User Guide | PUBLIC
SAP S/4HANA Supply Chain for secondary distribution
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Application Help for S4SCSD 3.0

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Content

1 SAP S/4HANA Supply Chain for secondary distribution (S4SCSD)

Use

S4SCSD 3.0 FPS01 enables you to map all business processes that you require, for example, as a trader of petroleum products or other bulk goods with end customers, wholesalers, resellers, or service stations. It comprises the purchase, storage, transportation, and sale of materials.

- Tele Sales (TS), requires SAP for Oil & Gas
- Continuous Product Replenishment (CPR), requires SAP for Oil & Gas
- Retail Fuel Network Operations (RFNO), requires SAP for Oil & Gas
- Data Collation (DC)
- Interfaces (IF)
- Integrated Dispatch Management (S4IDM)

In the *SAP Customizing Implementation Guide* (IMG), there are two nodes for S4SCSD. In a system without *SAP for Oil & Gas*, you can find the Customizing activities under *Logistics Execution* > *Bulk Logistics Management (S4SCSD)*. In a system with *SAP for Oil & Gas*, you can find the activities under *Industry Solution Oil & Gas (Downstream)* > *S4SCSD (SAP S/4HANA Supply Chain for Secondary Distribution)*.

Prerequisites

To use all functions of S4SCSD for petroleum products, you must implement *SAP for Oil & Gas*. This provides you with functions for oil quantity conversion, for example.

You have configured the `/BTL/IDM_ALL` area menu.

Languages

The S4SCSD 3.0 interface is available in the following languages:

- German `deDE`
- English `enUS`
- French `frFR`
- Italian `itIT`
- Spanish `esES`
- Portuguese `ptBR`
- Russian `ruRU`

- Polish `plPL`
- Romanian `roRO`
- Japanese `jaJP`
- Chinese (Simplified) `zhCN`

Related Information

Tele Sales [page 12]
Continuous Product Replenishment (CPR) [page 48]
Retail Fuel Network Operations (RFNO) [page 61]
Data Collation (DC) [page 133]
Interfaces (IF) [page 192]
Integrated Dispatch Management (S4IDM) [page 204]

1.1 Reporting

In Data Collation (DC), you can evaluate and display data.

You have this report available:

- Stock Analysis
  Creates a list of the quantities and movements of a material in a plant within a storage location.

Related Information

Stock Analysis for Petroleum Products [page 8]

1.1.1 Stock Analysis for Petroleum Products

Creates a list of the storage quantities of a plant for a material, and a list of the material movements that have taken place.

Use

Combines and displays the quantities and collective material movements for one or more materials and other search criteria over a selected posting period. The quantities are displayed in up to ten different units of measure.

Activities

For the storage report, go to the *SAP Menu*, and choose *S4SCSD* > *General* > *Reporting* > *Start Stock Analysis*.

The data found is displayed in the *Quantities* and *Movements* areas. You can move the order of the columns, and sort and filter the contents of the columns.

You can use *Search* to search for entries. The search results are highlighted in color in the list.

> **Note**
>
> Depending on your data volume, you may experience long runtimes if you perform a search using the wildcard character asterisk (*). Therefore, restrict your search.

Export to Spreadsheet allows you to export the content.

You can use *Settings* to make adjustments, for example, for the layout, sorting, and filtering.

Messages are displayed in the header. To view all messages, choose *Display Message Log*.

Search Criteria

The entries for the material and the date fields are mandatory. The *Posting Date From* field is filled with the first day of the current month by default. The *Posting Date To* field is filled with the current date by default. Change this data if necessary. After entering the other data you require, choose *Search*. The material quantities and the material movements are displayed in a separate area.

You can save your search criteria as a variant under *Save Search As*.

Quantities

The existing material quantities are displayed according to your search criteria.

To form totals, choose the *Calculations* tab page under *Settings*.

The system displays the stocks at the start and end of the search period. Negative values are indicated with a minus sign (-).

Movements

The existing goods movements are displayed according to your search criteria.

To go to a document, select a line. Choose the corresponding pushbutton.

- *DC Document*: Transaction `/PAT/UI_MAIN_CALL`*Display PAT Document*
- *Material Document*`MIGO`*Goods Movement*

- *Purchasing Document*: Transaction `ME23`*Display Extended Purchase Order*
- *Sales Doc.*: Transaction `VL03N`*Display Outbound Delivery*

Integration

Fiori Launchpad (FLP)

To get the feature in FLP, you need to assign this role there:

- `SAP_BR_DATACOLL_SCSD`

1.2 SAP Fiori Apps in S4SCSD

Here you can find an overview of the SAP Fiori apps in S4SCSD.

SAP Fiori Apps in S4SCSD

App Name with Link to SAP Fiori Apps Reference Library	App ID	Needed Launchpad Business Role	Link to Documentation
Integrated Dispatch Management	F4094	SAP_BR_TRANSPORTPLANNER_SCSD	IDM [page 209]
Report Competitor Prices	F2168	SAP_BR_RFNOLOCOPERATOR_IOG	Report Competitor Prices (App) [page 132]
Service Station Overview	F4030	SAP_BR_RFNOBOFFICE_IOG	Service Station Overview (App) [page 62]
Assess Inventory Differences	F7415	SAP_BR_RFNOINVMGR_IOG	Assess Inventory Differences (App) [page 64]
Assign Dispatcher	F4164	SAP_BR_TRANSPORTPLANNER_SCSD	Assign Dispatcher (App) [page 217]
Roadblock Manager	F5993	SAP_BR_TRANSPORTPLANNER_SCSD	Roadblock Manager (App) [page 277]
Analyze Carbon Footprint	F7468	SAP_BR_TRANSPORTPLANNER_SCSD	Analyze Carbon Footprint (App) [page 222]
Maintain Vehicle Parameters	F7164	SAP_BR_TRANSPORTPLANNER_SCSD	Maintain Vehicle Parameters (App) [page 220]
Open Data Collation References	F6605	SAP_BR_DATACOLL_SCSD	Open Data Collation References (App) [page 145]
Control Panel	F5196	SAP_BR_DATACOLL_SCSD	Control Panel (App) [page 155]
Ticket Workbench	F5195	SAP_BR_DATACOLL_SCSD	Ticket Workbench (App) [page 158]

App Name with Link to SAP Fiori Apps Reference Library	App ID	Needed Launchpad Business Role	Link to Documentation
Configure Processes	F5318	SAP_BR_DATACOLL_SCSD	Configure Processes (App) [page 164]
Map Data	F5319	SAP_BR_DATACOLL_SCSD	Map Data (App) [page 162]
Upload Tickets	F5317	SAP_BR_DATACOLL_SCSD	Upload Ticket (App) [page 160]
Ticket Overview	F5376	SAP_BR_DATACOLL_SCSD	Ticket Overview (App) [page 154]
Display Stock Overview for Period	F7461	SAP_BR_DATACOLL_SCSD	Display Stock Overview (App) [page 137]

Related Information

2 Tele Sales

Purpose

This component contains all the functions and information that you need for telephone sales. Telephone sales are supported by evaluations in the areas of sales, procurement, and settlement.

You can call most processes and functions from the *Create Sales Order: Initial Screen* screen. You access this screen by choosing *SAP Menu* > *Tele Sales* > *Create Sales Order*. You can call other processes and functions straight from the menu.

Prerequisites

You require *SAP for Oil & Gas*.

Implementation Considerations

Tele Sales is an enhancement of the standard sales order. This function has been enhanced so that a telephone salesperson for fuels, lubricants, and bottled gas can use this as a permanent work environment for telephone sales.

In addition to functional enhancements to the standard sales order transaction for the petroleum trade, SAP S/4HANA Supply Chain for secondary distribution (S4SCSD) also contains a simplified screen layout for direct access to the data that is relevant for the salesperson.

In Tele Sales, you can display additional information as individual values or in the form of lists. This requires special Customizing settings.

2.1 Notes

Use

You can use this function to create notes about a customer or have the system create notes automatically. The system can create up to three different notes. You can use notes as reminders and set them for resubmission (RS), or have them printed on the delivery note or invoice. You can send and archive the notes as an SAP IDoc.

> **i Note**
>
> For printing, the appropriate form must exist and you must have configured the print program accordingly in the system.

Prerequisites

You have made the necessary settings in Customizing for *Tele Sales* by choosing:

- *Notes*
- *Posting Control*

Features

You can create notes manually here:

- Tele Sales

The system automatically creates notes according to the settings in Customizing for *Posting Control* in the following applications:

- Tele Sales
  - When you save an SD document such as an inquiry, quotation, or contract
  - When you generate an activity

Short Text

When the system creates a note automatically, it generates a text with a maximum of 40 characters. In Customizing for *Notes*, you can predefine standard texts that would then have priority over the generated texts. You can overwrite any text that was created automatically.

Long Text

In Tele Sales, you can enter a long text for the note if the short text is not sufficient.

Resubmission

During manual creation, you can specify a resubmission date in Tele Sales and in the notes.

When you create an SD document, the system automatically defines a resubmission date in Tele Sales that is the same as the valid-to date in the SD document. You define the date determination in Customizing under *Tele Sales* > *Posting Control* > *Set Parameters for Creation of Sales Documents*. When you save the SD document, you can overwrite the proposed date.

The system automatically creates a resubmission date in the notes. You define the date in Customizing for *Tele Sales* under *Notes* > *Note Activities* > *Define Note Activity Types*.

Printing Out Notes

You can use an indicator in Tele Sales and under *Edit Notes* to define that the note text should be printed on the delivery note or invoice for the customer.

Note Processing

In the *Tele Sales* menu under ▶ *Notes* ▶ *Process Notes* ◀, you can display and process all activities and notes.

Sending Notes

In the *Tele Sales* menu under ▶ *Notes* ▶ *Send Notes* ◀, you can send notes as an SAP IDoc. You can perform a test run before sending. You can also send in batch mode. For more information, see the report documentation.

Archiving Notes

In the *Tele Sales* menu under ▶ *Notes* ▶ *Archive Notes* ◀, you can archive notes.

Notes in IDM

You can display notes created in Tele Sales in Trip Planning on the road map in the text information for an item. These note classes are intended for this purpose:

- `IDM1`*Driver's Note*
- `IDM2`*Note Dispatcher*

Related Information

Activities [page 14]
Generation of Activities [page 15]
Tele Sales [page 12]
Archiving Notes Using /ICO/NOTE [page 285]
Road Map [page 230]

2.1.1 Activities

Purpose

You use this process to perform activities for delivery satisfaction and buying patterns of your customers. Three reports are available for this.

Prerequisites

You have made the required settings in Customizing for *Tele Sales*, under ▶ *Notes* ▶ *Note Activities* ◀.

Process Flow

Perform the following steps:

1. Generate an activity.
2. Manage the activity.
3. Evaluate the activity.

> **i Note**
>
> In the *Tele Sales* menu, under *Notes* > *Process Notes*, you can display and process all activities and notes.

Example

You want to do a survey by telephone to find out if your customers were satisfied with the deliveries they received from you.

Generate an activity of type Delivery Satisfaction with the customers you want to survey.

Release the activity under *Manage Activities*.

Enter the results of the survey in the *Tele Sales* menu, under *Notes* > *Process Notes*.

Evaluate the results of the survey under *Evaluate Activities*.

Related Information

Management of Activities [page 16]
Generation of Activities [page 15]
Evaluation of Activities [page 17]

2.1.1.1 Generation of Activities

Use

You use this report to generate activities for certain note classes defined in Customizing.

Prerequisites

You have defined note activity types in Customizing for *Tele Sales*, by choosing *Notes* > *Note Activities* > *Define Note Activity Types* and have made the necessary settings under *Define Customer Sales Analysis*.

Features

You can generate activities for buying patterns and delivery satisfaction of customers.

Activities

Generate Activity for Buying Analysis

1. On the *SAP Easy Access SAP S/4HANA Supply Chain for secondary distribution* screen, choose *SAP Menu* > *Tele Sales* > *Notes* > *Generate Activities*.
2. The *Activities* screen appears. Select a buying analysis.
3. Enter the sales organization, a billing type, and if required, additional data, before choosing *Execute*. The *Create Notes for Purchase Analysis* screen appears.
4. Select the customers you want to take into consideration during the analysis.
5. Choose *Execute*. The *Text for Note Activity* dialog box appears. Enter a text for the note and choose *Continue*.
6. The system creates a note ID.

Generate Activity for Delivery Satisfaction

1. On the *SAP Easy Access SAP S/4HANA Supply Chain for secondary distribution* screen, choose *SAP Menu* > *Tele Sales* > *Notes* > *Generate Activities*.
   The *Activities* screen appears. Select the delivery satisfaction class LZU.
2. Enter the data and choose *Execute*. The *Creation of Notes for Delivery Satisfaction* screen appears.
3. Select the customers you want to take into consideration during the analysis.
4. Choose *Execute*. The *Text for Note Activity* dialog box appears. Enter a text for the note and choose *Continue*.
5. The system creates a note ID.

2.1.1.2 Management of Activities

Use

You can use this report to generate a list of activities in which you can set the activity status.

Prerequisites

You have generated [page 15] an activity.

Activities

1. On the *SAP Easy Access SAP S/4HANA Supply Chain for secondary distribution* screen, choose *SAP Menu* > *Tele Sales* > *Notes* > *Manage Activities*.
2. Enter a note ID and choose *Continue*. The *Process Activities* screen appears.
3. Select a row and choose a status. The selected status is displayed.

2.1.1.3 Evaluation of Activities

Use

You can use this report to evaluate generated and processed activities.

Prerequisites

You have generated [page 15] and processed [page 16] an activity.

Activities

1. On the *SAP Easy Access SAP S/4HANA Supply Chain for secondary distribution* screen, choose *SAP Menu* > *Tele Sales* > *Notes* > *Evaluate Activities*. The *Activities* screen appears.
2. Select a row and choose *Execute*. The *Evaluate Activities for Activity Type <activity type> Note Type <note type>* screen appears. Enter an activity and choose *Execute*.
   The systems shows the result in tabular form.

2.2 Customer History

Use

This function enables you to view the customer's history, that is, you can display sales documents from the past.

The system updates the data to the following tables:

- VBAK Sales Document: Header Data
- VBAP Sales Document: Item Data
- VBKD Sales Document: Commercial Data
- LIKP Sales Document: Delivery: Header Data
- LIPS Sales Document: Delivery: Item Data

Prerequisites

You are on the *Create* `<order type>`*: Overview* or *Change* `<order type>`*: Overview* screen.

Features

You can choose different tab pages from the history tabstrip. The individual tab page screens consist of a navigation area in the form of a tree structure and a table area. In the tree structure, you select what is to be displayed in the table.

By selecting the various tab pages, you can see the different histories, for example, for different sales document types. You can also choose a material ranking list and the latest deliveries.

You specify which tab pages are to be displayed in Customizing for *Tree Tools*, under *Tabstrips*.

You can copy item data from the table view of the *Material Ranking List* and *Latest Deliveries* tab pages as a new item.

- Drag an item to the shopping cart of the item view.
- Select an item and choose *Document*.

In both cases, the system copies the data and creates a new item.

To display a document or an archived document, select a document number in the table view and choose *Display*.

2.3 Items

You can enter the items for the sales document. Various functions are available to support this.

Use

In this area, you can enter the item data for the sales document.

Features

In addition to the standard functions, you can use additional functions. These additional functions are as follows:

Shopping Cart

From the customer history, you can drag items from the material ranking list and the latest deliveries to the shopping cart. An item is then created automatically.

Requested Delivery Date

First select a format. Then select the value. The selected format is then valid for all items.

This value controls which week view is displayed in pre-scheduling.

Delivering Plant

Here you enter a delivering plant that is valid for all items.

Condition Type

Enter the condition type that is to be displayed in the items.

Display TAS Data

You can display the TAS data for a TAS-relevant material.

Toggle Amount/Value

You can choose whether the amount or the value is displayed. The amount relates to the unit of measure and the value is the product of multiplying the amount by the order quantity.

No freight and commission amounts are contained in the condition type OGM5 for margins.

Pre-Scheduling

You access pre-scheduling.

Contract Selection List

The system displays a list of the purchase contracts. You can select a contract from the list.

When you enter a third-party plant while creating an item, the contract selection list is also displayed.

