Configuration Guide

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CUSTOMER

Configuration Guide for Intermodal Rail Freight

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Legal Disclaimer

⚠ Caution

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1 Configuration Guide for Intermodal Rail Freight

This document explains how you configure an “Intermodal Rail Freight” scenario. Implement this scenario as described and once you have verified the functions, you can change the data to suit your own environment and operating conditions.

Change History

Table 1:

Version	Date	Description
1.0	December 2013	Initial version

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.

Table 2:

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

2 The Scenario

Use

This document describes the configuration settings for the “Intermodal Rail Freight” scenario in 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

In this scenario, you assume the role of Continental Rail, which is running the SAP Transportation Management system that you are in the process of setting up. All of the settings and data that are referred to as “internal” in the following document therefore refer to Continental Rail.

A 20-foot container is handed to Continental Rail by the shipper Star Line at the container terminal in Halterm in Halifax, NS. The container, which contains dangerous goods, is transported on a scheduled train to Toronto by Continental Rail as per the order placed by the customer. The order also states that the interchange to Burlington is to take place in the yard in Toronto, ON.

The container continues its journey to Oklahoma City, crossing the U.S. border in Detroit, MI. Ocean Bond is responsible for transporting the container through the United States. The final destination of the container is Houston, TX. It is transported to Houston on a scheduled train operated by Burlington. In Houston, the container is picked up at the yard by the consignee Hendricks Platforms Inc.

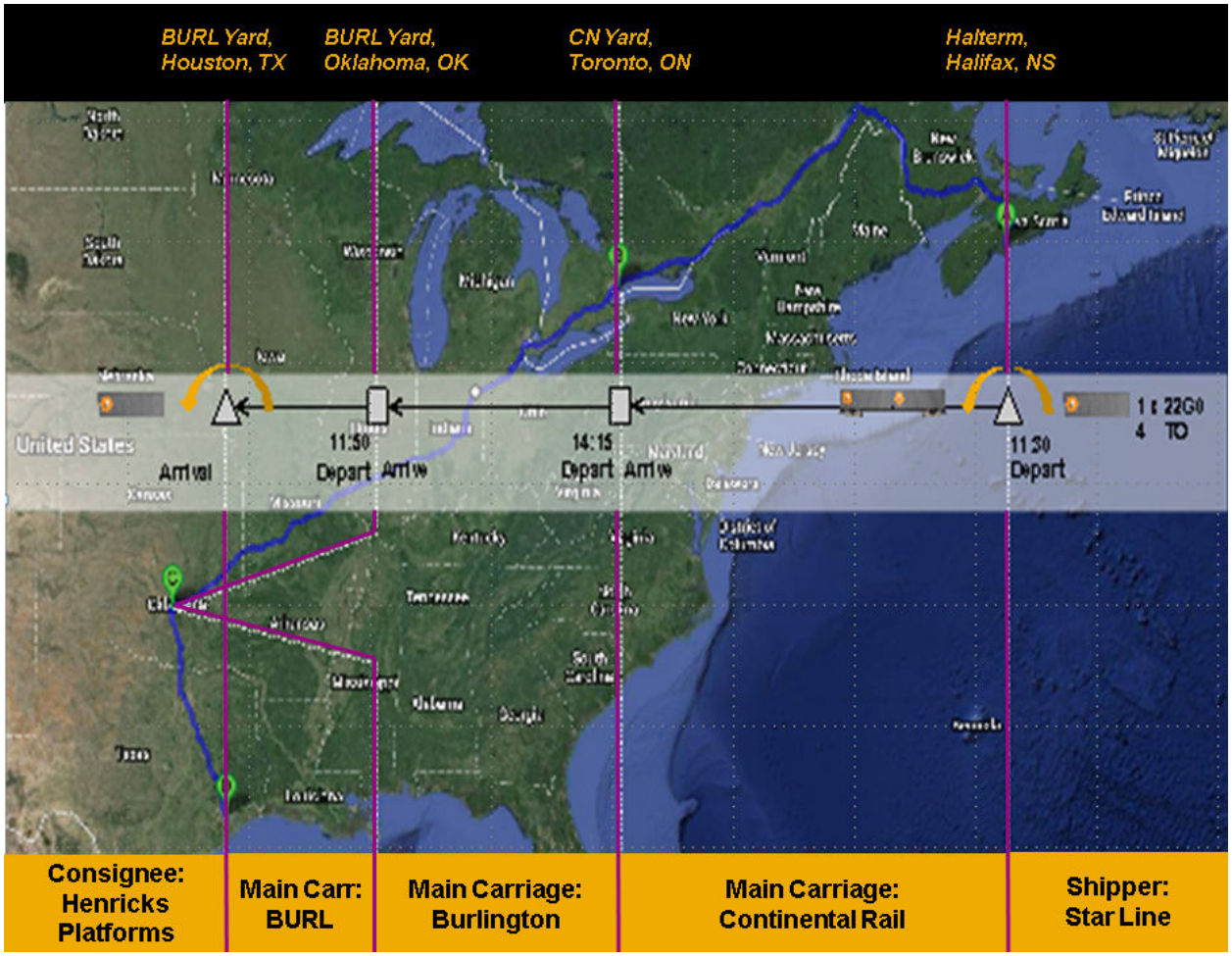

Figure 1: Intermodal Rail Freight: Ordered Route

As an alternative, the container can be routed via Chicago, IL. Since congestion on the ordered, default route is heavy, the container can be transported along the actual route via Chicago.

Continental Rail manages the transport from Toronto, ON to Chicago Heights Yard, and arranges for the container to be subsequently moved for interchange to Burlington at Chicago IM EX Yard. For the cross-town transport from Chicago Heights to Chicago IM EX, Continental Rail orders a truck subcontracted to Joe's Trucking. The container is unloaded from the railcar and loaded onto the truck. Once transported, it is unloaded from the truck in Chicago IM EX and loaded onto a railcar. It then continues its journey to its final destination in Houston, TX. In Houston, the container is picked up at the yard by the consignee Hendricks Platforms Inc.

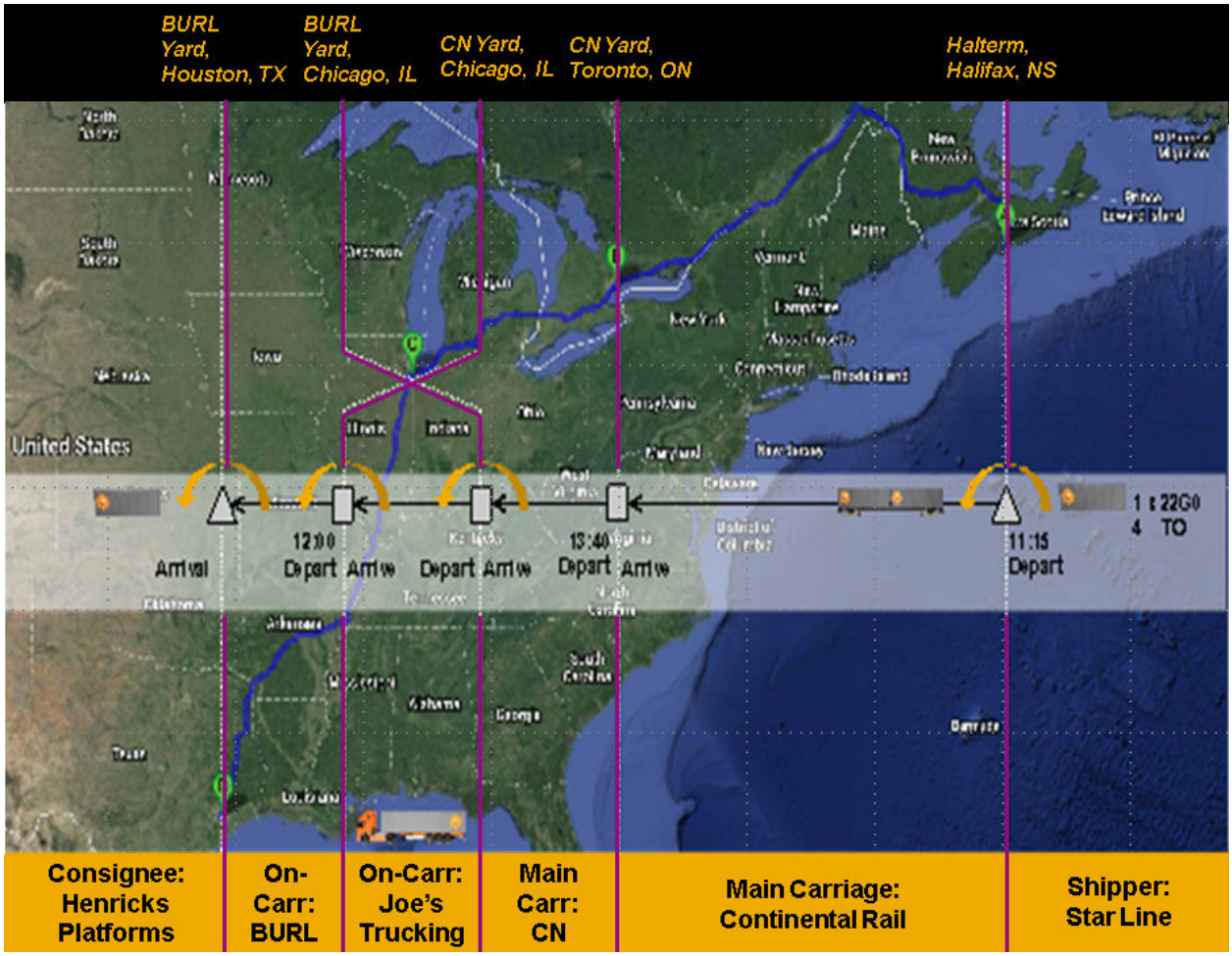

Figure 2: Intermodal Rail Freight: Alternative Route via Chicago, IL

Charges are invoiced based on the ordered route and rule 11. Continental Rail and Burlington each send an invoice to Star Line for their section of the journey. The charges on each of the invoices include the respective terminal handling at the source and destination locations.

In addition to the charges for transport and supplemental services, there may be costs incurred during execution. These event-driven charges will added to the invoices as supplemental charges.

Business Add-Ins

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 458914). The following table provides an overview of the prefixes and suffixes used in this document:

Table 3:

Business Object	Prefix	Suffix
Customer	CU-	-@ERP001

Business Object	Prefix	Suffix
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 master data objects transferred from SAP ERP to SAP TM, apply 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:

Table 4:

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

For example:

- Carrier name in SAP ERP: RF-CR-01
- Carrier location name in SAP ERP: CARF-CR-01@ERP001
- Carrier name in SAP TM: RF-CR-01

This document uses the system ID ERP001 as an example. Substitute this with your own system ID.

Prerequisites

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

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

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

- MM: Purchase-to-pay
  - Purchase order entry
  - Inbound delivery creation

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

If you want to integrate SAP TM with SAP 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 this scenario, you must configure 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 "Intermodal Rail Freight" scenario assumes a transportation network involving two rail carriers and one road carrier. The cargo is transported from Halilfax, Canada via rail and truck to Houston, Texas where it will be picked up by the consignee. The following organizational structures and document types are used by default, and must be changed to customer-specific organizational structures as required:

- Organizational data for the United States

Table 5:

Parameter	Value
Company Code	3000 (BestRun USA Inc.)
Controlling Area	3000 (CO North America)
Purchasing Organization	3000 (Purch. Org. USA)
Sales Organization	3000 (USA Philadelphia)
Distribution Channel	10 (Final Customer Sales)
Division	00 (Cross Division)

3 Overview of SAP ERP and SAP TM Master Data

The following master data is used in SAP ERP throughout this scenario. For information about how to create this data, see the following sections.

Table 6:

Master Data	Type	Name	Description	Location (Country/City)	Assigned Company Code	CIF Required (SAP ERP to SAP TM)
Vendor	Business Partner	RF-CR-01	Joe's Trucking Inc	US/Edison	US	Yes
Vendor	Business Partner	RF-CR-CN	Continental Rail	CA/Montreal	US	Yes
Vendor	Business Partner	RF-CR-BURL	Burlington Railway	US/Fort Worth	US	Yes
Customer	Business Partner	RF-CU-01	Star Line Canada Inc	CA/Mississauga	US	Yes
Customer	Business Partner	RF-CU-02	Hendricks Platforms Inc	US/Houston	US	Yes

4 SAP ERP Master Data: Customers and Vendors

Once you have defined the master data for customers and vendors, you can transfer it from SAP ERP to SAP TM. To do so, you must complete the following procedures:

- Defining Vendor Master Data in SAP ERP [page 13]
- Defining Customer Master Data in SAP ERP [page 15]
- Transferring Master Data from SAP ERP to SAP TM [page 16]

4.1 Defining Vendor Master Data in SAP ERP

Context

In this procedure, you create vendor master data, which is then transferred to SAP TM via CIF. The corresponding locations with location type 1011 (vendor) are created in SAP TM. In this scenario, vendors represent 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 purchasing organization 3000 according to the following table:

   Table 7:

Vendor ID	Company Code	Purchasing Organization	Account Group
RF-CR-01	3000	3000	0005
RF-CR-CN	3000	3000	0005
RF-CR-BURL	3000	3000	0005

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

Table 8:

Vendor ID	Name	Search Term	Address
RF-CR-01	**Joe's Trucking Inc.**	**RF**	**79 Revere Boulevard, Edison, NJ 08820-1908, United States**
RF-CR-CN	**Continental Rail**	**RF**	**935 de La Gauchetière Street West, Montreal, Quebec, H3B 2M9, Canada**
RF-CR-BURL	**Burlington Railways**	**RF**	**2650 Lou Menk Drive, Fort Worth, TX 76131-2830, United States**

4. On the *Create Vendor: Accounting Information Accounting* screen, enter reconciliation account **141100** and cash management group **A1** for all of the vendors.
5. On the *Create Vendor: Payment Transactions Accounting* screen, enter payment terms **0002** for all of the vendors.
6. On the *Create Vendor: Purchasing Data* screen, enter the following data for each vendor:

Table 9:

Vendor ID	RF-CR-01	RF-CR-CN	RF-CR-BURL
Order Currency	**USD**	**CAD**	**USD**
Terms of Payment	**0002**	**0002**	**0002**
Incoterms	Blank	Blank	Blank
Purchase Group	Blank	Blank	Blank
Planned Delivery Time	Blank	Blank	Blank
Conf. Control	Blank	Blank	Blank
Shipping Condition	Blank	Blank	Blank

7. Save your entries.

4.2 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 choose transaction `XD01`.
2. On the initial screen, enter the data for the customers as shown in the following table:

   Table 10:

Customer ID	**RF-CU-01**	**RF-CU-02**
Account Group	**TM1: TM: Customer Account Group**	**TM1: TM: Customer Account Group**
Company Code	**3000**	**3000**
Sales Organization	**3000**	**3000**
Distribution Channel	**10**	**10**
Division	**00**	**00**

3. Choose *Continue*.
4. On the *Address* tab page, enter the following data:

   Table 11:

Customer ID	RF-CU-01	RF-CU-02
Name	**Star Line Canada Inc.**	**Hendricks Platforms Inc.**
Address	**2576 Matheson Boulevard East, Mississauga, Ontario, L4W 5A8, Canada**	**700 Louisiana Street 700, Houston, TX 77002, United States**
Time Zone	**EST**	**CST**

5. Choose *Goto* > *Sales Area Data*, and enter the following information for all customers:

   Table 12:

Tab Page	Field	Value
Sales	*Price Group*	**01**

Tab Page	Field	Value
	Cust. pric. proc.	**1**
Shipping	*Order Combination*	Select
	Shipping Conditions	**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 of the customers:

   Table 13:

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

7. Save your entries.

4.3 Transferring Master Data from SAP ERP to SAP TM

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 choose transaction `CFM1`.
2. Create separate integration models for transferring vendors and customers. Take the following information into account:
   - Model name: `RF-VEND` (for vendors)
   - Model name: `RF-CUST` (for customers)
   - Use the following details for both models:
     - Use the same logical SAP TM system name (input help is available [`F4`]), for example, `TM1CLNT001`.
     - Use APO application TM, for example, APO.
   - Prefix your selection with `RF*` for customers and vendors.
   - In model `RF-VEND`, make sure that you activate the creation of business partners in the *Vendors* section by entering **1** (only create business partners) in the *Create Loc/BP* field.
   - In the model `RF-CUST`, make sure that you activate the creation of business partners in the *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, return to the *SAP Easy Access* screen for SAP ERP and choose *Logistics* > *Central Functions* > *Supply Chain Planning Interface* > *Core Interface Advanced Planner and Optimizer* > *Integration Model* > *Activate*. Alternatively, call transaction `CFM2`.
7. Activate the two data models. In SAP ERP, use transaction `SMQ1` to verify that all of the data has been transferred. In SAP TM, use transaction `SMQ2` to verify that all of the data has been transferred.

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

> **Caution**
>
> If the same master data is included in more than one model, you can activate only one of the models at a time. Otherwise, data is not transferred correctly.

Checking Master Data Transfer

Once you have transferred the data from SAP ERP to SAP TM, check that the business partners have been created in the SAP TM system.

1. On the *SAP Easy Access* screen for SAP Transportation Management, choose *Transportation Management* > *Master Data* > *Maintain Business Partner* or call transaction `BP`.
2. Check that carriers `RF-CR-01`, `RF-CR-CN`, and `RF-CR-BURL` have been created with the business partner role *Vendor* (`BBP000`).
3. Check that customers `RF-CU-01` and `RF-CU-04` have been created with the business partner roles *Sold-to Party* (`CRM002`) and *Ship-to Party* (`CRM000`).

