage`
Item Number	`200`
Calculation Sheet	`OAF-TCCS-ON`
Stage Category	`On-Carriage`

---

5. Once you have entered your data, release the agreement by choosing ▐▶ *Set Status* ▶ *Released* ◣.

6. Save your entries.

Creating a Forwarding Agreement for a Customer (Shipper)

1. In SAP NetWeaver Business Client (NWBC), choose ▐▶ *Forwarding Agreement Management* ▶ *Forwarding Agreements* ▶ *Create Forwarding Agreement* ◣.

2. Select forwarding agreement type `OF07` and choose *Continue*.

3. Enter the following data:

Field	Value
Agreement	OF-FWA-CU-01
Agreement Desc:	FWA for CU-01
Valid From	2011-01-01
Valid To	2012-12-31
Document Currency	JPY
Shipping Type	2
Organizational Unit	OF-FWH-01 OF-FWH-05
BP Number	OAF-CU-01

4. Navigate to the *Item* tab page and enter the following data by choosing ▐▶ *Insert* ▶ *Insert Service Product* ◣:

Field	Value
Item Number	100
Calculation Sheet	OAF-TCCS-PRE
Stage Category	Pre-Carriage
Dimensional Weight Profile	ZOAF_LAND3
Item Number	200
Calculation Sheet	OF-TCCS-MAIN
Stage Category	Main Carriage
Dimensional Weight Profile	ZOF_SEA
Item Number	300
Calculation Sheet	OAF-TCCS-ON

Stage Category	`On-Carriage`
Dimensional Weight Profile	`ZOAF_LAND3`

5. Once you have entered your data, release the agreement by choosing ▶ *Set Status* ▶ *Released* ▶.

6. Save your entries.

7. In SAP NetWeaver Business Client (NWBC), choose ▶ *Forwarding Agreement Management* ▶ *Forwarding Agreements* ▶ *Create Forwarding Agreement* ▶.

8. Select agreement type `OF07` and choose *Continue*.

9. Enter the following data:

Field	Value
Agreement	`OF-FWA-CU-02`
Agreement Desc:	`FWA for CU-02`
Valid From	`2011-01-01`
Valid To	`2012-12-31`
Document Currency	`JPY`
Shipping Type	`2`

Organizational Unit	`OF-FWH-01`
	
	`OF-FWH-05`

BP Number	`OAF-CU-02`

10. Navigate to the *Item* tab page.Enter the following data:

Field	Value
Item Number	`100`
Calculation Sheet	`OAF-TCCS-PRE`
Stage Category	`Pre-Carriage`
Dimensional Weight Profile	`ZOAF_LAND3`
Item Number	`200`
Calculation Sheet	`OF-TCCS-MAIN`
Stage Category	`Main Carriage`
Dimensional Weight Profile	`ZOF_SEA`
Item Number	`300`

Calculation Sheet	`OAF-TCCS-ON`
Stage Category	`On-Carriage`
Dimensional Weight Profile	`ZOAF_LAND3`

11. Once you have entered your data, release the agreement by choosing ▶ *Set Status* ▶ *Released* ▶.

12. Save your entries.

13. In SAP NetWeaver Business Client (NWBC), choose ▶ *Forwarding Agreement Management* ▶ *Forwarding Agreements* ▶ *Create Forwarding Agreement* ▶.

14. Select agreement type `OF07` and choose *Continue*.

15. Enter the following data:

Field	Value
Agreement	`OF-FWA-CU-03`
Agreement Desc:	`FWA for CU-03`
Valid From	`2011-01-01`
Valid To	`2012-12-31`
Document Currency	`JPY`
Shipping Type	`2`
Organizational Unit	`OF-FWH-01` `OF-FWH-05`
BP Number	`OAF-CU-03`

16. Navigate to the *Item* tab page.Enter the following data:

Field	Value
Item Number	`100`
Calculation Sheet	`OAF-TCCS-PRE`
Stage Category	`Pre-Carriage`
Dimensional Weight Profile	`ZOAF_LAND3`
Item Number	`200`
Calculation Sheet	`OF-TCCS-MAIN`
Stage Category	`Main Carriage`
Dimensional Weight Profile	`ZOF_SEA`

Item Number	300
Calculation Sheet	OAF-TCCS-ON
Stage Category	On-Carriage
Dimensional Weight Profile	ZOAF_LAND3

17. Once you have entered your data, release the agreement by choosing ▶ Set Status ▶ Released ◢.

18. Save your entries.

19. In SAP NetWeaver Business Client (NWBC), choose ▶ Forwarding Agreement Management ▶ Forwarding Agreements ▶ Create Forwarding Agreement ◢.

20. Select agreement type OF07 and choose Continue.

21. Enter the following data:

Field	Value
Agreement	OF-FWA-CU-04
Agreement Desc:	FWA for CU-04
Valid From	2011-01-01
Valid To	2012-12-31
Document Currency	JPY
Shipping Type	2
Organizational Unit	OF-FWH-01

OF-FWH-05 |
| BP Number | OAF-CU-04 |

22. Navigate to the Item tab page. Enter the following data:

Field	Value
Item Number	100
Calculation Sheet	OAF-TCCS-PRE
Stage Category	Pre-Carriage
Dimensional Weight Profile	ZOAF_LAND3
Item Number	200
Calculation Sheet	OF-TCCS-MAIN
Stage Category	Main Carriage

Dimensional Weight Profile	`ZOF_SEA`
Item Number	`300`
Calculation Sheet	`OAF-TCCS-ON`
Stage Category	`On-Carriage`
Dimensional Weight Profile	`ZOAF_LAND3`

23. Once you have entered your data, release the agreement by choosing ▶ *Set Status* ▶ *Released* ◢.

24. Save your entries.

⟫ 9.1.6 Defining Settlement Profiles

Use this procedure to define the profile for creating invoices. The settlement profile comprises a set of parameters that you can use to control how the system creates invoices.

You can assign the specified settlement profile to an organizational unit in transaction `/SCMTMS/TCM_FASET`.

If you do not specify a settlement profile, the system uses standard default settings to create settlement documents.

Procedure

1. In Customizing for *Transportation Management*, choose ▶ *Settlement* ▶ *Define Settlement Profile* ◤.

2. Choose *New Entries*.

3. Enter the following data:

Field	Description	Value
Settlement Prof	Settlement profile	`OAF_SP_01`
Description.	Description	`OAF Settlement Profile`
Profile Category	Determines whether profile is valid for freight or forwarding settlement or both	`Forwarding and Freight Settlement`
Data Source	Identifies the data source to be used when creating settlement documents	`Planned Data`
Split/Cons	Defines the split and consolidation criteria for generating settlement documents	Blank
Calculation Option	Specifies how the values are calculated when the invoice is created. You can copy fixed charges and recalculate others, or copy all charges.	`B` – Copy All Charges
Collective Invoice	Collective invoice	Blank
Stage Split	Stage split	Blank

4. Save your entries.

9.1.7 Configuring Organizational Settings for Charge Elements

Procedure

Define Calculation Profile

1. In Customizing for *Transportation Management*, choose ❯ *Basic Functions* ❯ *Charge Calculation* ❯ *Basic Settings for Charge Calculation* ❯ *Define Calculation Profile* ❯.

2. Choose *New Entries*.

3. Enter the following data:

Field	Description	Value
Calculation Profile	Calculation profile	`OAF-CP-01`
Description	Description of profile	`OAF Calculation Profile 1`
Calc. Date Type	Calculation date type	`<Expected start date of main carriage>`
Calculation Level	Calculation level	`Calculation at stage level`
Agr. Det. Rules	Agreement Determination Rule	Blank
Through Rates	Through rates	Select
Dim. WT Profile	Dimensional weight profile	`I166`
Dim Wt. Cond.	Condition for dimensional weight profile determination	Blank
Exch. Rate Type	Exchange rate type	Blank
Data Source	Data source	`Actual Route`

4. Save your entries.

5. Chose *Copy as...* to copy the calculation sheet you have just created and change the following settings:

Field	Description	Value
Calculation Profile	Calculation profile	`OAF-CP-02`
Description	Description of profile	`OAF Calculation Profile 2`
Calculation Level	Calculation level	`Calculation at stage level`

Agr. Det. Rules	Agreement Determination Rule	Blank
Through Rates	Through rates	Select
Dim. WT Profile	Dimensional weight profile	`I166`
Dim Wt. Cond.	Condition for dimensional weight profile determination	Blank
Exch. Rate Type	Exchange rate type	Blank
Data Source	Data source	`Actual Route`

6. Save your entries.

Define Cost Distribution Profile

1. In Customizing for *Transportation Management*, choose ▶ *Basic Functions* ▶ *Cost Distribution* ▶ *Define Cost Distribution Profiles* ▶.

2. Choose *New Entries.*

3. Enter the following data:

Field	Value
Distr. Profile	`DIR_FWO_NW`
Description	`Direct Forwarding Order Item – Net Weight`
Distr. Method	`Direct`
Distribution Rule	`03 Net Weight`
Distr. Level	`1 Forwarding Order`

4. Save your entries.

Define General Settings

1. In Customizing for *Transportation Management*, choose ▶ *Basic Functions* ▶ *Charge Calculation* ▶ *Basic Settings for Charge Calculation* ▶ *Define General Settings* ▶.

2. Choose *New Entries.*

3. Enter the following data:

Field	Description	Value
Org. Unit	Forwarding house	Select the `Org-ID` number that belongs to `OAF-FWH-01` (FH Station Nagoya). You noted this number in Creating Forwarding Houses [Page 65].