> **Note**
>
> You define third-party plants in Customizing, under *SAP S/4HANA Supply Chain for Secondary Distribution (S4SCSD)* > *General Settings* > *Classify Plants*.

Contract Detail List

The detailed view of the purchasing contract appears.

Multireference

This takes you directly to the overview of the reference documents.

Number of Delivery Notes

Choose *Item Detail*. Enter the number of delivery notes to be printed in the *General Data* group box. You can only print documents when print control is set up correctly.

> **Note**
>
> If required, you must adjust the print output program for this function.

Terminal Access Identification Number

Choose *Item Detail*. Enter the terminal access identification number in the *General Data* group box.

You make the required settings in Customizing for *Tele Sales* under *General Settings* > *Set Terminal Access Identification Number Assignment*. If the print control is set up accordingly, the terminal access identification number is printed.

> **Note**
>
> If required, you must adjust the print output program for this function.

Related Information

Pre-Scheduling [page 31]
Multireference [page 38]

2.4 Sales Document Creation in Tele Sales

Use

This function enables you to create one of the following sales documents directly on the *Create* `<order type>`*: Overview* screen by choosing the appropriate pushbutton:

- Inquiry
- Quotation
- Contract

When you choose the *Save* pushbutton, a sales order is created.

Activities

After you save the data, you can open the *Create <document>* – *Parameter* dialog box by choosing the appropriate pushbutton.

Change or accept the default data and, if necessary, enter the customer's order number.

> **i Note**
>
> In Customizing for *SAP S/4HANA Supply Chain for secondary distribution*, under *Tele Sales* > *Posting Control* > *Set Parameters for Creation of Sales Documents*, you can define the validity period for the document types. A note is also created for the validity end date/time and a review date is set.

Related Information

Notes [page 12]

2.5 Billing Block

Use

This function shows you whether or not a billing block is set for the customer.

Prerequisites

You are on the *Create* `<order type>`*: Overview* screen.

Activities

If a billing block is set, a red flag is displayed to the right of the input field for the customer.

If you see a green flag, it means that a billing block is not set.

2.6 Alternative Address

Use

You can use alternative addresses so that you do not have to create additional delivery addresses as ship-to parties in the system.

You can make settings in print control so that the alternative address is printed on the delivery note.

Prerequisites

You are on the *Create* `<order type>`*: Overview* screen.

Features

You can enter alternative addresses for the entire document as well as for each item.

The system issues a temporary address number that is replaced with a final number when you save the data.

Activities

Create and change an alternative address

1. Choose *Ship-to Party Detail*. The *Address from Master Data for Ship-to party (Document header)* dialog box appears.
2. Enter the address data. Save your entries.

Or

1. Choose *Ship-To Party Items*. The *Ship-To Parties - Alternative Addresses* dialog box appears.
2. Choose *Create Alternative Address* or *Change Alternative Address*. Save your entries.

You can only create an alternative address for an item if you have created at least one item in Tele Sales.

Delete an alternative address

You can delete an alternative address if it has not been saved yet. These addresses have the prefix WE.

1. Choose *Ship-To Party Items*.
2. Select the address you want to delete.
3. Choose *Delete Alternative Address*. A dialog box appears in which you can select a new alternative address.

Select an alternative address

1. Choose *Ship-To Party Items*. The *Ship-To Parties - Alternative Addresses* dialog box appears.
2. Enter the alternative address for the document in the *Ship-To Party Header* group box or the alternative address for one or more items in the *Ship-To Party Items* group box. Save your entries.

Or

1. Choose *Alternative Addresses*.
2. Copy an alternative address for the document.

Display an alternative address

Choose *Alternative Addresses*.

Example

Your customer, who is an employer at a road construction company, is temporarily managing a construction site. The customer wants all deliveries, such as diesel for the construction vehicles, to be delivered straight to the construction site rather than to the company's head office.

2.7 Delivery Conditions

Describes how you define delivery conditions that you can use for delivering to a customer in tele sales.

Use

For delivery to a customer, it may be necessary for certain conditions to be met. If the receiving transportation unit meets this condition, the transportation unit can carry out the delivery.

During order entry, you enter the conditions that must be met.

The delivery conditions can be printed on the delivery note. To do this, you must adjust the print program accordingly.

Example

- To fill a tank at a customer site, a hose at least 50 meters long is necessary. The vehicle must therefore be equipped with a 50-meter-long hose.
- A gas station can only be supplied by a truck that bears the logo of the gas station.

Prerequisites

In Customizing for the *Industry Solution Oil & Gas (Downstream)*, under *TD (Transportation and Distribution)* > *TD Master Data* > *Compatibilities* > *Maintain Vehicle / Customer Compatibility Indicators*, you have defined the characteristics.

Related Information

Assign Delivery Conditions [page 24]
Edit Characteristics [page 25]
Edit Groups [page 26]
Tele Sales [page 12]

2.7.1 Assign Delivery Conditions

Describes how you assign delivery conditions to a customer and edit these in tele sales.

Procedure

1. On the *SAP Easy Access* screen, choose *S4SCSD* > *Tele Sales (TS)* and start a transaction for the sales order. Enter the data. Choose *Continue*.
2. On the *Create* `<order type>`*: Overview* screen, choose a customer.
3. Choose the *Detail Delivery Condition* pushbutton. This takes you to the *Delivery Conditions for Customer* `<Customer>` dialog box.
4. Select the delivery conditions you require. Choose *Copy*. The *Transfer* dialog box appears.
   If the combination of characteristics you have chosen already exists, you do not need to enter a group name. In this case, step 5 is not applicable.
5. Enter a text for the group. Choose *Save*. The system assigns a sequential number.
6. Save the order.

   You remove an assignment by deselecting the characteristics. Save your changes.

On the *Create* `<order type>`*: Overview* screen, the delivery condition for the customer is displayed with number and text.

Related Information

Delivery Conditions [page 23]

2.7.2 Edit Characteristics

Describes how you can create, change, and delete characteristics in Customizing.

Procedure

In Customizing, choose *Industry Solution Oil & Gas (Downstream)* under *TD (Transportation and Distribution)* > *TD Master Data* > *Compatibilities* > *Maintain Vehicle / Customer Compatibility Indicators*.

- Create
  Choose *New Entries*. Enter a 4-character ID and a description. Save your entries.
- Change
  To change the text, make the changes. Save your changes.
- Delete
  Select an entry. Choose *Delete*.

> **i Note**
>
> Deletion is only possible if the characteristic is not assigned. If necessary, expand the assignment in the transaction *Maintain Cust. Group* `04BC`.

Related Information

Delivery Conditions [page 23]
Edit Groups [page 26]

2.7.3 Edit Groups

Describes how to create and delete groups in the master data.

Procedure

1. From the *SAP Easy Access* screen, choose *SAP* > *Logistics* > *Sales and Distribution* > *Bulk Transportation* > *Master Data* > *Compatibilities* > *Indicator Assignment* > *Maintain Customer Group*.
2. The system displays the dialog box entitled *Condition Customer Group for Reconciliation (Compatibility)*.
   - Create
     1. Choose *Maintain Group*. Enter an 8-character ID and a description. Save your entries.
     2. Choose *Assignments*. Select the characteristics. Save the assignments.
   - Delete
     1. Enter a group.
     2. Choose *Assignments*. Choose *Remove Selection*. Save your entries.
     3. Choose *Maintain Group*. Select a group. Choose *Delete*.

> **i Note**
>
> If the group is still assigned to a customer, the system will display a corresponding message. You must first remove the delivery condition from the customer in tele sales. Open the customer in tele sales. Choose *Detail Delivery Conditions* > *Change* > *Cancel* > *Transfer* > *Save*.

Related Information

Delivery Conditions [page 23]

2.8 Equipment Data

Use

This function enables you to enter and display equipment data for a customer.

The information entered provides you with an overview of the technical equipment and other parameters of the customer's heating installation.

Integration

To call evaluations for equipment data, on the *SAP Easy Access SAP S/4HANA Supply Chain for secondary distribution* screen, choose *SAP Menu* > *Tele Sales (TS)* > *Evaluations* > *Equipment Data*.

The following evaluations are available:

- Next Tank Cleaning
- Maintenance Companies
- Natural Gas Connection Data
- Consumption Data
- Burner and Boiler Data

Prerequisites

You have made the necessary settings in Customizing for *SAP S/4HANA Supply Chain for secondary distribution*, under *Tele Sales (TS)* > *Equipment*.

Activities

To enter equipment data, on the *Create*`< order type>`*: Overview* screen, choose *Equipment Detail*.

To switch between the equipment data that you want to display, choose *Other Equipment*.

Example

By looking at the heated area and the tank volume, you can tell when you will need to supply the customer with new heating oil and can contact the customer in time to create an order.

2.9 Delivery Block

Use

This function shows you whether or not a delivery block is set for the ship-to party.

Prerequisites

You are on the *Create* `<order type>`*: Overview* screen.

Activities

If a delivery block is set, a red flag is displayed to the right of the input field for the ship-to party.

If you see a green flag, it means that a delivery block is not set.

2.10 Display of Sales Key Figures

Use

This function shows you values for sales volume, turnover, and revenue, sorted according to material group.

Prerequisites

You are on the *Create* `<order type>`*: Overview* screen.

You define the texts for the sales key figures in Customizing for *SAP S/4HANA Supply Chain for secondary distribution (S4SCSD)* under *Tele Sales* > *General Settings* > *Define Texts for Sales Key Figures*.

Activities

- To display all the data in another window, choose *Sales Key Figures Detail*.
- To switch between the sales volume, turnover, and revenue data, choose *Other Sales Key Figures*.

The system updates the data each time billing takes place.

2.11 Automatic Delivery Creation

Use

You use this function to control whether the system is to automatically create a delivery.

Prerequisites

You are on the *Create* `<order type>`*: Overview* screen.

Activities

If you want the system to create a delivery, set the *Delivery* indicator and save the data as a sales order or a contract.

> **i Note**
>
> When you perform data collation, you cannot reference the sales order or contract that you created. Data collation would also create a delivery, which would lead to problems during subsequent posting steps. Instead, you must reference a delivery that the system created.

2.12 Payer Indicator

Use

This function shows you whether the payer is different from the sold-to party.

Activities

If the sold-to party is not the payer, the system sets the ampersand (&) in the field next to the field for the customer's credit limit. This means that the credit limit data of the payer and not of the sold-to party is displayed on the *Create*`<order type>`*: Overview* screen.

2.13 Financial Data Details

Use

With this function, you can display the details of the customer's financial data.

Prerequisites

You are on the *Create* `<order type>`*: Overview* screen.

Activities

Choose *Financial Data Detailed View*.

The *Financial and Payment Information of Customer* `<Customer Name>` dialog box appears.

2.14 Open Items

Use

This function enables you to display amounts that are still due after the agreed payment date.

Prerequisites

You are on the *Create* `<order type>`*: Overview* screen.

Features

The amount due increases each time the billing document balance is not cleared by the required payment date.

The amount decreases when payment for an open item is received.

Activities

If there are open items, a red flag is displayed to the left of the *Due OI* field.

If a green flag is displayed, this means that there are no open items.

2.15 Pre-Scheduling

Enables deadline pre-scheduling of an order.

Use

This function enables you to perform direct pre-scheduling of sales orders when you create a sales order in Tele Sales. Pre-scheduling allows the Tele Sales employee to give the customer a provisional confirmation of the delivery date.

You assign items from sales orders to time periods in a weekly overview. Based on the delivery location, the system proposes a suitable delivery date. If the limit values set for delivery quantities or the number of items is exceeded, this is also displayed. This gives you an overview of the routes that are planned for a given period, along with the associated quantities. Items for which a goods issue has already been posted are not displayed.

You can perform pre-scheduling for each material planning group indicator that can contain multiple materials. This enables you to schedule solids separately from liquids, for example.

Prerequisites

You have made the following settings in the S4SCSD master data, under *Tele Sales (TS)* > *Pre-Scheduling*:

- Under *Set Limit Values*, you have defined the limit values. For each period, you can define maximum values for the delivery quantity and for the number of items. If one of these values is exceeded, this is displayed in pre-scheduling. Define limit values as default values for each weekday. If there are predictable deviations from the default values, you can set running values. These running values then take precedence over the default values. You need to distribute the limit values set for the delivery quantities proportionally across the periods.
- Under *Assign Material Planning Group Indicator to Material*, you have assigned a material planning group indicator (MPGI) to a material. You must first define an MPGI in Customizing.
- If the delivery zone is to be assigned per business partner, you assign a delivery zone to the business partner in the transaction *Maintain Business Partner* in the *Customer* role, on the tab page *Geo-Info/ Delivery Zones*. If the delivery zone is to be assigned at postal-code level, under *Assign Postal Codes to Delivery Zone* assign certain postal codes or postal code areas a delivery zone. If you have made both these settings, the system uses the assignment to the business partner. If you want the assignment to the postal

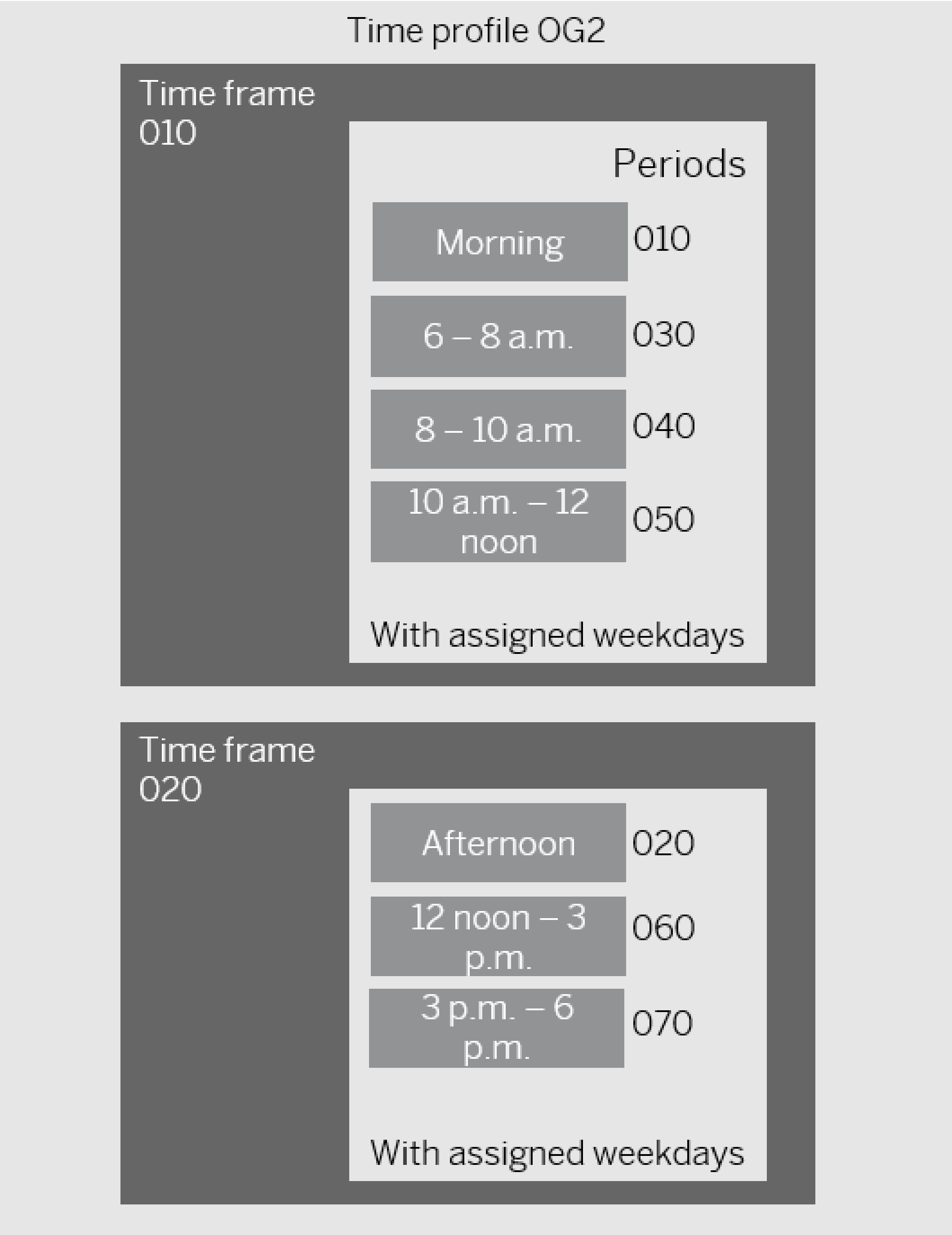
code to be used first, you can set this in Customizing. To do this, choose *Define Determination of Delivery Zone*. You can also assign a separate delivery zone assignment if necessary.