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

5 Application Administration

Application administration comprises the following settings and profiles:

- Configuring Carrier Selection Settings [page 18]
- Configuring Optimizer Settings [page 19]
- Configuring Planning Cost Settings [page 20]
- Configuring Capacity Selection Settings [page 21]
- Defining Selection Profiles [page 22]
- Defining Planning Profiles [page 24]

5.1 Configuring Carrier Selection Settings

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose *Application Administration* > *Planning* > *Planning Profile Settings* > *Carrier Selection Settings* > *Create Carrier Selection Settings*.
2. Create carrier selection setting `RF_CAR_SEL001` using the following data:

Table 14:

Field	Value
Carrier Selection Settings	**`RF_CAR_SEL001`**
Description	**`Rail Carrier Selection`**
Check Incompatibilities	Select
Parallel Processing Profile	Blank
Type of Carrier Selection Settings	*General Carrier Selection*
Allocation Usage	*Do Not Use Transportation Allocations*
BS Usage	*Do Not Use Business Shares*
Strategy	*Costs*

Field	Value
Carrier Cost Origin	*Use Transportation Lane Settings*

3. In *Advanced Settings* area , enter the following data:

   Table 15:

Field	Value
Planning Strategy	**TSPS_DEF**
Optimizer Runtime	**6**
Transportation Charge Interpretation	*Accept Carrier with Charges of Zero as C. with Highest Costs*
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 for TCM	*No Recalculation*

4. Save your entries.

5.2 Configuring Optimizer Settings

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose *Application Administration* > *Planning* > *Planning Profile Settings* > *Optimizer Settings* > *Create Optimizer Settings* .
2. Create optimizer setting `RF_OPT001` using the following data:

   Table 16:

Field	Value
Optimizer Settings	**RF_OPT001**
Description	**Rail Freight – Optimizer Settings**

Field	Value
Planning Strategy	**VSR_DEF**
FO Building Rule	*New Freight Order when Resource is Empty*
Accept Transport. Prop.	*Save Route and Freight Documents*
Planning Strategy for Transport. Prop.	**VSR_DEF**
Max. Number of Trans Proposals	**5**
Max. No. of Parallel Processes	**1**
Maximum Runtime (Seconds)	**20**
Max. Time Without Improvement (Sec./FU)	**10.00000**
Rough Planning	*Use Rough Planning Where Defined*
Consider Capacity During Optimization	*Yes*
Maximum No of Transshipment Loc	**6**

3. Save your entries.

5.3 Configuring Planning Costs Settings

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose *Application Administration* > *Planning* > *Planning Profile Settings* > *Planning Costs Settings* > *Create Planning Costs Settings*.
2. In the *General Data* screen area, enter planning cost setting **RF_PLN_COST001** and the description **Rail Freight – Planning Cost Settings**.
3. In the *Freight Unit Costs* screen area, enter the following data:

   Table 17:

Field	Value
Earliness/Delay Cost Basis	*Earliness/Delay Costs Defined in Planning Costs*
Costs for Non-Delivery	**999,999,999**

Field	Value
Costs for Earliness per Day	**10**
Costs for Lateness per Day	**50**

4. In the *Means-of-Transport Settings* area, enter the following data:

Table 18:

Means of Transport	Consider Distance Costs from Planning Costs Settings	Consider Distance Costs from Transportation Lane	Fixed Costs
RF_TRCK	No	Yes	**200**
RF-TRAIN	No	No	**1000**
RF-TRAIN-E	No	No	**1200**
RF-RAILCAR	No	No	**1**

5. Select each means of transport in turn and on the *Means-of-Transport Settings Details* tab page, enter the following penalty costs:

Table 19:

Means of Transport	RF-TRUCK	RF-TRAIN	RF-TRAIN-E	RF-RAILCAR
Premature Pick-Up	**1.000**	**1.000**	**1.000**	**1.000**
Delayed Pick-Up	**1.000**	**1.000**	**1.000**	**1.000**
Premature Delivery	**1.000**	**1.000**	**1.000**	**1.000**
Delayed Delivery	**1.000**	**1.000**	**1.000**	**1.000**

6. Save your entries.

5.4 Configuring Capacity Selection Settings

Context

In this procedure, you define a user-specific group 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. In the *General Data* screen area, enter capacity selection setting **RF_CAP_SEL001** and the description **Rail Freight – Capa. Prof**.
3. On the *Vehicle Resources* tab page, enter the following data:

   Table 20:

Attributes for Vehicle Resource Selection	Sign	Option	Lower Limit
MTRTCO062_I	*Inclusive*	*Pattern*	**RF***

4. On the *Schedules* tab page, enter the following row in the table:

   Table 21:

Attribute for Schedule Selection	Sign	Option	Lower Limit
MTR	*Inclusive*	*Pattern*	**RF***

5. Save your entries.

5.5 Defining Selection Profiles

Use

Selection profiles define how freight units are selected based on geography, pickup dates, and delivery dates.

Procedure

Defining Geographical Selection Attributes

1. In SAP NetWeaver Business Client (NWBC), choose *Application Administration* > *Planning* > *Selection Profile Attributes* > *Geographical Selection Attributes* > *Create Geographical Selection Attributes*.
2. Create selection profile `RF_GEO_SEL` for the pre-carriage stage as follows:

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

   Table 22:

Field	Value
Geographical Sel. Attributes	**RF_GEO_SEL**
Description	**Rail Freight - Geo Selection**
Both Locations	Not selected

4. On the *Source Locations* tab page, enter the following data:

   Table 23:

Sign	Option	Lower Value	Upper Value
Inclusive	=	**RF***	Blank

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

   Table 24:

Sign	Option	Lower Value	Upper Value
Inclusive	=	**RF***	Blank

6. Save your entries.

Defining Selection Profiles

1. In SAP NetWeaver Business Client (NWBC), choose *Application Administration* > *Planning* > *Selection Profiles* > *Create Selection Profile*.
2. Create selection profile `RF_GEN_SEL001` by entering the following data:

   Table 25:

Field	Value
Selection Profile	**RF_GEN_SEL001**
Description	**Rail Freight - Sel Profile**
Maximum Number of Selected Objects	**200**
Time-Related Sel. Attributes	Blank
Geographical Sel. Attributes	**RF_GEO_SEL**
Additional Sel. Attributes	Blank

3. Save your entries.

5.6 Defining Planning Profiles

Context

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

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose *Application Administration* > *Planning* > *Planning Profiles* > *Create Planning Profile*.
2. In the *General Data* screen area of the *Planning Profile* tab page, enter planning profile **RF_AUTO_PLAN** and the description **Rail Auto Planning**.
3. In the *Planning Horizon* screen area, enter the following data:

   Table 26:

Field	Value
Duration in Days	**90**
Offset Direction	*Future*
Offset in Days	**0**
Factory Cal. for Offs./Dur. Calc.	Blank
Round Horizon to Full Days	Select
Time Zone for Rounding the Horizon	**CET**

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

   Table 27:

Field	Value
Selection Profile for Freight Orders	**RF_GEN_SEL001**
Capacity Selection Settings	**RF_CAP_SEL001**
Optimizer Settings	**RF_OPT001**

Field	Value
Planning Costs Settings	**RF_PLN_COST001**
Carrier Selection Settings	**RF_CAR_SEL001**

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

Table 28:

Field	Value
Type Determination Rule	*Defined per Category in Planning Profile*
Default Type for Railcar Unit	**RFRC**
Default Type for Road	**1000**

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

Table 29:

Field	Value
Manual Planning Strategy	**VSRI_DEF**
Consider Fixing Status	*Warning When Changing Fixed Documents*

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

Table 30:

Field	Value
Scheduling Strategy	**VSS_DEF**
Consider Freight Unit Dates	*Consider Freight Unit Dates*
Scheduling Direction	*Forward*

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

Table 31:

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

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

Table 32:

Field	Value
Dependence	*Freight Unit and MTr Independent*
Loading/Unloading Duration	`00:30:00`

10. Save your entries.

5.7 Defining Layouts for the Transportation Cockpit

Use

In this procedure, you create layouts that are used to display capacities and requirements in the transportation cockpit. Layout settings are configured at user level.

Procedure

Layout RF_RAIL_STEP_1_CAR

1. In SAP NetWeaver Business Client (NWBC), choose *Application Administration* > *Planning* > *General Settings* > *Page Layouts*.
2. Select *Page Layouts for Transportation Cockpit*.
3. Choose *New*.
4. In the *Page Layout – General Data* section, create a new page layout: `RF_RAIL_STEP_1_CAR`.
5. In the *Visibility Pushbutton* section, select all of the checkboxes.
6. On the *Requirements Area* tab page:
   - In the *Position of Screen Area* field, choose **`Top Left`**.
   - In the *Width* field, enter **`50%`**.
   - Choose *Sequence 1 – Freight Unit Stages* and select the *Display* checkbox.
   - Select *Sequence 1 – Freight Unit Stages* and ensure that the checkboxes for *Set OI Status for FUs* (confirm, reject, and set to confirm with deviations) are selected.
7. On the *Resources Area* tab page:
   - In the *Position of Screen Area* field, choose **`Top Right`**
   - In the *Width* field, enter **`50%`**.
   - Choose *Sequence 2 – Schedules* and select the *Display* checkbox.
   - Choose *Sequence 4 – Locomotives* and select the *Display* checkbox.
   - Choose *Sequence 5– Vehicles* and select the *Display* checkbox.
   - Choose *Sequence 6 – Railcars* and select the *Display* checkbox.
   - Deselect the *Display* checkboxes for the other rows (*Driver* and *Trailers*).

8. On the *Transportation Units Area* tab page:
    1. In the *Position of Container* field, enter **`Middle Left`**.
    2. In the *Width* field, enter **`100%`**.
    3. Choose *Sequence 1 – Railcar Unit Hierarchy* and select the *Display* checkbox.
9. Save your profile.

Layout RF_RAIL_STEP_2_ORDER

1. In SAP NetWeaver Business Client (NWBC), choose *Application Administration* > *Planning* > *General Settings* > *Page Layouts*.
2. Select *Page Layouts for Transportation Cockpit*.
3. Choose *New*.
4. In the *Page Layout – General Data* section, create a new page layout: `RF_RAIL_STEP_2_ORDER`.
5. In the *Visibility Pushbutton* section, select all checkboxes.
6. On the *Transportation Units Area* tab page:
    - In the *Position of Container* field, enter `Top Left`.
    - In the *Width* field, enter `100%`.
    - Choose *Sequence 1 – Railcar Unit Hierarchy* and select the *Display* checkbox.
7. On the *Orders Area* tab page:
    - In the *Position of Screen Area* field, enter `Bottom Left`.
    - In the *Width* field, enter `50%`.
    - Choose *Sequence 1 – Freight Orders/Freight Bookings* and select the *Display* checkbox.
    - Choose *Sequence 8 – Rail Freight Order* and select the *Display* checkbox.
    - Choose *Sequence 9 – Rail Freight Order Hierarchy* and select the *Display* checkbox.
8. On the *Order Details Area* tab page:
    - In the *Position of Screen Area* field, enter `Bottom Right`.
    - In the *Width* field, enter `50%`.
    - Choose *Sequence 1 – Overview* and select the *Display* checkbox.
    - Choose *Sequence 2 – Stages* and select the *Display* checkbox.
    - Choose *Sequence 4 – Allocation* and select the *Display* checkbox.
    - Choose *Sequence 5 – Charges* and select the *Display* checkbox.
    - Choose *Sequence 10 – Cargo Management* and select the *Display* checkbox.
    - Choose *Sequence 11 – Loadplan* and select the *Display* checkbox.
    - Choose *Sequence 12 -Utilization* and select the *Display* checkbox.
    - Choose *Sequence 13 – Equipment* and select the *Display* checkbox.
9. Save your profile.

6 Customizing Settings in SAP Transportation Management

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

- Defining Freight Unit Types [page 28]
- Creating Freight Unit Building Rules [page 32]
- Defining Equipment Groups and Equipment Types [page 33]
- Defining Movement Types [page 36]
- Defining Stage Type Sequences for Movement Types [page 36]
- Defining Default Agreement Party Roles for Stages [page 37]
- Defining Freight Order Types [page 40]
- Defining Freight Settlement Document Types [page 38]
- Defining Forwarding Settlement Document Types [page 39]

6.1 Defining Freight Unit Types

Procedure

1. In Customizing for SAP Transportation Management, choose *Transportation Management* > *Planning* > *Freight Unit* > *Define Freight Unit Types*.
2. Select an existing freight unit type and copy it to your own freight unit type – `RFFU`.
3. Enter the following data:

   Table 33:

Field	Value
Freight Unit Type	**RFFU**
Description	**Rail Freight Unit**

4. In the *Basic Settings* screen area, select the *Freight Unit Can Be Deleted* checkbox.
5. In the *Number Range Settings* screen area, enter the following data:

Table 34:

Field	Value
Time for Drawing	*Draw Numbers Immediately*
Number Range Interval	**FU**

6. In the *Change Controller Settings* screen area, enter default change strategy **NO_ACTION**.
7. In the *Execution Settings* screen area, enter the following data:

Table 35:

Field	Value
Execution Tracking Relevance	*Execution Tracking with External Event Management*
Display Mode for Execution Tab	*Actual Events from TM and EM, Expected Events from EM*
Execution Propagation Mode	*Standard Propagation*
Immediate Processing	Select

8. In the *Event Management Settings* screen area, enter the following data:

Table 36:

Field	Value
Application Object Type	**ODT30_FU**
Last Expected Event	**UNLOAD_END**

9. In the *Direct Shipment Options* screen area, enter the direct shipment option type *No Determination of Direct Shipment Options*.
10. In the *Freight Order Determination* screen area, leave the freight order type blank.
11. In the *Additional Settings* screen area, enter the following data:

Table 37:

Field	Value
Rule for PU/DLV Window Determination	*A Earliest Pick-Up at Req. Day/ Latest Delivery at Req. Day*
BW Relevance	Not selected
Track Changes	Select
Archiving Rentention Period in Days	**100**
Web Dynpro Application Conf.	**/SCMTMS/FRE_UNIT**

12. In the *Determination Rules* screen area, deselect the *Consider Organization of User* checkbox.
13. Press ENTER.

14. Save your entries.

6.2 Defining Transportation Unit Types

Procedure

1. In Customizing for SAP Transportation Management, choose *Transportation Management* > *Planning* > *Transportation Unit* > *Define Transportation Unit Types*.
2. Choose the *New Entries* pushbutton.
3. In the header area, enter the following data:

   Table 38:

Field	Value
Transportation Unit Type	**RFRC**
Description	**Railcar**
Transportation Unit Category	**Railcar Unit**

4. In the *Basic Settings* screen area, select *Can Be Deleted* from the *Doc. Can Be Deleted* dropdown list.
5. In the *Number Range Settings* screen area, set the time for drawing to *Draw Number When Saving Document* and enter the number range interval **TR**.
6. In the *Execution Settings* screen area, enter the following data:

   Table 39:

Field	Value
Execution Track. Relev.	*Execution Tracking with External Event Management*
Display Mode for Execution Tab	*Actual Events from TM and EM, Expected Events from EM*
Execution Propagation Mode	*Standard Propagation*
Immediate Processing	Select
Prop. Execution Info	Select

7. In the *Event Management Settings* screen area, enter the following data:

Table 40:

Field	Value
Application Object Type	**RES30_RESOURCE**
Last Exp. Event	Blank

8. In the *Output Options* screen area, enter the following data:

Table 41:

Field	Value
Output Profile	**/SCMTMS/TOR**
Add. Output Profile	**/SCMTMS/TOR_PRINT_ROAD**
Test Schema	Blank
Default Test Type	Blank

9. In the *Organizational Unit Determination* screen area, enter the internal number of `RF_EORG_01` as the execution organization and select the *Consider Organization Unit of User* checkbox.
10. In the *Additional Settings* screen area, select the *Track Changes* checkbox and leave the *Check Level Exec.* and *BW Relevance* checkboxes deselected.
11. Enter the archiving retention period as **0** days.
12. Enter the Web dynpro application configuration as **/SCMTMS/TU_RAILCAR**.
13. In the *Default MTr Determination* screen area, set the transportation mode to **02**.
14. Press ENTER.
15. Select *Allowed Item Types* from the navigation structure.
16. Enter the following data:

Table 42:

Item Type	Item Cat.	DefItmTy	Item Type Description
MRCN	*PVR Passive Vehicle Resource*	Not selected	Multi Railcar (No Expansion)
MRFC	*PVR Passive Vehicle Resource*	Not selected	Multi Railcars
MURC	*PVR Passive Vehicle Resource*	Not selected	Multi Railcar
SIRC	*PVR Passive Vehicle Resource*	Select	Single Railcar

17. Save your entries.

6.3 Creating Freight Unit Building Rules

Prerequisites

You have defined a freight unit type.

Context

Freight unit building rules (FUB rules) define how the system creates freight units based on the forwarding order. FUB rules also specify the dimensions that are transferred from the forwarding order to the freight unit as capacity requirements for planning. If there is more than one freight unit building rule, you can define a condition that determines the appropriate freight unit building rule.

In this scenario, you require only one freight unit building rule: `RF-FUB-01`.

Procedure

1. In SAP NetWeaver Business Client, choose *Application Administration* > *Planning* > *General Settings* > *Freight Unit Building Rule* > *Create Freight Unit Building Rule*.
2. On the *General Data* tab page, enter the following data:

   Table 43:

Field	Value
Freight Unit Building Rule	**RF-FUB-01**
Description	**Rail Freight Unit Building Rule**
Freight Unit Building Strategy	**Consolidate as much as possible**
Critical Quantity	Gross Weight
Item Split Allowed	Select
Document Type	**RFFU** Enter the freight unit type that you created in Defining Freight Unit Types [page 28].

3. In the *Planning Quantifies* table, enter the following data:

Table 44:

Planning Quantity for Freight Unit Building	Unit of Measure of Split Quantity	Split Quantity	Rounding Quantity
`Gross Weight`	`TO`	`20`	Blank

4. Choose the *Advanced Settings* tab page and enter the following data:

Table 45:

Field	Value
Doc. Type Det. Cnd	Blank
Process Controller Strategy	`FUB_AUTO`

5. Save your entries.

6.4 Defining Equipment Groups and Equipment Types

Procedure

1. In Customizing for SAP Transportation Management, choose *Transportation Management* > *Master Data* > *Resources* > *Define Equipment Groups and Equipment Types*.
2. Double-click the *Vehicle Groups* folder.
3. If the equipment groups below do not already exist, create them by choosing the *New Entries* pushbutton.