Default Purch. Org.	Default purchasing organization	Select the `Org-ID` number that belongs to `OAF-FWH-01` (FH Station Nagoya). You noted this number in [Creating Forwarding Houses](#) [Page 65].
Default Carrier	Carrier	Blank
Settlement Prof	Settlement profile	`OAF_SP_01`
Settlement Prof. Det. Cond.	Determination condition	Blank
Calculation Profile	Calculation profile	`OAF-CP-01`
Purchasing Calculation Profile	Calculation profile	`OAF-CP-02`
Local Currency	Local currency	`USD` for U.S. forwarding houses `JPY` for Japanese forwarding houses
Default Charges View	Default charges	Blank
Dist. Prf.	Distribution Profile	`DIR_FWO_NW`

4. Save your entries.

5. Repeat the above steps to create a separate entry for the following forwarding houses:

Company	Forwarding Houses		
OAF-COMP-JP	OAF-FWH-01	FH Station	Nagoya
	OF-FWH-03	FH CFS	Yokohama
	OAF-FWH-04	FH Station	Hiroshima
	OAF-FWH-05	FH Station	Tokyo
OAF-COMP-US	OF-FWH-20	FH CFS	Los Angeles
	OAF-FWH-21	FH Station	Phoenix
	OAF-FWH-22	FH Station	San Diego
	OAF-FWH-25	FH Station	San Francisco

6.

More Information

[Creating Companies](#) [Page 62]

[Creating Forwarding Houses](#) [Page 65]

9.2 Charge Management: Freight Order

Defining Rate Tables – Main Carriage

Rates are maintained in rate tables, which use the scales specified in Defining Scales [Page 100]. In this scenario, the following scales are assigned to the rate tables:

Rate Table	Used Scales	Charge Type Assigned
OF-RATE-600	• OAF-SCALE-SOURCE-LOC • OF-SCALE-LOC • OF-SCALE-EQU	FB00
OF-RATE-601	• OAF-SCALE-SOURCE-LOC • OF-SCALE-LOC • OF-SCALE-EQU	BAF
OF-RATE-602	• OAF-SCALE-SOURCE-LOC • OF-SCALE-LOC • OF-SCALE-EQU	THCO
OF-RATE-603	• OAF-SCALE-SOURCE-LOC • OF-SCALE-LOC • OF-SCALE-EQU	THCD
OF-RATE-604	• OAF-SCALE-SOURCE-LOC • OF-SCALE-LOC • OF-SCALE-EQU	PEAK
OF-RATE-605	• OAF-SCALE-SOURCE-LOC • OF-SCALE-LOC • OF-SCALE-EQU	LSFS

For the relevant procedure, see Defining Rate Table - Main Carriage [Page 166].

Defining Rate Tables – Trucking Rates

Rates are maintained in rate tables, which use the scales specified in Defining Scales [Page 100]. In this scenario, the following rate tables are defined for trucking:

- Pickup LTL [Page 176] (less than a truck load)

- Pre-Carriage FTL [Page 179] (full truck load)

- On-Carriage FTL [Page 182]

- Delivery LTL [Page 184]

Calculation Sheets

Within a freight order or forwarding order, the applicable charges are calculated on the basis of a calculation sheet.

The following calculation sheets are defined:

- Pickup [Page 192]

- Pre-carriage [Page 194]

- Main carriage [Page 186]

⏵⏵ 9.2.1 Defining Rate Table: Main Carriage

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose ⏵ *Master Data* ⏵ *Charge Management and Service Product Catalogs* ⏵ *Rate Tables* ⏵ *Create Rate Table Definition* ⏵.

2. On the *Create Rate Table* screen, create the following entry:

Field	Description	Value
General Data		
Rate Table	Unique identifier for the rate table	`OF-RATE-600`
Description	Description of the table	`Carrier Rate Ocean Freight`
Charge Usage	This indicator identifies in which situation this rate table can be used. It can be used for Customer Billing integration and/or Supplier Invoice integration, or neither.	`Service Provider`
Charge Type	This is where the charge type is linked for integration with SAP ERP.	`FB00`
Charge Category	This defaults from the charge type definition above.	`004`
Charge Subcategory	This defaults from the charge type definition above.	`100000`
Positive/Negative	This defaults from the charge type definition above.	Positive Value
Value	This defaults from the charge type definition above.	Absolute Value
Scales		
Scale Dimension Number	On the rate table, this defines a row (x-axis) or a column (y-axis). You can have multiple scales (up to 9) in a rate table.	`1` for the first scale (Region based)
Reference Scale	Assign the scales here for all carriers, which were defined above. This enables the entries in the rate table as in the sequence.	1. `OAF-SCALE-SOURCE-LOC` 2. `OAF-SCALE-DEST-LOC` 3. `OF-SCALE-EQU`

Calculation Base	This determines how the values are stored and determined for this dimension. There are predefined sources of information based on the object.	1. `SOURCELOC` 2. `DESTLOC` 3. `EQUIP_TYPE`
Minimum Value	Minimum value	Deselect
Maximum Value	Maximum value	Deselect
Rel. Calc. Method	Relative Calculation method	Deselect
Dates and Values		
Valid-From Date	The valid-from date for the rate table	`2011-01-01`
Valid-To Date	The valid-to date for the rate table	`2099-12-31`
Aggreg. Rate Description	Aggregated rate description	`Main Carriage`
Currency	A currency that is applicable for this rate table	`USD`

3. On the *Dates and Values* tab page, highlight the newly created line. A new table appears below, where you can enter the specific rates.

4. Choose *Insert*, and maintain the following rates:

Source Location	Destination Location	Equipment Type	Value
`OF-JPYOK`	`OF-USLGB`	`22GP`	`1200`
`OF-JPYOK`	`OF-USLGB`	`44G0`	`1900`

5. Once you have entered your data, release the rate table by choosing ▶ *Set Status* ▶ *Released* ❯.

6. Save your entries.

7. On the *Create Rate Table* screen, create a new entry for BAF.Enter the following data:

Field	Description	Value
General Data		
Rate Table	Unique identifier for the rate table	`OF-RATE-601`
Description	Description of the table	`Carrier Rate Ocean Freight - BAF`
Charge Usage	This indicator identifies in which situation this rate table can be used. It can be used	`Service Provider`

	for Customer Billing integration and/or Supplier Invoice integration, or neither.	
Charge Type	This is where the charge type is linked for integration with SAP ERP.	`BAF`
Charge Category	This defaults from the charge type definition above.	`012`
Charge Subcategory	This defaults from the charge type definition above.	`103001`
Positive/Negative	This defaults from the charge type definition above.	Positive Value
Value	This defaults from the charge type definition above.	Absolute Value
Scales		
Scale Dimension Number	On the rate table, this defines a row (x-axis) or a column (y-axis). You can have multiple scales (up to 9) in a rate table.	`1` for the first scale (Region based)
Reference Scale	Assign the scales here for all carriers, which were defined above. This enables the entries in the rate table as in the sequence.	1. `OAF-SCALE-SOURCE-LOC` 2. `OAF-SCALE-DEST-LOC` 3. `OF-SCALE-EQU`
Calculation Base	This determines how the values are stored and determined for this dimension. There are predefined sources of information based on the object.	1. `SOURCELOC` 2. `DESTLOC` 3. `EQUIP_TYPE`
Minimum Value	Minimum value	Deselect
Maximum Value	Maximum value	Deselect
Rel. Calc. Method	Relative Calculation method	Deselect
Dates and Values		
Valid-From Date	The valid-from date for the rate table	`2011-01-01`
Valid-To Date	The valid-to date for the rate table	`2099-12-31`
Aggreg. Rate Description	Aggregated rate description	`Main Carriage`
Currency	A currency that is applicable	`USD`

	for this rate table	

8. On the *Dates and Values* tab page, highlight the newly created line. A new table appears below, where you can enter the specific rates.

9. Choose *Insert* and maintain the following rates:

Source Location	Destination Location	Equipment Type	Value
OF-JPYOK	OF-USLGB	22GP	400
OF-JPYOK	OF-USLGB	42G0	1700

10. Once you have entered your data, release the rate table by choosing ▶ *Set Status* ❯ *Released* ❯.

11. Save your entries.

12. On the *Create Rate Table* screen, create a new entry for THC POL.Enter the following data:

Field	Description	Value
General Data		
Rate Table	Unique identifier for the rate table	OF-RATE-602
Description	Description of the table	Carrier Rate Ocean Freight - THC (POL)
Charge Usage	This indicator identifies in which situation this rate table can be used. It can be used for Customer Billing integration and/or Supplier Invoice integration, or neither.	Service Provider
Charge Type	This is where the charge type is linked for integration with SAP ERP.	THCO
Charge Category	This defaults from the charge type definition above.	010
Charge Subcategory	This defaults from the charge type definition above.	104007
Positive/Negative	This defaults from the charge type definition above.	Positive Value
Value	This defaults from the charge type definition above.	Absolute Value
Scales		
Scale Dimension Number	On the rate table, this defines a row (x-axis) or a column (y-	1 for the first scale (Region

Field	Description	Value
	axis). You can have multiple scales (up to 9) in a rate table.	based)
Reference Scale	Assign the scales here for all carriers, which were defined above. This enables the entries in the rate table as in the sequence.	1. OAF-SCALE-SOURCE-LOC 2. OAF-SCALE-DEST-LOC 3. OF-SCALE-EQU
Calculation Base	This determines how the values are stored and determined for this dimension. There are predefined sources of information based on the object.	1. SOURCELOC 2. DESTLOC 3. EQUIP_TYPE
Minimum Value	Minimum value	Deselect
Maximum Value	Maximum value	Deselect
Rel. Calc. Method	Relative Calculation method	Deselect
Dates and Values		
Valid-From Date	The valid-from date for the rate table	2011-01-01
Valid-To Date	The valid-to date for the rate table	2099-12-31
Aggreg. Rate Description	Aggregated rate description	Main Carriage
Currency	A currency that is applicable for this rate table	USD

13. On the *Dates and Values* tab page, highlight the newly created line. A new table appears below, where you can enter the specific rates.