> **Note**
>
> In the menu you can choose *Display Delivery Zones for Ship-To Parties* to view assignments.

In S4SCSD-Customizing, under ▸ *Tele Sales (TS)* ▸ *Pre-Scheduling* ◂, you have made the following settings:

- Under *Define Time Profiles*, you have defined the time profiles.

The following figure shows a possible time profile structure:



A time profile consists of periods. You can group periods in time frames. whereby each time frame must also be defined as a period. You can assign a weekday to each period.

- Under *Define Delivery Zones and Neighborhood Distance*, you have defined the delivery zones and neighborhood distance.
- Under *Set Delivery Zone for Limits*, you have set which delivery zone applies to the limits.
- Under *Define Material Planning Group Indicator*, you have created a material planning group indicator.
- Under *Assign Time Profile to MPGI and Delivery Zone*, you have assigned an MPGI and a delivery zone to the time profile.

- Under *Define Determination of Delivery Zone*, you can specify which determination of delivery zone the system uses.
- Under *Define Parameters for Limits*, you have defined the parameters for the limits.

Features

Neighborhood Symbol

If you want to assign a new item to a time period in which another item has been assigned for the same customer or for a customer that is in the close vicinity of the current customer, the neighborhood symbol *Order in Neighborhood* is displayed in the *Priority* `<date>` column.

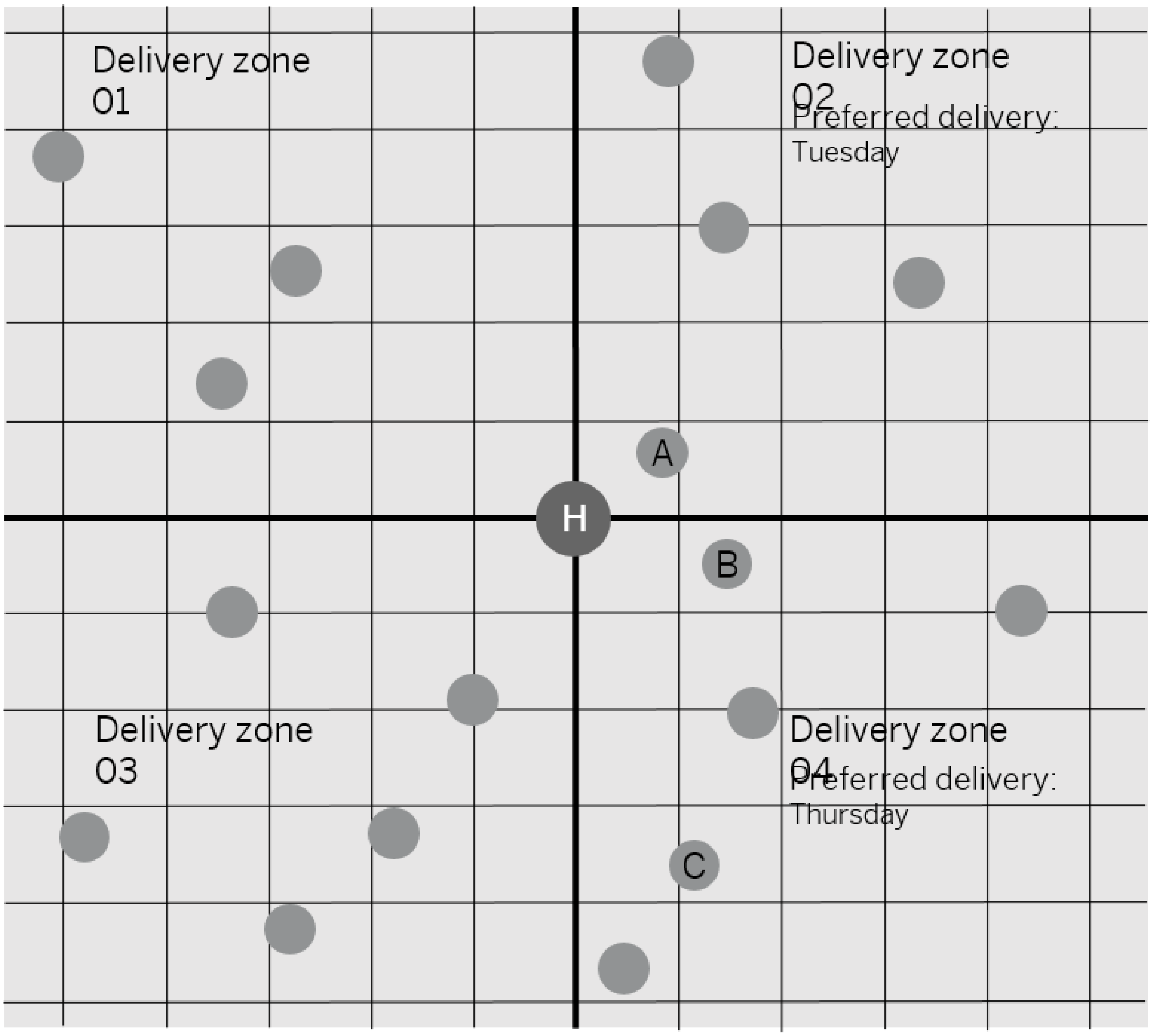
This is controlled by the settings defined in Customizing for *Pre-Scheduling*.

The symbol for information purposes only. You can ignore it.

Example of neighborhood distance:

A petroleum trader has defined four delivery zones. Delivery zone 02 should preferably be supplied on Tuesday. Delivery zone 04 should preferably be supplied on Thursday. Ship-to party A has already been pre-scheduled in delivery zone 02. Now, an additional item for ship-to party B is to be pre-scheduled in delivery zone 04. Since the distance between A and B does not exceed the neighborhood distance defined in Customizing, the neighborhood symbol is displayed. It makes sense to deliver item B at the same time as item A, even though they do not have the same preferred time periods. Item C is not delivered at the same time as item A because the neighborhood distance is exceeded. In this case, it does not make sense to deliver item A and item C together because the distance between them is too great.

The following figure illustrates the situation described above:



Green Traffic Light

A green traffic light symbol *Preferred Period* in the *Priority* `<date>` column signals the time period preferred by the trader for this customer as defined in Customizing for *Pre-Scheduling* by choosing *Delivery Time Profiles* is relevant. Here you should make an assignment.

Red Traffic Light

The red traffic light *Limit Value Reached* in the *Limit* `<date>` signals that the maximum order quantity or the maximum number of sales orders for this time period as set in the master data under *Define Interval Limits* has been exceeded. Here you should not make an assignment.

In Customizing, under *Set Delivery Zone for Limits*, you can specify whether the limits are to apply for the top or bottom delivery zone.

> i Note
>
> The unit of measure relates to the unit of measure set in Customizing, under *Define Material Planning Group Indicator*.

> **i Note**
>
> The symbols displayed are to assist you during pre-scheduling. However, you are free to ignore the symbols and pre-schedule items as you wish.

Display Orders

You can call items by double-clicking an order number field. The system displays all pre-scheduled items on the *Pre-Scheduled Items* tab page.

Log

If you choose the icon in the *Status* column, messages are displayed on the *Log* tab page.

Activities

Reset Item

To reset an assignment and entry, choose *Reset Items*.

Vehicle Number

In the upper area, you can select a vehicle in the *Vehicle Number* column. The vehicle number is saved in table `VBAP`. The vehicle number can be accessed by other programs, such as external tour optimization programs.

2.15.1 Pre-Scheduling

Describes how you can perform pre-scheduling.

Context

You are on the *Create* `<order type>`*: Overview* or *Change* `<order type>`*: Overview* screen. Choose *Pre-Scheduling* in the area of the items.

Procedure

1. Select an item.
    - To assign the item to a period of time, double-click on a quantity field in the overview.

> **i Note**
>
> If you have entered only one day as the delivery date, the item is automatically assigned to the *Other* period. To assign the item to a period of time, double-click on a different quantity field. The date is modified in the item.

- To assign the item to a time slot in the *Time Slot* delivery zone, double-click on a quantity field. This date is set as the end date in *To Date*. The current date is set as the start date in *Date From*. A time frame comprises at least 2 days.

> **i Note**
>
> You can extend the time slot by double-clicking on a quantity field for a later date.

2. Choose the *Back* pushbutton.
3. Save data.

2.16 Telephony

Use

This function enables you to display the customer data entered in the system when an incoming call is received. You can also initiate outbound calls to partners.

Prerequisites

You have installed the hardware and software required for telephony.

To enable the system to register the telephone number, the caller must have a digital telephone connection.

You have configured the necessary settings in Customizing for *SAP NetWeaver* by choosing *Application Server* > *Basis Services* > *Communication Interfaces* > *SAPphone: Client-Wide Settings* > *Activate Telephony/ Choose Work Center Identification*.

You have configured the necessary settings in the master data for transactions *SPHA - Extended Settings* and *SPHB - SAPphone*.

Activities

Inbound

When you receive an inbound call, choose the *telephone number of the sold-to party* or the *telephone number of the ship-to party* on the *Create* `<order type>`*: Overview* screen. The system displays the corresponding customer data.

Outbound

You can make outbound calls as follows:

- On the *Create* `<order type>`*: Overview* screen for the sold-to party and ship-to party.
- From the *SAP Easy Access SAP S/4HANA Supply Chain for secondary distribution* screen, under *SAP Menu > Tele Sales (TS) > Notes > Process Notes*, in the *Contact Person* group box.

2.17 Multireference

Use

In a sales or purchase document, or a data collation document, this function enables you to reference various other documents or documents and objects such as service stations, tanks, or maintenance objects. You create the reference manually, or the system creates it automatically.

This allows you to create references that the system does not display in the document flow.

You can display the reference documents for information purposes.

Depending on your Customizing settings, the system can use the data in these documents to determine prices.

Prerequisites

You have made the necessary settings in Customizing for *SAP S/4HANA Supply Chain for secondary distribution* under:

- *General Settings > Pricing > Multireference*
- *Tele Sales (TS) > General Settings > Multireference*
- *Purchasing > Multireference*
- *Data Collation (DC) > Data Collation Documents > Multireference*

If you use multireference for pricing, you must have activated the pricing routine 450 or a copy of this in your system, and entered this routine in the relevant conditions in the pricing procedure.

Features

The system automatically creates reference documents in the following processes:

- When you post the document within data collation.
- When dealing with third parties in Tele Sales When you create a sales order or a sales contract, the system references the purchasing document.

Activities

You can display the references in the system and also enter references manually:

- In the item details section of Tele Sales, choose the *Multireference* tab page.
- Choose an item in data collation. The *Details* area is displayed. Choose the *Multireference* tab page.
- If you use transactions `ME21N`, `ME22N`, and `ME23N`, choose an item and then choose the *Multireference* tab page.
- If you use transactions `ME21`, `ME22`, and `ME23`, in the item details section, select *Item* > *Additional Functions* > *Multireference* from the menu.

Related Information

Data Collation (DC) [page 133]
Tele Sales [page 12]

2.18 Reference Pricing

Use

You can use reference pricing to perform a differentiated pricing by creating Business Add-Ins that use additional fields for the pricing.

There are fields for this, in the item detail of Tele Sales on the *Item Detail* tab page in the *Reference Fields* group box. You can enter the values manually or through BAdIs. The values in these fields can then be included in the pricing.

Prerequisites

To fill the reference fields in the sales order automatically using BAdIs, the following prerequisites must be met.

Customizing

In Customizing for *SAP S/4HANA Supply Chain for secondary distribution (S4SCSD)*, under *Tele Sales (TS)* > *General Settings* > *Reference Pricing*, you have configured the following settings.

- Under *Set Time for Market Reference Price Checks* and *Set Time for Market Reference Price Execution*, define BAdIs for checking and execution.
- You first define a procedure under *Define Procedure*. You then determine the steps and assign BAdIs. The checking BAdI checks whether a condition has been met. If the condition has been met, the executing BAdI executes an action. You can define several steps that are executed in succession.

- Under *Determine Procedure*, you set when a procedure is to apply and how the fields in the item detail are to be displayed.
- Under *Set Field Prepopulation* you can set the default values for fields that you use in BAdIs. The fields must be contained in the BAdI, but you can change the values to be used here.

You have set pricing in line with your requirements in the *SAP Customizing Implementation Guide* under *Sales and Distribution* > *Basic Functions* > *Pricing* > *Pricing Control*. The actual evaluation of the reference fields in the order item now takes place.

Example

Example 1

The order item material should not be relevant for pricing, rather a reference material. So you can, for example, define a reference material for heating oil and diesel that is relevant for pricing. You can use a BAdI to fill the reference field *Material* in the order item.

Example 2

The actual plant delivering as entered in the order item should not be relevant for pricing, rather a higher-level plant (reference plant). You do not need to enter a price for each plant in the system, but only the reference plant requires a price. You can also use the corresponding reference fields here.

2.19 Evaluations

Use

Various general evaluations are available for Tele Sales.

You start the evaluations from the *SAP Easy Access SAP S/4HANA Supply Chain for secondary distribution* by choosing *SAP Menu* > *Tele Sales (TS)* > *Evaluations*, where the evaluations are located under various nodes. For example, evaluations related to the equipment data function are located under the *Equipment Data* node.

Related Information

Equipment Data [page 26]

2.19.1 Terminal Access ID List

Use

You can use this report to display all contract items with a terminal access identification number for a selected period.

Activities

Start the report from the *SAP Easy Access SAP S/4HANA Supply Chain for secondary distribution* screen by choosing ▶ *SAP Menu* ▶ *Tele Sales* ▶ *Evaluations* ▶ *Sales* ▶ *Terminal Access ID List per Plant* ◀.

2.19.2 Sales Document Overview

This report generates an overview of the sales documents.

Use

The report generates an overview of the sales documents that meet the selection criteria. For the contracts you can choose whether all or only the open contracts are to be displayed. Open documents are those whose overall processing status is not yet completed and that have an open remaining quantity (greater than zero).

In the case of contracts and quotations, the validity of the term or binding period is not automatically checked against the current date. If only open documents that are valid on specific days are to be printed, you need to restrict the data basis using the corresponding selection criteria.

You can select the currency and the unit of measure to which you want to convert.

These quantities are displayed:

- Total quantity
- Released quantity
- Exceeded quantity
- Quantity left on vehicle

> **i Note**
>
> The report is optimized for the ALV output, therefore, this documentation refers to the ALV output.

Activities

Start the report in the *SAP Easy Access* screen by choosing *S4SCSD* › *Tele Sales (TS)* › *Evaluations* › *Sales* › *Display Sales Document Overview*.

Choose the data, output parameters, and other data. Choose *Execute*.

Features

Display sales document

Opens the transaction *Display Quantity Contract* `<Number>` `VA43` for a selected contract.

If the selected sales document category is not *G Contract*, the corresponding transaction for the sales document type is opened.

The other pushbuttons are only displayed for the document category *Contract*:

Document output

Opens a dialog box in which you can change the output parameters. The database is not accessed again.

Sales contract analysis

Opens the program *Display Sales Contract* for a selected contract.

Quantity transferred

Opens a dialog box if you have selected two contracts with the same material. Select the source document in the dialog box. Choose *Choose*. In a further dialog box, enter the quantity to be transferred. Choose *Continue*. The quantity is transferred.

2.19.3 Purchasing Document Overview

This report provides an overview of the purchasing documents.

Use

The report generates an overview of the purchasing documents that meet the selection criteria. For the contracts you can choose whether all or only the open contracts are to be displayed. Open contract items are those that are still valid, and that have neither a deletion or lock indicator and have an open remaining quantity (greater than zero).

> **i Note**
>
> The report is optimized for the ALV output, therefore, this documentation refers to the ALV output.

You can select the currency and the unit of measure to which you want to convert.