Table 46:

Equipment Group	Description	Resource Class
A	Equipped box cars	4 Railcar
B	Unequipped box cars	4 Railcar
C	Covered hopper cars	4 Railcar
E	Equipped gondola	4 Railcar
F	Flatcar	4 Railcar
G	Unequipped gondola	4 Railcar
H	Unequipped Hopper	4 Railcar

Equipment Group	Description	Resource Class
J	Gondola car	4 Railcar
K	Equipped hopper cars	4 Railcar
L	Special type cars	4 Railcar
LOC	Locomotive	3 Locomotive
P	Conventional intermodal cars	4 Railcar
Q	Lighter weight, Low-profile intermodal c	4 Railcar
R	Refrigerator cars	4 Railcar
S	Stack car	4 Railcar
T	Tank cars	4 Railcar

4. Select equipment group `F` and double-click the *Vehicle Types* folder.
5. Choose the *New Entries* pushbutton.
6. In the header area, enter equipment type **`F077`** and description **`Flat Car - COFC/TOFC`**.
7. In the *General* screen area, enter means of transport **`RF-RAILCAR`**.
8. In the *Capacity* screen area, enter the following data:

Table 47:

Field	Value
Payload Weight	**`159,900`**
UoM	**`LB`**
Internal Length	**`89`**
UoM	**`FT`**

9. In the Physical Properties screen area, enter the following data:

Table 48:

Field	Value
Tare Weight	**`60,100`**
UoM	**`LB`**
Max. Gross Weight	**`220,000`**

Field	Value
UoM	**LB**
Max. Length	**92**
UoM	**FT**
Number of Axles	**4**

10. Save your entries.
11. Select equipment group `S` and double-click the *Vehicle Types* folder.
12. Choose the *New Entries* pushbutton.
13. In the header area, enter equipment type **S615 CP-527000** and description **Double-stack car**.
14. In the *General* screen area, enter means of transport **RF-RAILCAR**.
15. In the *Capacity* screen area, enter the following data:

Table 49:

Field	Value
Payload Weight	**169,100**
UoM	**LB**
Internal Length	**53.1**
UoM	**FT**

16. In the Physical Properties screen area, enter the following data:

Table 50:

Field	Value
Tare Weight	**50,400**
UoM	**LB**
Max. Gross Weight	**220,000**
UoM	**LB**
Max. Length	**76.1**
UoM	**FT**
Number of Axles	**4**

17. Save your entries.

6.5 Defining Movement Types

Procedure

1. In Customizing for SAP Transportation Management, choose *Transportation Management* > *Forwarding Order Management* > *Define Movement Types*.
2. Create movement type `RR` (ramp to ramp) with the following data:

   Table 51:

Mov. Type	Description	Src. Loc.	Dest. Loc.
RR	**Rail ramp to ramp**	Not selected	Not selected

3. Save your entries.

6.6 Defining Stage Type Sequences for Movement Types

Context

In this procedure, you specify the stage types that are allowed for a specific movement type as well as their sequence. The system checks that the sequence of stage types is correct as determined by the corresponding stage category.

Procedure

1. In Customizing for SAP Transportation Management, choose *Transportation Management* > *Forwarding Order Management* > *Define Stage Type Sequence for Movement Types*.
2. Enter the following data:

Table 52:

Mov. Type	Seq. No.	Stage Type	StageTpeOCC	StageProp.	Det. Rule	Set. Rule
RR	3	03	CN - Stage type can occur in any number	Select	4 Always Relevant for Planning	Not Relevant for Internal Settlement

3. Save your entries.

6.7 Defining Default Agreement Party Roles for Stages

Context

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 SAP Transportation Management, choose *Transportation Management* > *Forwarding Order Management* > *Define Default Agreement Roles for Stages*.
2. Enter the following data:

Table 53:

Incoterm	Stage Type	Agmt Role
FOB	Pickup	Prepaid Agreement Party
FOB	Pre-Carriage	Prepaid Agreement Party
FOB	Main Carriage	Collect Agreement Party
FOB	On-Carriage	Collect Agreement Party
FOB	Delivery	Collect Agreement Party
DDP	Pickup	Prepaid Agreement Party

Incoterm	Stage Type	Agmt Role
DDP	Pre-Carriage	Prepaid Agreement Party
DDP	Main Carriage	Prepaid Agreement Party
DDP	On-Carriage	Prepaid Agreement Party
DDP	Delivery	Prepaid Agreement Party
EXW	Pickup	Collect Agreement Party
EXW	Pre-Carriage	Collect Agreement Party
EXW	Main Carriage	Collect Agreement Party
EXW	On-Carriage	Collect Agreement Party
EXW	Delivery	Collect Agreement Party

3. Save your entries.

6.8 Defining Freight Settlement Document Types

Procedure

1. In Customizing for *Transportation Management*, choose *Settlement* > *Freight Settlement* > *Define Freight Settlement Document Types*.
2. Create the following freight settlement document types:

   Table 54:

FSD Type	RF01	RFIS
Description	Rail Freight: Carrier Settlement Document	Rail Freight: Interline Settlement
FSD Category	10	10
Track Changes	Select	Select
Bus. Warehouse	Select	Select

FSD Type	RF01	RFIS
Enable Cost Distribution	Select	Select
Number Range Interval	01	01
Output Profile	/SCMTMS/TOR_INV_PREP	/SCMTMS/TOR_INV_PREP
Add. Output Profile	/SCMTMS/SFIR_PRINT	/SCMTMS/SFIR_PRINT
Dynamic Determination of Output Profile	Deselect	Deselect

3. Save your entries.

6.9 Defining Forwarding Settlement Document Types

Procedure

1. In Customizing for SAP Transportation Management, choose *Transportation Management* > *Settlement* > *Forwarding Settlement* > *Define Forwarding Settlement Document Types*.
2. Enter the following data:

   Table 55:

Field	Value
FWSD Type	RF01
Description	Rail Freight: Forw. Settl. Document
FWSD Category	10 Forwarding Settlement Document
Track Changes	Select
BW Relevance	Select
Number Range Interval	01
Output Profile	/SCMTMS/CFIR
Add. Output Profile	/SCMTMS/CFIR_PRINT

Field	Value
Dynamic Determination of Output Profile	Deselect

3. Save your entries.

6.10 Defining Freight Order Types

Use

In this procedure, you define new freight order types that contain an enhanced save strategy. The internal freight order type is used by Continental Rail for internal operations.

Procedure

1. In Customizing for SAP Transportation Management, choose *Transportation Management* > *Freight Order Management* > *Freight Order* > *Define Freight Order Types*.
2. Create the following freight order types:
   1. In the header area, enter the following data:

      Table 56:

Field	Freight Order 1	Freight Order 2
Freight Order Type	**RFIN**	**RFSC**
Description	**Rail Freight with Internal Processing**	**Rail Freight with Subcontracting**

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

      Table 57:

Field	RFIN	RFSC
Freight Order Can Be Subcontracted	**02 Not Relevant for Subcontracting**	**01 Relevant for Subcontracting**
Shipper/Consignee Determination	**P Determination Based on Predecessor Documents**	**P Determination Based on Predecessor Documents**
Freight Order Can Be Deleted	Select	Select

Field	RFIN	RFSC
Enable Charge Calculation	Select	Select
Enable Cost Distribution	Select	Select
Enable Internal Charge Calculation	Select	Select
Enable Internal Settlement	Select	Select
Enable Settlement	Select	Select
Enable Internal Cost Distribution	Select	Select
Sequence Type of Stops	**01 Defined and Linear**	**01 Defined and Linear**
Event Profile	**RFIN**	**RFSC**

3. In the *Number Range Settings* screen area, enter the following data:

Table 58:

Field	RFIN	RFSC
Time for Drawing	*S Draw Number When Saving the Document*	*S Draw Number When Saving the Document*
Number Range Interval	**FO**	**FO**

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

Table 59:

Field	RFIN	RFSC
Default Change Strategy	**DEF_CHACO**	**DEF_CHACO**

5. In the *Execution Settings* screen area, enter the following data:

Table 60:

Field	RFIN	RFSC
Execution Tr. Relev.	*3 Execution Tracking with External Event Management*	*3 Execution Tracking with External Event Management*
Display Mode of Execution Tab	*Actual Events from TM and EM, Expected Events from EM*	*Actual Events from TM and EM, Expected Events from EM*
Immediate Processing	Select	Select
Propagate Execution Info	Select	Select

Field	RFIN	RFSC
Execution Propagation Mode	*Standard Propagation*	*Standard Propagation*

6. In the *Event Management Settings* screen area, enter the following data:

Table 61:

Field	RFIN	RFSC
Application Object Type	**ODT30_TO**	**ODT30_TO**
Last Exp. Event	**UNLOAD_END**	**UNLOAD_END**

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

Table 62:

Field	RFIN	RFSC
Document Creation Relevance	*No Shipment Creation in ERP*	*No Shipment Creation in ERP*
BW Relevance	Select	Select
Track Changes	Select	Select
Residence Period	**100**	**100**
Web Dynpro Application Config.	**/SCMTMS/FRE_ORDER_RAIL**	**/SCMTMS/FRE_ORDER_RAIL**

8. In the *Charge Calculation and Settlement Document Settings* screen area, enter the following data:

Table 63:

Field	RFIN	RFSC
Default FSD Type	**RF01 Rail Carrier Settlement Document**	**RF01 Rail Carrier Settlement Document**

9. In the *Default MTr Determination* screen area, enter the following data:

Table 64:

Field	RFIN	RFSC
Default MTr for Type	**RF_TRAIN**	**RF-TRAIN-E**
Transportation Mode	**02**	**02**

10. In the *Default Units of Measure* screen area, enter the following data:

    Table 65:

Field	RFIN	RFSC
Weight	**LB** (U.S. pound)	**LB** (U.S. pound)
Volume	**FT** (Cubic foot)	**FT** (Cubic foot)

11. In the *Organizational Unit Determination* screen area, enter the following data:

    Table 66:

Field	RFIN	RFSC
Purchasing Org.	**RF_PORG-01**	**RF_PORG-01**
Purchasing Group	Blank	Blank

12. In the *Output Options* screen area, enter the following data:

    Table 67:

Field	RFIN	RFSC
Output Profile	**/SCMTMS/TOR**	**/SCMTMS/TOR**
Add. Output Profile	**/SCMTMS/TOR_PRINT_ROAD**	**/SCMTMS/TOR_PRINT_ROAD**

13. Save your entries.

> **Note**
>
> If necessary, return to the section Defining Planning Profiles [page 24] to continue.

7 Order Management

Order management involves defining forwarding and freight orders and completing any supporting documentation. The following processes are involved:

- Defining Forwarding Order Types [page 44]
  This procedure specifies types of forwarding orders. Forwarding order types define certain parameters for the forwarding order that affect how the system processes the business document.
- Defining Item Types for Forwarding Order Management [page 47]
- Assigning Item Types to Forwarding Order Types [page 48]
  You use this procedure to assign an item type to a forwarding order type.
- Defining Commodity Codes [page 49]

7.1 Defining Forwarding Order Types

Context

In this procedure, you specify types of forwarding orders. Forwarding order types define parameters for the forwarding order that affect how the system processes the business document. For example, the forwarding order type can determine the number range interval that is used to generate the number of the forwarding order, or it can define whether freight units are created automatically when you save the forwarding order.

You can also assign profiles (such as a planning profile or 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).

Procedure

1. In Customizing for SAP Transportation Management, choose *Transportation Management* > *Forwarding Order Management* > *Forwarding Order* > *Define Forwarding Order Types*.
2. Choose the *New Entries* pushbutton and create the following entries:

- In the header area, enter the following data:

  Table 68:

Field	Value
Forwarding Order Type	**RF0I**
Short Description	**Rail Intermodal**

- In the *Number Range Settings* area, enter the following data:

  Table 69:

Field	Value
Number Range Interval	**01**
Template No. Range Interval	**02**

- In the *Process Control / Business Object Mode* area, enter the following data:

  Table 70:

Field	Value
BW Relevance	Select
Enable Approval Workflow	Select
Transportation Mode	**02**
Automatic Freight Unit Building	Select
Shipping Type	**30**
Stage Determination	**Stage Determination by Movement Type**

- In the *Charge Calculation and Settlement Document Settings* area, enter the following data:

  Table 71:

Field	Value
Automatic Charge Calculation	Select
Enable Charge Calculation	Select
Enable Internal Charge Calculation	Select
EM Integration Active	Select
Dangerous Goods Profile	**RF_DG_01**

Field	Value
Default FWSD Type	**RF01**
Enable Forwarding Settlement	Select
Default Conf. Type	**O - Order-Based Confirmation**

- Enter the following event manager values:

Table 72:

Field	Value
Event Profile	**RF0I**
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	**Automatic**
Event Manager	**<Logical system name of SAP Event Management system>**
Enable Instructions	Select
Retention Period	Blank
Accept Transp. Prop.	**R**

- In the *Default Values* area, enter the following data:

Table 73:

Field	Value
Default Weight UoM	**KG**
Default Volume UoM	**M3**
Default Pieces UoM	**PC**
Freight Unit Building Rule Condition	**RF-FUB-01**
Planning Profile	**RF_AUTO_PLAN**

- In the *Organizational Unit Determination* area, enter the following data:

  Table 74:

Field	Value
Sales Organization	**RF-SORG-1**

3. Save your entries.

7.2 Defining Item Types for Forwarding Order Management

Procedure

1. In Customizing for SAP Transportation Management, choose *Transportation Management* > *Forwarding Order Management* > *Define Item Types for Forwarding Order Management*.
2. Create the following items types:

   Table 75:

Field	Value
Item Type	**RC**
Item Type Descr.	**Railcar**
Item Category	**PVR Passive Vehicle Resource**
Text Schema	**FWOITEM**
DG UI Profile Name	**RF_DG_UI_02**
Default Weight UoM	**TO**
Default Volume UoM	**M3**
Default Quantity UoM	**PC**

3. Save your entries.
4. Go back and repeat the steps for the following item type:

Table 76:

Field	Value
Item Type	**SRV**
Item Type Descr.	**Service**
Item Category	**SRV Service**
Text Schema	**FWOITEM**

5. Save your entries.

7.3 Assigning Item Types to Forwarding Order Types

Context

In this procedure, you assign an item type to the forwarding order (FWO) type. Once the assignment has been made, the item type can be used in any forwarding order of type `RFOI`.

Procedure

1. In Customizing for SAP Transportation Management, choose *Transportation Management* > *Forwarding Order Management* > *Forwarding Order* > *Assign Item Types to Forwarding Order Types*.
2. Enter the following data:

Table 77:

FWO Type	RF0I	RF0I	RF0I	RF0I	RF0I
Item Type	CN	**PKG**	**PRD**	**RC**	**SRV**
Default Item Type	Select	Select	Select	Select	Select
Item Category	**Container**	**Package**	**Product**	**Passive Vehicle Resource**	**Service**
Instruction Set	Blank	Blank	Blank	Blank	Blank

3. Save your entries.

7.4 Defining Commodity Codes

Procedure

1. In Customizing for SAP Transportation Management, choose *Transportation Management* > *Master Data* > *Classification of Goods* > *Define Commodity Types*.
2. Choose the *New Entries* pushbutton.
3. Enter the following data:

   Table 78:

Code Type	Description	Maximum Length of Commodity code
ST	STCC	Blank

4. Select the *Commodity Codes* folder from the navigation structure.
5. Choose the *New Entries* pushbutton.
6. Enter the following data:

   Table 79:

Commodity Code	Description
2819604	ALUMINUM PHOSPHIDE

8 Creation of Organizational Model

SAP Transportation Management uses HR functions from the organizational model to create and maintain organizational units. The organizational model can be used to model your sales organization, purchasing organization, and transportation execution organization.

You use the organizational model to assign the responsible organizational units to transportation documents such as a freight request, freight order, and so on. Each order must be assigned to an organizational unit so that the costs and profits generated by the order can be allocated to a business unit. This is also necessary for profit analysis of the various groups and organizations associated with the logistics service provider (LSP). The organizational model supports you when analyzing the costs that your company incurs for various LSPs, routes, customers, and so on, and therefore enables you to improve your demand forecasting.

You have to maintain the organizational model in SAP TM since it is not transferred from the organizational units in SAP ERP.

Creating the organizational model involves the following operations:

- Creating Companies [page 50]
  SAP ERP contains one company representing the U.S. organization. In SAP TM, this company also has to be created.
- Creating Organizational Structures [page 51]

8.1 Creating Companies

Use

SAP ERP contains one company representing the Canadian organization. In SAP TM, this company also has to be created.

Procedure

Creating the Canadian Company

1. In SAP NetWeaver Business Client, choose *Master Data* > *Organization* > *Create Organization and Staffing*.
2. In the dialog box, set the validity period from `<current year>-01-01` to `9999-12-31` and choose *Continue*.
3. On the *Basic Data* tab page, in the *Organizational Unit* fields, enter **`RF-COMP-CA`** and the description **`Railway Company Code CA`**.
4. On the *Org. Data* tab page, choose *Create*.
5. Overwrite the organizational ID with **`RF-COMP-CA`**.

6. As the *Organizational Unit Function*, enter **24** and as the *Organizational Unit Role*, enter **1**.
7. Enter the currency **CAD** and select *Intra Comp. Settlement*.
8. Choose the *Address* tab page and enter the address as **935 de La Gauchetière Street West, Montreal, Quebec, H3B 2M9, Canada**.
9. Save your entries.

8.2 Creating Organizational Structures

Use

SAP ERP contains one company representing the Canadian organization. In SAP TM, this company also has to be created.

Procedure

Creating the Canadian Sales Organization

1. In SAP NetWeaver Business Client, choose *Master Data* > *Organization* > *Create Organization and Staffing* .
2. Select the line *Railway Company Code CA* and choose *Create*.
3. From the popup window, choose *Is line supervisor of*.
4. On the *Basic Data* tab page, in the *Organizational Unit* fields, enter **RF-SORG-1** and the description **Railway Sales Organization CA 1**.
5. In the dialog box, set the validity period from `<current year>-01-01` to `9999-12-31` and press ENTER.
6. On the *Org. Data* tab page, choose *Create*.
7. Overwrite the organizational ID with **RF-SORG-1**.
8. As the *Organizational Unit Function*, enter **4** and as the *Organizational Unit Role*, enter **1**
9. Choose the *Address* tab page and enter the street **de La Gauchetière Street West**, house no. **935**, city **Montreal**, postal code **H3B 2M9** region **QC**, and country **CA**.
10. Save your entries.

Creating the Canadian Purchasing Organization

1. Select the line *Railway Company Code CA* and choose *Create*.
2. From the popup window, choose *Is line supervisor of*.
3. On the *Basic Data* tab page, in the *Organizational Unit* fields, enter **RF-PORG-1** and the description **Railway Purchasing Organization CA 1**.
4. In the dialog box, set the validity period from `<current year>-01-01` to `9999-12-31` and press ENTER.
5. On the *Org. Data* tab page, choose *Create*.
6. Overwrite the organizational ID with **RF-PORG-1**.
7. As the *Organizational Unit Function*, enter **2** and as the *Organizational Unit Role*, enter **1**.

8. Choose the *Address* tab page and enter the street **de La Gauchetière Street West**, house no. **935**, city **Montreal**, postal code **H3B 2M9**, region **QC**, and country **CA**.
9. Save your entries.