14. Choose *Insert* and maintain the following rates:

Source Location	Destination Location	Equipment Type	Value
OF-JPYOK	OF-USLGB	22GP	240
OF-JPYOK	OF-USLGB	42G0	240

15. Once you have entered your data, release the rate table by choosing ▶ *Set Status* ▶ *Released* ◢.

16. Save your entries.

17. On the *Create Rate Table* screen, create a new entry for THCD (PoD).Enter the following data:

Field	Description	Value
General Data		

Rate Table	Unique identifier for the rate table	`OF-RATE-603`
Description	Description of the table	`Carrier Rate Ocean Freight - THC (POD)`
Charge Usage	This indicator identifies in which situation this rate table can be used. It can be used for Customer Billing integration and/or Supplier Invoice integration, or neither.	`Service Provider`
Charge Type	This is where the charge type is linked for integration with SAP ERP.	`THCD`
Charge Category	This defaults from the charge type definition above.	`007`
Charge Subcategory	This defaults from the charge type definition above.	`104007`
Positive/Negative	This defaults from the charge type definition above.	Positive Value
Value	This defaults from the charge type definition above.	Absolute Value
Scales		
Scale Dimension Number	On the rate table, this defines a row (x-axis) or a column (y-axis). You can have multiple scales (up to 9) in a rate table.	`1` for the first scale (Region based)
Reference Scale	Assign the scales here for all carriers, which were defined above. This enables the entries in the rate table as in the sequence.	1. `OAF-SCALE-SOURCE-LOC` 2. `OAF-SCALE-DEST-LOC` 3. `OF-SCALE-EQU`
Calculation Base	This determines how the values are stored and determined for this dimension. There are predefined sources of information based on the object.	1. `SOURCELOC` 2. `DESTLOC` 3. `EQUIP_TYPE`
Minimum Value	Minimum value	Deselect
Maximum Value	Maximum value	Deselect
Rel. Calc. Method	Relative Calculation method	Deselect
Dates and Values		

Valid-From Date	The valid-from date for the rate table	`2011-01-01`
Valid-To Date	The valid-to date for the rate table	`2099-12-31`
Aggreg. Rate Description	Aggregated rate description	`Main Carriage`
Currency	A currency that is applicable for this rate table	`USD`

18. On the *Dates and Values* tab page, highlight the newly created line. A new table appears below, where you can enter the specific rates.

19. Choose *Insert* and maintain the following rates:

Source Location	Destination Location	Equipment Type	Value
`OF-JPYOK`	`OF-USLGB`	`22GP`	`450`
`OF-JPYOK`	`OF-USLGB`	`42G0`	`550`

20. Once you have entered your data, release the rate table by choosing ▶ *Set Status* ▶ *Released* ◢.

21. Save your entries.

22. On the *Create Rate Table* screen, create a new entry for PSS.Enter the following data:

Field	Description	Value
General Data		
Rate Table	Unique identifier for the rate table	`OF-RATE-604`
Description	Description of the table	`Carrier Rate Ocean Freight- PEAK`
Charge Usage	This indicator identifies in which situation this rate table can be used. It can be used for Customer Billing integration and/or Supplier Invoice integration, or neither.	`Service Provider`
Charge Type	This is where the charge type is linked for integration with SAP ERP.	`PEAK`
Charge Category	This defaults from the charge type definition above.	`008`
Charge Subcategory	This defaults from the charge type definition above.	`103009`
Positive/Negative	This defaults from the charge	Positive Value

	type definition above.	
Value	This defaults from the charge type definition above.	Percentage Value (default)
Scales		
Scale Dimension Number	On the rate table, this defines a row (x-axis) or a column (y-axis). You can have multiple scales (up to 9) in a rate table.	`1` for the first scale (Region based)
Reference Scale	Assign the scales here for all carriers, which were defined above. This enables the entries in the rate table as in the sequence.	1. `OAF-SCALE-SOURCE-LOC` 2. `OAF-SCALE-DEST-LOC` 3. `OF-SCALE-EQU`
Calculation Base	This determines how the values are stored and determined for this dimension. There are predefined sources of information based on the object.	1. `SOURCELOC` 2. `DESTLOC` 3. `EQUIP_TYPE`
Minimum Value	Minimum value	Deselect
Maximum Value	Maximum value	Deselect
Rel. Calc. Method	Relative Calculation method	Deselect
Dates and Values		
Valid-From Date	The valid-from date for the rate table	`2011-01-01`
Valid-To Date	The valid-to date for the rate table	`2099-12-31`
Aggreg. Rate Description	Aggregated rate description	`Main Carriage`
Currency	A currency that is applicable for this rate table	`%`

23. On the *Dates and Values* tab page, highlight the newly created line. A new table appears below, where you can enter the specific rates.

24. Choose *Insert* and maintain the following rates:

Source Location	Destination Location	Equipment Type	Value
`OF-JPYOK`	`OF-USLGB`	`22GP`	`15`
`OF-JPYOK`	`OF-USLGB`	`42G0`	`30`

25. Once you have entered your data, release the rate table by choosing ▶ *Set Status* ▶ *Released* ◢.

26. Save your entries.

27. On the *Create Rate Table Definition* screen, create a new entry for LSFS.Enter the following data:

Field	Description	Value
General Data		
Rate Table	Unique identifier for the rate table	`OF-RATE-605`
Description	Description of the table	`Carrier Rate Ocean Freight - LSFS`
Charge Usage	This indicator identifies in which situation this rate table can be used. It can be used for Customer Billing integration and/or Supplier Invoice integration, or neither.	`Service Provider`
Charge Type	This is where the charge type is linked for integration with SAP ERP.	`LSFS`
Charge Category	This defaults from the charge type definition above.	`008`
Charge Subcategory	This defaults from the charge type definition above.	`103009`
Positive/Negative	This defaults from the charge type definition above.	Positive Value
Value	This defaults from the charge type definition above.	Absolute Value
Scales		
Scale Dimension Number	On the rate table, this defines a row (x-axis) or a column (y-axis). You can have multiple scales (up to 9) in a rate table.	`1` for the first scale (Region based)
Reference Scale	Assign the scales here for all carriers, which were defined above. This enables the entries in the rate table as in the sequence.	1. `OAF-SCALE-SOURCE-LOC` 2. `OAF-SCALE-DEST-LOC` 3. `OF-SCALE-EQU`
Calculation Base	This determines how the values are stored and determined for this dimension. There are predefined sources of information based on the object.	1. `SOURCELOC` 2. `DESTLOC` 3. `EQUIP_TYPE`

Minimum Value	Minimum value	Deselect
Maximum Value	Maximum value	Deselect
Rel. Calc. Method	Relative Calculation method	Deselect
Dates and Values		
Valid-From Date	The valid-from date for the rate table	`2011-01-01`
Valid-To Date	The valid-to date for the rate table	`2099-12-31`
Aggreg. Rate Description	Aggregated rate description	`Main Carriage`
Currency	A currency that is applicable for this rate table	`USD`

28. On the *Dates and Values* tab page, highlight the newly created line. A new table appears below, where you can enter the specific rates.

29. Choose *Insert* and maintain the following rates:

Source Location	Destination Location	Equipment Grouo	Value
`OF-JPYOK`	`OF-USLGB`	`22GP`	`20`
`OF-JPYOK`	`OF-USLGB`	`42G0`	`20`

30. Once you have entered your data, release the rate table by choosing ▌ *Set Status* ▶ *Released* ▶.

31. Save your entries.

⟫ 9.2.2 Defining Rate Table: Truck Rate for Pickup (LTL)

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose ▶ *Master Data* ▶ *Charge Management and Service Product Catalogs* ▶ *Rate Tables* ▶ *Create Rate Table Definition* ▶.

2. On the *Create Rate Table* screen, create the following entry:

Field	Description	Value
General Data		
Rate Table	Unique identifier for the rate table	`OAF-RATE-800`
Description	Description of the table	`Truck Rate for Pickup (LTL)`
Charge Usage	This indicator identifies in which situation this rate table can be used. It can be used for Customer Billing integration and/or Supplier Invoice integration, or neither.	`Service Provider`
Charge Type	This is where the charge type is linked for integration with SAP ERP.	`FB00`
Charge Category	This defaults from the charge type definition above.	`004`
Charge Subcategory	This defaults from the charge type definition above.	`100000`
Positive/Negative	This defaults from the charge type definition above.	Positive Value
Value	This defaults from the charge type definition above.	Absolute Value
Scales		
Scale Dimension Number	On the rate table, this defines a row (x-axis) or a column (y-axis). You can have multiple scales (up to 9) in a rate table.	`1` for the first scale (Region based)
Reference Scale	Assign the scales here for all carriers, which were defined above. This enables the entries in the rate table as in	1. `OAF-SCALE-SOURCE-LOC` 2. `OAF-SCALE-DEST-LOC`

	the sequence.	
Calculation Base	This determines how the values are stored and determined for this dimension. There are predefined sources of information based on the object.	1. SOURCELOC 2. DESTLOC
Minimum Value	Minimum value	Deselect
Maximum Value	Maximum value	Deselect
Rel. Calc. Method	Relative Calculation method	Deselect
Dates and Values		
Valid-From Date	The valid-from date for the rate table	2011-01-01
Valid-To Date	The valid-to date for the rate table	2099-12-31
Aggreg. Rate Description	Aggregated rate description	Pre-Carriage
Currency	A currency that is applicable for this rate table	JPY

3. On the *Dates and Values* tab page, highlight the newly created line. A new table appears below, where you can enter the specific rates.