These quantities are displayed:

- Total quantity
- Delivered quantity
- Order quantity (if the quantity is greater than zero, the field is marked in red in the output)
- Overdelivered quantity

Activities

Start the report in the *SAP Easy Access* screen by choosing *S4SCSD* > *Tele Sales (TS)* > *Evaluations* > *Purchasing* > *Display Purchasing Document Overview*.

Choose the data, output parameters, and other data. Choose *Execute*.

Output

If a currency translation or unit conversion was not possible, a lightning symbol is displayed. In this case, the totals are not displayed correctly.

Features

Display purchasing document

Opens the transaction *Display Master Contract*`ME33` or *Change Master Contract*`ME32` for a selected contract. You can configure this in the Maintain Master Agreements group box on the initial screen.

If the selected purchasing document category is not *K Contract*, the corresponding transaction for the purchasing document type is opened.

Document output

Opens a dialog box in which you can change the output parameters. The database is not accessed again.

The other pushbuttons are only displayed for the purchasing document category *K Contract*:

Purchasing contract analysis

Opens the program *Display Purchase Contract* for a selected contract.

Quantity transferred

If you have selected two contracts with the same material, a dialog box appears. Select the source document in the dialog box. Choose *Choose*. In a further dialog box, enter the quantity to be transferred. Choose *Continue*. The quantity is transferred.

2.20 Collective Order

Enables a customer to order materials at the retailer for themselves and others.

Use

A customer orders materials for both themselves and for other customers in the neighborhood. In this way, the customer can take advantage of better conditions, for example.

This results in the following advantages for you:

- More efficient use of means of transport
- Additional scope for pricing due to lower shipment costs
- Encouraging the customer to be loyal to your company

The group customer customers are clearly mapped in a customer hierarchy, and can be assigned to the following customer types:

- Responsible
- Deputy
- Regular customer

Prerequisites

In Customizing for *S4SCSD*, under *Tele Sales (TS)* > *Collective Order*, you have made the settings.

You have created a customer hierarchy for the collective order.

Related Information

Creating a Collective Order [page 46]
Customer Hierarchy Collective Order [page 45]

2.20.1 Customer Hierarchy Collective Order

Maps the customers for the collective order in a hierarchy.

Use

In the collective order, you need a customer hierarchy that contains the group customer customer.

Prerequisites

On the *SAP Easy Access* screen, under *S4SCSD* > *Tele Sales (TS)* > *Master Data* > *Customer Hierarchy* > *Create Customer Hierarchy Type*, you must have created a customer hierarchy type of the group *Collective Order*.

Conversion

If you have already used the customer hierarchy in Oil & Gas Secondary Distribution (OGSD), you can continue to use the data in S4SCSD. To do this, you need to use a report to convert the data. The report is located in Customizing for *S4SCSD*, under *Technical Objects* > *Migration* > *Convert Customer Hierarchy*.

You can run this report as a test run initially. In doing so, no data is converted. After the conversion run has been performed, the converted objects are displayed.

> ⚠ Caution
>
> No objects may exist in the customer hierarchy of S4SCSD. If objects already exist, you must delete these objects first.

2.20.1.1 Creating a Customer Hierarchy

Describes how you create a hierarchical structure for the collective order and assign customers.

Prerequisites

You must have defined a customer hierarchy type. On the *SAP Easy Access* screen, choose *S4SCSD* > *Tele Sales (TS)* > *Master Data* > *Customer Hierarchy* > *Create Customer Hierarchy Type*. Create a hierarchy type of the group *Collective Order*.

Context

Procedure

1. From the *SAP Easy Access* screen, choose *S4SCSD* › *Tele Sales* › *Master Data* › *Customer Hierarchy* › *Edit Customer Hierarchy*. The *Customer Hierarchy* dialog box appears.
   You can use the *Selection of Group IDs* tab to search for existing customer hierarchies.
2. Enter a customer hierarchy type and the organizational data. Choose *Find*.
3. Choose *Edit*. In the hierarchy structure choose *Create New Group*. The *Create New Group* dialog box appears.

   If the hierarchy structure is not displayed, choose *Hierarchy Structure*.
4. Enter a node text. Choose the *OK* pushbutton. Save data.
   You can assign additional lower-level nodes to a group. Select a node. Choose *Add Node*.
5. In the customer list, choose *Find Customers*. The *Find Customers* dialog box appears.
6. Enter the search criteria. Choose *Find*.
7. Select the customer or customers to be assigned in the *Customer List*. Select an end node in the *Hierarchy Structure*. Choose *Add Customer* in the *Customer List*.
8. The customers added to the node are displayed under *Hierarchy List*.
9. Save data.

2.20.2 Creating a Collective Order

Describes how to create a collective order in Tele Sales.

Procedure

1. Start the transaction *Collective Order* on the *SAP Easy Access* screen by choosing *S4SCSD* › *Tele Sales (TS)*. The *Group Customer: Initial Screen* appears. Enter the data. Choose *Continue*.
2. Choose *Find* in the *Header Data* group box. The *Find Using Customer No. or Node Text* dialog box appears.
3. Find a customer or a node. Choose *Continue*.
4. Double-click a node symbol. The customers are transferred to the overview. The system displays the current status of the credit limit.
5. Copy the customer data to an item on the *Order Data* tab page by double-clicking a customer symbol. Copy all customers to the item on the *Order Data* tab page by double-clicking the node symbol.
6. Enter the required data in the *General Data* group box. Choose *Continue*.

7. Copy the data to the items. You have the following options:
    a. All data should be transferred to all of the items on the *Order Data* tab page: Choose the *All Data to All Items* pushbutton on the far right of the *General Data* group box.
    b. All data is to be copied to the selected items: Select the items on the *Order Data* tab page. On the far right of the *General Data* group box, choose the *All Data to Sel. Items* pushbutton.
    c. The order quantity is to be distributed evenly among all the customers: On the left of the *General Data* group box, choose *Distribute Quantity to All Items*.

    You can transfer the general data to the items flexibly.

    You can create two types of text on the *Texts* tab page. You can create a long text for the data collation document on the *Order Texts* tab page. You can create texts for notes on the *Note Text* tab page. You can choose whether the text is to be printed on the delivery note or invoice, or on both documents. The note text is displayed in Tele Sales.
8. Choose *Verify*. The system checks whether all mandatory fields have been filled. Errors are displayed on the *Status* tab page.
9. Choose *Post*. The order data is posted. The *Status* tab page displays the order numbers and the posting texts, as well as the updated status of the credit limit.

    To see the data collation document, choose *Report*. In the *Detail Data* on the *Long Texts* tab page, you can see the long text you created.

    To view the sales document in Tele Sales, click the sales document number.

Results

The system creates an order for each customer.

Related Information

Notes [page 12]
Tele Sales [page 12]
Data Collation (DC) [page 133]

3 Continuous Product Replenishment (CPR)

Purpose

You can use this process to provide your customers with a steady supply of products based on their requirements by continuously calculating and monitoring the expected material consumption. The following characteristics are included in the standard system:

- Integration of SAP IS-OIL storage objects
- Complete integration of the CPR master data into the business partner data with the role of Customer
- Weather-independent consumption definitions
- Additional delivery options
- Detailed logs

You can use this process to determine the next delivery dates to your customers for heating oil or gas by forecasting the consumption of oil and gas using degree days based on average annual consumptions or a fixed cycle.

You base your forecast on:

- Statistical degree day coefficients from weather stations and regions
- Previous consumption data of the customer

The analysis project defines the algorithm for calculating a forecast result and thus the mathematical model.

You can use your own algorithms via a standard interface by making settings in Customizing.

You can determine forecast processes that the system executes after you have performed the analyses. The standard system includes:

- Generation of e-mails
- Creation of sales orders
- Creation of notes

These forecast processes enable you to react quickly without having to wait for the incoming orders from your customers. With the support CPR provides for order generation and sales promotions, you can react more quickly and precisely to the customer's needs, thus increasing customer retention.

You can also generate forecasts for mid-term and long-term requirements for material purchasing quantities.

Prerequisites

You require *SAP for Oil & Gas*.

In Customizing for *SAP S/4HANA Supply Chain for secondary distribution*, you have made the settings under *Continuous Product Replenishment (CPR)*.

In Customizing, you have made the settings for the projects under *Continuous Product Replenishment (CPR)* > *Number Ranges*.

From the *SAP Easy Access SAP S/4HANA Supply Chain for secondary distribution* screen, you have made the required settings under *SAP Menu* > *Continuous Product Replenishment (CPR)* > *Master Data*.

From the *SAP Easy Access SAP S/4HANA Supply Chain for secondary distribution* screen, you have created corresponding customer hierarchy types and customer hierarchies under *SAP Menu* > *Continuous Product Replenishment (CPR)* > *Master Data* > *Customer Hierarchy*.

You have entered the required data in the master data for the business partner, under *CPR Data*.

Process Flow

1. You create a customer hierarchy.
2. You create projects and assign customer hierarchies and, where necessary, processes to them.
3. You define an analysis horizon and conduct the analysis.
4. Start the defined processes with the results of the analysis.

Related Information

CPR Customer Hierarchy [page 49]
Notes [page 12]
Conducting an Analysis [page 51]

3.1 CPR Customer Hierarchy

Maps the customers for the collective order in a hierarchy.

Use

In Continuous Product Replenishment (CPR), you need a customer hierarchy that contains the CPR customers.

Prerequisites

You have created a customer hierarchy type in the *SAP Easy Access* screen, under *S4SCSD* > *Continuous Product Replenishment (CPR)* > *Master Data* > *Customer Hierarchy* > *Create Customer Hierarchy Type*.

> **Note**
>
> To select customers in projects for CPR analyses, you create customer hierarchies with a customer hierarchy type from the *CPR Analysis* group.

Conversion

If you have already used the customer hierarchy in Oil & Gas Secondary Distribution (OGSD), you can continue to use the data in S4SCSD. To do this, you need to use a report to convert the data. The report is located in Customizing for *S4SCSD*, under *Technical Objects* > *Migration* > *Convert Customer Hierarchy*.

You can run this report as a test run initially. In doing so, no data is converted. After the conversion run has been performed, the converted objects are displayed.

> **Caution**
>
> No objects may exist in the customer hierarchy of S4SCSD. If objects already exist, you must delete these objects first.

Related Information

Continuous Product Replenishment (CPR) [page 48]

3.1.1 Creating a Customer Hierarchy

Describes how you create a hierarchical structure for CPR and assign customers.

Prerequisites

You must have defined a customer hierarchy type. To do this, in the *S4SCSD* menu, choose *Continuous Product Replenishment (CPR)* > *Master Data* > *Customer Hierarchy* > *Create Customer Hierarchy*. Create a hierarchy type for the group *CPR Analysis*.

Context

Procedure

1. From the *SAP Easy Access* menu, choose *Continuous Product Replenishment (CPR)* > *Master Data* > *Customer Hierarchy* > *Edit Customer Hierarchy*. The *Customer Hierarchy* dialog box appears.
   You can use the *Selection of Group IDs* tab only to search for existing customer hierarchies.
2. Enter a customer hierarchy type and the organizational data. Choose *Find*.
3. Choose *Edit*. In the hierarchy structure choose *Create New Group*. The *Create New Group* dialog box appears.
4. Enter a node text. Choose the *OK* pushbutton. Save data.
   You can assign additional lower-level nodes to a group. Select a node and choose *Add Node*.
5. In the customer list, choose *Find Customers*. The *Find Customers* dialog box appears.
6. Enter the search criteria. Choose *Find*.
7. Select the customer or customers to be assigned in the *Customer List*. Select an end node in the *Hierarchy Structure*. Choose *Add Customer* in the *Customer List*.
8. The customers added to the node are displayed under *Hierarchy List*. If storage objects are assigned to a customer, the storage objects for a selected ship-to party are displayed under *Storage Objects*. For this, you must have activated the application for IS-OIL. You can activate or deactivate the storage objects for the CPR analysis.
9. Save data.

3.2 Conducting an Analysis

Describes how to perform an analysis of your projects to start a delivery to your customers.

Context

You analyze projects daily, thereby filtering out the storage objects that require new deliveries within the analysis horizon.

For projects containing customers with fixed delivery contracts, orders can be generated automatically, including e-mails with shipping notifications if necessary.

For projects that contain customers without fixed delivery contracts, generate notes for your tele sales employees.

Procedure

1. Start the analysis in the *SAP Easy Access* screen by choosing *S4SCSD* > *Continuous Product Replenishment (CPR)* > *Continuous Product Replenishment*. The *Continuous Product Replenishment (CPR)* screen appears.
2. Create a project. To do this, choose the *New Project* pushbutton. In the *General* group box, enter a project name, choose a segment ID, and select a customer hierarchy from the *Selection* tab page. On the *Processes* tab page you can also create processes, for example, the generation of a note. The processes available for selection depend on the algorithm that is assigned to the segment ID.
3. Choose *Save*. The created project is now displayed in the navigation tree.
4. Select *Conduct Analysis* from the context menu of the project that you created.
5. You can view the result on the *Results List* tab page.
6. Choose *Save Result and Log*. The `<System Name>` *Name of Results List* dialog box appears.

   Change the proposed name if necessary and choose *Continue*.

   The system inserts the symbols for the results list and for the log as subnodes in the structure.
7. In the context menu of the results list, choose *Release Results List*.

   The system inserts the symbols for the processes defined in the project as subnodes.
8. Choose *Start Process* from the context menu of the required process.

   The process takes place for all result lines that are not locked. Processing messages are displayed on the *Log* tab page.

Related Information

CPR Customer Hierarchy [page 49]

3.3 Defining Default Groups

Use

This function allows you to define fixed values that are to be transferred to the order database during the CPR order generation process, for example, the sales organization and sales document type. You assign a default group to each CPR storage object in transaction *BP* in the BP role *Customer*, under *CPR Data* > *Additional Doc. Values* > *Default Group*.

Prerequisites

In Customizing for *SAP S/4HANA Supply Chain for secondary distribution*, under *Continuous Product Replenishment (CPR)* > *Define Required Entry Fields for Default Groups*, if desired you have determined which table fields are definitely to be filled for the CPR order generation.

Example

In Customizing, define the following:

- Table `VBAK-VKORG`, BAPISDHD1 Sales Organization
- Table `VBAK-AUART`, BAPISDHD1 Sales Document Type
- For default group `VKORG1`:
  - `VBAK-VKORG`, BAPISDHD1 Sales Organization: ORG1
  - `VBAK-AUART`, BAPISDHD1 Sales Document Type: OTA
  - `VBAK-VTWEG`, BAPISDHD1 Distribution Channel: G3

In the master data under *Define Default Groups*, define the following settings:

- For default group `VKORG2`:
  - `VBAK-VKORG`, BAPISDHD1 Sales Organization: ORG2
  - `VBAK-AUART`, BAPISDHD1 Sales Document Type: OTA
  - `VBAK-VTWEG`, BAPISDHD1 Distribution Channel: G4
- Make the following assignments:
  - All ORG1 storage objects to default group `VKORG1`
  - All ORG2 storage objects to default group `VKORG2`

Result:

- All CPR orders for the storage objects of sales organization ORG1 receive the values for ORG1/OTA/G3.
- All CPR orders for the storage objects of sales organization ORG2 receive the values for ORG2/OTA/G4.

3.4 Analyzing the Logs

Use

This report allows you to search for messages that were output in CPR as SOC logs or process logs. You can search for warnings, errors, or both.

All messages found are displayed in a log. From here, you can display the individual messages and access the individual logs and customer master data.

Analyses of very large data volumes should be run overnight.

Activities

This report is located in *SAP Easy Access SAP S/4HANA Supply Chain for secondary distribution* screen, under *SAP Menu* > *Continuous Product Replenishment (CPR)* > *Tools* > *Analyze CPR Logs*.

More Information

For more information, see the report documentation.

3.5 Edit Stocks

Use

You can use this function to enter stock data for IS-OIL storage objects that are monitored using CPR. You can only those change stock types that can be changed manually according to your Customizing settings, for example:

- Physical Dipping (1)
- Stock Specification After External Delivery (2)
- Informational Stock Specification (5)

Other stock types cannot be entered manually, for example:

- CPR Result from Weather Data - Logical Dipping (3)
- CPR Result from Weather Forecast (4)
- Open CPR Order - Planned Delivery Quantity (6)
- Delivered CPR Order – Actual Delivery Quantity (7)

The number in parentheses specifies the type of stock determination in the *Type of Determination* field of the table.