Creating the Canadian Planning & Execution Organization

1. Select the line *Railway Company Code CA* and choose *Create*.
2. From the popup window, choose *Is line supervisor of*.
3. On the *Basic Data* tab page, in the *Organizational Unit* fields, enter **RF_EORG_01** and the description **Railway Execution Organization CA 1**.
4. In the dialog box, set the validity period from `<current year>-01-01` to `9999-12-31` and press ENTER.
5. On the *Org. Data* tab page, choose *Create*.
6. Overwrite the organizational ID with **RF_EORG_01**.
7. As the *Organizational Unit Function*, enter **13** and as the *Organizational Unit Role*, enter **1**.
8. Choose the *Address* tab page and enter the street **de La Gauchetière Street West**, house no. **935**, city **Montreal**, postal code **H3B 2M9**, region **QC**, and country **CA**.
9. Save your entries.

> **Note**
>
> You will require the internal organizational ID later in the configuration process. To view the internal ID, adjust the column configuration on the *Organization and Staffing* screen (choose the *Column Configuration* pushbutton at the top right of the menu). Select *ID* and confirm your selection. Take a note of the ID.

> **Note**
>
> If required, create sales, purchasing, and planning & execution offices and groups within the structure.

9 Setup of Transportation Network

Setting up the transportation network involves the following procedures, which are carried out in the SAP Transportation Management system:

- Defining Locations [page 53]
- Defining Transshipment Locations [page 55]
- Defining Means of Transport [page 56]
- Defining Transportation Lanes [page 57]
- Defining Schedule Types [page 58]
- Defining Train Schedules [page 59]
- Defining Truck Schedules [page 67]
- Defining Default Routes [page 69]

9.1 Defining Locations

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose *Master Data* > *Transportation Network* > *Locations* > *Define Location*.
2. Create locations for container freight stations using the following data:

   Table 80:

Location	RF_12605	RF_41978	RF_55989	RF_66001	RF_35100	RF_626200
Description	Halterm Halifax	Toronto Cargoflo	Chicago Heights Yard	Chicago IM EX	Houston	Oklahoma City
Name	Halterm Halifax	Toronto Cargoflo	Chicago Heights Yard	Chicago IM EX	Houston	Oklahoma City
Location Type	1130	1130	1130	1130	1130	1130
Time Zone	AST	EST	CST	CST	CST	CST

Location	RF_12605	RF_41978	RF_55989	RF_66001	RF_35100	RF_626200
Search Term	**RF**	**RF**	**RF**	**RF**	**RF**	**RF**
Address	**577 Marginal Rd, Halifax, B3H 4P6**	**169 Doney Crescent, Concord, L4K 3P1**	**60411 State St, Chicago Heights, 60411**	**4519 S. Drake Ave, Chicago, 60632**	**5507 Beekman Rd, Houston, 77021**	**800 Pole Rd, Oklahoma City, 73149**
Country	**CA**	**CA**	**US**	**US**	**US**	**US**
Region	**NS** (Nova Scotia)	**ON** (Ontario)	**IL** (Illinois)	**IL** (Illinois)	**TX** (Texas)	**OK** (Oklahoma)
Business Partner	Blank	Blank	Blank	Blank	Blank	Blank

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

Table 81:

Location	Longitude	Latitude
RF-12605	- 63: 34: 06	+ 44: 37: 48
RF-41978	- 79: 30: 12	+ 43: 47: 41
RF-55989	- 87: 36: 17	+ 41: 29: 57
RF-66001	– 87: 42: 45	+ 41: 48: 41
RF-35100	– 95: 19: 48	+ 29: 41: 58
RF-626200	– 97: 29: 13	+ 35: 23: 26

> **Note**
>
> If required, you can change the precision code.

4. Save your entries.

9.2 Defining Transshipment Locations

Context

At a transshipment location, goods are unloaded from one vehicle resource and loaded onto another vehicle resource. Transshipment locations are used when the transportation process involves different means of transport. They are also used when the goods to be transported have to be consolidated or deconsolidated.

The “Intermodal Rail Freight” scenario uses stations as transshipment locations.

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose *Master Data* > *Transportation Network* > *Locations* > *Assign Transshipment Location*.
2. Select the *Locations* radio button.
3. In the *Location Selection* screen area, enter **RF_12605** in the *Location* field.
4. In the *Transshipment Location Selection* area, enter **RF_41978** in the *Location* field.
5. Choose the *Create/Update Assignments* pushbutton to apply the assignment.

   The system issues a message confirming that the transshipment location assignments have been created or updated.
6. Repeat the process to assign the following locations and transshipment locations:

   Table 82:

Locations Selection	Transshipment Locations Selection	Duration (Hours)
RF_12605 (Halifax)	RF_41978 (Toronto)	20
RF_41978 (Toronto)	RF_55989 (Chicago 1)	11
RF_55989 (Chicago 1)	RF_66001 (Chicago 2)	1
RF_66001 (Chicago 2)	RF_35100 (Houston)	20

9.3 Defining Means of Transport

Use

The information in this section may have already been completed automatically based on the settings you configured in Defining Freight Order Types [page 40].

Procedure

1. In Customizing for SAP Transportation Management, choose *Transportation Management* > *Master Data* > *Resources* > *Define Means of Transport*.
2. Check that the following means of transport exist in the system and create any that are missing:

Table 83:

Means of Transport	RF-RAILCAR	RF-SHORT	RF-SHORT-E	RF-TRAIN	RF-TRAIN-E	RF-TRUCK	RF-TRUCK-S
MTr Description	Railcar	Rail short line	Rail short line - external	Scheduled train	Scheduled train - external	Truck	Truck (scheduled)
Standard Code	072	072	072	072	072	031	031
Transp. Mode	02 RAIL	02 RAIL	02 RAIL	02 RAIL	02 RAIL	01 ROAD	01 ROAD
Resource Class	4 - Railcar	3 - Locomotive	3 - Locomotive	3 - Locomotive	3 - Locomotive	1 - Truck	1 - Truck
Low Speed	Blank	20	20	30	30	60	60
Medium Speed	Blank	40	40	100	100	80	80
High Speed	Blank	60	60	140	140	100	100
Average Speed	100	40	40	100	100	80	80
Passive	Select	Blank	Blank	Blank	Blank	Blank	Blank
Distance Factor	Blank	1	1	1	1	1	1
Schedule MTr	Blank	Blank	Blank	Select	Select	Blank	Select

Your Own MTr	Blank	Select	Blank	Select	Blank	Blank	Blank
No Capacity	Blank	Blank	Blank	Select	Select	Blank	Blank
Multiresource	Blank	Blank	Blank	Blank	Blank	Select	Select
GIS Quality	Blank	Blank	Blank	Blank	Blank	Select	Select

> **Note**
>
> You must have established a connection to a GIS provider before you can select the *GIS Quality* checkbox.

9.4 Defining Transportation Lanes

Transportation Lane for Truck

1. In SAP NetWeaver Business Client (NWBC), choose *Master Data* > *Transportation Network* > *Transportation Lanes* > *Define Transportation Lane*.
2. On the *Tr. Lane* tab page, enter **RF-55989** in the *Start Location/Zone* field and **RF-66001** in the *Dest. Loc./Zone* field.
3. Choose the *Create* pushbutton.
   The *Create RF-55989 –> RF-66001* screen appears.
4. In the *Means of Transport* area, choose and enter the following data:

   Table 84:

Field	Value
Means of Transport	**RF_TRUCK**
Start Date	**<current year>-01-01**
End Date	**9999-12-31**
Transportation Costs	**1.00** per **MI**
Means of Transport Costs	**200**
Relevant to Carrier Selection	Select
Priority/Costs	*X Neither Costs Nor Priority*
Cost Origin	*I Internal Costs*

Field	Value
Continuous Movement Type	*No Continuous Move*

5. Choose ✔.
6. When prompted to create a transportation proposal, choose *Yes*.
7. In the *Carrier* area, choose 📄 and enter the following data:

Table 85:

Business Partner	Transportation Costs	Priority
RF-CR-01	**1** per **MI**	**1**

8. Choose ✔.
9. Save your entries.

9.5 Defining Schedule Types

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose *Master Data* > *Transportation Network* > *Schedule* > *Create Schedule*.
2. Choose the New Entries pushbutton and create the following schedules:

Table 86:

Type	**RF0I**	**RF0S**	**RFOT**
Description	**RF: Rail Schedule Internal**	**RF: Rail Schedule Interline**	**RF: Scheduled Truck**
Default Type	Select	Not selected	Not selected
Transp. Mode	**02**	**02**	**01**
Header Number Range	**02**	**02**	**02**
Voyage Number Range	**01**	**01**	**01**
Offset Time Type	**A Absolute**	**A Absolute**	**R Relative**

Gateway	Not selected	Not selected	Not selected
Direct	Not selected	Not selected	Not selected
Document Type	**RFIN**	**RFSC**	**RFSC**
Allocation Type	**3000**	**3000**	**1000**
Template	Select	Select	Select
One Order	Not selected	Not selected	Not selected
Use Capacities	Select	Select	Select
Use Transp. Costs	Select	Select	Select
WD Appl. Config.	Blank	Blank	Blank

3. Save your entries.

9.6 Defining Train Schedules

Schedule RF-12605-41978 (Halifax – Toronto)

1. In SAP NetWeaver Business Client (NWBC), choose *Master Data* > *Transportation Network* > *Schedule* > *Create Schedule*.
2. Enter schedule type **RF0I** and choose the *Continue* pushbutton.
3. Enter the following data:

Table 87:

Field	Value
Schedule Description	**RF_12605-41978 (Halifax - Toronto)**
Valid From	**<current year>-01-01**
Valid To	**<next year>-12-31**
Shipping Type	**30 - Intermodal**
Transportation Mode	**02 - Rail**
Means of Transport	**RF-TRAIN**
Carrier	**RF-CR-CN**

Field	Value
Weight	**8,000 TO**
Quantity	**400 teu**

4. Create a standard stop sequence by adding the following locations (choose the *Create* pushbutton to add line to the table):

   Table 88:

Field	Value	Value
Sequence	10	20
Location	**RF_12605**	**RF_41978**
Cargo Cut Off (Offset in Days)	**0**	Blank
Cargo Cut-Off Time	**04:00:00**	Blank
Transit Duration (Hours)	**9**	Blank
Transit Duration (Minutes)	**0**	Blank
Days to Availability	Blank	**0**
Availability Time	Blank	**0**

5. Create departures by adding the following departure rule in the *Departure Rules* screen area (choose the *Create* pushbutton to add an entry):

   Table 89:

Field	Value
First Day of Validity	**<current year>-<current month>-01**
Last Day of Validity	**<next year>-12-31**
Departure Days	**Monday, Tuesday, Wednesday, Thursday, Friday**
Departure Time	**11:30:00**
Time Zone	**AST**

6. Select the departure rule and choose *Generate Departures*. Departures are automatically added to the *Departures* tab page.
7. Save your entries.

Schedule RF-41978-55989 (Toronto – Chicago)

1. In SAP NetWeaver Business Client (NWBC), choose *Master Data* > *Transportation Network* > *Schedule* > *Create Schedule* .
2. Enter schedule type **RF0I** and choose the *Continue* pushbutton.
3. Enter the following data:

   Table 90:

Field	Value
Schedule Description	**RF_41978-55989 (Toronto - Chicago)**
Valid From	**<current year>-01-01**
Valid To	**<next year>-12-31**
Shipping Type	**30 - Intermodal**
Transportation Mode	**02 - Rail**
Means of Transport	**RF-TRAIN**
Carrier	**RF-CR-CN**
Weight	**8,000 TO**
Quantity	**400 teu**

4. Create a standard stop sequence by adding the following locations (choose the *Create* pushbutton to add line to the table):

   Table 91:

Field	Value	Value
Sequence	10	20
Location	**RF_41978**	**RF_55989**
Cargo Cut Off (Offset in Days)	**0**	Blank
Cargo Cut-Off Time	**04:00:00**	Blank
Transit Duration (Hours)	**7**	Blank
Transit Duration (Minutes)	**41**	Blank
Days to Availability	Blank	**0**
Availability Time	Blank	**0**

5. Create departures by adding the following departure rule in the *Departure Rules* screen area (choose the *Create* pushbutton to add an entry):

   Table 92:

Field	Value
First Day of Validity	**<current year>-<current month>-01**
Last Day of Validity	**<next year>-12-31**
Departure Days	**Monday, Tuesday, Wednesday, Thursday, Friday**
Departure Time	**13:40:00**
Time Zone	**EST**

6. Select the departure rule and choose *Generate Departures*. Departures are automatically added to the *Departures* tab page.
7. Save your entries.

Schedule RF-66001-35100 (Chicago – Houston)

1. In SAP NetWeaver Business Client (NWBC), choose *Master Data* > *Transportation Network* > *Schedule* > *Create Schedule*.
2. Enter schedule type **RF0S** and choose the *Continue* pushbutton.
3. Enter the following data:

   Table 93:

Field	Value
Schedule Description	**RF-66001-35100 (Chicago - Houston)**
Valid From	**<current year>-01-01**
Valid To	**<next year>-12-31**
Shipping Type	**30 - Intermodal**
Transportation Mode	**02 - Rail**
Means of Transport	**RF-TRAIN-E**
Carrier	**RF-CR-BURL**
Weight	**8,000 TO**

Field	Value
Quantity	**400 teu**

4. Create a standard stop sequence by adding the following locations (choose the *Create* pushbutton to add line to the table):

   Table 94:

Field	Value	Value
Sequence	10	20
Location	**RF_66001**	**RF_35100**
Cargo Cut Off (Offset in Days)	**0**	Blank
Cargo Cut-Off Time	**04:00:00**	Blank
Transit Duration (Hours)	**16**	Blank
Transit Duration (Minutes)	**52**	Blank
Days to Availability	Blank	**0**
Availability Time	Blank	**0**

5. Create departures by adding the following departure rule in the *Departure Rules* screen area (choose the *Create* pushbutton to add an entry):

   Table 95:

Field	Value
First Day of Validity	**<current year>-<current month>-01**
Last Day of Validity	**<next year>-12-31**
Departure Days	**Every day**
Departure Time	**12:00:00**
Time Zone	**CST**

6. Select the departure rule and choose *Generate Departures*. Departures are automatically added to the *Departures* tab page.
7. Save your entries.

Schedule RF-41978-626200 (Toronto – Oklahoma City)

1. In SAP NetWeaver Business Client (NWBC), choose *Master Data* > *Transportation Network* > *Schedule* > *Create Schedule*.
2. Enter schedule type **RF0S** and choose the *Continue* pushbutton.
3. Enter the following data:

   Table 96:

Field	Value
Schedule Description	**RF-41978-626200 (Toronto - Oklahoma City)**
Valid From	**<current year>-01-01**
Valid To	**<next year>-12-31**
Shipping Type	**30 - Intermodal**
Transportation Mode	**02 - Rail**
Means of Transport	**RF-TRAIN-E**
Carrier	**RF-CR-BURL**
Weight	**8,000 TO**
Quantity	**400 teu**

4. Create a standard stop sequence by adding the following locations (choose the *Create* pushbutton to add line to the table):

   Table 97:

Field	Value	Value
Sequence	10	20
Location	**RF_41978**	**RF_626200**
Cargo Cut Off (Offset in Days)	**0**	Blank
Cargo Cut-Off Time	**04:00:00**	Blank
Transit Duration (Hours)	**19**	Blank
Transit Duration (Minutes)	**20**	Blank
Days to Availability	Blank	**0**

Field	Value	Value
Availability Time	Blank	`04:00:00`

5. Create departures by adding the following departure rule in the *Departure Rules* screen area (choose the *Create* pushbutton to add an entry):

   Table 98:

Field	Value
First Day of Validity	`<current year>-<current month>-01`
Last Day of Validity	`<next year>-12-31`
Departure Days	`Every day`
Departure Time	`14:15:00`
Time Zone	`EST`

6. Select the departure rule and choose *Generate Departures*. Departures are automatically added to the *Departures* tab page.
7. Save your entries.

Schedule RF-626200-35100 (Oklahoma City – Houston)

1. In SAP NetWeaver Business Client (NWBC), choose *Master Data* > *Transportation Network* > *Schedule* > *Create Schedule*.
2. Enter schedule type `RF0S` and choose the *Continue* pushbutton.
3. Enter the following data:

   Table 99:

Field	Value
Schedule Description	`RF-626200-35100 (Oklahoma City - Houston)`
Valid From	`<current year>-01-01`
Valid To	`<next year>-12-31`
Shipping Type	`30 - Intermodal`
Transportation Mode	`02 - Rail`
Means of Transport	`RF-TRAIN-E`

Field	Value
Carrier	**RF-CR-BURL**
Weight	**8,000 TO**
Quantity	**400 teu**

4. Create a standard stop sequence by adding the following locations (choose the *Create* pushbutton to add line to the table):

   Table 100:

Field	Value	Value
Sequence	10	20
Location	**RF_626200**	**RF_35100**
Cargo Cut Off (Offset in Days)	**0**	Blank
Cargo Cut-Off Time	**04:00:00**	Blank
Transit Duration (Hours)	**5**	Blank
Transit Duration (Minutes)	**40**	Blank
Days to Availability	Blank	**0**
Availability Time	Blank	**04:00:00**

5. Create departures by adding the following departure rule in the *Departure Rules* screen area (choose the *Create* pushbutton to add an entry):

   Table 101:

Field	Value
First Day of Validity	**<current year>-<current month>-01**
Last Day of Validity	**<next year>-12-31**
Departure Days	**Every day**
Departure Time	**11:50:00**
Time Zone	**CST**

6. Select the departure rule and choose *Generate Departures*. Departures are automatically added to the *Departures* tab page.
7. Save your entries.

9.7 Defining Truck Schedules

Use

For the daily feeder trucks between the yards Chicago Heights (Continental Rail) and Chicago IM EX (Burlington), you require schedules so that you can plan the cross-town stages. In SAP TM, these schedules are based on schedule type `RF0T` (“Scheduled Truck”).

Currently, this schedule is in place as a workaround because automatic planning is unable to run the routing proposals with trucks planned from transportation lanes.