4. Choose *Insert*, and maintain the following rates:

Source Location	Destination Location	Value
CUOAF-CU-01@ERP001	OAF-STA-JPTYO	5500
CUOAF-CU-02@ERP001	OAF-STA-JPTYO	5500
CUOAF-CU-03@ERP001	OAF-STA-JPTYO	5500
CUOAF-CU-04@ERP001	OAF-STA-JPTYO	5500
CUOAF-CU-01@ERP001	OAF-STA-JPNGO	5000
CUOAF-CU-02@ERP001	OAF-STA-JPNGO	5000
CUOAF-CU-03@ERP001	OAF-STA-JPNGO	5000
CUOAF-CU-04@ERP001	OAF-STA-JPNGO	5000

5. On the *Calculation Rules* tab page, select the following values:

Field	Value
Calculation base	CHRG_WEIGHT
Application Level of Calculation Rule	Rate Table

Price Unit	100
Unit of Measure	KG

6. Release your rate table.

7. Save your entries.

⏭ 9.2.3 Defining Rate Table: Truck Rate for Pre-Carriage (FTL)

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose ▶ *Master Data* ▶ *Charge Management and Service Product Catalogs* ▶ *Rate Tables* ▶ *Create Rate Table Definition* ▶.

2. On the *Create Rate Table* screen, create a new entry.Enter the following data:

Field	Description	Value
General Data		
Rate Table	Unique identifier for the rate table	`OAF-RATE-801`
Description	Description of the table	`Truck Rate for Pre-Carriage (FTL)`
Charge Usage	This indicator identifies in which situation this rate table can be used. It can be used for Customer Billing integration and/or Supplier Invoice integration, or neither.	`Service Provider`
Charge Type	This is where the charge type is linked for integration with SAP ERP.	`FB00`
Charge Category	This defaults from the charge type definition above.	`004`
Charge Subcategory	This defaults from the charge type definition above.	`100000`
Positive/Negative	This defaults from the charge type definition above.	Positive Value
Value	This defaults from the charge type definition above.	Absolute Value
Scales		
Scale Dimension Number	On the rate table, this defines a row (x-axis) or a column (y-axis). You can have multiple scales (up to 9) in a rate table.	`1` for the first scale (Region based)
Reference Scale	Assign the scales here for all carriers, which were defined above. This enables the entries in the rate table as in	1. `OAF-SCALE-SOURCE-LOC` 2. `OAF-SCALE-DEST-LOC`

---

	the sequence.	
Calculation Base	This determines how the values are stored and determined for this dimension. There are predefined sources of information based on the object.	1. SOURCELOC 2. DESTLOC
Minimum Value	Minimum value	Deselect
Maximum Value	Maximum value	Deselect
Rel. Calc. Method	Relative Calculation method	Deselect
Dates and Values		
Valid-From Date	The valid-from date for the rate table	2011-01-01
Valid-To Date	The valid-to date for the rate table	2099-12-31
Aggreg. Rate Description	Aggregated rate description	Pre-Carriage
Currency	A currency that is applicable for this rate table	JPY

3. On the *Dates and Values* tab page, highlight the newly created line. A new table appears below, where you can enter the specific rates.

4. Choose *Insert*, and maintain the following rates:

Source Location	Destination Location	Value
OAF-STA-JPTYO	OF-CFS-JPYOK	200
OAF-STA-JPNGO	OF-CFS-JPYOK	180
CUOAF-CU-01@ERP001	OF-CFS-JPYOK	4000
CUOAF-CU-02@ERP001	OF-CFS-JPYOK	4150
CUOAF-CU-03@ERP001	OF-CFS-JPYOK	4400
CUOAF-CU-04@ERP001	OF-CFS-JPYOK	4250

5. On the *Calculation Rules* tab page, select the following values:

Field	Value
Calculation base	ACTUAL_DIST
Application Level of Calculation Rule	Rate Table
Price Unit	1

Unit of Measure	MI

6. Once you have entered your data, release the rate table by choosing ▷ *Set Status* ❯ *Released* ◢.

7. Save your entries.

9.2.4 Defining Rate Table: Truck Rate for On-Carriage (FTL)

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose ▶ *Master Data* ▶ *Charge Management and Service Product Catalogs* ▶ *Rate Tables* ▶ *Create Rate Table Definition* ▶.

2. On the *Create Rate Table* screen, create the following entry:

Field	Description	Value
General Data		
Rate Table	Unique identifier for the rate table	`OAF-RATE-850`
Description	Description of the table	`Truck Rate for On-Carriage (FTL)`
Charge Usage	This indicator identifies in which situation this rate table can be used. It can be used for Customer Billing integration and/or Supplier Invoice integration, or neither.	`Service Provider`
Charge Type	This is where the charge type is linked for integration with SAP ERP.	`FB00`
Charge Category	This defaults from the charge type definition above.	`004`
Charge Subcategory	This defaults from the charge type definition above.	`100000`
Positive/Negative	This defaults from the charge type definition above.	Positive Value
Value	This defaults from the charge type definition above.	Absolute Value
Scales		
Scale Dimension Number	On the rate table, this defines a row (x-axis) or a column (y-axis). You can have multiple scales (up to 9) in a rate table.	`1` for the first scale (Region based)
Reference Scale	Assign the scales here for all carriers, which were defined above. This enables the entries in the rate table as in the sequence.	1. `OAF-SCALE-SOURCE-LOC` 2. `OAF-SCALE-DEST-LOC`
Calculation Base	This determines how the values are stored and determined for this dimension. There are predefined sources of information based on the object.	1. `SOURCELOC` 2. `DESTLOC`

Scale Type	None	For both scales, enter `Same Scale (=).`
Minimum Value	Minimum value	Deselect
Maximum Value	Maximum value	Deselect
Rel. Calc. Method	Relative Calculation method	Deselect
Dates and Values		
Valid-From Date	The valid-from date for the rate table	`2011-01-01`
Valid-To Date	The valid-to date for the rate table	`2099-12-31`
Aggreg. Rate Description	Aggregated rate description	`On-Carriage`
Currency	A currency that is applicable for this rate table	`USD`

3. On the *Dates and Values* tab page, highlight the newly created line. A new table appears below, where you can enter the specific rates.

4. Choose *Insert*, and maintain the following rates:

Source Location	**Destination Location**	**Value**
OF-CFS-USLAX	OAF-STA-USPHX	`1.95`
OF-CFS-USLAX	OAF-STA-USSAN	`1.95`
OF-CFS-USLAX	OAF-STA-USSFO	`1.95`

5. On the *Calculation Rules* tab page, select the following values:

Field	**Value**
Calculation base	`ACTUAL_DIST`
Application Level of Calculation Rule	`Rate Table`
Price Unit	`1`
Unit of Measure	`MI`

6. Once you have entered your data, release the rate table by choosing ▶ *Set Status* ▶ *Released* ◣.

7. Save your entries.

9.2.5 Defining Rate Table: Truck Rate for Delivery (LTL)

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose ▶ *Master Data* ▶ *Charge Management and Service Product Catalogs* ▶ *Rate Tables* ▶ *Create Rate Table Definition* ▶.

2. On the *Create Rate Table* screen, create the following entry:

Field	Description	Value
General Data		
Rate Table	Unique identifier for the rate table	`OAF-RATE-851`
Description	Description of the table	`Truck Rate for Delivery (LTL)`
Charge Usage	This indicator identifies in which situation this rate table can be used. It can be used for Customer Billing integration and/or Supplier Invoice integration, or neither.	`Service Provider`
Charge Type	This is where the charge type is linked for integration with SAP ERP.	`FB00`
Charge Category	This defaults from the charge type definition above.	`004`
Charge Subcategory	This defaults from the charge type definition above.	`100000`
Positive/Negative	This defaults from the charge type definition above.	Positive Value
Value	This defaults from the charge type definition above.	Absolute Value
Scales		
Scale Dimension Number	On the rate table, this defines a row (x-axis) or a column (y-axis). You can have multiple scales (up to 9) in a rate table.	`1` for the first scale (Region based)
Reference Scale	Assign the scales here for all carriers, which were defined above. This enables the entries in the rate table as in the sequence.	1. `OAF-SCALE-SOURCE-LOC` 2. `OAF-SCALE-DEST-LOC`
Calculation Base	This determines how the values are stored and determined for this dimension. There are predefined sources of information based on the object.	1. `SOURCELOC` 2. `DESTLOC`
Scale Type	None	For both scales, enter `Same Scale`

		(=).
Minimum Value	Minimum value	Deselect
Maximum Value	Maximum value	Deselect
Rel. Calc. Method	Relative Calculation method	Deselect
Dates and Values		
Valid-From Date	The valid-from date for the rate table	`2011-01-01`
Valid-To Date	The valid-to date for the rate table	`2099-12-31`
Aggreg. Rate Description	Aggregated rate description	`On-Carriage`
Currency	A currency that is applicable for this rate table	`USD`

3. On the *Dates and Values* tab page, highlight the newly created line. A new table appears below, where you can enter the specific rates.