Of all the stock determination types that can be entered, only Physical Dipping can be used as a reliable reference stock for the Consumption algorithm of the CPR analysis.

From every last analysis, the analysis saves the calculated dip using the stock type *CPR Result from Weather Data - Logical Dipping* and the forecasted dips using the stock type *CPR Result from Weather Forecast*.

The data from all of the stock determination types, with the exception of *CPR Result from Weather Data - Logical Dipping*, is deleted by the *Delete Stocks* report after the lifetime that is defined in Customizing expires.

Activities

You access this function from the *SAP Easy Access SAP S/4HANA Supply Chain for secondary distribution*, by choosing *SAP Menu* > *Continuous Product Replenishment (CPR)* > *Edit Stocks*, and via the Business Partner transaction under *CPR Data* on the *Stocks* tab page.

On the *Continuous Product Replenishment (CPR)* screen, in the menu under *Goto*, the stocks are displayed only.

Related Information

Delete Stocks [page 55]

3.6 Delete Stocks

Use

You can use this report to delete the following stock data for IS-OIL storage objects that are monitored using CPR:

- Physical Dipping
- Stock Specification After External Delivery
- Informational Stock Specification
- CPR Result from Weather Forecast
- Open CPR Order - Planned Delivery Quantity
- Delivered CPR Order - Actual Delivery Quantity

The data of the individual stock determination types is only displayed for deletion after the corresponding lifetime defined in Customizing under *Define Stock Types* has expired.

The report can also be executed as a job.

Activities

You access this report from *SAP Easy Access SAP S/4HANA Supply Chain for secondary distribution*, via *SAP Menu* > *Continuous Product Replenishment (CPR)* and the *Continuous Product Replenishment (CPR)* screen in the menu under *Goto*.

More Information

For more information, see the report documentation.

3.7 Display Change Documents

Use

You can use this report to display a log of entries that you made manually with the transaction to create, change, and delete customer master data.

The display incorporates the CPR parameters for the following table names:

- `OIISOCIKN` Storage Objects of Ship-To Parties
- `OIISOCTSM` Time-Dependent Assignments of Material to Storage Object
- `/ICO/MO_SOCMETH` Time-Dependent Assignments of Methods to Storage Object
- `/ICO/MO_PR_MUSG` Time-Dependent Assignments of Usage Types to Storage Object
- `/ICO/MO_PR_CFTH` Dip
- `/ICO/MO_PR_SCPKN` Site Control Parameters of Ship-To Parties
- `/ICO/MO_PR_CHRCT` Characteristics of Storage Objects

The change document object for the customer master data is `DEBI` and the object type is the customer number.

You can also evaluate the table names selectively.

Activities

You access this report from *SAP Easy Access SAP S/4HANA Supply Chain for secondary distribution*, via *SAP Menu* > *Continuous Product Replenishment (CPR)* and the *Continuous Product Replenishment (CPR)* screen in the menu under *Goto*.

More Information

For more information, see the report documentation.

3.8 Process Job Variants

Use

You can use this report to set up the execution of analyses using a job.

Activities

Start the report from the *SAP Easy Access SAP S/4HANA Supply Chain for secondary distribution* screen, by choosing *SAP Menu* > *Continuous Product Replenishment (CPR)* > *Process Job Variants*.

Access the defined projects using the project ID or project name and, if applicable, select the *Start Processes* checkbox to start the processes immediately.

Either choose *Goto* > *Variants* > *Save as Variant*, enter a *Variant Name* and *Description* for the variant, and then save your entries or choose *Execute* to process the job immediately.

You can then use transaction `SM36` to schedule the created variant as a job.

In this transaction, you can choose *Execute* to perform an analysis immediately. If you are using parallel processing, the job will run for immediate execution according to the definitions set for the foreground.

You can select and display the created logs on the *Continuous Product Replenishment (CPR)* screen.

More Information

For more information, see the report documentation.

Related Information

Parallel Processing [page 60]

3.9 Delete Objects

Use

You can use this report to delete multiple CPR objects (for example, projects, result lists, and logs) simultaneously. In the actual application, you can always only delete one object using the corresponding context menu.

Activities

1. Start the report from the *SAP Easy Access SAP S/4HANA Supply Chain for secondary distribution* screen, by choosing *SAP Menu* > *Continuous Product Replenishment (CPR)* > *Delete Objects*.
2. Enter the selection data and choose .
3. Select the objects to be deleted in the *Selection* column.
4. Choose .

More Information

For more information, see the report documentation.

3.10 Cyclical Delivery

Use

This function enables the regular delivery of CPR storage objects based on calendar rules.

The *Annual*, *Monthly*, and *Weekly* calendar methods determine the next planned delivery time according to the general calendar defined and without the inclusion of public holidays.

The consumption-oriented *Daily* method determines the next planned delivery time according to the number of consumption days, not calendar days, that have passed since the last planned delivery time, taking into account the consumption days defined in the factory calendar. The factory calendar is also defined in the storage object. The method also allows a graduated time scale for multiple deliveries on the same day.

The actual delivery dates always coincide with the delivery times defined in the storage object. However, the next deliveries are always based on the planned delivery times.

Prerequisites

You have defined a factory calendar.

If you want to calculate only weekdays as consumption days for the storage objects with the *Daily* method, enter only these as work days. If you want to calculate all calendar days, enter the weekend days as work days as well.

In the *Business Partner* BP transaction, you have selected the customer with the *Customer* BP role. Under *CPR Data* > *Control Data*, you have entered a factory calendar in the *Location Calendar* field.

Activities

Define Storage Object for Cyclical Delivery

You are in the master data administration area for customers.

For the calendar-oriented "Weekly" method

1. Choose *CPR Data*.
2. In the *Storage Object* group box, select *Storage Objects*. Select a storage object.
3. Choose the *Methods* tab. Enter the data for the *Weekly* method and press the ENTER key. The *Create Forecasting Method* dialog box appears.
4. Enter the data and choose *Continue*.
5. Save your data.

For the consumption-oriented "Daily" method

1. Choose *CPR Data*.
2. In the *Storage Object* group box, select a storage object.
3. Choose the *Methods* tab. Enter the data for the *Daily* method and press the ENTER key. The *Create Forecasting Method* dialog box appears.
4. Enter the value for the day frequency and choose *Expand Fields*. More fields are displayed.
5. Enter data for the other fields and choose *Continue*.
6. Save your data.

Conducting an Analysis

1. On the *SAP Easy Access SAP S/4HANA Supply Chain for secondary distribution* screen under *SAP Menu* > *Continuous Product Replenishment (CPR)* > *Start Continuous Product Replenishment*, define a project with a segment that you have assigned to the algorithm `OTAS_FCR`.
2. On the *Selection* tab, select a customer that has an open order for one of its storage objects.
3. Perform the analysis.

3.11 Parallel Processing

Use

Data can be processed in parallel. This allows the system load to be distributed equally.

From a technical perspective, this is performed by the administration department.

Prerequisites

In Customizing for *SAP S/4HANA Supply Chain for secondary distribution*, you need to make the settings under *Continuous Product Replenishment (CPR)* > *General* > *Configure Control of Parallel Processing*.

4 Retail Fuel Network Operations (RFNO)

Use

This component provides interfaces and functions for automating the business transactions in retail networks whose main business is selling fuel to consumers. This includes the administration of retail networks and the reconciliation and settlement of the business transactions for a location.

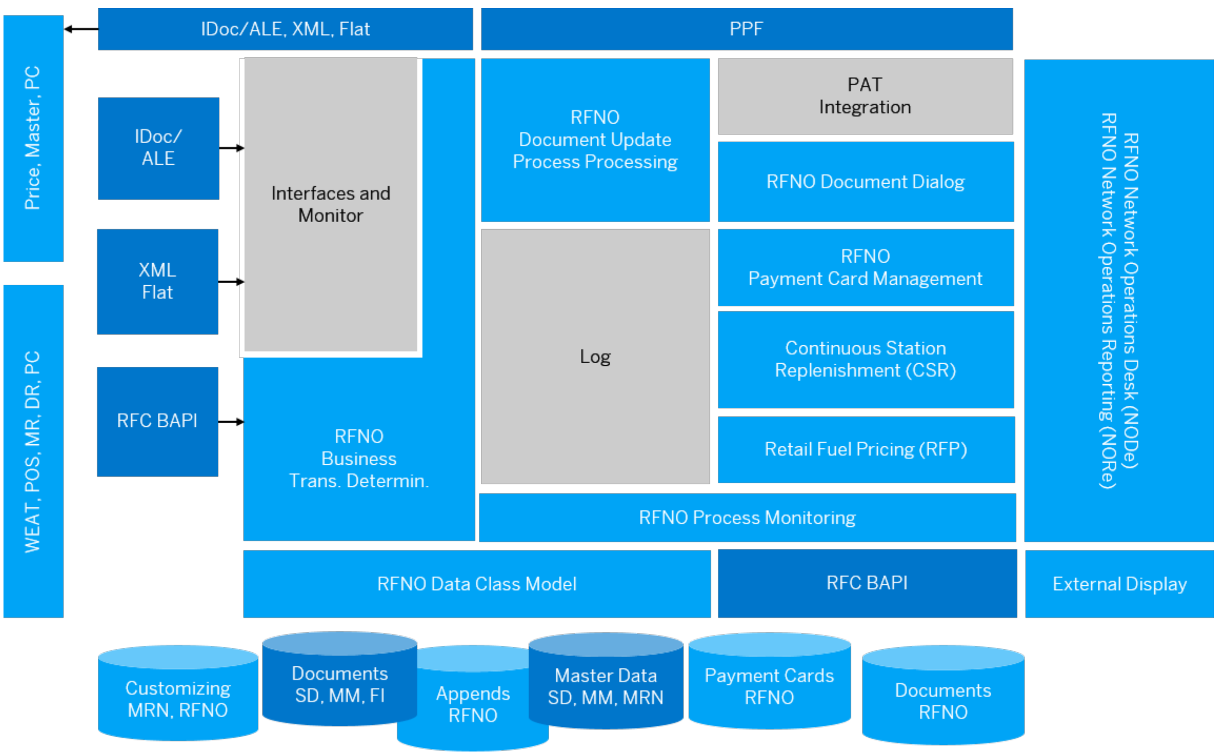
Prerequisites

You require *SAP for Oil & Gas*.

Integration

The master data from IS-OIL-DS-MRN is still in use.

The following figure outlines the correlations in RFNO:



Features

- Master Data Maintenance
- Inbound Data Processing
- RFNO Document with Processing of Documents
- Payment Card Management
- Business Transaction Determination
- Monitoring Using the Network Operations Desk (NODe)
- Reporting Using Network Operations Reporting (NORe)
- Archiving of RFNO PAT Documents and Payment Cards
- Continuous Station Replenishment (CSR)

Related Information

Master Data Maintenance [page 70]
Inbound Data Processing [page 78]
Business Transaction Determination [page 79]
RFNO document [page 89]
Processing Documents [page 88]
Payment Card Management [page 95]
Network Operations Desk (NODe) [page 109]
Network Operations Reporting (NORe) [page 111]
Continuous Station Replenishment (CSR) [page 114]
Archiving DC Documents with /PAT/DOCS [page 289]

4.1 Service Station Overview (App)

You can use this app to display general information for your existing gas stations. Related documents and partners are displayed in detail views. The app has the Fiori ID `F4030`.

Features

This app provides the following key features:

- Display an overview of your own gas stations with this data and functions:
  - Search function
  - Sort function
  - Name

- Geographical assignment
- Opening status

To receive a list of documents and partners for this gas station, choose a gas station from the list.
- Display of additional data for the gas station:
  - The gas station screen
  - Link to the transaction *Display Location*
  - Address
- Display a list of current documents for the selected gas station with this data and functions:
  - Search function
  - Period selection
  - Possible settings for sorting
  - Document data
  - Link to the *Edit Location Document* transaction
- Display a list of partners for the selected gas station with this data and functions:
  - Partner data
  - Link to the transaction *Display Business Partner*

You can change the size of the screen areas.

This app uses the following CDS views:

- /ICO/RNL_ADDRESS
- /ICO/RNL_AREAASS
- /ICO/RNL_AREAM
- /ICO/RNL_DOCHEAD
- /ICO/RNL_DOCS
- /ICO/RNL_HEADER
- /ICO/RNL_LASTSTS
- /ICO/RNL/LOCATOR
- /ICO/RNL_LOCMAN
- /ICO/RNL_PRTHEAD
- /ICO/RNL_PRTNERS
- /ICO/RNL_REGIONM
- /ICO/RNL_SAREAM
- /ICO/RNL_STATION
- /ICO/RNL_STATUS
- /ICO/RNL_STNPIC

Prerequisites

In the *SAP Menu*, under *S4SCSD* > *Retail Fuel Network Operations (RFNO)* > *Master Data* > *Assignment of Persons Responsible in Network* > *Assign Head and Team to a Geographical Region*, you need to assign users to a region, area, or subarea for a country/region, so that they can view the stations in the app.

In the *SAP Menu*, under *S4SCSD* ▸ *Retail Fuel Network Operations (RFNO)* ▸ *Master Data* ▸ *Assignment of Persons Responsible in Network* ▸ *Define Teams* , you can form a team out of several users. You can then assign the team to a region, area, or subarea under *Assign Head and Team to a Geographical Region*.

These assignments are displayed in the transactions for locations *Create*`0401`, *Change*`0402`, and *Display*`0403` on the tab page *Assignment*.

Fiori Launchpad (FLP)

In the FLP, you need to select one of these two roles to get the app:

- `SAP_BR_RFNOLOCOPERATOR_IOG`
- `SAP_BR_RFNOBOFFICE_IOG`

Supported Device Types

- Desktop
- Tablet

4.2 Assess Inventory Differences (App)

App ID: F7415

You can use this app to display differences between the physical inventory and the book inventory of a material per service station. You can assess and, if necessary, manually adjust and post identified inventory differences.

Features

> ⚠ Caution
>
> Since you can use this app to change quantities, you should be aware of what you are changing. Quantity changes may affect legal requirements, such as tax and customs regulations.

This app provides the following key features:

- Display Differences
  Enter the search data and choose *Start*. The data found is displayed in a table. The number of differences found is displayed in parentheses. You can choose whether you want to see all or only relevant dip readings. Clicking on a document number in the *Document Number* column takes you directly to the DSA document.
  - Select View

You can save your views. To do so, choose *Select View* in the upper-left corner.
  - Adjust Filters
    Choose which fields are displayed for the search. The number of active filters is displayed in parentheses.
  - Share
    Choose *Share*in the upper-right corner. You can choose either of the following:
    - Send Email
      Send the link to the overall view or to a vehicle in an e-mail.
    - Save as Tile
      Create a tile for the launchpad.
- Edit Differences
  Using the relevant role assignments, you can activate or deactivate the user's editing functions.
  - Edit
    Here you can change the difference quantity and unit for one or more selected items.
  - Calculate Inventory Difference
    Calculates the difference for one or more selected items. The difference is displayed in the *Difference Quantity* column.
  - Adjust Stock
    Here you can post the inventory stock for one or more selected items.
  - Deactivate Item
    Here you can deactivate one or more selected items.
  - - Set Display Scope
      Here you can select a view with either more or less data per line.
    - Settings
      To make various settings for the table, choose *Settings*. The settings affect, for example, the sorting and grouping of the columns.
    - Export Table
      Here you can export the data of the table as an MS Excel or in PDF format.

This app uses the following CDS views:

- /ICO/RNI_BUSINESS_LOC_TYPE_TXT
- /ICO/RNI_BUSINESS_TYPE_TEXT
- /ICO/RNI_PATC_DOCUMENTSTATUSVH
- /ICO/RNI_PATDS_HEADER
- /ICO/RNI_PATDS_ITEM
- /ICO/RNI_PAT_META_DOCUMENT
- /ICO/RNI_UNITOFMEASUREVOLUMEVH
- /ICO/RNP_PATDS_HEADER
- /ICO/RNP_PATDS_ITEM
- /ICO/RNP_PAT_META_DOCUMENT
- /ICO/RNL_STATION
- /TOP/TPL_STATION
- /ICO/RNI_Business_Type_Text
- I_Material
- I_Plant

- /TOP/TPL_PATICAT

Supported Device Types

- Desktop
- Tablet

Fiori Launchpad (FLP)

In FLP, you need to select this role to get the app:

- `SAP_BR_RFNOINVMGR_IOG`

Supported Browsers

- Chrome

Further Information

Here you can find more information about the app: https://fioriappslibrary.hana.ondemand.com/sap/fix/externalViewer/#/detail/Apps('F7415')

4.3 Assigning Partners

Use

You assign the partners to the partner object with a validity period. The assignment can be ended, deactivated, or replaced by other assignments. You can create partner assignments in more than one place in the system.