Procedure

Schedule RF-55989-66001 (Cross-Town Chicago)

1. In SAP NetWeaver Business Client (NWBC), choose *Master Data* > *Transportation Network* > *Schedule* > *Create Schedule*.
2. Enter schedule type **RF0T** and choose the *Continue* pushbutton.
3. Enter the following data:

   Table 102:

Field	Value
Schedule Description	**RF-55989-66001 (Cross Town Chicago)**
Valid From	**<current year>-01-01**
Valid To	**<next year>-12-31**
Shipping Type	**30 - Intermodal**
Transportation Mode	**01 - Road**
Means of Transport	**RF-TRUCK-S**
Carrier	**RF-CR-01**
Weight	**40 TO**
Quantity	**2 teu**

4. Create a standard stop sequence by adding the following locations (choose the *Create* pushbutton to add line to the table):

   Table 103:

Field	Value	Value
Sequence	10	20
Location	**RF_55989**	**RF_66001**
Cargo Cut Off (Offset in Days)	**0**	Blank
Cargo Cut-Off Time	**01:00:00**	Blank
Distance	**37 KM**	Blank
Transit Duration (Minutes)	**40**	Blank
Days to Availability	Blank	**0**
Availability Time	Blank	**0**

5. Create departures by adding the following departure rule in the *Departure Rules* screen area (choose the *Create* pushbutton to add an entry):

   Table 104:

Field	Value
First Day of Validity	**<current year>-<current month>-01**
Last Day of Validity	**<next year>-12-31**
Departure Days	**Every day**
Departure Time	**09:00:00**
Time Zone	**CST**

6. Select the departure rule and choose *Generate Departures*. Departures are automatically added to the *Departures* tab page.
7. Save your entries.

9.8 Defining Default Routes

Default Route RF-12605-35100 (Halifax – Chicago – Houston)

1. In SAP NetWeaver Business Client (NWBC), choose *Master Data* > *Transportation Network* > *Default Route* > *Create Default Route*.
2. Enter schedule type **RFDF** and choose the *Continue* pushbutton.
3. Enter the following data:

   Table 105:

Field	Value
Description	**RF-12605-35100** (Halifax-Chicago-Houston)
Valid From	**<Current Year>-01-01**
Valid To	**<Next Year>-12-31**
Transportation Mode	**02** (Rail)

4. Create a standard stop sequence by adding the following locations (choose the *Create* pushbutton to add row to the table):

   Table 106:

Field	Value	Value	Value	Value	Value
Sequence	10	20	30	40	50
Location	**RF_12605**	**RF_41978**	**RF_55989**	**RF_66001**	**RF_35100**
Transportation Mode	**02 - Rail**	**02 - Rail**	**01 Road**	**02 - Rail**	Blank

5. Save your entries.

Default Route RF-12605-35100 (Halifax – Oklahoma – Houston)

1. In SAP NetWeaver Business Client (NWBC), choose *Master Data* > *Transportation Network* > *Default Route* > *Create Default Route*.
2. Enter schedule type **RFDF** and choose the *Continue* pushbutton.

3. Enter the following data:

Table 107:

Field	Value
Description	**RF-12605-35100** (Halifax-Oklahoma-Houston)
Valid From	**<Current Year>-01-01**
Valid To	**Next Year-12-31**
Transportation Mode	**02** (Rail)

4. Create a standard stop sequence by adding the following locations (choose the *Create* pushbutton to add a row to the table):

Table 108:

Field	Value	Value	Value	Value
Sequence	10	20	30	40
Location	**RF_12605**	**RF_41978**	**RF_626200**	**RF_35100**
Transportation Mode	**02 - Rail**	**02 - Rail**	**02 - Rail**	**02 - Rail**

5. Save your entries.

10 Resources

Use

In SAP Transportation Management, you must define resources including the vehicle and carrier resources.

Activities

- Defining Vehicle Resources [page 71]
- Defining Railcar Resources [page 72]

10.1 Defining Vehicle Resources

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose *Master Data* > *Resources* > *Define Resource*.
2. On the initial screen, enter **RF-TRUCK-01** in the *Resource* field and specify the resource type as **09** (vehicle resource).
3. Choose the *Create Resources* pushbutton.
4. On the *0 Vehicle* tab page, enter the following data in the table:

   Table 109:

Field	Value
Location	Blank
Means of Transport	**RF_TRUCK**
Time Zone	**CST**
Continuous Dimension	**AAAADL**
Factory Calendar	**US**

Field	Value
Capacity	**2**
Unit	**TEU**

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

Table 110:

Field	Value
Passive Means of Transport	Deselect
Number of Individual Resources	**0**
Multiresource	Select

6. On the *Capacity* tab page, enter the following data

Table 111:

Field	Value
Continuous Dimension	*Mass*
Capacity	**30**
Unit	**TO**

7. Save your entries.

10.2 Defining Railcar Resources

Resources RF-ATSF-291000 to RF-ATSF-291004

1. In SAP NetWeaver Business Client (NWBC), choose *Master Data* > *Resources* > *Define Resource*.
2. On the initial screen, enter **RF-ATSF-291000** in the *Resource* field and specify the resource type as **09** (vehicle resource).
3. Choose the *Create Resources* pushbutton.
4. On the *0 Vehicle* tab page, enter the following data in the table:

Table 112:

Field	Value
Vehicle Group	**F** (Flat Car)

Field	Value
Vehicle Type	**F077**
Resource Class	*4 Rail Car*
Location	Blank
Means of Transport	**RF-RAILCAR**
Time Zone	**CST**
Continuous Dimension	**AAAADL**
Factory Calendar	**US**
Capacity	**4**
Unit	**TEU**
Short Description	**Flat Car - CONF /TOFC / ATSF-291000**

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

Table 113:

Field	Value
Passive Means of Transport	Select
Number of Individual Resources	**0**
Multiresource	Not selected

6. On the *Transportation* tab page, enter the following data:

Table 114:

Field	Value
From Date	**1970-01-01**
To Date	**9999-12-30**
Registration No.	**ATSF-291000**
Relevant for Event Management	Select

7. On the *Capacity* tab page, enter the following data in the *Planning Relevant Capacities* table:

   Table 115:

Continuous Dimension	Capacity	Unit
AAAADL (no dimensions)	**4**	**TEU**
Mass	**159,900**	**LB**
Length	**82**	**FT**

8. On the *Phys. Properties* tab page, add the following data:

   Table 116:

Field	Value
Tare Weight	**60,100 LB**
Max. Gross Weight	**159,900 LB**
Max. Length	**82 FT**
First Axle Group: Axle Type	**2**
Second Axle Group: Axle Type	**0**
Third Axle Group: Axle Type	**0**

9. Save your entries.
10. Repeat the procedure to create the following railcar resources:
    - RF-ATSF-291001
    - RF-ATSF-291002
    - RF-ATSF-291003
    - RF-ATSF-291004

Resources RF-ATSF-291005 to RF-ATSF-291007

1. In SAP NetWeaver Business Client (NWBC), choose *Master Data* > *Resources* > *Define Resource*.
2. On the initial screen, enter **RF-ATSF-291005** in the *Resource* field and specify the resource type as **09** (vehicle resource).
3. Choose the *Create Resources* pushbutton.

4. On the *0 Vehicle* tab page, enter the following data in the table:

Table 117:

Field	Value
Vehicle Group	**F** (Flat Car)
Vehicle Type	**F077**
Resource Class	*4 Rail Car*
Location	Blank
Means of Transport	**RF-RAILCAR**
Time Zone	**EST**
Continuous Dimension	**AAAADL**
Factory Calendar	**US**
Capacity	**4**
Unit	**TEU**
Short Description	**Flat Car – CONF/ TOFC / ATSF-291005**

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

Table 118:

Field	Value
Passive Means of Transport	Select
Number of Individual Resources	**0**
Multiresource	Not selected

6. On the *Transportation* tab page, enter the following data:

Table 119:

Field	Value
From Date	**1970-01-01**
To Date	**9999-12-30**
Registration No.	**ATSF-291005**
Relevant for Event Management	Select

7. On the *Capacity* tab page, enter the following data in the *Planning Relevant Capacities* table:

   Table 120:

Continuous Dimension	Capacity	Unit
AAAADL (no dimensions)	**4**	**TEU**
Mass	**159,900**	**LB**
Length	**89**	**FT**

8. On the *Phys. Properties* tab page, add the following data:

   Table 121:

Field	Value
Tare Weight	**60,100 LB**
Max. Gross Weight	**159,900 LB**
Max. Length	**89 FT**
First Axle Group: Axle Type	**0**
Second Axle Group: Axle Type	**0**
Third Axle Group: Axle Type	**0**

9. Save your entries.
10. Repeat the procedure to create the following railcar resources:
    - `RF-ATSF-291006` (with the time zone `CST`)
    - `RF-ATSF-291007`

11 Setup of Dangerous Goods

- Defining Dangerous Goods User Interface Profile [page 77]
- Defining Common Settings for Dangerous Goods [page 79]
- Defining Dangerous Goods Profile [page 80]
- Specifying Business Context [page 81]
- Defining Segregation Keys [page 81]
- Defining Responses [page 82]
- Specifying Segregation Rules for Segregation Keys [page 83]
- Specifying Number Ranges for Phrases [page 84]
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- Editing Dangerous Goods Phrases [page 86]
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- Editing Phrase Set-Attribute Assignments [page 87]
- Defining Products for Dangerous Goods Master [page 88]
- Specifying Validity Area [page 88]
- Specifying Dangerous Goods Regulations [page 89]
- Specifying Dangerous Goods Classes and Classification Codes [page 89]
- Creating Dangerous Goods Master [page 90]

11.1 Defining Dangerous Goods User Interface Profile

Context

In this procedure, you define user interface (UI) profiles for processing dangerous goods. You can add these UI profiles to the item type used in your forwarding order type. In this way, you can specify which dangerous goods fields can be used in the forwarding order.

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose *Application Administration* > *General Settings* > *Define UI-Profile for Document-Based Dangerous Goods Data*.

2. Choose *New* and enter the new UI profile **RF_DG_UI_01** with the description **Rail Freight - Dangerous Goods UI Profile**.
3. Choose *UI Group Titles* and then choose *Append Row* to create the following lines:
    - Descriptions
    - Substance Rating
    - Labeling
    - Classification
    - Substance Properties
    - Transport Restrictions
4. Choose *OK* to save your entries.
5. In the *UI Group and Fields* section, choose *Insert* to insert new UI groups and choose all of UI groups created above and add them to the table.
6. In the *UI Group and Fields* section, highlight the group *Descriptions*, and then choose *Insert New Field*.
7. Add the following fields with regulation CFR:
    - DG_DESCRIPTION_TEXT
    - PDGNUD
    - PDGNUDPRE
    - PDGNUDSUF
8. In the *UI Group and Fields* section, highlight the group *Substance Rating*, and then choose *Insert New Field*.
9. Add the following fields with regulation CFR:
    - EINU
    - EMSN1
    - FLG_EMSN1_U
    - EMSN2
    - FLG_EMSN2_U
    - COWE
10. In the *UI Group and Fields* section, highlight the group *Labeling*, and then choose *Insert New Field*.
11. Add the following fields with regulation IMDG:
    - HNU
    - HPN1
    - HPN2
    - HPN3
    - HPN4
    - HPN5
    - HPN6
    - HPN7
12. In the *UI Group and Fields* section, highlight the group *Classification* and then choose *Insert New Field*.
13. Add the following fields with regulation CFR:
    - DGCL
    - DGSC
    - PIN
    - DGRES1

- DGRES2
- DGRES3
- CARR_TYPE

14. In the *UI Group and Fields* section, highlight the group *Substance Properties*, and then choose *Insert New Field*.
15. Add the following fields with regulation CFR:
    - FLTMP
    - TPFUN
16. In the *UI Group and Fields* section, highlight the group *Transport Restrictions*, and then choose *Insert New Field*.
17. Add the following fields with regulation CFR:
    - TRANSP_TYPE
    - DGCAO

11.2 Defining Common Settings for Dangerous Goods

Context

In this Customizing activity, you define general settings for dangerous goods processing in SAP TM.

Procedure

1. In Customizing for SAP TM, choose *Basic Functions* > *Dangerous Goods* > *Define Common Settings for Dangerous Goods Processing*.
2. Enter the following data:

   Table 122:

DG Activate	Strategy for DG Chk	DG Print Strat.	DG Activate FUB	DG Activate VSR
Selected	**DG_EHS_CHK**	**DG_EHS_PRT**	Selected	Selected

3. Save your entries.

11.3 Defining Dangerous Goods Profile

Context

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

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

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

Procedure

1. In Customizing for SAP Transportation Management, choose *Transportation Management* > *Basic Functions* > *Dangerous Goods* > *Define Dangerous Goods Profile*.
2. Enter the following data:

   Table 123:

Field	Value
DG Profile	**RF_DG_01**
Short Desc.	**Dangerous Goods Profile - Rail Freight**
Message Level	**2** – Errors and Warnings
Default MOT	**02** (Rail)
DG UI Profile	**RF_DG_UI_01**

11.4 Specifying Business Context

Context

In this procedure, you specify business contexts and assign them dangerous goods check schemas.

You use the business context to specify in which context a dangerous goods check schema is called. Depending on the business context, different or additional data can be read within the read module of the dangerous goods check schema.

Procedure

1. In Customizing for SAP Transportation Management, choose *SCM Basis* > *EH&S Services* > *Dangerous Goods Management* > *Dangerous Goods Checks and Dangerous Goods Documents* > *Common Settings* > *Specify Business Context*.
2. Enter the following data:

   Table 124:

Bus. Cont.	Desc. Bus. Context	DG Check Schema
TORFU	TM Freight Unit	1
TORTO	TM Freight Order	1
TORBO	TM Freight Booking	1

3. Save your entries.

11.5 Defining Segregation Keys

Context

In this Customizing activity, you specify segregation keys for the mixed loading checks.

Procedure

1. In Customizing for SAP TM, choose *SAP Transportation Management* > *SCM Basis* > *EH&S Services* > *Dangerous Goods Management* > *Dangerous Goods Checks and Dangerous Goods Documents* > *Dangerous Goods Checks* > *Specify Settings for Mixed Loading Checks* > *Specify Segregation Keys*.
2. Enter the following data:

   Table 125:

Regulation	Segr. Key	Description of Segregation Key
CFR	3.1	Gas
CFR	4.1	Explosive
CFR	4.2	Flammable
CFR	5.1	Radioactive

3. Save your entries.

11.6 Defining Responses

Context

In this Customizing activity, you define responses that are used in the segregation rules for the following:

- Segregation keys
- Enterprise-specific mixed loading groups

Procedure

1. In Customizing for SAP Transportation Management, choose *SCM Basis* > *EH&S Services* > *Dangerous Goods Management* > *Dangerous Goods Checks and Dangerous Goods Documents* > *Dangerous Goods Checks* > *Specify Settings for Mixed Loading Checks* > *Specify Responses*.
2. Enter the following data:

Table 126:

Response	Desc. of Response	Message Class	Msg No.	Resp. Type
E1	Error: Mixed loading not allowed	/SEHS/DG_DG	687	E

3. Save your entries.

11.7 Specifying Segregation Rules for Segregation Keys

Context

In this Customizing activity, you specify segregation rules for the segregation keys. The segregation rules are a regulation-dependent decision matrix in which you specify the combinations of segregation keys that are prohibited or permitted.

Procedure

1. In Customizing for SAP Transportation Management, choose *SCM Basis* > *EH&S Services* > *Dangerous Goods Management* > *Dangerous Goods Checks and Dangerous Goods Documents* > *Dangerous Goods Checks* > *Specify Settings for Mixed Loading Checks* > *Specify Segregation Rules for Segregation Keys*.
2. Enter the following data:

Table 127:

DG Regulation	Segr. Key	Segr. Key	Response
CFR	3.1	4.1	E1
CFR	3.1	4.2	E1

3. Save your entries.

11.8 Specifying Number Ranges for Phrases

Context

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

Procedure

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

   Table 128:

No.	From Number	To Number	Ext
0E	0000000000000001	5000000000000000	x

> **Note**
>
> Make sure that your number range does not overlap with existing number ranges in this table.

11.9 Specifying Phrase Libraries and Phrase Groups

Context

In this Customizing activity, you define phrase libraries and the corresponding phrase groups. Make sure that one phrase library is defined as an active library.

Procedure

1. In Customizing for SAP Transportation Management, choose *SCM Basis* > *EH&S Services* > *Phrase Management* > *Specify Phrase Libraries and Phrase Groups*.
2. Enter the following data:

   Table 129:

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

3. Specify the following phrase groups for your phrase library:

   Table 130:

Phrase Library	Phr. Lib. Desc.	Phrase Group	Desc. of Phrase Group
CUST	Customer Phrase Library	DG-TEXT	Output of Dangerous Goods Documents/EDI
CUST	Customer Phrase Library	RMS-PROC	RM: Process Parameters

11.10 Specifying Language Selection

Context

In this Customizing activity, you specify the languages that you can use for phrases in *EH&S Services*.

Procedure

1. In Customizing for SAP Transportation Management, choose *SCM Basis* > *EH&S Services* > *Phrase Management* > *Specify Language Selection*.

Enter the following data:

Table 131:

L	Name of Language	Sort
EN	English	1
DE	German	2

2. Save your entries.

11.11 Editing Dangerous Goods Phrases

Procedure

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

   Table 132:

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

3. Save your entries.

11.12 Editing Phrase Sets

Procedure

1. In SAP NetWeaver Business Client, choose *Master Data* > *Dangerous Goods Management* > *Phrase Management* > *Edit Phrase Sets*.
2. Enter the following data:

   Table 133:

Phrase Set	Language Key	Phrase Set Name
RF_PHRASE_SET	**EN**	**Phrase Set - Rail Freight**

3. Assign phrases `CUST-000000000000001` and `CUST-400000000000000` to the phrase set by choosing the *Phrase Assignment* pushbutton and entering the phrases.

11.13 Activating Phrase Assignment

Procedure

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

11.14 Editing Phrase Set-Attribute Assignments

Procedure

1. In SAP NetWeaver Business Client, choose *Master Data* > *Dangerous Goods Management* > *Phrase Management* > *Edit Phrase Set-Attribute Assignment*.

2. Choose *DGTMD* (DG: Dangerous Goods Master).
3. Assign phrase set `RF_PHRASE_SET` to field name `PDGNUD`.

11.15 Defining Products for Dangerous Goods Master

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose *Master Data* > *General* > *Define Product*.
2. Enter product **`RF_PROD_DG`**, choose *Global Data*, and click *Create*.
3. Enter the product description **`ALUMINUM PHOSPHIDE`** and the base unit of measure **`KG`**.
4. On the *Storage* tab page, enter the dangerous goods indicator profile **`GPP`**.
5. Save your entries.

11.16 Specifying Validity Area

Procedure

1. In Customizing for SAP Transportation Management, choose *SCM Basis* > *EH&S Services* > *Basic Services* > *Specify Validity Areas*.
2. Choose the *New Entries* pushbutton and enter the following data:

   Table 134:

VAreaCat	Val. Area	Description for Validity Area
`REGION`	**`CA`**	**`Canada`**

3. Save your entries.

11.17 Specifying Dangerous Goods Regulations

Context

In this Customizing activity, you assign dangerous goods regulations to a validity area and a means of transport.