4. Choose *Insert*, and maintain the following rates:

Source Location	Destination Location	Value
OAF-STA-USPHX	CUOAF-CO-01@ERP001	`70`
OAF-STA-USPHX	CUOAF-CO-02@ERP001	`36`
OAF-STA-USSAN	CUOAF-CO-03@ERP001	`25`
OAF-STA-USPHX	CUOAF-CO-04@ERP001	`10`

5. On the *Calculation Rules* tab page, select the following values:

Field	Value
Calculation base	`CHRG_WEIGHT`
Application Level of Calculation Rule	`Rate Table`
Price Unit	`100`
Unit of Measure	`KG`

6. Once you have entered your data, release the rate table by choosing ▶ *Set Status* ▶ *Released* ◣.

7. Save your entries.

9.2.6 Defining Calculation Sheets: Main Carriage

Within a freight order or forwarding order, the applicable charges are calculated on the basis of the calculation sheet.

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*.

3. On the *New Calculation Sheet* screen, enter your data based on the following tables.

4. On the *General Data* tab page, enter the following data in the *Basic Data* screen area:

Field	Description	Value
Calculation Sheet	Unique identifier for the calculation sheet to be defined	`OF-TCCS-CR-MAIN`
Description	Description of the calculation sheet	`Calculation sheet main carriage`
Charge Usage	Indicates whether the calculation sheet is used for customers, vendors (carriers), both, or neither. Furthermore, indicates whether the calculation sheet is used only for decision making during tendering, and so on.	`Service Provider`

5. In the *Items* screen area, choose ▶ *Insert* ▶ *Single Item* ▶ to add a new line item.

6. Select the line for *20*.

   Enter data in the area at the bottom of the screen.

7. On the *Basic Data* tab page, enter the following data:

Field	Description	Value
Instruction Type	Rule to indicate how the charge item is applied for the calculation	`Standard`
Description	Description of the charge item in the calculation sheet	`Basic Freight`
Charge Type	Assigned charge type	`FB00`
Line No	Line number of the item	`20`

Calculation Resolution Base	Indicates the level at which the calculation sheet is to be applied. For example, it can be applied at the header level for the whole freight order or at a particular stage only	CONTAINER
Calculation Method Type	Calculation method type	Standard
Stage Category	Stage category	M - Main Carriage
Shipping Type	Shipping type	Blank

8. On the *Rate* tab page, enter the following data:

Field	Description	Value
Rate Table	Assigned rate table	OF-RATE-600
Currency	Unit of measure for quantitative rate amount	USD

9. In the *Items* screen area, choose ▌ *Insert* ▶ *Single Item* ▌ to add a new line item.

10. Select the line for *30*.

Enter data in the area at the bottom of the screen.

11. On the *Basic Data* tab page, enter the following data:

Field	Description	Value
Instruction Type	Rule to indicate how the charge item is applied for the calculation	Standard
Description	Description of the charge item in the calculation sheet	Bunker Adjustment Factor
Charge Type	Assigned charge type	BAF
Line No	Line number of the item	30
Calculation Resolution Base	Indicates the level at which the calculation sheet is to be applied. For example, it can be applied at the header level for the whole freight order or at a particular stage only	CONTAINER
Calculation Method Type	Calculation method type	Standard
Stage Category	Stage category	M - Main Carriage
Shipping Type	Shipping type	Blank

12. On the *Rate* tab page, enter the following data:

Field	Description	Value
Rate Table	Assigned rate table	OF-RATE-601
Currency	Unit of measure for quantitative amount	USD

13. In the *Items* screen area, choose ▶ *Insert* ❯ *Single Item* ◢ to add a new line item.

14. Select the line for *40*.

Enter data in the area at the bottom of the screen.

15. On the *Basic Data* tab page, enter the following data:

Field	Description	Value
Instruction Type	Rule to indicate how the charge item is applied for the calculation	Standard
Description	Description of the charge item in the calculation sheet	Terminal Handling Charge Origin
Charge Type	Assigned charge type	THCO
Line No	Line number of the item	40
Calculation Resolution Base	Indicates the level at which the calculation sheet is to be applied. For example, it can be applied at the header level for the whole freight order or at a particular stage only	CONTAINER
Calculation Method Type	Calculation method type	Standard
Stage Category	Stage category	M - Main Carriage
Shipping Type	Shipping type	Blank

16. On the *Rate* tab page, enter the following data:

Field	Description	Value
Rate Table	Assigned rate table	OF-RATE-602
Currency	Unit of measure for quantitative amount	USD

17. In the *Items* screen area, choose ▶ *Insert* ❯ *Single Item* ◢ to add a new line item.

18. Select the line for *50*.

Enter data in the area at the bottom of the screen.

19. On the *Basic Data* tab page, enter the following data:

Field	Description	Value
Instruction Type	Rule to indicate how the charge item is applied for the calculation	`Standard`
Description	Description of the charge item in the calculation sheet	`Terminal Handling Charge Destination`
Charge Type	Assigned charge type	`THCD`
Line No	Line number of the item	`50`
Calculation Resolution Base	Indicates the level at which the calculation sheet is to be applied. For example, it can be applied at the header level for the whole freight order or at a particular stage only	`CONTAINER`
Calculation Method Type	Calculation method type	`Standard`
Stage Category	Stage category	`M - Main Carriage`
Shipping Type	Shipping type	Blank

20. On the *Rate* tab page, enter the following data:

Field	Description	Value
Rate Table	Assigned rate table	`OF-RATE-603`
Currency	Unit of measure for quantitative amount	`USD`

21. In the *Items* screen area, choose ▶ *Insert* ❯ *Single Item* ◣ to add a new line item.

22. Select the line for *60*.

   Enter data in the area at the bottom of the screen.

23. On the *Basic Data* tab page, enter the following data:

Field	Description	Value
Instruction Type	Rule to indicate how the charge item is applied for the calculation	`Standard`
Description	Description of the charge item in the calculation sheet	`Peak Season Charge`
Charge Type	Assigned charge type	`PEAK`
Line No	Line number of the item	`60`
Calculation Resolution Base	Indicates the level at which the	`CONTAINER`

	calculation sheet is to be applied. For example, it can be applied at the header level for the whole freight order or at a particular stage only	
Calculation Method Type	Calculation method type	`Standard`
Stage Category	Stage category	`M - Main Carriage`
Shipping Type	Shipping type	Blank

24. On the *Rate* tab page, enter the following data:

Field	**Description**	**Value**
Rate Table	Assigned rate table	`OF-RATE-604`
Currency	Unit of measure for quantitative rate amount. Note that this value is not available from the input help (`F4`); you must enter it manually.	`%`
Ref.-From Line No.	Reference from line number	`20`
Ref.-To Line Number	Reference to line number	`20`

25. In the *Items* screen area, choose ▌ *Insert* ▌ *Single Item* ▌ to add a new line item.

26. Select the line for *70*.

    Enter data in the area at the bottom of the screen.

27. On the *Basic Data* tab page, enter the following data:

Field	**Description**	**Value**
Instruction Type	Rule to indicate how the charge item is applied for the calculation	`Standard`
Description	Description of the charge item in the calculation sheet	`Low Sulfur Surcharge`
Charge Type	Assigned charge type	`LSFS`
Line No	Line number of the item	`70`
Calculation Resolution Base	Indicates the level at which the calculation sheet is to be applied. For example, it can be applied at the header level for the whole freight order or at a particular stage only	`CONTAINER`

Calculation Method Type	Calculation method type	`Standard`
Stage Category	Stage category	`M – Main Carriage`
Shipping Type	Shipping type	Blank

28. On the *Rate* tab page, enter the following data:

Field	Description	Value
Rate Table	Assigned rate table	`OF-RATE-605`
Currency	Unit of measure of quantitative amount	`USD`

29. Save your entries.

⟩⟩ 9.2.7 Defining Calculation Sheets: Pickup (LTL)

Within a freight order or forwarding order, the applicable charges are calculated on the basis of the calculation sheet.

Procedure

1. In SAP NetWeaver Business Client, choose ⟩ *Master Data* ⟩ *Charge Management and Service Product Catalogs* ⟩ *Calculation Sheets* ⟩ *Create Calculation Sheet* ⟩

2. Choose *Continue*.

3. On the *New Calculation Sheet* screen, enter your data based on the following tables.

4. On the *General Data* tab page, enter the following data in the *Basic Data* screen area:

Field	Description	Value
Calculation Sheet	Unique identifier for the calculation sheet to be defined	`OAF-TCCS-CR-LTL-JP`
Description	Description of the calculation sheet	`Calculation sheet pickup`
Charge Usage	Indicates whether the calculation sheet is used for customers, vendors (carriers), both, or neither. Furthermore, indicates whether the calculation sheet is used only for decision making during tendering, and so on.	`Service Provider`

5. In the *Items* screen area, choose ⟩ *Insert* ⟩ *Single Item* ⟩ to add a new line item.

6. Select the line for *20*.

   Enter data in the area at the bottom of the screen.