> **i Note**
>
> You can deactivate the created partner assignments in NODe, or restrict their validity period. They may also be changed by other new assignments to the same partner object.

> **i Note**
>
> In RFNO documents, the partners that are relevant for the sales volume period of the document are transferred from the permanent assignments. Here you can change or delete the partner information, or

add new partners. These changes are not saved permanently for the partner object and apply only for this document.

Prerequisites

You use the roles and profiles in Customizing or create your own profiles with the available roles and assign them accordingly. You define the behavior of the role in the role profile

Process Flow

Assigning Partners

Menu

1. On the *SAP Easy Access SAP S/4HANA Supply Chain for secondary distribution* screen, choose *SAP Menu* > *Retail Fuel Network Operations (RFNO)* > *Master Data* > *Partners* > *Assign Partners*. The *Assign Partners: Step 1 (Select Object)* screen appears.
2. Choose an *RFNO object ID*. Additional fields are displayed depending on the ID. Enter the data and choose *Continue*. Step 2 *Select Role* appears.
3. Choose a *partner role*. Role profiles that belong to the object are displayed in the *Role Profile* group box. Choose *Continue*. Step 3 *Select Partner* appears.

   > **i Note**
   >
   > If the assignment is called in NODe or transaction BP, the information on the partner key is transferred. The process then starts with step 1; step 2 is skipped. However, you can change the data in step 2.

4. Enter the data and choose *Continue*. Step 4 *Validity* appears.
5. Enter the validity data and choose *Verify*. If no errors have occurred, choose *Save*, where offered.

> **i Note**
>
> You cannot delete partner assignments. An active assignment can be deactivated. If the role can only be filled once, it will be deactivated if overlaps occur with assignments already active and, if necessary, new assignments with modified validity will be created. Active partner assignments can only be adjusted by deactivating the existing assignment and adding the same partner again.

Launchpad

1. In the launchpad, under *Business Partners and Partner Roles*, choose the entry *Create Partner Assignment*. The *Assign Partners* transaction appears.
2. Continue with point 2, as described under Menu.

Network Operations Desk (NODe)

You can only use this function if you have used the Personal Toolbox to add the pushbutton.

In the corresponding views in the Network Operations Desk (NODe), the detail view *Partner List* is displayed with the link *Add Partner Role*. The *Assign Partners* transaction appears. Certain parameters are already displayed, such as information on the current partner object. Corresponding steps are skipped if required in the transaction *Assign Partners*.

Continue with point 3, as described under Menu. Point 2 is not applicable. However, you can select step 1 to change data as required.

> **i Note**
>
> You must be in *Edit* mode.

Creating Payment Cards and Payment Card Contracts

In the transactions *Create Payment Card* and *Create Payment Card Contract*, the partner-object-independent steps of the partner assignment are called. To fulfill the role profile for a new payment card or a new payment card contract, these steps can be performed as often as is required to fulfill the role profile definition. The role profile definition must be fulfilled before the payment card contract or the payment card can be released.

Step 1 is not applicable. Proceed as described under Menu.

Business Partners

In the *Business Partner* transaction, a function for assigning a partner object to a partner is implemented for relevant role views.

The further process is as described under Menu.

Related Information

Creating and Deleting a Payment Card [page 98]
Role Concept [page 70]
Network Operations Desk (NODe) [page 109]
Personal Toolbox [page 113]

4.4 Messages

Use

The messages from the S4SCSD log that refer to the displayed RFNO object are displayed in the log display. Temporary messages that are determined for the current status of the RFNO object are also displayed.

The log display is possible for the following RFNO objects:

- Locations, location/business type
- Payment cards
- Payment card contracts
- Payment card profile

The Customizing settings for the RFNO object determine which messages are displayed. The status profile and log profile are particularly important. The time period for which the messages are displayed depends on the period displayed in the UIBB calendar. However, the final decision depends on the methods `RN201` and `RN210` for the RFNO event.

The messages are displayed in the following processes:

- In the Network Operations Desk (NODe)
- In document processing
  - Edit location document
  - Edit clearing house document
  - Edit payment card contract document

Calendar

The previous and current month are displayed. In the calendar, days for which messages exist are displayed in different colors.

- Red: Error messages exist
- Yellow: Warnings exist
- Green: Information is available
- Gray: No messages exist

To display any existing messages in the log structure, click a day. To remove the messages again from the log structure, click the day again.

The messages from the S4SCSD log that refer to the displayed RFNO object (a location, for example) appear in the log display. Temporary messages that are determined for the current status of the RFNO object are also displayed.

Log Structure

The objects from the day that you have selected in the calendar are displayed here. Select an entry to display the message in the *Log Messages* group box.

Log Messages

Any messages that exist for the object selected in the *Log Structure* group box are displayed here. The respective number of message types is displayed using symbols. By clicking a message group, you can exclude it from the display.

Prerequisites

In Customizing for *RFNO*, under ▸ *General Settings* ▸ *Edit Log Messages* ◂, configure which messages are relevant. If an error occurs, you can use the messages to analyze the business transaction determination process.

Related Information

Network Operations Desk (NODe) [page 109]

Processing Documents [page 88]
Business Transaction Determination [page 79]

4.5 Master Data Maintenance

A variety of master data in the areas IS-Oil, SAP general, and RFNO must exist for RFNO.

In RFNO, you need to create the objects for a service station, for example, partner, roles, payment cards, and payment card contracts. There are relationships between these objects, for example, a partner relationship between a location and RFNO partners, which you need to define.

In component IS-OIL-DS-MRN, you need to maintain and manage the retail networks.

In general SAP Customizing, you need to define the business partners, for example.

The master data is integrated into the Network Operations Desk (NODe) for viewing and monitoring purposes.

Related Information

Payment Card Management [page 95]
Role Concept [page 70]
Network Operations Desk (NODe) [page 109]
Creating Payment Card Contracts [page 97]

4.5.1 Role Concept

Describes the role concept in RFNO.

RFNO Objects

Partner relationships are used to link RFNO partner objects, for example, a location with RFNO partners, for a period of time, by assigning a defined relationship type: the RFNO role. The roles are predefined and control the behavior of the application across RFNO. You can use the roles to create role profiles.

All RFNO objects are described in a cross-client table in Customizing for *RFNO*, under *General Settings* > *Define RFNO Objects*. The objects are assigned to object types. To fulfill the properties of an object type, the service class needs to implement certain interfaces.

The following table provides an overview of the delivered object types with the RFNO objects and the possible roles:

Object Type	RFNO Object	RFNO Role
Partner objects	Location	Dealer
		Location manager
		Service station owner
		Sales volume participant
		Point of delivery
		Vendor
	Payment card	Driver
		Payment card owner
		Payment card payer
		Payment card co-user
		Vehicle
	Payment card ID	Clearing house
		Payment card issuer
		Network operator
	Payment card contract	Payment card contract payer
Partner	Business partner	None
Settlement account	Customer	None
	Vendor	None
Not specified	Material	None
	Meter	None
	Tank	None

i Note

You can define additional master data. Developer knowledge is required for this.

For the settings for the objects, see Customizing for *S4SCSD*, under *RFNO* > *General Settings* > *Define RFNO Objects*.

RFNO Roles

The RFNO roles are described in a cross-client system table and cannot be changed. A role is permanently assigned to a partner object. The properties of a role determine its behavior in the partner application. Some properties can be overridden when compiling role profiles:

- Role is a required entry
  The role profile check reports an error if there is no partner relationship for this role for the review period. The indicator can be activated, but not deactivated.
- Multiple role
  The role check allows multiple partner relationships, even in the same period. The indicator can be deactivated, but not activated.
- Role is relevant for settlement
  The indicator activates the *Settlement* tab page in the Business Partner transaction. It is not possible to override the indicator.

You can view the RFNO roles in Customizing for *S4SCSD*, under *RFNO* > *Partner Roles* > *Display Partner Roles*.

RFNO Role Profile

In Customizing for *RFNO*, under *Partner Roles* > *Define Partner Role Profiles*, you can use the roles defined for a partner object to compile role profiles.

A role profile defines which roles are permitted for the assigned partner object in this profile. The role is assigned an RFNO object with the property "partner" and possible default settings for the role are overwritten.

> **Example**
>
> A customer issues two custom fleet cards. One for haulage companies who want to assign their vehicles and drivers to the card, and one for individual customers for whom partner cards are also to be issued and settled jointly.

A role profile is assigned to one partner object. A role profile can be assigned two methods.

- Method: Check Profile
  This method can be called in various situations and at a defined point in time checks whether all of the profile's roles are fulfilled for a partner object. The method thereby defines which partner relationships need to exist for the role profile to be fulfilled. The profile check can be used to determine the status of an object, or in the incompleteness control (ICC) to determine whether a document can be posted usefully.
- Method: Check Partner
  This method decides whether an individual partner relationship that is being added is valid. This allows the customer to define conditions (beyond the standard checks) that need to be fulfilled for a partner in a role to be able to be added to the object.

If properties for RFNO objects are configured in Customizing, the defined role profiles can be assigned there.

For the settings for the RFNO role profiles, see Customizing for *S4SCSD*, under *RFNO* > *Partner Roles* > *Define Partner Role Profiles*.

Validity

The validity determines the period for which a partner relationship is valid. The validity period is used by the settlement documents to determine the valid partners for a particular settlement period. More than one connection must not be active in a period in roles that do not have the Multiple Role indicator.

The Check function performs this check and other standard checks. If no period has been specified, the function sets the period Today 00:00:00 until 12/31/9999 23:59:59.

The following applies to roles that are not multiple roles: If an active partner relationship already exists for this period, it is changed and its validity period ends one second before the new connection becomes valid. To document this process, a copy of the old connection is created and stored as an inactive connection.

Related Information

Integration in Business Partner (BP) [page 73]

4.5.2 Integration in Business Partner (BP)

Describes the integration of RFNO into the Business Partner transaction (BP).

Use

RFNO uses the SAP Business Partner for the central management of the partners to be displayed in the RFNO environment. In transaction `BP`, it is possible to maintain and display all business partners uniformly.

For this purpose, RFNO has implemented an enhancement for transaction `BP`, which addresses the special requirements of RFNO and which you can supplement. Corresponding BP roles in which you can enter properties for the roles have been implemented for the RFNO roles.

For example, you can configure business partners as relevant for settlement.

The following table provides an overview of the business partner roles:

Business Partner Role	BP Role Title	RFNO Role	Role Name	Properties
`RNS001`	Owner	`FS_OWNER`	Service station owner	• Geographical coordinates • List of assigned locations • Settlement Relevance
`RNS002`	Dealer	`FS_DEALE`	Dealer	
`RNS003`	Sales volume participant	`FS_SALES`	Sales volume participant	

Business Partner Role	BP Role Title	RFNO Role	Role Name	Properties
`RNS004`	Point of delivery	`FS_SUPPL`	Point of delivery	• Geographical co-ordinates
`RNS005`	Manager	`FS_OPERA`	Location manager	• Geographical co-ordinates • List of assigned locations • Settlement Relevance
`RNS006`	Vendor	`FS_VENDO`	Vendor	
`RNS007`	CSR customer	`FS_CSRCU`	CSR customer	None
`RNS008`	Inventory manager	`FS_STOCK`	Inventory manager	None
`RNC001`	Card payer	`FC_PAYER`	Payment card payer	• Geographical co-ordinates • List of assigned payment cards and payment card contracts • Settlement Relevance
`RNC002`	Card owner	`FC_OWNER`	Payment card owner	• Geographical co-ordinates • List of assigned payment cards
`RNC003`	Card user	`FC_USER`	Payment card co-user	
`RNC004`	Driver	`FC_DRIVE`	Driver	• Geographical co-ordinates • Fields for driver's license and authorizations • List of assigned payment cards and payment card contracts
`RNP001`	Clearing house	`PC_CLEAR`	Clearing house	• Geographical co-ordinates • List of payment cards • Settlement Relevance

Business Partner Role	BP Role Title	RFNO Role	Role Name	Properties
`RNP002`	Issuer	`PC_ISSUE`	Payment card issuer	• Geographical co-ordinates • List of payment cards
`RNP003`	Network operator	`PC_NWOP`	Network operator	• Geographical co-ordinates • Client number • Method of send-ing for acceptance lists

Related Information

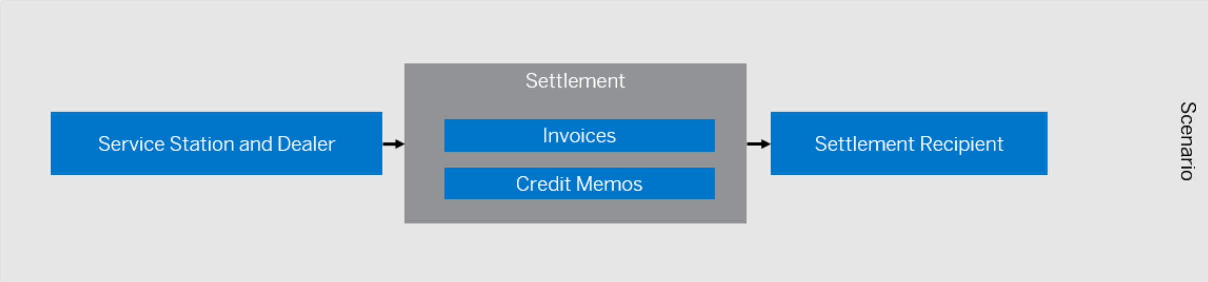
Configuring Business Partners As Relevant for Settlement [page 75]

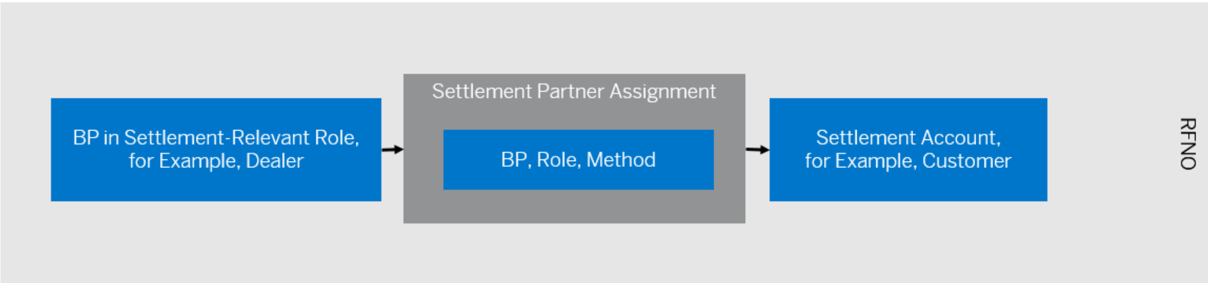
4.5.2.1 Configuring Business Partners As Relevant for Settlement

Use

Business partners (BP) via whom settlement is performed, for example, dealers and sales volume participants, are relevant for settlement. This can be the actual BP, or any other business partner managed in the system with a role via which the object relevant for settlement, for example, Customer, can be found; as well as the method that is used to access the settlement account.

The following figure illustrates the scenario:





Procedure

1. On the *SAP Easy Access SAP S/4HANA Supply Chain for secondary distribution* screen, choose *SAP Menu* > *Retail Fuel Network Operations (RFNO)* > *Master Data* > *Partners* > *Edit Business Partner*. The *Edit Business Partner* screen appears.
2. Find the business partner and select the role.
3. Select the *Settlement* tab page.
4. Enter the required data in the *Settlement* group box.
   If required, you can enter a different BP, its role, and a method that determines the settlement account. This BP then receives the settlement. A method can determine a customer account and the organizational data, for example. The method is called in the relevant part of the settlement process to determine the correct partner for settlement.