Procedure

1. In Customizing for SAP Transportation Management, choose *SCM Basis* > *EH&S Services* > *Dangerous Goods Management* > *Dangerous Goods Master* > *Specify Dangerous Goods Regulations*.
2. Choose *New Entries* and enter the following data:

   Table 135:

DG Regulation	Validity Area	ModeTransCat	NamDGRegulation	Lang. Forw.Ctry
TDG	CA	2	49.CFR	Select

3. Save your entries.

11.18 Specifying Dangerous Goods Classes and Classification Codes

Procedure

1. In Customizing for SAP Transportation Management, choose *SCM Basis* > *EH&S Services* > *Dangerous Goods Management* > *Dangerous Goods Master* > *Specify Dangerous Goods Classes and Classification Codes*.
2. Choose the *New Entries* pushbutton and enter the following data:

Table 136:

DG regulation	Class	Desc. DG Class	ItNo.EmpTransp
ARD	**4.3**	**Substances that emit flammable gases when in contact with water**	**41**

3. Save your entries.
4. Select *Classification Code* from the navigation structure.
5. Choose the *New Entries* pushbutton and enter the following data:

Table 137:

Code	Description of Classification Code
a	**Very Dangerous**
b	**Dangerous**
c	**Less Dangerous**

6. Save your entries.
7. Repeat the above steps for dangerous goods regulation `TDG`.

11.19 Creating Dangerous Goods Master

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose *Master Data* > *Dangerous Goods Management* > *Dangerous Goods Master* > *Edit Dangerous Goods Master*.
2. Enter product **RF_PROD_DG** and DG regulation **CFR**, and then press ENTER.
3. On the *Classification* tab page, double click the item line and enter the following data in the table:

Table 138:

Field	Value
Type	**UN**
ID no.	**1397**

Field	Value
Description	**CUST-000000000000001**
Class	**4.3**
Subclass	**4.3**
Packing Group	**I**

4. On the *Substance Rating* tab page, enter the following data in the table:

   Table 139:

Field	Value
Tremcard No.	**1234**
MFAG Number 1	**45**
EmS/ERG Number 1	**23**

5. On the *Substance Properties* tab page, enter the following data in the table:

   Table 140:

Field	Value
Flashpoint	**56**
UoM	**°C**

6. On the *Transport Restrictions* tab page, enter the following data in the table:

   Table 141:

Field	Value
Transport Category	**I**
Multiplication Factor	**3**
Exemption	**333**
UoM	**KG**

7. On the *Mixed Loading* tab page, enter the following data in the table:

   Table 142:

Field	Value
Seg. Key 1	**4.2 (Flammable)**

8. Save your entries.
9. Return to the initial screen and set the processing status to **10** (Released).

12 Charge Management

Configuration of Charge Management involves configuring the following activities:

- Defining Charge Subcategories [page 93]
- Defining Charge Types [page 94]
- Defining Conditions for Rate Table Determination [page 96]
- Defining Transportation Activities for Tracking and Tracing [page 97]
- Defining Event Profiles [page 97]

It also involves configuring organizational settings for Charge Management (see Configuration of Organizational Settings for Charge Management [page 139]).

12.1 Defining Charge Subcategories

Procedure

1. In Customizing for SAP Transportation Management, choose *Transportation Management* > *Basic Functions* > *Charge Calculation* > *Basic Settings* > *Define Charge Subcategories*.
2. Create the following entries:

   Table 143:

Charge Subcategory	Description
`408202`	`Supplemental Charges`
`409102`	`Revenue Split`

3. Save your entries.

12.2 Defining Charge Types

Context

In this procedure, you define additional charge types that you can assign to calculation sheets and rate tables that are specific to this scenario.

Procedure

1. In Customizing for SAP Transportation Management, choose *Transportation Management* > *Basic Functions* > *Charge Calculation* > *Basic Settings for Charge Calculation* > *Define Charge Types*.
2. Create the following entries:

Table 144:

Charge Type	Charge Category	Description	Charge Subcategory	Positive / Negative	Value Type	Leading Charge Type	TrM Category	Description
RF_BASE	004	Basic Freight	100000	Positive Value	A Absolute	Select		Rail Basic Rate
RF_CUSD	002	Additional Charges	408202	Default	Default	Not selected		Customs Formalities Destination Country
RF_CUSF	002	Additional Charges	408202	Default	Default	Not selected		Customs Formalities Forwarding Country
RF_CUST	002	Additional Charges	408202	Default	Default	Not selected		Customs Formalities Transit Country
RF_ECC	004	Basic Freight	100000	Positive Value	A Absolute	Not selected		Export Customs Clearance per Shipment

Charge Type	Charge Category	Description	Charge Subcategory	Positive / Negative	Value Type	Leading Charge Type	TrM Category	Description
RF_FUEL_MI	004	Basic Freight	103008	Positive Value	A Absolute	Not selected		Fuel Surcharge per Mile
RF_GIF	004	Basic Freight	100000	Positive Value	A Absolute	Not selected		Goods Inspection Fee per Shipment
RF_INSP	002	Additional Charges	408202	Default	Default	Not selected		Insurance Premium
RF_INVF	002	Additional Charges	408202	Default	Default	Not selected		Invoice Forwarding, Fixed
RF_I_DG	002	Additional Charges	408202	Default	Default	Not selected		Intermodal DG surcharge
RF_CUS_IMP	002	Additional Charges	408202	Default	Default	Not selected		Rail Supplemental Charges
RF_LFTD	002	Additional Charges	408202	Default	Default	Not selected	Rail	Lifting at destination
RF_LFTF	002	Additional Charges	408202	Default	Default	Not selected	Rail	Lifting at origin
RF_RCCL	002	Additional Charges	408202	Default	Default	Not selected	Rail	Railcar Cleaning
RF_REV_SPLIT	004	Basic Freight	409102	Default	Default			Revenue Split
RF_SWTCH_C	002	Additional Charges	408202	Default	Default			Customer Switch
RF_SWTCH_Y	002	Additional Charges	408202	Default	Default			Yard Switch
RF_WEIG	002	Additional Charges	408202	Default	Default			Weighing

12.3 Defining Conditions for Rate Table Determination

Procedure

1. In SAP NetWeaver Business Client, choose *Application Administration* > *General Settings* > *Conditions* > *Create Condition*.
2. Enter the following data:

   Table 145:

Field	Value
Condition	**RF_I_DG**
Description	**Rail Freight Intermodal DG**
Condition Type	**TCM_PRECON**
Origin of Condition	*Condition Based on BRFplus Decision Table*

3. Choose *Data Access Definition* and then *Create*.
4. In the *Business Object Based Data Access Definition* screen area, enter the following data:

   Table 146:

Field	Value
Column Positionin BRFplus Decision Table	**10**
Data Access Definition for Consitions	**DANGEROUS_GOODS_TCMC**
Data Object Description	**Dangerous Goods Indicator**
Data Elelment Used for Input Help	**BOOLEAN**

5. Choose *Back*.
6. Enter the following data in the BRFplus table:

   Table 147:

Dangerous Goods Indicator	TRUE
X (true)	**X** (true)

7. Save your entries.

12.4 Defining Transportation Activities for Tracking and Tracing

Procedure

1. In Customizing for SAP Transportation Management, choose *Transportation Management* > *Integration* > *Tracking and Tracing of Processes and Documents* > *Define Transportation Activities for Tracking and Tracing*.
2. Choose the *Event for Business Document* folder.
3. Choose *New Entries*.
4. Enter the following data:

   Table 148:

Field	Value	Value
Event	`RF_SWTCH_C`	`RF_SWTCH_Y`
Description	`Customer Switch`	`Yard Switch`
Transp Act	`99`	`99`
Stop Cat	`O - Stop with Change of Main Resource - Outbound`	`O - Stop with Change of Main Resource - Outbound`

5. Select the line items freshly created one by one and select folder *Assignment of Events to Business Object*.
6. Assign both events to business object *FO Freight Order*.

12.5 Defining Event Profiles

Context

Event profiles contain the data to determine if and how posted events trigger the calculation of predefined charges.

Procedure

1. In Customizing for SAP Transportation Management, choose *Transportation Management* > *Basic Functions* > *Charge Calculation* > *Basic Settings* > *Define Event Profiles*.
2. Choose the *New Entries* pushbutton.
3. Enter the following data:

   Table 149:

Field	Value	Value	Value
Evnt Prof.	**RF0I**	**RFIN**	**RFSC**
Description	**FWO Rail Intermodal**	**FRO Rail Intermodal Internal**	**FRO Rail Intermodal Interline**

4. Select item `RF0I` and select folder *Define Event Assignments*.
5. Enter the following data:

   Table 150:

Field	Value	Value
Charge Type	**RF_SWTCH_C**	**RF_SWTCH_Y**
Event	**RF_SWTCH_C**	**RF_SWTCH_Y**
Event Sts	**N Unexpected Event**	**N Unexpected Event**
FWO CC	Select	Select
FO CC	Select	Select

6. Save your entries.
7. Select item `RFIN` and select folder *Define Event Assignments*.
8. Enter the following data:

   Table 151:

Field	Value	Value
Charge Type	**RF_SWTCH_C**	**RF_SWTCH_Y**
Event	**RF_SWTCH_C**	**RF_SWTCH_Y**
Event Sts	**N Unexpected Event**	**N Unexpected Event**
FWO CC	Select	Select
FO CC	Select	Select

9. Save your entries.
10. Select item `RFSC` and select folder *Define Event Assignments*.
11. Enter the following data:

    Table 152:

Field	Value	Value
Charge Type	**`RF_SWTCH_C`**	**`RF_SWTCH_Y`**
Event	**`RF_SWTCH_C`**	**`RF_SWTCH_Y`**
Event Sts	**`N Unexpected Event`**	**`N Unexpected Event`**
FWO CC	Select	Select
FO CC	Select	Select

12. Save your entries.

13 Rate Tables and Calculation Sheets

You must create the following objects as building blocks for forwarding agreements, freight agreements, and internal agreements:

- Rate Tables [page 100]
- Calculation Sheets [page 109]

13.1 Rate Tables

In this scenario, the following rate tables are used:

Table 153:

Rate Table	Purpose
RF_I_CU_001	Forwarding Agreement: Halifax – Houston (Intermodal)
RF_CR_BURL_01	Freight Agreement: Chicago – Houston (Rail)
RF_CR_001	Freight Agreement: Halifax – Toronto – Chicago (Rail)

13.1.1 Defining Rate Table for Forwarding Agreement with Customer RF-CU-01

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose *Master Data* > *Charge Management and Service Product Catalogs* > *Rate Tables* > *Create Rate Table Definition*.
2. Choose *Continue* without entering a rate table template.
3. On the *General Data* tab page, enter the following data:

   Table 154:

Field	Description	Value
Rate Table	Unique identifier for the rate table	**RF_I_CU_001**

Field	Description	Value
Description	Description of the table	**Rail Intermodal Through Rate**
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.	**RF_BASE**
Charge Category	This defaults from the charge type definition above.	**004**
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**
Lead Charge Type	Indicates the charge type that must have a value for the system to consider the calculation sheet for charge calculation.	Select
Rate Table Type	Rate table type	**1000**
Organization Name	Contracting sales organization	**RF-SORG-1**

4. In the table for the scales, choose *Insert* and enter the following data:

Table 155:

Field	Description	Value
Dimension	In 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 for all carriers defined above. This enables the entries in the rate table as in the sequence.	Blank

Field	Description	Value
Calculation Base	This determines how the values are stored and determined for this dimension. There are predefined sources of information based on the object.	**SOURCELOC**
Scale Type	Manually defined or defaults from the reference scale definition above.	**Same Scale (=)**
Scale Unit of Measure	Manually defined or defaults from the reference scale definition above.	Blank
Minimum Value	Minimum value	Not selected
Maximum Value	Maximum value	Not selected
Calculation Type	Determines how the system calculates charges with the scale	Absolute
Rounding Profile	Rounding profile	Blank

5. Once you have entered the data, select each new row in the table and choose the *Add Scale* pushbutton.
6. In the table for the scales, choose *Insert* and enter the following data:

Table 156:

Field	Description	Value
Dimension	In 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.	**2** for the second scale (region-based)
Reference Scale	Assign the scales for all carriers defined above. This enables the entries in the rate table as in the sequence.	Blank
Calculation Base	This determines how the values are stored and determined for this dimension. There are predefined sources of information based on the object.	**DESTLOC**
Scale Type	Manually defined or defaults from the reference scale definition above.	**Same Scale (=)**
Scale Unit of Measure	Manually defined or defaults from the reference scale definition above.	Blank
Minimum Value	Minimum value	Not selected
Maximum Value	Maximum value	Not selected

Field	Description	Value
Calculation Type	Determines how the system calculates charges with the scale	Absolute
Rounding Profile	Rounding profile	Blank

7. Once you have entered the data, select each new row in the table and choose the *Add Scale* pushbutton.
8. In the table for the scales, choose *Insert* and enter the following data:

Table 157:

Field	Description	Value
Dimension	In 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.	**3** for the third scale (region-based)
Reference Scale	Assign the scales for all carriers defined above. This enables the entries in the rate table as in the sequence.	Blank
Calculation Base	This determines how the values are stored and determined for this dimension. There are predefined sources of information based on the object.	**EQUIP_TYPE**
Scale Type	Manually defined or defaults from the reference scale definition above.	**Same Scale (=)**
Scale Unit of Measure	Manually defined or defaults from the reference scale definition above.	Blank
Minimum Value	Minimum value	Not selected
Maximum Value	Maximum value	Not selected
Calculation Type	Determines how the system calculates charges with the scale	Absolute
Rounding Profile	Rounding profile	Blank

9. Once you have entered the data, select each new row in the table and choose the *Add Scale* pushbutton.
10. In the table for the scales, choose *Insert* and enter the following data:

Table 158:

Field	Description	Value
Dimension	In 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.	**4** for the fourth scale (region-based)
Reference Scale	Assign the scales for all carriers defined above. This enables the entries in the rate table as in the sequence.	Blank
Calculation Base	This determines how the values are stored and determined for this dimension. There are predefined sources of information based on the object.	**OWNERSHIP_TYPE**
Scale Type	Manually defined or defaults from the reference scale definition above.	**Same Scale (=)**
Scale Unit of Measure	Manually defined or defaults from the reference scale definition above.	Blank
Minimum Value	Minimum value	Not selected
Maximum Value	Maximum value	Not selected
Calculation Type	Determines how the system calculates charges with the scale	Absolute
Rounding Profile	Rounding profile	Blank

11. Save your entries.
12. Choose the *Dates and Values* tab page and then the *Insert* pushbutton.
13. Enter the following data:

Table 159:

Field	Description	Value
Valid From	Date from which the rate table is valid	**<current year>-01-01**
Valid To	Date to which the rate table is value	**<next year>-12-31**
Aggreg. Rate Description	Aggregated rate description	Blank
Currency	A currency that is applicable for this rate table	**CAD**

14. Select the new row. A table appears in which you can enter the rates.
15. On the *Rates* tab page, choose *Insert* and enter the following data:

Table 160:

Source Location (=)	Destination Location (=)	Equipment Type (=)	Ownership type (=)	Currency	Value
RF_12605	RF_35100	20G0	R	CAD	1550.00
RF_12605	RF_35100	20G0	S	CAD	1650.00
RF_12605	RF_35100	20G1	R	CAD	1560.00
RF_12605	RF_35100	20G1	S	CAD	1660.00
RF_12605	RF_66001	20G0	R	CAD	1140.00
RF_12605	RF_66001	20G0	S	CAD	1240.00
RF_12605	RF_66001	20G1	R	CAD	1200.00
RF_12605	RF_66001	20G1	S	CAD	1260.00

16. Once you have entered your data, release the rate table by choosing the *Release* pushbutton.
17. Save your entries.

13.1.2 Defining Rate Table for Freight Agreement with Carrier RF-CR-BURL

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose *Master Data* > *Charge Management and Service Product Catalogs* > *Rate Tables* > *Create Rate Table Definition*.
2. Choose *Continue* without entering a rate table template.
3. On the *General Data* tab page, enter the following data:

Table 161:

Field	Description	Value
Rate Table	Unique identifier for the rate table	RF_CR_BURL_01
Description	Description of the table	Railcar-Based Freight

Field	Description	Value
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 and Service Provider**
Charge Type	This is where the charge type is linked for integration with SAP ERP.	**RF_BASE**
Charge Category	This defaults from the charge type definition above.	**004**
Charge Subcategory	This defaults from the charge type definition above.	**100000 - Freight Charges**
Positive/Negative	This defaults from the charge type definition above.	**Positive Value**
Value	This defaults from the charge type definition above.	**Absolute Value**

4. In the table for the scales, choose *Insert* and enter the following data:

Table 162:

Field	Description	Value
Calculation Base	This determines how the values are stored and determined for this dimension. There are predefined sources of information based on the object.	**SOURCELOC**
Scale Type	Manually defined or defaults from the reference scale definition above.	**Same Scale (=)**

5. In the table for the scales, choose *Insert* and enter the following data:

Table 163:

Field	Description	Value
Calculation Base	This determines how the values are stored and determined for this dimension. There are predefined sources of information based on the object.	**DESTLOC**
Scale Type	Manually defined or defaults from the reference scale definition above.	**Same Scale (=)**

6. Once you have entered the data, select each new row in the table and choose the *Add Scale* pushbutton.

7. Save your entries.
8. Choose the *Dates and Values* tab page and then the *Insert* pushbutton.
9. Enter the following data:

Table 164:

Field	Description	Value
Valid From	Date from which the rate table is valid	**<current year>-01-01**
Valid To	Date to which the rate table is value	**<next year>-12-31**
Aggreg. Rate Description	Aggregated rate description	Blank
Currency	A currency that is applicable for this rate table	**CAD**

10. Select the new row. A table appears in which you can enter the rates.
11. On the *Rates* tab page, choose *Insert* and enter the following data:

Table 165:

Source Location	Destination Location	Currency	Value
RF_66001	**RF_35100**	**CAD**	**320.00**

12. Once you have entered your data, release the rate table by choosing the *Release* pushbutton.
13. Save your entries.

13.1.3 Defining Rate Table for Freight Agreement with Carrier RF-CR-CN

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose *Master Data* > *Charge Management and Service Product Catalogs* > *Rate Tables* > *Create Rate Table Definition*.
2. Choose *Continue* without entering a rate table template.
3. On the *General Data* tab page, enter the following data:

Table 166:

Field	Description	Value
Rate Table	Unique identifier for the rate table	**RF_CR_001**

Field	Description	Value
Description	Description of the table	**Railcar-Based 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.	**Customer and Service Provider**
Charge Type	This is where the charge type is linked for integration with SAP ERP.	**RF_BASE**
Charge Category	This defaults from the charge type definition above.	**004**
Charge Subcategory	This defaults from the charge type definition above.	**100000 - Freight Charges**
Positive/Negative	This defaults from the charge type definition above.	**Positive Value**
Value	This defaults from the charge type definition above.	**Absolute Value**

4. In the table for the scales, choose *Insert* and enter the following data:

Table 167:

Field	Description	Value
Calculation Base	This determines how the values are stored and determined for this dimension. There are predefined sources of information based on the object.	**SOURCELOC**
Scale Type	Manually defined or defaults from the reference scale definition above.	**Same Scale (=)**

5. In the table for the scales, choose *Insert* and enter the following data:

Table 168:

Field	Description	Value
Calculation Base	This determines how the values are stored and determined for this dimension. There are predefined sources of information based on the object.	**DESTLOC**

Field	Description	Value
Scale Type	Manually defined or defaults from the reference scale definition above.	**Same Scale (=)**

6. Once you have entered the data, select each new row in the table and choose the *Add Scale* pushbutton.
7. Save your entries.
8. Choose the *Dates and Values* tab page and then the *Insert* pushbutton.
9. Enter the following data:

Table 169:

Field	Description	Value
Valid From	Date from which the rate table is valid	**<current year>-01-01**
Valid To	Date to which the rate table is value	**<next year>-12-31**
Aggreg. Rate Description	Aggregated rate description	Blank
Currency	A currency that is applicable for this rate table	**CAD**

10. Select the new row. A table appears in which you can enter the rates.
11. On the *Rates* tab page, choose *Insert* and enter the following data:

Table 170:

Source Location	Destination Location	Currency	Value
RF_12605	**RF_41978**	**CAD**	**500**
RF_41978	**RF_55989**	**CAD**	**270**

12. Once you have entered your data, release the rate table by choosing the *Release* pushbutton.
13. Save your entries.

13.2 Calculation Sheets

The calculation sheets in this scenario are created from within the product catalog and agreements. You use the calculation sheet templates that are created in this section.