7. On the *Basic Data* tab page, enter the following data:

Field	Description	Value
Instruction Type	Rule to indicate how the charge item is applied for the calculation	`Standard`
Description	Description of the charge item in the calculation sheet	`Basic Freight`
Charge Type	Assigned charge type	`FB00`
Line No	Line number of the item	`20`
Calculation Resolution Base	Indicates the level at which the calculation sheet is to be	`STAGE`

	applied. For example, it can be applied at the header level for the whole freight order or at a particular stage only	
Calculation Method Type	Calculation method type	`Standard`
Stage Category	Stage category	`P - Pre-Carriage`
Shipping Type	Shipping type	`2 (LCL)`
Dimensional Weight Profile	Dimensional weight profile	`ZOAF_LAND3`

8. On the *Rate* tab page, enter the following data:

Field	**Description**	**Value**
Rate Table	Assigned rate table	`OAF-RATE-800`
Currency	Unit of measure for quantitative amount	`USD`

9. Save your entries.

⟩⟩ 9.2.8 Defining Calculation Sheets: Pre-Carriage (FTL)

Within a freight order or forwarding order, the applicable charges are calculated on the basis of the calculation sheet.

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*.

3. On the *New Calculation Sheet* screen, enter your data based on the following tables.

4. On the *General Data* tab page, enter the following data in the *Basic Data* screen area:

Field	Description	Value
Calculation Sheet	Unique identifier for the calculation sheet to be defined	OAF-TCCS-CR-FTL-JP
Description	Description of the calculation sheet	Calculation sheet pre-carriage
Charge Usage	Indicates whether the calculation sheet is used for customers, vendors (carriers), both, or neither. Furthermore, indicates whether the calculation sheet is used only for decision making during tendering, and so on.	Service Provider

5. In the *Items* screen area, choose ⟩ *Insert* ⟩ *Single Item* ⟩ to add a new line item.

6. Select the line for *20*.

   Enter data in the area at the bottom of the screen.

7. On the *Basic Data* tab page, enter the following data:

Field	Description	Value
Instruction Type	Rule to indicate how the charge item is applied for the calculation	Standard
Description	Description of the charge item in the calculation sheet	Basic Freight
Charge Type	Assigned charge type	FB00
Line No	Line number of the item	20

Calculation Resolution Base	Indicates the level at which the calculation sheet is to be applied. For example, it can be applied at the header level for the whole freight order or at a particular stage only	Blank
Calculation Method Type	Calculation method type	`Standard`
Stage Category	Stage category	`P - Pre-Carriage`
Shipping Type	Shipping type	`2 (LCL)`

8. On the *Rate* tab page, enter the following data:

Field	Description	Value
Rate Table	Assigned rate table	`OAF-RATE-801`
Currency	Unit of measure for quantitative amount	`USD`

9. On the *Preconditions* tab page under *Trade Lanes*, choose *Insert* and enter the following data:

Orientation	Destination Type	Destination Location
To	Location	`OF-CFS-JPYOK`

10. In the *Items* screen area, choose ▶ *Insert* ▶ *Single Item* ▶ to add a new line item.

11. Select the line for *30*.

    Enter data in the area at the bottom of the screen.

12. On the *Basic Data* tab page, enter the following data:

Field	Description	Value
Instruction Type	Rule to indicate how the charge item is applied for the calculation	`Standard`
Description	Description of the charge item in the calculation sheet	`Drayage`
Charge Type	Assigned charge type	`FB00`
Line No	Line number of the item	`30`
Calculation Resolution Base	Indicates the level at which the calculation sheet is to be applied. For example, it can be applied at the header level for the whole freight order or at a particular stage only	Blank

Calculation Method Type	Calculation method type	Standard
Stage Category	Stage category	P - Pre-Carriage
Shipping Type	Shipping type	2 (LCL)

13. On the *Rate* tab page, enter the following data:

Field	**Description**	**Value**
Amount	Fixed Amount for this charge item	20000
Currency	Unit of measure for quantitative amount	JPY

14. On the *Preconditions* tab page under *Trade Lanes*, choose *Insert* and enter the following data:

Orientation	**Source Type**	**Destination Type**	**Source Location**	**Destination Location**
To		Location		OF-JPYOK
From	Location		OF-CFS-JPYOK	

15. Save your entries.

9.2.9 Defining Calculation Sheets: Delivery (LTL)

Within a freight order or forwarding order, the applicable charges are calculated on the basis of the calculation sheet.

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*.

3. On the *New Calculation Sheet* screen, enter your data based on the following tables.

4. On the *General Data* tab page, enter the following data in *Basic Data* screen area:

Field	Description	Value
Calculation Sheet	Unique identifier for the calculation sheet that is to be defined	`OAF-TCCS-CR-LTL-US`
Description	Description of the calculation sheet	`Calculation sheet delivery`
Charge Usage	Indicates whether the calculation sheet is used for customers, vendors (carriers), both, or neither. Also indicates whether the calculation sheet is used only for decision making during tendering, and so on.	`Service Provider`

5. In *Items* screen area, choose ▶ *Insert* ▶ *Single Item* ◀ to add a new line item.

6. Select the line for *20*.

    Enter data in the area at the bottom of the screen.

7. On the *Basic Data* tab page, enter the following data:

Field	Description	Value
Line No	Line number of the item	`20`
Instruction Type	Rule to indicate how the charge item is applied for the calculation	`Standard`
Description	Description of the charge item in the calculation sheet	`Basic Freight`
Charge Type	Assigned charge type	`FB00`

Shipping Type	Shipping type	`2 (LCL)`
Calculation Resolution Base	Indicates the level at which the calculation sheet is to be applied. For example, it can be applied at header level for the whole freight order or at the level of a particular stage only.	Blank
Stage Category	Stage category	`O - On Carriage`
Calculation Method Type	Calculation method type	`Standard`

8. On the *Rate* tab page, enter the following data:

Field	Description	Value
Rate Table	Assigned rate table	`OAF-RATE-851`
Currency	Unit of measure for the quantitative rate amount	`USD`

9. Save your entries.

10. In the *Items* screen area, choose ▶ *Insert* ▷ *Single Item* ◤ to add a new line item.

11. Select the line for 30.

    Enter data in the area at the bottom of the screen.

12. On the *Basic Data* tab page, enter the following data:

Field	Description	Value
Line No	Line number of the item	`30`
Instruction Type	Rule to indicate how the charge item is applied for the calculation	`Standard`
Description	Description of the charge item in the calculation sheet	`Fuel Surcharge`
Charge Type	Assigned charge type	`FUEL`
Shipping Type	Shipping type	`2 (LCL)`
Calculation Resolution Base	Indicates the level at which the calculation sheet is to be applied. For example, it can be applied at header level for the whole freight order or at the level of a particular stage only.	Blank
Stage Category	Stage category	`O - On-Carriage`
Calculation Method Type	Calculation method type	`Standard`

13. On the *Rate* tab page, enter the following data:

Field	Description	Value
Amount	Fixed amount for this charge item	30
Currency	Unit of measure for quantitative rate amount	%
Ref.-From / -To Line No.	Reference to a base rate	20

14. Save your entries.

⟩⟩ 9.2.10 Defining Calculation Sheets: On-Carriage (FTL)

Within a freight order or forwarding order, the applicable charges are calculated on the basis of the calculation sheet.

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*.

3. On the *New Calculation Sheet* screen, enter your data based on the following tables.

4. On the *General Data* tab page, enter the following data in *Basic Data* screen area:

Field	Description	Value
Calculation Sheet	Unique identifier for the calculation sheet to be defined	OAF-TCCS-CR-FTL-US
Description	Description of the calculation sheet	Calculation Sheet On-Carriage
Charge Usage	Indicates whether the calculation sheet is used for customers, vendors (carriers), both, or neither. Furthermore, indicates whether the calculation sheet is used only for decision making during tendering, and so on.	Service Provider

5. In the *Items* screen area, choose ⟩ *Insert* ⟩ *Single Item* ⟩ to add a new line item.

6. Select the line for *20*.

   Enter data in the area at the bottom of the screen.

7. On the *Basic Data* tab page, enter the following data:

Field	Description	Value
Line No	Line number of the item	20
Instruction Type	Rule to indicate how the charge item is applied for the calculation	Standard
Description	Description of the charge item in the calculation sheet	Basic Freight
Charge Type	Assigned charge type	FB00

Shipping Type	Shipping type	`2 (LCL)`
Calculation Resolution Base	Indicates the level at which the calculation sheet is to be applied. For example, it can be applied at header level for the whole freight order or at the level of a particular stage only.	Blank
Stage Category	Stage category	`O - On-Carriage`
Calculation Method Type	Calculation method type	`Standard`

8. On the *Rate* tab page, enter the following data:

Field	Description	Value
Rate Table	Assigned rate table	`OAF-RATE-850`
Currency	Quantitative rate amount Unit of Measure	`USD`

9. On the *Preconditions* tab page under *Trade Lanes*, choose *Insert* and enter the following data:

Orientation	Source Type	Source Location
From	Location	`OF-CFS-USLAX`

10. Save your entries.

11. In the *Items* screen area, choose ▶ *Insert* ❯ *Single Item* ◢ to add a new line item.

12. Select the line for 30.

    Enter data in the area at the bottom of the screen.