> **Note**
>
> - It is only possible to insert and make changes up to the valid-to date in the *Partner for Settlement* group box.
> - Deletion is not possible so as to allow retroactive settlements or corrections.
> - Missing entries in the fields *Date To* and *Time Until* are supplemented with the values 12/31/9999 and 23:59:59. A warning is displayed.
> - An entry is required in field *BPartner*.
> - The validity periods must not overlap. However, gaps are allowed.

4.5.3 Consistency Check for RFNO Locations

You can use this report to check the consistency of your RFNO locations. This involves performing checks that are not carried out in the standard SAP system.

Use

You can find the report in the *SAP menu* under *S4SCSD* > *Retail Fuel Network Operations (RFNO)* > *Master Data* > *Locations* > *Check Consistency of Locations*.

Activities

In the *Search Criteria* area, select the locations based on their location ID. To refine the search, you can select a period.

In the *Results Display* area, select how the results display is to be structured:

- Location/Business Type/Material
- Material/Business Type/Location

If you want to see all messages, select *Display All*.

In the results, select a level and choose *Execute Transaction*. When selecting location or business type, you are taken to the *Change Location* `(O402)` transaction. When selecting the material, you are taken to the *Change Material* `(MM02)` transaction.

Checks

- Whether the storage object at the location is split due to partial assignment
- Whether the time validity of the meter lies outside the time validity of the tank
- Whether the material is assigned using the meter
- Whether the material in the tank differs from the material at the location
- Whether the material is not assigned to the location
- Whether the tank at the location is assigned without a separate material
- Comparison between the storage locations at the location and the storage locations at the tank

Output

The results are displayed in a structure.

In the *Details* area, a table contains the details on the locations found.

In the *Messages* area, the messages are displayed for a level selected in the results structure.

4.6 Inbound Data Processing

Use

This process checks and converts the inbound data, and determines which additional steps need to be executed.

Prerequisites

You need to have configured valuation at plant level in Customizing.

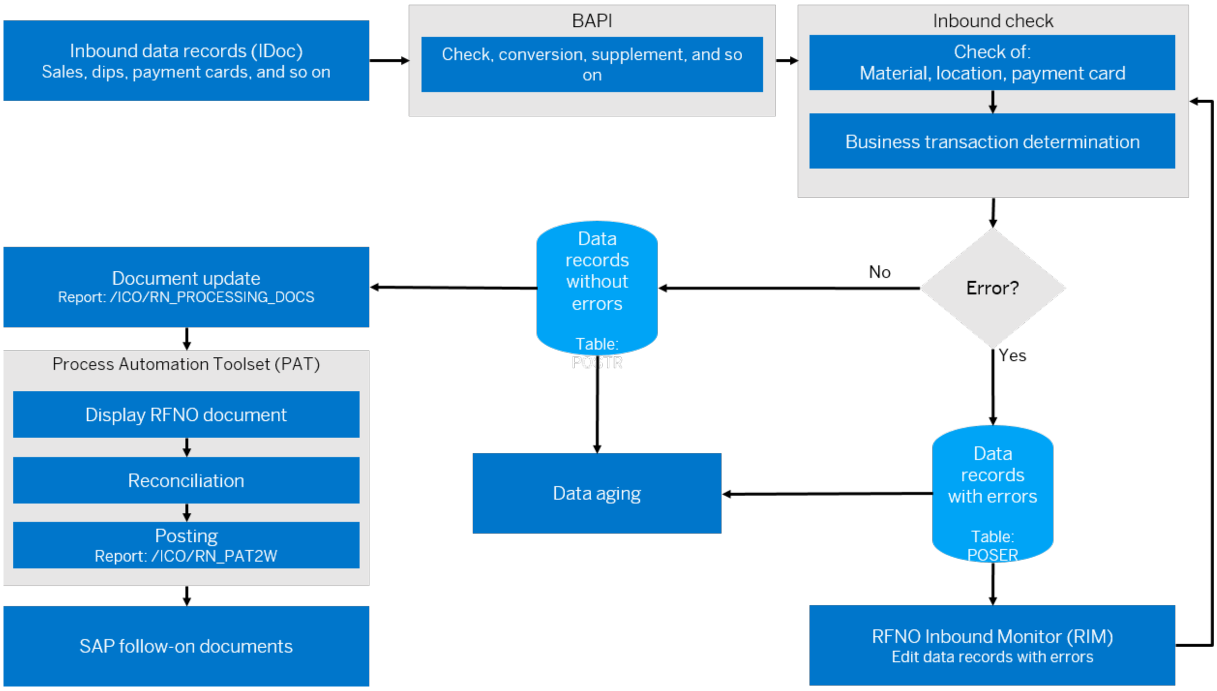
Process

RFNO uses its own, uniform, data format to transfer POS data from the locations. POS data that is to be processed by RFNO through the point of sale systems at the locations, the forecourt systems at the location, or the network operator, needs to be transferred to the IDoc data format.

After the external data has been checked and, where necessary, supplemented, and converted into internal data, the business transaction determination takes place. The data is used to determine which business transactions exist. The application uses this to determine how the document is to be updated and which RFNO documents are generated. Documents are updated using the report *Update Documents*. This report is located in the SAP Menu, under *Retail Fuel Network Operations (RFNO)* > *Document Processing*.

The RFNO documents are used to analyze, reconcile, evaluate, and settle the business transactions for a location. The Process Automation Toolset (PAT) framework also offers an extensive process control, which can be used to post the required follow-on documents to the SAP modules, for example, MM and SD. The reports for document posting and Network Operations Reporting (NORe) update and post the RFNO documents.

The following figure illustrates the process of inbound data processing described above:



Related Information

RFNO document [page 89]
Process Automation Toolset (PAT) [page 196]
Network Operations Reporting (NORe) [page 111]
RFNO Inbound Monitor (RIM) [page 84]

4.6.1 Business Transaction Determination

Use

Business transaction determination is a process within RFNO inbound data processing.

Prerequisites

You have identified all business transactions that occur at your locations and have defined the criteria required for the determination.

You configure the criteria in Customizing for *RFNO*, under *General Settings* > *Configure Field Catalogs*, determination group ID PID *Business Transaction Determination*.

You define the aggregation class in Customizing for *RFNO*, under ▶ *Document Control* ▶ *Define Document Update* ◀.

You define the business transactions in Customizing for *RFNO*, under ▶ *Document Control* ▶ *Define Business Transactions* ◀. If a business transaction changes at a certain point in time, create a new version for the business transaction ID and configure this new version.

Process

POS data that exists in the internal RFNO data format represents the smallest document unit of the processes at a location. For example, these are cash documents or a reading from technical devices, for example, a fuel pump. To transfer these documents to an overall document for reconciliation of a location, the business transaction defined by the POS data, for example, the sale of diesel as a cash payment or a meter reading at the end of the day, needs to be determined.

The reports for analyzing a business transaction and updating a document, which you can also run in the background, analyze the checked POS data in RFNO data format according to criteria to be defined, and determine the business transaction. The business transaction and the resulting actions for the document update are recorded in the table `/ICO/RN_IF_POSTR`. If it is not possible to determine the business transaction uniquely, this is written to the table `/ICO/RN_IF_POSER`. You can view the status of the data in the RFNO Inbound Monitor (RIM).

Related Information

Processing Documents [page 88]
Inbound Data Processing [page 78]
Interface Monitor [page 193]
RFNO Inbound Monitor (RIM) [page 84]

4.6.2 Document Update

Use

Document update is a process that is part of RFNO inbound data processing. Document update uses the business process information analyzed in business transaction determination and written for the *POS Data* interface document to update the *POS Data* interface documents in the RFNO documents, according to the rules for business process information. The rules contain the following information:

- Sequential number of the business process.
- Document category to be created or updated.
- Document item category to be created or updated.

- Aggregation class identifies a document to be updated or creates a new document.
- Aggregation step identifies an item to be updated or creates a new item.

You define the rules in Customizing for *RFNO*, under *Document Control* > *Define Document Update*.

Prerequisites

You have configured business transaction determination.

You have configured the business process rules for the business transactions.

You have performed business transaction determination.

Process

In the RFNO Inbound Monitor (RIM), you can view and correct all data records with errors.

Related Information

Inbound Data Processing [page 78]
Business Transaction Determination [page 79]
RFNO Inbound Monitor (RIM) [page 84]

4.6.3 Reconciliation of Business Transactions

Use

The RFNO document contains (related to the location, a payment card type, or a payment card contract for custom payment cards) all business transactions for a sales volume period. Before these business transactions can be settled, it needs to be ensured that all business transactions are available and that the business transactions are consistent with each other.

The business transactions are reconciled when the document is checked in the application. Which reconciliations are performed is configured in Customizing. If the document has been checked, it can be released for posting. Through posting, the settlement documents for the business transactions are created.

Prerequisites

In Customizing for *PAT*, you have configured the various checks for the document types.

In Customizing for *RFNO*, under *Document Evaluation*, you have defined and assigned analyses for the reconciliation.

Process

Select the document via the Network Operations Desk (NODe) or from the menu, under *Document Processing*. Choose *Edit* and then *Check*. The document status changes. Errors are displayed in the log.

If you want to run the check automatically, in the selection criteria for the document update, select that the documents are to be checked immediately after the document update.

If you store the selection criteria as a variant, you can run the check in the background.

Related Information

Network Operations Desk (NODe) [page 109]

4.6.4 RFNO Consistency Check

This report checks the tables of RFNO inbound data processing for inconsistencies.

Use

If you determine that documents are not posted, execute the report.

You can find the report in Customizing for `S4SCSD` under *Retail Fuel Network Operations (RFNO)* > *General Settings* > *RFNO Consistency Check*. When the program is started, the consistency check is executed directly.

Activities

The result is output as a log.

You can repair certain error categories automatically by choosing *Repair Attempt*.

You can add custom checks and repair methods to the consistency check. To do so, use enhancement spot `/ICO/RN_CONSISTENCY`.

Checks

The following checks are carried out:

- CSN (/ICO/RN_PATCSITM) and DSA (/ICO/RN_PATDSITM) items for which no entry exists in table /ICO/RN_CTRLOV.
- CSN and DSA documents (/PAT/METADOCS) for which no entries exist in table /ICO/RN_CTRLOV.
- Entries in table /ICO/RN_CTRLOV for which no CSN or DSA documents (/PAT/METADOCS) exist.
- Entries in table /ICO/RN_CTRLOV for which no entries exist in table /ICO/RN_IF_POSTR.

4.6.5 Document Processing

Provides an overview of the document processing functions.

Use

In RFNO, document processing includes multiple activities in the menu. You can find these activities in the *SAP Menu* under *S4SCSD* > *Retail Fuel Network Operations (RFNO)* > *Document Processing*.

Features

You can choose from the following functions:

- RFNO Inbound Monitor (RIM)
  Displays data records generated in RFNO inbound data processing. For data records with errors, you can correct the causes of the errors.
- Process Data Records with Errors
  Here you can process incorrect inbound process data of the table `/ICO/RN_IF_POSER`.
- Update Documents
  You can analyze, create, or change documents automatically, based on the selected *POS Data* interface documents.
- Process Documents
  Here you can search for multiple documents and then check, release, and process them.
- Edit Location Document
  Here you can process documents of document category DSA.
- Edit Clearing House Document
  Here you can process documents of document category CSA.
- Edit Payment Card Contract Document
  Here you can process documents of document category PSA.

For more information about the individual functions, see the references below.

Related Information

RFNO Inbound Monitor (RIM) [page 84]
Processing Documents [page 88]

4.6.5.1 RFNO Inbound Monitor (RIM)

Displays data records generated in RFNO inbound data processing. For data records with errors, you can correct the causes of the errors.

Use

Inbound data processing writes incorrect data to table /ICO/RN_IF_POSER. Up to three messages are stored in the message groups MSGE1 to MSGE3 for each data record. After the correction, the data is written to table /ICO/RN_IF_POSTR.

In RIM, you can search for, view, and process certain inbound data or messages. You can then change the incorrect data records. You can also restart the postprocessing of the data for the inbound data processing. The direct change is made exclusively in the memory, while the mass change is made by updating the database.

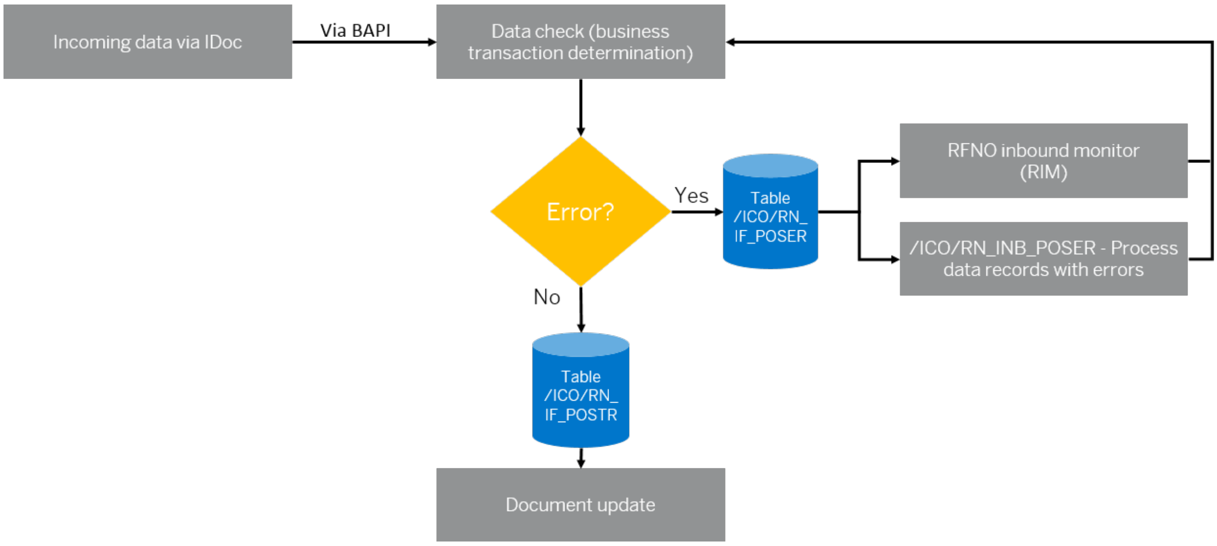
To prevent multiple applications from overlapping during error correction or postprocessing, editing is only permitted on the basis of a source selected previously. For example, a source can be a cash desk at a point of sale (POS). For the source, a lock is set exclusively via a created lock object. The lock becomes active as soon as you switch to edit mode. In edit mode, you can edit or delete the incorrect data records, and add new records. You can only delete data records that you have added via the RIM.

Views for displaying data records with errors and without errors are available.

The RIM is located in the *SAP Menu*, under *Retail Fuel Network Operations (RFNO)* > *Document Processing* > *Start RFNO Inbound Monitor*.

The following figure illustrates the process flow within RFNO inbound data processing.

Process Flow



Prerequisites

In Customizing for *S4SCSD*, you have made the necessary settings under *Retail Fuel Network Operations (RFNO)* > *Inbound Data Handling* > *Inbound Monitor* and *External Data Mapping*.

Activities

- Display data records without errors
- Correct errors

> **Note**
>
> If you only want to correct master data and Customizing entries, you also have a report available. This is located in the menu under *Retail Fuel Network Operations (RFNO)* > *Document Processing* > *Process Data Records with Errors*.

Related Information

Inbound Data Processing [page 78]
Correcting Errors in Individual Data Records [page 86]
Displaying Data Records Without Errors [page 86]
Locator [page 202]

4.6.5.1.1 Displaying Data Records Without Errors

You can use this function to display correct data records of RFNO inbound data processing.

Context

Displaying correct data records is part of the RFNO Inbound Monitor (RIM).

Procedure

1. In the RIM, choose the *Data Records Without Errors* page.
2. Enter the search criteria or select a saved search.
3. Choose *Find*. The data records found are displayed under *Result List*.

4.6.5.1.2 Correcting Errors in Individual Data Records

You can use this function to display incorrect data records of RFNO inbound data processing, eliminate the error causes, and repost the records.

Procedure

1. In the RIM, choose the *Error Correction* page.
2. Enter the search criteria for the source, or select a saved search.
3. Choose *Find*. The sources found are displayed under *Result List*.

   A red point indicates that data records with errors were imported. The symbol with the exclamation mark indicates that the import was not executed because a system error occurred.