13.2.1 Defining Calculation Sheet Templates

Context

You use calculation sheets to calculate the charges that are incurred for a freight order or forwarding order.

Procedure

1. In Customizing for SAP Transportation Management, choose *Transportation Management* > *Basic Functions* > *Charge Calculation* > *Basic Settings* > *Templates* > *Define Calculation Sheet Templates*.
2. Choose *New Entries* and enter the following data:

   Table 171:

Field	Value
Calculation Sheet Template	**RF_INTERMODAL_DD**
Description	**Rail Intermodal Door-to-Door**
Charge Use	**3 Customer and Service Provider**

3. Double-click the folder *Define Calc. Sheet Template Items* and choose *New Entries*.
4. Enter the following data:

   Table 172:

Line Number	Instruction Type	Charge Type	Calculation Base	Quantity	UoM	Calculation Resolution Base	Calculation Method Type	Description	Rate Type	Dangerous Goods
100	**STND Standard**	**RF_BASE**	Not relevant	Not relevant	Not relevant	**CONTAINER**	**Standard**	Not relevant	**Contract Rate**	Not selected
110	**STND Standard**	**RF_FUEL_MI**	**ACTUAL_DIST**	**1**	**MI**	**CONTAINER**	**Standard**	Not relevant	**Contract Rate**	Not selected

Line Number	Instruction Type	Charge Type	Calculation Base	Quantity	UoM	Calculation Resolution Base	Calculation Method Type	Description	Rate Type	Dangerous Goods
120	STND Standard	RF_I_DG	Not relevant	Not relevant	Not relevant	CONTAINER	Standard	Intermodal DG Surcharge	Contract Rate	Select
130	STND Standard	RF_INSP	Not relevant	Not relevant	Not relevant	Not relevant	Standard	Insurance Premium	Contract Rate	Not selected
140	STND Standard	RF_CUST	Not relevant	Not relevant	Not relevant	CONTAINER	Standard	Customs Origin	Contract Rate	Not selected
150	STND Standard	RF_CUSD	Not relevant	Not relevant	Not relevant	CONTAINER	Standard	Customs Destination	Contract Rate	Not selected
160	STND Standard	RF_CUST	Not relevant	Not relevant	Not relevant	CONTAINER	Standard	Customs Transit	Contract Rate	Not selected
170	STND Standard	RF_INVF	Not relevant	Not relevant	Not relevant	Not relevant	Standard	Invoice Forwarding, Fixed	Contract Rate	Not selected
180	STND Standard	RF_WEIG	CONTAINER_CNT	1	PC	Not relevant	Standard	Weighing	Contract Rate	Not selected
190	STND Standard	RF_LFTF	Not relevant	Not relevant	Not relevant	CONTAINER	Standard	Lifting at Origin	Contract Rate	Not selected

Line Number	Instruction Type	Charge Type	Calculation Base	Quantity	UoM	Calculation Resolution Base	Calculation Method Type	Description	Rate Type	Dangerous Goods
200	STND Standard	RF_LFTD	Not relevant	Not relevant	Not relevant	CONTAINER	Standard	Lifting at Destination	Contract Rate	Not selected

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

Table 173:

Field	Value
Calculation Sheet Template	RF_INTERMODAL_RR
Description	Rail Intermodal Door-to-Door
Charge Use	3 Customer and Service Provider

6. Double-click the folder *Define Calc. Sheet Template Items* and choose *New Entries*.
7. Enter the following data:

Table 174:

Line Number	Instruction Type	Charge Type	Calculation Base	Quantity	UoM	Calculation Resolution Base	Calculation Method Type	Description	Rate Type	Dangerous Goods
100	STND Standard	RF_BASE	Not relevant	Not relevant	Not relevant	CONTAINER	Standard	Not relevant	Contract Rate	Not selected
110	STND Standard	RF_FUEL_MI	ACTUAL_DIST	1	MI	CONTAINER	Standard	Not relevant	Contract Rate	Not selected
120	STND Standard	RF_I_DG	Not relevant	Not relevant	Not relevant	CONTAINER	Standard	Intermodal DG Surcharge	Contract Rate	Select

Line Number	Instruction Type	Charge Type	Calculation Base	Quantity	UoM	Calculation Resolution Base	Calculation Method Type	Description	Rate Type	Dangerous Goods
130	STND Standard	RF_INSP	Not relevant	Not relevant	Not relevant	Not relevant	Standard	Insurance Premium	Contract Rate	Not selected
140	STND Standard	RF_CUST	Not relevant	Not relevant	Not relevant	CONTAINER	Standard	Customs Origin	Contract Rate	Not selected
150	STND Standard	RF_CUSD	Not relevant	Not relevant	Not relevant	CONTAINER	Standard	Customs Destination	Contract Rate	Not selected
160	STND Standard	RF_CUST	Not relevant	Not relevant	Not relevant	CONTAINER	Standard	Customs Transit	Contract Rate	Not selected
170	STND Standard	RF_INVF	Not relevant	Not relevant	Not relevant	Not relevant	Standard	Invoice Forwarding, Fixed	Contract Rate	Not selected
180	STND Standard	RF_WEIG	CONTAINER_CNT	1	PC	Not relevant	Standard	Weighing	Contract Rate	Not selected

8. Save your entries.

13.2.2 Defining Calculation Sheet for Cross-Town Chicago

Context

You use calculation sheets to calculate the charges that are incurred for a freight order or forwarding order.

You must create a calculation sheet for all of your carriers (truckers) and for the container move cross-town within Chicago.

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose *Master Data* > *Charge Management and Service Product Catalogs* > *Calculation Sheets* > *Create Calculation Sheet*.
2. Choose *Continue* without entering a calculation sheet template.
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:

   Table 175:

Field	Description	Value
Calculation Sheet	Unique identifier for the calculation sheet to be defined	**RF-TCCS-CR-01-CT**
Description	Description of the calculation sheet	**Calculation Sheet Cross-Town**
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 and Service Provider**

5. In the *Items* screen area, choose *Insert* > *Single Item* to add a new line item.
6. Select the line for *20* and enter the following data in the bottom of the screen.
7. On the *Basic Data* tab page, enter the following data:

   Table 176:

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**
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**

Field	Description	Value
Calculation Method Type	Calculation method type	**Standard**

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

Table 177:

Field	Description	Value
Amount	Amount	**118**
Currency/Percentage	Currency or percentage	**USD**
Calculation Base	Identifies the actual base or factor with which the system calculates the charges for the scale	**CONTAINER_CNT**
Price Unit	Price unit	**1**
Calculation Rule UoM	Calculation rule unit of measure	**TEU**

9. On the *Preconditions* tab page, choose the *Insert* pushbutton and enter the following data:

Table 178:

Field	Description	Value
Orientation	Orientation	**From**
Source Type	Quantitative rate amount Unit of Measure	**Location**
Source	Source	**RF_55989**
Orientation	Orientation	**To**
Destination Type	Destination Type	**Location**
Destination	Destination	**RF_66001**

10. Save your entries.

14 Definition of Service Product Catalogs

In this scenario, the portfolio of available services offered by the railroad is modeled in SAP Transportation Management as a service product catalog. This catalog provides a template of services from which the customer can choose in the lead-to-contract and order-to-cash process.

You can create forwarding agreements for one or more customers from the service product catalog. This enables you to easily specify services in an agreement, and subsequently in an order, to fulfill your customer's needs.

14.1 Defining Service Types

Context

This scenario requires service types to represent the service product offering by the railroad.

Procedure

1. In Customizing for SAP Transportation Management, choose *Transportation Management* > *Basic Functions* > *General Settings* > *Define Service Types*.
2. Enter the following data:

   Table 179:

Srvc. Type	Description
RF_CUSD	Customs Formalities Destination Country
RF_CUSF	Customs Formalities Forwarding Country
RF_CUST	Customs Formalities Transit Country
RF_DEST_T	Destination Service Intermodal Terminal
RF_DSID	Destination Service Intermodal Door
RF_INSP	Insurance Premium

Srvc. Type	Description
RF_INVF	Invoice Forwarding, Fixed
RF_LDSC	Load Securing
RF_LFTD	Lifting at Destination Stn
RF_LFTF	Lifting at Forwarding Stn
RF_ORIG_T	Origin Service Intermodal Terminal
RF_OSID	Origin Service Intermodal Door
RF_RCCL	Railcar Cleaning
RF_WEIG	Weighing

3. Save your entries.

14.2 Defining Service Product Item Types

Procedure

1. In Customizing for SAP Transportation Management, choose *Transportation Management* > *Master Data* > *Agreements and Service Products* > *Define FWA and Service Product Item Types*.
2. Select *New Entries*.
3. Enter the following data:

   Table 180:

Field	Value
Item Type	IDD1
Description	Intermodal Door-to-Door
Calc. Sheet	Allowed
Add Services	Select
FWO Type	RF0I

Field	Value
FWQ Type	**FWQ**
Enable CRM	Not selected

4. Save your entry and ignore any warnings.
5. Select the row containing forwarding agreement item `IDD1` and choose *Specify Preconditions* from the tree structure
6. Enter the following preconditions:

Table 181:

Field	Value Item 1	Value Item 2
Precondition	**Movement Type**	**Shipping Type**
Value	**DD**	**30**

7. Choose *Assign Service Types* and enter the following data:

Table 182:

Srvc. Type	Description
RF_CUSD	**Customs Formalities Destination Country**
RF_CUSF	**Customs Formalities Forwarding Country**
RF_CUST	**Customs Formalities Transit Country**
RF_INSP	**Insurance Premium**
RF_LFTD	**Lifting at Destination Stn**
RF_LFTF	**Lifting at Forwarding Stn**
RF_WEIG	**Weighing**

8. Save your entries.
9. Select *New Entries.*
10. Enter the following data:

Table 183:

Field	Value
Item Type	**IRR1**
Description	**Intermodal Ramp-to-Ramp**

Field	Value
Calc. Sheet	**Allowed**
Add Services	Select
FWO Type	**RF0I**
FWQ Type	**FWQ**
Enable CRM	Deselect

11. Save your entry and ignore any warnings.
12. Select the row containing forwarding agreement item `IRR1` and choose *Specify Preconditions* from the tree structure
13. Enter the following preconditions:

    Table 184:

Field	Value Item 1	Value Item 2
Precondition	**Movement Type**	**Shipping Type**
Value	**RR**	**30**

14. Choose *Assign Service Types* and enter the following data:

    Table 185:

Srvc. Type	Description
RF_CUSD	**Customs Formalities Destination Country**
RF_CUSF	**Customs Formalities Forwarding Country**
RF_CUST	**Customs Formalities Transit Country**
RF_INSP	**Insurance Premium**
RF_INVF	**Invoice Forwarding, Fixed**
RF_WEIG	**Weighing**

15. Save your entries.

14.3 Defining Service Product Catalog Types

Procedure

1. In Customizing for SAP Transportation Management, choose *Transportation Management* > *Master Data* > *Agreements and Service Products* > *Define FWA and Service Product Catalog Types*.
2. Select *New Entries*.
3. Enter the following data:

   Table 186:

Field	Value
Agr. Type	**RFIS**
Description	**Intermodal - Rail Service Product Cat**
Track Changes	Select
Agr. No. Range	**01**
Text Schema	**Default**
FWO Type	**RF0I**
FWQ Type	**FWQ**
Item No. Interval	**100**
Enable Item Flow	Select

4. Select the *Specify Preconditions* folder and enter the following data:

   Table 187:

Field	Value
Precondition	**SHIPMENT**
Value	**30**

5. Select the *Assign Item Types* folder.

Table 188:

Field	Value	Value
Item Type	**IDD1**	**IRR1**
Description	**Intermodal Door-to-Door**	**Intermodal Ramp-to-Ramp**
Dflt Type	Not selected	Select
Flow Srvcs	Select	Select
Add Srvcs	Select	Select

6. Save your entries.
7. Select *New Entries*.
8. Enter the following data:

Table 189:

Field	Value
Agr. Type	**RFIA**
Description	**Intermodal - Rail Forwarding Agreement**
Track Changes	Select
Agr. No. Range	**01**
Text Schema	**DEFAULT**
FWO Type	**RF0I**
FWQ Type	**FWQ**
Item No. Interval	**100**
Enable Item Flow	Select

9. Select the *Specify Preconditions* folder.

Table 190:

Field	Value
Precondition	**SHIPMENT**
Value	**30**

10. Save your entries.

14.4 Defining Service Product Catalogs

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose *Master Data* > *Charge Management and Service Product Catalogs* > *Service Product Catalogs* > *Create Service Product Catalog*.
2. Enter agreement type `RFIS` and choose *Continue*.
3. On the *General Data* tab page, enter the following data:

   Table 191:

Field	Value
Agreement	**RF_INTERMODAL_S001**
Agreement Desc:	**Rail Intermodal Service**
Shipping Type	**30 (Intermodal Rail)**
Organizational Unit	**RF-SORG-1**

4. In the *Items* screen area, service products will be populated by item types assigned in Customizing for service product catalogs. Check that the following items exist and create any that are missing:

   Table 192:

Field	Value
Item Number	**100**
Item Type	**IDD1**
Description	**Intermodal Door-to-Door**
Shipping Type	**Intermodal Rail**
Movement Type	**Door to Door**
Calculation Sheet Template	**RF_INTERMOD_DD**

Field	Value
Service Type	○ **RF_CUSD** ○ **RF_CUSF** ○ **RF_CUST** ○ **RF_INSP** ○ **RF_LFTD** ○ **RF_LFTF** ○ **RF_WEIG**
Item Number	**200**
Item Type	**IRR1**
Description	**Intermodal Ramp-to-Ramp**
Shipping Type	**Intermodal Rail**
Movement Type	**Ramp to Ramp**
Calculation Sheet Template	**RF_INTERMOD_RR**
Service Type	○ **RF_CUSD** ○ **RF_CUSF** ○ **RF_CUST** ○ **RF_INSP** ○ **RF_INVF** ○ **RF_WEIG**

5. Once you have entered your data, release the agreement by choosing *Set Status* > *Released*.
6. Save your entries.

15 Forwarding Agreement

You use forwarding agreements to define pricing structures that are relevant for shippers and consignees. The forwarding agreement type is determined in the forwarding order during the charge calculation process.