13. On the *Basic Data* tab page, enter the following data:

Field	Description	Value
Line No	Line number of the item	`30`
Instruction Type	Rule to indicate how the charge item is applied for the calculation	`Standard`
Description	Description of the charge item in the calculation sheet	`Fuel Surcharge`
Charge Type	Assigned charge type	`FUEL`
Shipping Type	Shipping type	`2 (LCL)`
Calculation Resolution Base	Indicates the level at which the calculation sheet is to be applied. For example, it can be	Blank

---

	applied at header level for the whole freight order or at the level of a particular stage only.	
Stage Category	Stage category	`O - On-Carriage`
Calculation Method Type	Calculation method type	`Standard`

14. On the *Rate* tab page, enter the following data:

Field	Description	Value
Amount	Fixed amount for this charge item	`40`
Currency	Unit of measure for quantitative rate amount	`%`
Ref.-From / -To Line No.	Reference to a base rate	`20`

15. On the *Preconditions* tab page under *Trade Lanes*, choose *Insert* and enter the following data:

Orientation	Source Type	Destination Type	Source Location	Destination Location
From	Location	Blank	OF-CFS-USLAX	Blank

16. Save your entries.

17. In the *Items* screen area, choose ▶ *Insert* ▶ *Single Item* ▶ to add a new line item.

18. Select the line for 40.

   Enter your data in the area at the bottom of the screen.

19. On the *Basic Data* tab page, enter the following data:

Field	Description	Value
Line No	Line number of the item	`40`
Instruction Type	Rule to indicate how the charge item is applied for the calculation	`Standard`
Description	Description of the charge item in the calculation sheet	`Drayage`
Charge Type	Assigned charge type	`FB00`
Shipping Type	Shipping type	`2 (LCL)`
Calculation Resolution Base	Indicates the level at which the calculation sheet is to be applied. For example, it can be applied at header level for the whole freight order or at the	Blank

---

	level of a particular stage only.	
Stage Category	Stage category	`O - On-Carriage`
Calculation Method Type	Calculation method type	`Standard`

20. On the *Rate* tab page, enter the following data:

Field	Description	Value
Amount	Fixed amount for this charge item	`2000`
Currency	Unit of measure for quantitative rate amount	`USD`

21. On the *Preconditions* tab page under *Trade Lanes*, choose *Insert* and enter the following data:

Orientation	Source Type	Destination Type	Source Location	Destination Location
`From`	`Location`	Blank	`OF-USLGB`	Blank
`To`	Blank	`Location`	Blank	`OF-CFS-USLAX`

22. Save your entries.

10 Configuration Settings for Invoice Integration

Use this process to make configuration settings in SAP ERP that enable you to integrate invoice processing in SAP ERP with SAP Transportation Management (SAP TM).

The process requires the following procedures:

- Invoice integration [Page 205]

- Defining default account assignment of cost element [Page 207]

- Assigning organizational units for purchasing [Page 212]

10.1 Invoice Integration

The following documents can be transferred to SAP ERP: *Freight settlement document (FSD)*, and *Forwarding settlement document (FWSD).*

Message Flow Invoice Integration

Forwarding Settlement Requests and Customer Invoices

Message	Description
`CustomerFreightInvoiceRequestSUITERequest_Out_V1`	Send create/change requests for forwarding settlements from TM
`CustomerFreightInvoiceRequestSUITERequest_In_V1`	Receive create/change requests for customer invoices in ERP
`CustomerFreightInvoiceRequestSUITEConfirmation_Out_V1`	Send confirmations for customer invoices from ERP
`CustomerFreightInvoiceRequestSUITEConfirmation_In_V1`	Receive confirmations for forwarding settlements in TM
`CustomerFreightInvoiceRequestSUITECancellationRequest_Out_V1`	Send cancel requests for forwarding settlements from TM
`CustomerFreightInvoiceRequestSUITECancellationRequest_In_V1`	Receive cancel requests for customer invoices in ERP

Freight Settlement Requests and Supplier Invoices

Message	Description
`TransportationOrderSUITEInvoicingPreparationRequest_Out`	Send create/change requests for freight settlements from TM
`TransportationOrderSUITEInvoicingPreparationRequest_In`	Receive create/change requests for supplier invoices in ERP
`TransportationOrderSUITEInvoicingPreparationConfirmation_Out`	Send confirmations for supplier invoices from ERP
`TransportationOrderSUITEInvoicingPreparationConfirmation_In`	Receive confirmations for freight settlements in TM
`TransportationOrderSUITEInvoicingPreparationCancellationRequest_Out`	Send cancel requests for freight settlements from TM
`TransportationOrderSUITEInvoicingPreparationCancellationRequest_In`	Receive cancel requests for supplier invoices in ERP

Invoice Notifications

Message	Description
InvoiceNotification_Out	Send invoice notification from ERP
InvoiceNotification_In	Receive invoice notifications in TM

Activities

In SAP ERP, you maintain the customizing entries for Invoice Integration under ▷ *Integration with Other SAP.com Components* ❯ *Transportation Management* ❯ *Invoice Integration* ◁.

Billing

To integrate FWSD – SD billing document, maintain the following entries:

- The definition of charge elements from SAP TM with the necessary category codes, subcategory codes, and charge types (*Definition for Transportation Charge Elements*)

- There are role codes to be maintained for TM currency and amount (*Definition of Transportation Management Role Codes*)

- Mapping TM charge elements to condition types in SAP ERP (*Assignment of Transportation Charge Elements*)

- Mapping the TM sales organization/sales group to ERP sales organization, type, and document type (*Mapping of Organizational Units*)

Invoicing

To integrate FSD – Service PO/SES documents, maintain the following entries:

- The definition of charge elements from TM with the necessary category codes, subcategory codes, and charge types (*Definition for Transportation Charge Elements*).

- There are role codes to be maintained for TM currency and amount (*Definition of Transportation Management Role Codes*)

- Mapping TM charge elements and types to services and account assignment category in SAP ERP (▷ *Assignment of Transportation Charge Elements* ❯ *Assign Service Master Record and Account Assignment Category* ◁)

- Mapping the TM purchasing organization/group to ERP purchasing organization, group, plant, company code, and purchase order document type (*Mapping of Organizational Units*)

10.2 Defining Default Account Assignment of Cost Element

Procedure

1. In the SAP ERP system, in *Customizing for Controlling*, choose ▶ *Cost Center Accounting* ❯ *Actual Postings* ❯ *Manual Actual Postings* ❯ *Edit Automatic Account Assignment* ◀.

2. Create a new entry with the following data:

Field	Value
Company Code	3000
Cost Element	417000
Cost Center	9010

ⓘ

Check that the cost element is created in ERP for the assigned Controlling Area (in this scenario, this is CO Area 2000).

If the cost element is not created in the Controlling Area, you need to create the cost element in the SAP ERP system using transaction KA01.

Basic settings for invoice integration in the SAP ERP System are described in the *ERP Basic Settings Configuration Guide*.

10.3 Configuring Automatic Posting for Account Determination

Procedure

1. In the SAP ERP system, in Customizing for Materials Management, choose ▶ *Valuation and Account Assignment* ▶ *Account Determination* ▶ *Account Determination Without Wizard* ▶ *Configure Automatic Postings* ▶.

2. Choose *Cancel*, and then *Account Assignment*.

3. Double-click the line *Offsetting entry for inventory posting GBB*, enter `CAJP` for *Chart of Accounts*. Choose *OK*.

4. Choose *New entry* and enter the following data:

Valuation modification	General modification	Valuation class	Debit	Credit
0001	VBR	3200	823510	823510

5. Save your entries.

10.4 Deactivating Profitability Analysis for Controlling Area 5000

Procedure

1. In the SAP ERP system, in *Customizing for Controlling*, choose ▶ *Controlling* ▶ *Profitability Analysis* ▶ *Flows of Actual Values* ▶ *Activate Profitability Analysis* ◢.

2. Change the *Active Status* for controlling area `5000` to blank.

3. Save your entries.

10.5 Unlocking Revenues for Cost Center

Procedure

1. In the SAP ERP system, in *Customizing for Enterprise Structure*, choose ▶ *Definition* ▶ *Controlling* ▶ *Create Cost Centers* ▶.

2. Select *Change Cost Center*.

3. Select cost center `5100` in controlling area `5000`.

4. Navigate to the *Control* tab page.

5. Deselect *Actual revenues* and *Plan revenues*.

6. Save your entries.

10.6 Assigning Cost Center to Cost Element

Procedure

1. In the SAP ERP system in the user menu, choose ▶ *Accounting* ❯ *Controlling* ❯ *Cost Element Accounting* ❯ *Master Data* ❯ *Cost Element* ❯ *Individual Processing* ❯ *KA02 - Change* ◢.

2. Select cost element `811100`.

3. Navigate to the *Default Acct. Assignment* tab page.

4. Enter Cost Center `5100`.

5. Save your entries.

10.7 Assigning Organizational Units for Purchasing

Procedure

1. In the SAP ERP system, navigate to Customizing and choose ▷ *Integration with Other SAP Components* ▷ *Transportation Management* ▷ *Invoice Integration* ▷ *Invoicing* ▷ *Mapping of Organizational Units* ▷ *Assign Organization Units for Purchasing* ◁.

2. Check that mapping has been set up between SAP ERP and the organizational units in SAP TM. If not, create the entries below. Make sure that you use the 8-digit organizational ID that was generated in the sections above for each purchasing organization in SAP TM.