15.1 Defining Forwarding Agreements for Customers

Procedure

1. In SAP NetWeaver Business Client (NWBC), choose *Master Data* > *Charge Management and Service Product Catalogs* > *Service Product Catalogs* > *Edit* > *Service Product Catalogs*.
2. Select service product catalog `RF_Intermodal_S001`
3. On the *Item* tab page, select service product item `IDD1` and choose *Create Forwarding Agreement*.
4. On the *General Data* tab page, enter the following data:

   Table 193:

Field	Value
Agreement	**RF_I_STARLN_001**
Agreement Desc:	**Rail Intermodal Star Line 001**
Valid From	**<current year>-01-01**
Valid To	**<next year>-12-31**
Document Currency	**CAD**
Shipping Type	**30 Intermodal Rail**
Organizational Unit	**RF-SORG-1**
Ordering Party	**RF-CU-01**

5. In the *Items* screen area, check that item `IDD1` has been transferred from the service product catalog along with the subitems for the services:

Table 194:

Field	Value
Item Number	**100**
Item Type	**IDD1**
Description	**Intermodal Door-to-Door**
Shipping Type	**Intermodal Rail**
Movement Type	**Rail Door to Door**
Calculation Sheet Template	**RF_INTERMOD_DD**
Service Type	○ **RF_CUSD** ○ **RF_CUSF** ○ **RF_CUST** ○ **RF_INSP** ○ **RF_INVF** ○ **RF_LFTD** ○ **RF_LFTF** ○ **RF_WEIG**

6. In the *Items* screen area, choose *Insert* > *Insert Service Product* and select service product `ID IRR_S001`.
7. Check that the following data has been populated and enter any data that is missing:

Table 195:

Field	Value
Item Number	**200**
Item Type	**IRR1**
Description	**Intermodal Ramp-to-Ramp**
Shipping Type	**Intermodal Rail**
Movement Type	**Rail Ramp to Ramp**
Calculation Sheet Template	**RF_INTERMOD_RR**

Field	Value
Service Type	○ **RF_CUSD** ○ **RF_CUSF** ○ **RF_CUST** ○ **RF_INSP** ○ **RF_INVF** ○ **RF_WEIG**

8. Select item 100 (`IDD1`) and choose *Add Calculation Sheet*.
9. On the *New Calculation Sheet* screen, enter your data based on the tables below.
10. In the *Items* screen area, check that the calculation sheet items have been populated according to the calculation sheet template. Enhance the data to the charge items as follows:

Table 196:

Line No.	100	110	120	130	140	150	160	170	180	190	200
Instruction Type	**STND Standard**	**STND Standard**	**STND Standard**	**STND Standard**	**STND Standard**	**STND Standard**	**STND Standard**	**STND Standard**	**STND Standard**	**STND Standard**	**STND Standard**
Charge Type	**RF_BASE**	**RF_FUEL_MI**	**RF_I_DG**	**RF_INSP**	**RF_CUSF**	**RF_CUSD**	**RF_CUST**	**RF_INVF**	**RF_WEIG**	**RF_LFTF**	**RF_LFTD**
Amount	Blank	**0.37**	**6**	**30**	**25**	**50**	**38**	**15**	**25**	**14**	**14**
Currency/ Percentage	**CAD**	**CAD**	**%**	**CAD**	**CAD**	**CAD**	**CAD**	**CAD**	**CAD**	**CAD**	**CAD**
Calculation Base	Blank	**ACTUAL_DIST**	Blank	Blank	Blank	Blank	Blank	Blank	**CONTAINER_CNT**	Blank	Blank
Price Unit	Blank	**1**	Blank	Blank	Blank	Blank	Blank	Blank	**1**	Blank	Blank
Unit of Measure	Blank	**MI**	Blank	Blank	Blank	Blank	Blank	Blank	**PC**	Blank	Blank
Rate Table	**RF_I_CU_001**	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank

Calculation Resolution Base	**CONTAINER**	Blank	**CONTAINER**	Blank	**CONTAINER**	**CONTAINER**	**CONTAINER**	Blank	Blank	**CONTAINER**	**CONTAINER**
Calculation Method Type	**Standard**	**Standard**	**Standard**	**Standard**	**Standard**	**Standard**	**Standard**	**Standard**	**Standard**	**Standard**	**Standard**
Reference from Line No.	Blank	Blank	**100**	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank
Description	Blank	Blank	**Intermodal DG Surcharge**	**Insurance Premium**	**Customs Origin**	**Customs Destination**	**Customs Transit**	**Invoice Forwarding, Fixed**	**Weighing**	**Lifting at Origin**	**Lifting at Destination**
Rate Type	**Contract Rate**	**Contract Rate**	**Contract Rate**	**Contract Rate**	**Contract Rate**	**Contract Rate**	**Contract Rate**	**Contract Rate**	**Contract Rate**	**Contract Rate**	**Contract Rate**
Dangerous Goods	Blank	Blank	Select	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank
Precondition Rule for Calculation Sheet Item	Blank	Blank	**RF-I-DG**	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank

11. Select item 200 (`IRR1`) and choose *Add Calculation Sheet*.
12. On the *New Calculation Sheet* screen, enter your data based on the tables below.
13. In the *Items* screen area, check that the calculation sheet items have been populated according to the calculation sheet template. Enhance the data to the charge items as follows:

Table 197:

Line No.	100	110	120	130	140	150	160	170	180
Instruction Type	**STND Standard**	**STND Standard**	**STND Standard**	**STND Standard**	**STND Standard**	**STND Standard**	**STND Standard**	**STND Standard**	**STND Standard**

Charge Type	**RF_BASE**	**RF_FUEL_MI**	**RF_I_DG**	**RF_INSP**	**RF_CUSF**	**RF_CUSD**	**RF_CUST**	**RF_INVF**	**RF_WEIG**
Amount	Blank	**0.37**	**6**	**30**	**25**	**50**	**38**	**15**	**25**
Currency/ Percentage	**CAD**	**CAD**	**%**	**CAD**	**CAD**	**CAD**	**CAD**	**CAD**	**CAD**
Calculation Base	Blank	**ACTUAL_DIST**	Blank	Blank	Blank	Blank	Blank	Blank	**CONTAINER_CNT**
Price Unit	Blank	**1**	Blank	Blank	Blank	Blank	Blank	Blank	**1**
Unit of Measure	Blank	**MI**	Blank	Blank	Blank	Blank	Blank	Blank	**PC**
Rate Table	**RF_I_CU_001**	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank
Calculation Resolution Base	**CONTAINER**	Blank	**CONTAINER**	Blank	**CONTAINER**	**CONTAINER**	**CONTAINER**	Blank	Blank
Calculation Method Type	**Standard**	**Standard**	**Standard**	**Standard**	**Standard**	**Standard**	**Standard**	**Standard**	**Standard**
Reference from Line No.	Blank	Blank	**100**	Blank	Blank	Blank	Blank	Blank	Blank
Description	Blank	Blank	**Intermodal DG Surcharge**	**Insurance Premium**	**Customs Origin**	**Customs Destination**	**Customs Transit**	**Invoice Forwarding, Fixed**	**Weighing**
Rate Type	**Contract Rate**	**Contract Rate**	**Contract Rate**	**Contract Rate**	**Contract Rate**	**Contract Rate**	**Contract Rate**	**Contract Rate**	**Contract Rate**
Dangerous Goods	Blank	Blank	Select	Blank	Blank	Blank	Blank	Blank	Blank

Precondition Rule for Calculation Sheet Item	Blank	Blank	**RF-I-DG**	Blank	Blank	Blank	Blank	Blank	Blank

14. Once you have entered your data, release the agreement by choosing *Set Status* > *Released*.
15. Save your entries.

16 Freight Agreement

16.1 Defining Freight Agreement Item Types

Procedure

1. In Customizing for SAP Transportation Management, choose *Transportation Management* > *Master Data* > *Agreements and Service Products* > *Define Freight Agreement Item Types*.
2. Select *New Entries*.
3. Enter the following data:

   Table 198:

Field	Value
Item Type	`RF-1`
Description	`Rail Item Type`

4. Select the *Specify Preconditions* folder.
5. Choose the *New Entries* pushbutton and enter the following data:

   Table 199:

Field	Value
Precondition	`MOT`
Value	`02`

6. Save your entries.
7. Select the *New Entries* pushbutton and enter the following data:

   Table 200:

Field	Value
Item Type	`RF-3`

Field	Value
Description	**Road Item Type**

8. Select the *Specify Preconditions* folder.
9. Choose the *New Entries* pushbutton and enter the following data:

   Table 201:

Field	Value
Precondition	**MOT**
Value	**01**

10. Save your entries.

16.2 Defining Freight Agreement Types

Procedure

1. In Customizing for SAP Transportation Management, choose ▶ *Transportation Management* > *Master Data* > *Agreements and Service Products* > *Define Freight Agreement Types* ▶.
2. Choose the *New Entries* pushbutton and enter the following data:

   Table 202:

Field	Value
Agr. Type	**RFF0**
Description	**Rail Freight Agreement**
Track Changes	Select
Agr. No. Range	**01**
Text Schema	**DEFAULT**
Time Determ. Type	**Simple - Transit Duration Only**
Disp. Time Det. Ty.	**2 - Editable**

3. Choose the *Specify Preconditions* folder and enter the following data:

Table 203:

Field	Value
Precondition	**MOT**
Value	**02**

4. Select the *Assign Item Types* folder and enter the following data:

Table 204:

Field	Value
Item Type	**RF-1**
Description	**Rail Item Type**

5. Save your entries and go back.
6. Select the *New Entries* pushbutton to create a second freight agreement type.
7. Enter the following data:

Table 205:

Field	Value
Agr. Type	**RFT0**
Description	**Trucking Freight Agreement**
Track Changes	Select
Agr. No. Range	**01**
Text Schema	**DEFAULT**
Time Determ. Type	**Simple - Transit Duration Only**
Disp. Time Det. Ty.	**2 - Editable**

8. Select the *Specify Preconditions* folder and enter the following data:

Table 206:

Field	Value
Precondition	**MOT**
Value	**01**

9. Save your entries.

16.3 Defining Freight Agreements for Rail Carriers

Use

Freight agreements contain all of the information required to calculate freight charges.

Prerequisites

You have defined a freight agreement type.

Procedure

Creating a Freight Agreement for Carrier BURL

1. In SAP NetWeaver Business Client (NWBC), choose *Freight Agreement Management* > *Freight Agreements* > *Create Freight Agreement*.
2. On the *New Freight Agreement* screen, enter **RFFO** as the freight agreement type.
3. Choose *Continue*.
4. On the *General Data* tab page, create an agreement by entering the following data:

   Table 207:

Field	Value
Agreement	**RF_I_BURL_001**
Description	**Rail Intermodal BURL 001**
Valid-From Date	**<current year>-01-01**
Valid-To Date	**<Next Year>-12-31**
Document Currency	**USD**
Main Transportation Mode	**02 Rail**
Organizational Unit	**RF-PORG-1**
Carrier	**RF-CR-BURL**

5. In the *Items* screen area, choose *Insert*.

6. On the *Forwarding Agreement Items* tab page, select item type `RF-1` and enter the following data:

   Table 208:

Field	Value
Item Number	**100**
Item Type	**RF-1**
Calculation Sheet Template	Blank

7. Select item 100 (`RF-1`) and choose *Add Calculation Sheet*.
8. On the *Calculation Sheet Details* screen, enter the following data in the *Basic Data* screen area:

   Table 209:

Field	Value
Line Number	**20**
Instruction Type	**STND Standard**
Charge Type	**RF_BASE**
Rate Table	**RF_CR_BURL_01**
Calculation Resolution Base	**PASSIVE_RESOURCE**
Calculation Method Type	**Standard**
Description	**Railcar-Based Freight**
Rate Type	**Contract Rate**

9. Once you have entered your data, release the freight agreement by choosing *Set Status* > *Released*.
10. Save your entries.

Creating a Freight Agreement for Continental Rail

1. In SAP NetWeaver Business Client (NWBC), choose *Freight Agreement Management* > *Freight Agreements* > *Create Freight Agreement*.
2. On the *New Freight Agreement* screen, enter **RFFO** as the freight agreement type.
3. Choose *Continue*.
4. On the *General Data* tab page, create an agreement by entering the following data:

   Table 210:

Field	Value
Agreement	**RF_I_CR_02**

Field	Value
Description	**Rail Intermodal Carrier 02**
Valid-From Date	**<current year>-01-01**
Valid-To Date	**<Next Year>-12-31**
Agreement Priority	**1**
Document Currency	**CAD**
Main Transportation Mode	**02 Rail**
Organizational Unit	**RF-PORG-1**
Carrier	**RF-CR-CN**

5. In the *Items* screen area, choose *Insert*.
6. On the *Forwarding Agreement Items* tab page, select item type `RF-1` and enter the following data:

Table 211:

Field	Value
Item Number	**100**
Item Type	**RF-1**
Calculation Sheet Template	Blank

7. Select item 100 (`RF-1`) and choose *Add Calculation Sheet*.
8. On the *Calculation Sheet Details* screen, enter the following data in the *Basic Data* screen area:

Table 212:

Field	Value
Line Number	**20**
Instruction Type	**STND Standard**
Charge Type	**RF_BASE**
Rate Table	**RF_CR_001**
Calculation Resolution Base	**PASSIVE_RESOURCE**
Calculation Method Type	**Standard**
Description	**Railcar-Based Freight**

Field	Value
Rate Type	**Contract Rate**

9. Once you have entered your data, release the freight agreement by choosing *Set Status* > *Released*.
10. Save your entries.

16.4 Defining Freight Agreements for Trucking

Use

Freight agreements contain all of the information required to calculate freight charges.

You must create freight agreements for all of your carriers (truckers) and for the container move cross-town within Chicago.

Prerequisites

You have defined a freight agreement type.

Procedure

Defining Freight Agreements for Cross-Town Drayage

1. In SAP NetWeaver Business Client (NWBC), choose *Freight Agreement Management* > *Freight Agreements* > *Create Freight Agreement*.
2. On the *New Freight Agreement* screen, enter **RFTO** as the freight agreement type.
3. Choose *Continue*.
4. On the *General Data* tab page, create an agreement by entering the following data:

   Table 213:

Field	Value
Agreement	**RF-I-CR-01-CT**
Description	**Cross-Town Chicago**
Purchasing Organization	**RF-PORG-1**

Field	Value
Controlled	Select
Valid-From Date	**<current year>-01-01**
Valid-To Date	**<Next Year>-12-31**
Agreement Priority	**1**
Document Currency	**USD**

5. In the *Items* screen area, choose ▶ *Insert* ▶ *Insert Item* ▶ and enter the following data:

Table 214:

Field	Value
Item Number	**100**
Item Type	**RF-3**
Calculation Sheet Template	Blank

6. Select item 100 (`RF-3`) and choose *Add Calculation Sheet*.
7. On the *New Calculation Sheet* screen, enter the following data in the *Basic Data* screen area:

Table 215:

Field	Value
Line Number	**20**
Instruction Type	**STND Standard**
Charge Type	**FB00**
Amount	**5.00**
Currency	**USD**
Calculation Base	**ACTUAL_DIST**
Price Unit	**1**
UoM	**MI**
Description	**Basic Rate**
Rate Type	**Contract Rate**

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

9. Save your entries.

17 Configuration of Organizational Settings for Charge Management

17.1 Defining Cost Distribution Profiles

Context

In this procedure, you define how internal costs are to be distributed. Distribution can be, for example, either direct or hierarchical based on forwarding order or SAP ERP items, or based on factors such as the net weight, gross weight, volume, or distance.

Procedure

1. In Customizing for SAP Transportation Management, choose *Transportation Management* > *Basic Functions* > *Cost Distribution* > *Define Cost Distribution Profiles*.
2. Create cost distribution profile `RF-COST` using the following data:

   Table 216:

Field	Description	Value
Distr. Profile	Distribution profile ID	**RF-COST**
Description	Description of the profile	**Rail Cost Distribution: Gross Weight**
Distr. Method	Type of Distribution Method	**DIRECT**
Distribution Rule	Distribution based on parameter	**Gross Weight**
Distr. Level	Level of distribution	**Forwarding Order**

3. Save your entries.

17.2 Defining Calculation Profiles

Procedure

1. In Customizing for SAP Transportation Management, choose *Transportation Management* > *Basic Functions* > *Charge Calculation* > *Basic Settings* > *Define Calculation Profile*.
2. Enter the following data:

   Table 217:

Field	Description	Value
Calculation Profile	Calculation profile	**RF-CP-01**
Description	Description of profile	**Rail Calculation Profile**
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	**Ordered Route**

3. Save your entries.

17.3 Defining Service Date Rules

Procedure

1. In Customizing for SAP Transportation Management, choose *Transportation Management* > *Settlement* > *Define Service Date Rules and Rule Prioritization*.
2. Select the *Define Rules for Service Date* folder and choose the *New Entries* pushbutton.
3. Enter rule **RF01** with description **Rail Services**.
4. Select the *Prioritize Date Types for Rule* folder and enter the following data:

   Table 218:

Date Type	Prio
Actual Start Date of First Stage Main Carriage	**3**
Actual Start Date of Loading	**1**
Expected Start Date of Loading	**2**

5. Save your entries.

17.4 Defining Settlement Group

Procedure

1. In Customizing for SAP Transportation Management, choose *Transportation Management* > *Settlement* > *Define Settlement Groups and Settlement Rules*.
2. Select the *Define Settlement Groups* folder and choose the *New Entries* pushbutton.
3. Enter group **RF-GRP-01** with description **Rail Freight Group 01**.
4. Select the *Assign Charges* folder and enter the following charge types:

Table 219:

Chrg Level	Charge Type
Charge Type	**RF_BASE**
Charge Type	**RF_CUSD**
Charge Type	**RF_CUSF**
Charge Type	**RF_CUST**
Charge Type	**RF_ECC**
Charge Type	**RF_FUEL_MI**
Charge Type	**RF_I_DG**
Charge Type	**RF_INSP**
Charge Type	**RF_INVF**
Charge Type	**RF_LFTD**
Charge Type	**RF_LFTF**
Charge Type	**RF_RCCL**
Charge Type	**RF_REV_SPLIT**
Charge Type	**RF_SWTCH_C**
Charge Type	**RF_SWTCH_Y**
Charge Type	**RF_WEIG**

5. Save your entries.

17.5 Defining Settlement Rules

Procedure

1. In Customizing for SAP Transportation Management, choose *Transportation Management* > *Settlement* > *Define Settlement Groups and Settlement Rules*.
2. Select the *Define Settlement Rules* folder and choose the *New Entries* pushbutton.

3. Enter rule **RF-SETTL01** and the description **Rail Settlement**.
4. Select the *Define Settlement Creation Settings* folder and enter the following data:

   Table 220:

Field	Value
Settlement Group	**RF_GRP_01**
Execution Sts	**01 Execution Not Started**
Service Date Rule	**RF01 Rail Services**
Bllng Schedule	Blank

5. Save your entries.

17.6 Defining Settlement Profiles

Context

In this procedure, you define a 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 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 SAP Transportation Management, choose *Transportation Management* > *Settlement* > *Define Settlement Profile*.
2. Enter the following data:

   Table 221:

Field	Description	Value
Settlement Prof.	Settlement profile	**RF_SP001**
Description.	Description	**Rail Settlement Profile**

Field	Description	Value
Profile Category	Determines whether the profile is valid for freight settlement, 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	Deselect
Service Date Rule	Service Date Determination Rule	**RF01**
Stage Split	Stage split	Not selected
Settlement Rule	Rule that groups charges and their associated settlement creation settings.	**RF-SETTL01**

3. Save your entries.

17.7 Defining Charges Profiles

Procedure

1. In Customizing for SAP Transportation Management, choose *Transportation Management* > *Basic Functions* > *Charge Calculation* > *Basic Settings* > *Define Charges Profiles*.
2. Create a new charges profile by entering the following data:

Table 222:

Field	Value
Charges Profile	**RF-CHAR-01**

Field	Value
Default Purchasing Organization	**<Internal ID of your purchasing organization>**
Default Carrier	Blank
Settlement Profile	**RF-SP001**
Freight Settlement Profile	**RF-SP001**
Calculation Profile	**RF-CP-01**
Purchasing Calculation Profile	**RF-CP-01**
Local Currency	**CAD**
Distribution Profile	**RF-COST**

3. Save your entries.

17.8 Assigning Charges Profiles

Change the Canadian Sales Organization

1. In SAP NetWeaver Business Client, choose *Master Data* > *Organization* > *Edit Organization and Staffing*.
2. Select the row *Railway Sales Organization CA 1*.
3. On the *Org. Data* tab page, enter charges profile **RF-CHAR-01**.
4. Save your entries.

Change the Canadian Purchasing Organization

1. In SAP NetWeaver Business Client, choose *Master Data* > *Organization* > *Edit Organization and Staffing*.
2. Select the row *Railway Sales Organization CA 1*.
3. On the *Org. Data* tab page, enter charges profile **RF-CHAR-01**.
4. Save your entries.

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