3. Enter the data in the table below for the following SAP TM purchasing organizations:

   - o `OAF-COMP-JP`
   - o `OAF-FWH-01`
   - o `OF-FWH-03`
   - o `OAF-FWH-04`
   - o `OAF-FWH-05`

Field	Value
Logical System	`<logical system name of your TM system>`
TM Purchasing Org.	`<Automatically generated 8-digit organizational ID>`
TM Purchasing group	Blank
Settlement Type	`OF06`
Purchasing Org.	`5000`
Purchasing Group	`003`
Plant	`5000`
Company Code	`5000`
Doc.Type	`NB`
Material Group	`24000000`

4. Enter the data in the table below for the following purchasing organizations:

   - o OAF-COMP-US
   - o OF-FWH-20
   - o OAF-FWH-21

- OAF-FWH-22

- OAF-FWH-25

Field	Value
Logical System	`<logical system name of your TM system>`
TM Purchasing Org.	`<Automatically generated 8-digit organizational ID>`
TM Purchasing group	Blank
Settlement Type	`OF06`
Purchasing Org.	`3000`
Purchasing Group	`003`
Plant	`3000`
Company Code	`3000`
Doc.Type	`NB`
Material Group	`24000000`

5. Save your entries.

▶▶ 11 Defining Configuration Settings for Billing Integration

Procedure

Defining Condition Types

1. In Customizing for SAP ERP, choose ▶ *Sales and Distribution* ▶ *Basic Functions* ▶ *Pricing* ▶ *Pricing Control* ▶ *Define Condition Types* ▶.

2. Choose *Maintain Condition Types*.

3. Check that the following condition types exist and have the following values:

Cond. Type	Description	Cond. Class	Calculat. Type	Plus / Minus	Item condition	Delete	Value
Z010	OF: Ocean Freight	A	B	Positive	X	X	X
Z011	OF: B/L Fix Fee	A	B	Positive	X	X	X
Z012	OF: CAF	A	B	Positive	X	X	X
Z013	OF: BAF	A	B	Positive	X	X	X
Z014	OF: Piracy Risk Sur	A	B	Positive	X	X	X
Z015	OF: EBAF	A	B	Positive	X	X	X
Z016	OF: IPSD	A	B	Positive	X	X	X
Z017	OF: THCD	A	B	Positive	X	X	X
Z018	OF: Land Pre-Carriage	A	B	Positive	X	X	X
Z019	OF: Fuel Surcharge	A	B	Positive	X	X	X
Z020	OF: Toll Fee Fix	A	B	Positive	X	X	X
Z021	OF: Land On-Carriage	A	B	Positive	X	X	X
Z022	OF: AMS Fee	A	B	Positive	X	X	X
Z023	OF: THCO	A	B	Positive	X	X	X

Defining Pricing

1. In Customizing for SAP ERP, choose ▶ *Sales and Distribution* ▶ *Basic Functions* ▶ *Pricing* ▶ *Pricing Control* ▶ *Define And Assign Pricing Procedures* ▶ .

2. Choose *Maintain Pricing Procedures*.

3. Create a new entry with the code `ZVA001` and description `OF: Standard`.

4. Select the newly created entry `ZVA001` and choose *Control Data* in the navigation tree.

5. Create new entries with the following data:

Step	Condition Type	Account Key
1	Z010	ERL
2	Z011	ERL
3	Z012	ERL
4	Z013	ERL
5	Z014	ERL
6	Z015	ERL
7	Z016	ERL
8	Z017	ERL
9	Z018	ERL
10	Z019	ERL
11	Z020	ERL
12	Z021	ERL
13	Z022	ERL
900	PR00 Price	Not relevant

Assign Pricing

1. In Customizing for SAP ERP, choose ▶ *Sales and Distribution* ▶ *Basic Functions* ▶ *Pricing* ▶ *Pricing Control* ▶ *Define And Assign Pricing Procedures* ▶

2. Choose *Define Pricing Procedure Determination*.

3. Check the existing entries in the SAP ERP system and refer to the *Basic ERP Configuration Guide*. If the following entries do not exist, create new entries with the following data:

Field	Entry
Sales Organization	3000

Distribution Channel	`01`
Division	`00` **and** `01`
Document Procedure (DoPr)	`A`
Pricing Procedure	`ZVA001`

Field	**Entry**
Sales Organization	`5000`
Distribution Channel	`10`
Division	`00`
Document Procedure (DoPr)	`A`
Pricing Procedure	`ZVA001`

12 Setting Up Mapping Rules Between SAP TM and SAP ERP

Procedure

Assign Condition Types

1. In Customizing for SAP ERP, choose ▶ *Integration with Other SAP Components* ▶ *Transportation Management* ▶ *Invoice Integration* ▶ *Billing* ▶ *Assignment of Transportation Charge Elements* ▶ *Assign Condition Types* ▶

2. Enter the following data:

Category Code	Subcategory Code	Charge Type	Condition Type
003	101021	BSF	Z010
002	104000	BLAD	Z011
012	103009	CAF	Z012
012	103001	BAF	Z013
012	103009	PRS	Z014
002	103001	EBAF	Z015
002	104012	IPSD	Z016
007	104007	THCD	Z017
010	104007	THCO	Z023
014	100000	PRE	Z018
003	103008	FUEL	Z019
002	104000	AMS	Z022
002	104000	TOLL	Z020
014	100000	ON	Z021

Assign Organizational Units

1. In Customizing for SAP ERP, choose ▶ *Integration with Other SAP Components* ▶ *Transportation Management* ▶ *Invoice Integration* ▶ *Billing* ▶ *Mapping of Organizational Units* ▶ *Assign Organizational Units for Sales and Distribution* ▶.

2. Enter the following data:

Logical System	*<TM1CLNT001>*	*<TM1CLNT001>*	*<TM1CLNT001>*	*<TM1CLNT001>*
See Note 1.				

TM Sales Org See Note 2.	<Org ID for OAF-FWH-01>	<Org ID for OAF-FWH-05>	<Org ID for OAF-FWH-03>	<Org ID for OAF-FWH-04>
Sales Org	5000	5000	5000	5000
Distr. Channel	10	10	10	10
Division	00	00	00	00
Procedure	ZVA001	ZVA001	ZVA001	ZVA001
Billing Type	FX	FX	FX	FX
Sales Doc. Type	AA	AA	AA	AA
Item Cat	DLN	DLN	DLN	DLN
Nr. Int. Ass.	01	01	01	01

Logical System See Note 1.	<TM1CLNT001>	<TM1CLNT001>	<TM1CLNT001>	<TM1CLNT001>
TM Sales Org See Note 2.	<Org ID for OAF-FWH-20>	<Org ID for OAF-FWH-21>	<Org ID for OAF-FWH-22>	<Org ID for OAF-FWH-25>
Sales Org	3000	3000	3000	3000
Distr. Channel	10	10	10	10
Division	00	00	00	00
Procedure	ZVA001	ZVA001	ZVA001	ZVA001
Billing Type See Note 3.	FX	FX	FX	FX
Sales Doc. Type	AA	AA	AA	AA
Item Cat	DLN	DLN	DLN	DLN
Nr. Int. Ass.	01	01	01	01

1. Replace the logical system name given here with the logical system name of your SAP TM system.

2. Enter the internal organizational ID numbers for the stations and gateways that were defined in SAP TM (that is, not organizational names such as OAF-FWH-05). For more information, see Creating Forwarding Houses [Page 65].

3. Call transaction `FBN1` and check whether the validity of number range 01 (for company code 5000) has been extended to include the current year. Otherwise, create a new entry.

4. You can block billing documents from being automatically transferred to accounting within SAP ERP systems by selecting the *Posting Block* checkbox in Customizing for billing types. We recommend that you deselect this checkbox according to your business process so that you do not have to transfer and process the documents manually.

13 Troubleshooting

Problem

What can I do if I cannot create purchase orders in ERP because the posting period is not open for company code `5000`?

Solution

The standard procedure to open the current period for posting is by using transaction `MMPV`. In rare cases it can happen that the last open period was a number years ago, and closing all intermediate periods is time consuming. In this case, you can reset the posting period with the instructions provided in SAP Note 487381 – RMMMINIT: Protection against unintentional execution.

⚠️

This is absolutely not recommended in a productive system.

You may also have to specify the time intervals for posting periods. Run transaction `OB52` and make sure that for all entries for company codes `3000` and `5000` the "to period" year is set to the current year.

Problem

There is an error message in transaction `MIRO` when monitoring invoice verification for company code 3000:

```
In Company code 3000, the number range 51 is missing for the year 2011.
```

Solution

You should maintain a number range in transaction `FBN1` for interval range `51` and company code `3000` for the current year.

Problem

When sending the *Forwarding Settlement Document* to ERP, the inbound processing fails with the error messages:

```
According to status, sales order item xxxxxxx cannot be invoiced
```

and

```
Assign condition type xxxx in CO-PA
```

Solution

1. Deactivate CO-PA..

2. Run transaction `OKEV`.

3. Select *controlling area 1000*.

---

4. Deselect *Actual* for the CO-PA plan version.

Problem

What needs to be done if an error message occurs saying that the number range for goods receipts documents is missing?

Solution

Run transaction `OMBT` and add an interval for the current year for groups *Material documents for goods movements and inventory diffs.* and *Material documents for goods receipts.*

Problem

I get an error message saying that number ranges for accounting documents are not valid for the current year.

Solution

1. Run transaction `SNRO`.

2. Select *RF_BELEG*.

3. Choose *Change*.

4. Choose *Number ranges*.

5. Enter company code `5000`.

6. Choose *Change intervals* and add intervals for numbers `50` and `51` for the current year.

Problem

When the system sends a forwarding settlement document to SAP ERP, XML message processing fails on the SAP ERP side and you receive the error message `For object , number range interval does not exist.`

Solution

The validity of number range 01 must be extended to include the current year. Use transaction `FBN1` to create an entry for company code 5000 and number range 01.