   If you want to search for individual entries in the result list, select the search criteria in the *Search for Inbound Data* area.
4. Select a source. The individual data records are displayed under *Incorrect Data Records*. When you place the mouse over the icon in the *Number of Messages* column, the message text is displayed.

   If you want to see the message texts permanently, choose *Personalize* at the top level. Choose *Change Layout*. Under *Layout for Section 2*, under *Add*, choose the entry *Messages*. In the RIM, an additional area with the title *Messages* is displayed.
5. Choose *Edit*. This locks the objects and the pushbuttons in the *Incorrect Data Records* area are enabled.
6. Select one or more entries in the *Incorrect Data Records* area:

If you want to view the individual messages and use them to filter, switch to the *Error Messages for a Source* tab. Under *Message Variables*, you can configure that the variables are to be replaced by values in the messages displayed.

7. In the *Incorrect Data Records* area, choose *Edit Data*. The *Edit Data Records* screen appears. Change the data records and choose *Copy*.
8. Choose the *Postprocessing* pushbutton. The documents are posted to RFNO again, with the changes that you have made.

   You can also perform postprocessing without first editing the data, for example, if you have resolved errors by making a Customizing setting.

4.6.5.1.3 Correcting Errors in Multiple Data Records

You can use this function to display incorrect data records of RFNO inbound data processing and correct multiple data records.

Procedure

1. In the RIM, choose the *Error Correction* page.
2. Enter the search criteria for the source, or select a saved search.
3. Choose *Find*. The sources found are displayed under *Result List*.

   A red point indicates that data records with errors were imported. The symbol with the exclamation mark indicates that the import was not executed because a system error occurred.

   If you want to search for individual entries in the result list, select the search criteria in the *Search for Inbound Data* area.
4. Select a source. The individual data records are displayed under *Incorrect Data Records*. When you place the mouse over the icon in the *Number of Messages* column, the message text is displayed.

   If you want to see the message texts permanently, choose *Personalize* at the top level. Choose *Change Layout*. Under *Layout for Section 2*, under *Add*, choose the entry *Messages*. In the RIM, an additional area with the title *Messages* is displayed.
5. Choose *Edit*, this locks the objects.
6. In the *Field Changes to Inbound Data* area, select a field and enter the new value.
7. Choose *Adopt Changes*.

4.6.5.2 Processing Documents

Use

You can edit existing documents and create new ones. The following functions are available for document processing:

- For automatic item changes:
  - *Update Documents*
- For posting deactivated documents and creating items for reconciliation. If you do not need to change items:
  - *Edit Location Document*
  - *Edit Clearing House Document*
  - *Edit Payment Card Contract Document*

> **i Note**
>
> You can deactivate items only if the item status is New or Partly Posted. Items that have the status Fully Posted or Reversed can no longer be deactivated.
>
> If an item to be deactivated is within a posting block, the following additional conditions apply:
>
> - A single item from a posting block can be deactivated only if it has the status New. In this case, the item to be deactivated is removed from the posting block in the background and deactivated.
> - If the item to be deactivated has the status Partially Posted, only the entire posting block can be deactivated.

To access document processing from the *S4SCSD* menu, choose *Retail Fuel Network Operations (RFNO)* > *Document Processing*.

You can migrate the log files from OGSD. To do so, in Customizing for *Technical Objects* choose *Migration* > *Migrate OGSD Logs*.

Process Flow

You use these functions to analyze, create, or change documents automatically, based on the selected *POS Data* interface documents. For this, you need to have configured business transaction determination.

Updating Documents

1. Select *Document Processing* and then *Update Documents*. The *Update Documents* screen appears.
2. Enter the selection criteria. Choose *Execute*.
3. The documents are updated.

> **i Note**
>
> If you create a variant, you can execute the report as a background job.

Processing Documents

In the *Document Processing* menu, select one of the entries *Edit Location Document*, *Edit Clearing House Document*, or *Edit Payment Card Contract Document*. The *Retail Fuel Networks Operations* screen appears. Data relevant to the menu entry selected is displayed.

> **i Note**
>
> To view change documents or customize the toolbar, choose *Goto*. Choose *Time Zone* to switch from local time to the system time. You cannot delete documents, but you can deactivate them. To do this, choose *Deactivate*.

Editing Documents

1. Choose *Locator*.
   You can set the locator in Customizing.
2. Enter the search criteria and choose *Find*.
3. Select an entry in the results list. The related data is displayed in the right-hand area. You can choose *Locator* to close the locator so that you can view more data.
4. Choose *Edit* to change data. For new documents, only new or deactivated items can be changed.
5. Choose *Check*, *Release*, and *Save*. Messages for checking are displayed.

   > **i Note**
   >
   > If you have customized the toolbar, these steps are automatic.

Creating a New Document

1. Choose *New*.
2. Enter the data.
3. Proceed as described in step 5, under **Edit Document**.

   > **i Note**
   >
   > Manual creation is possible for correction documents only.

Related Information

Locator [page 202]
Business Transaction Determination [page 79]
Statuses in RFNO [page 93]

4.6.5.3 RFNO document

Describes how to use the RFNO documents with the document categories and item categories.

Use

This always includes a sales volume period for a sales location, meaning a point of sale (POS). It starts with the first business transaction in a period and ends with the last business transaction. This is usually closing. The best-case scenario is that the document is then complete and can be settled, since all business transactions should be available at closing. The document should then contain all business transactions for the sales location.

The document completes the following tasks:

- Display of all business processes that occur at the POS
- Basis for evaluations of the following, for example:
  - Sales
  - Sales volumes
  - Meter reading history
  - Stock differences
  - Price changes
  - Material movements
- Reconciliation of all business transactions, for example:
  - Sales against technical data
  - Card acceptance against clearing house notifications
  - Monitoring of losses in the delivery process
  - Implementation of pricing guidelines
- Settlement of the following, for example:
  - Dealer
  - Agency and third-party agency
  - Clearing house
  - Payment card contracts
- Central control of all subsequent processes, for example:
  - Forwarding of meter data to third-party agencies
  - Maintenance of conditions
  - Creation of settlement documents
  - Stock maintenance
- Message control using Post Processing Framework (PPF)

The document is a document in the Process Automation Toolset (PAT) framework. The settings for the user interface and field control are part of PAT.

PAT has three document categories, which assume different tasks and provide the option of varying the sales volume periods. You can change the behavior of the document types, or define new document categories, in Customizing for *RFNO*, under *PAT*.

The documents are usually created and updated using document update. In the RFNO document, the first aggregation level is realized, to cumulate quantities and totals of business processes of the same type.

To correct differences in the reconciliation, you process the documents in the dialog.

Document Category

DSA

Is the main document and is responsible for displaying and reconciling all business transactions related to the location. It is the basis for evaluations of sales, material movements, and technical information, for example meter readings and dip. You use this document to create settlements for all location-related partners.

This is settlements for the following processes:

- Agency and third-party agency transactions
- Dealer settlement
- Commission settlement
- Vendor settlement

You use the document to post material movements and stock differences for the inventory.

CSN

This is a document with an alternative settlement period related to a payment card. In this document, all business transactions that represent a sale with a payment card are collected and settled with a clearing house at a chosen point in time. If you receive settlement information from the clearing house, you can reconcile the information with the sales. The document makes it possible to include payment card limits in the reconciliation.

PSN

This is a document with an alternative settlement period related to a payment card contract that you have concluded with end customers via payment cards you have issued. In this document, all business transactions that represent a sale via the payment cards you have issued are collected. You use this document to create settlements with the business partners, the end customers, of a payment card contract. When sales volume limits (open items) are exceeded, you can create block documents for the payment cards of a contract.

Item category

In document update, you have configured which business transaction is updated in which document categories and item categories. The item categories determine the dialog behavior of the document items, and which subsequent processes are triggered. You configure this in Customizing for *RFNO*, under *Document Control* > *Allow Item Categories for Process Rules*. The item categories are based on item types, to which a possible set of subsequent processes is assigned.

The following table provides an overview of the RFNO item categories:

Item Category	Description/Use
`DR_EOD` Dip end of day (closing)	• Calculation and posting of stock corrections The item is excluded from automatic posting. A report in NORe is available for the mass posting of stock corrections.
`DR_INV` Dip for inventory	
`DR_PRCHG` Dip for price change	

Item Category	Description/Use
DR_SUA Dip reading after delivery	• Transfer of dip reading after a tank delivery
DR_SUB Dip reading before delivery	• Transfer of dip reading before a tank delivery
MR_CR Shortfalls	• Entry of manual corrections for meter reading differences
MR_CS Set initial meter reading	• Entry of manual corrections for an initial meter reading
MR_EOD End of day	• Reconciliation of sales
MR_PRCHG Price change	
PRC_INF Price notification market observation	• Price communications of competitors You use import interfaces to import the reference prices into the RFNO-DSA document automatically.
PRC_REQ Market price monitoring price request	• Request a price change for a calculated price
PRC_TAR Target price request	• Request a price change for a target price
SA_AGFC Sales volume agency cash	• Settlement of agency goods • Commission credits • Reconciliation against meter
SA_AGFF Sales volume agency fleet cards	• Commission credits • Reconciliation against meter
SA_AGFP Sales volume agency payment cards	
SA_AGFPO Sales volume agency custom payment cards	
SA_CS Sales volume payment cards	• Clearing house settlement in CSN document for payment cards
SA_EGC Sales volume third-party agency cash	• Settlement third-party agency • Vendor settlement • Commission settlement • Reconciliation against meter
SA_EGF Sales volume third-party agency fleet cards	• Vendor settlement • Commission settlement • Reconciliation against meter
SA_EGP Sales volume third-party agency payment cards	
SA_EGPO Sales volume third-party agency custom payment cards	
SA_FC Sales volume fleet cards	• Clearing house settlement in CSN document for fleet cards

Item Category	Description/Use
SA_PRC Sales volume dealer goods (shop) cash	• Dealer settlement, if based on shop sales volume
SA_PRF Sales volume dealer goods (shop) fleet cards	• Dealer settlement, if based on shop sales volume • Vendor settlement
SA_PRP Sales volume dealer goods (shop) payment cards	
SA_PRPO Sales volume dealer goods (shop) custom payment cards	
SA_PS Sales volume payment cards	• Payment card contract settlement in PSN document for custom payment cards
SU_STO Tank delivery	• Transfer the quantity of a tank delivery
WA_AG Goods issue for sales of agency goods	• Material documents

> **i Note**
>
> To make the correct settings, very good knowledge of the PAT area is required.

Related Information

Document Update [page 80]
Process Automation Toolset (PAT) [page 196]

4.6.5.4 Statuses in RFNO

Shows the statuses of documents and items in Retail Fuel Network Operations (RFNO).

Document Statuses in RFNO

The following table shows the different document statuses of RFNO:

Document Status	Meaning
A	In Process
B	Checked

Document Status	Meaning
C	Checked and Released
D	Partly Posted
E	Partly Posted (Exclusion Exists)
F	Posted
G	Locked
H	Error During Check
I	Posted Without End of Day

You define the document statuses in Customizing for *S4SCSD* under *Retail Fuel Network Operations (RFNO)* > *Process Automation Toolset (PAT)* > *Document* > *Define Document Status* for application *RN*.

Item Statuses in RFNO

The following table shows the different item statuses of RFNO:

Item Status	Meaning
A	New
B	Partly Posted
C	Posted
D	Deactivated
E	Excluded
F	Canceled

You define the item statuses as values for the domain *Item Status* `/PAT/ITEM_STATUS`.

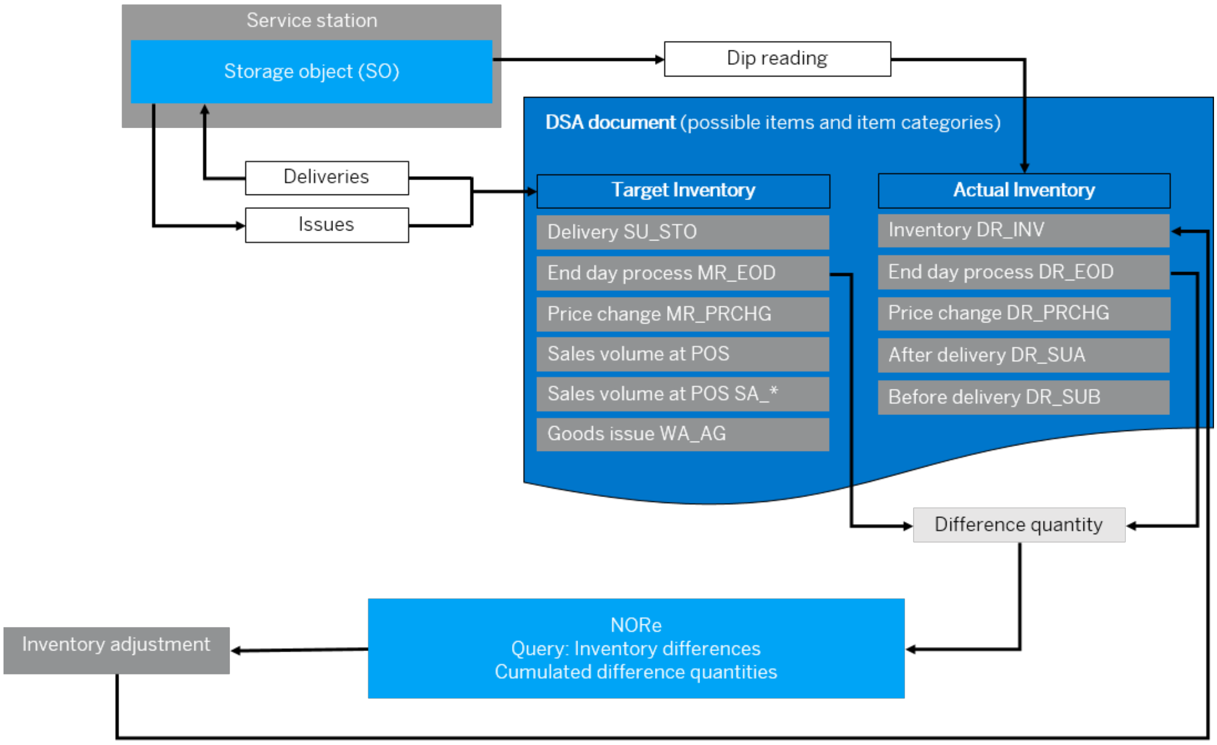
4.7 Dip Book

You can use this function to post difference quantities of a storage object for a selected period in a DSA document.

The differences are calculated from the actual dips (actual inventory) and the deliveries and issues (target inventory).

For example, the difference can be calculated from the end-of-day meter readings and the end-of-day dip reading. The items are written to a DSA document. The difference quantities are created and cumulated in Network Operations Reporting (NORe), in the POWL query *Inventory Differences*. The difference is then posted again in the DSA document.

The situation described above is depicted in the following figure:



The items depicted with the item categories are used as examples. Not every item exists in the DSA document.

Related Information

Network Operations Reporting (NORe) [page 111]

4.8 Payment Card Management

Use

This function enables you to manage your own payment cards. That is, payment cards that you have issued yourself. This includes the licensing to the service stations to billing (invoice creation) with the invoice recipient.

Payment card management also includes billing for credit card payments. The sales volume data from the POS system is analyzed and collected in the corresponding billing documents for the respective partners. This means that the billing partner of a payment card document is either a clearing house or a business partner known to the company.

You create payment card contracts to represent a business relationship with the invoice recipient. You must assign each payment card issued to a payment card contract. You can also assign business partners to the payment card in different RFNO partner roles.

You can expand payment card management for custom payment cards using customer-specific event methods for certain times during the processes. A connection to a PIN generator, further checks, or prepopulated data are possible. This has to be implemented in the implementation project in individual cases.

The user interface for the billing documents is based on the PAT framework, which uses the Floor Plan Manager (FPM) technology for the display. This enables you to make customer-specific adjustments and personalizations.

> ⚠ Caution
>
> You can only use payment card management for your own payment cards, meaning payment cards that you have issued.
>
> You cannot enter numbers of external payment cards.
>
> Always bear in mind the provisions on data protection and data security.

Integration

The billing documents within payment card management, like all billing documents in RFNO, are based on the PAT framework. This enables documents to be created automatically in other SAP modules. Provided the respective processes are implemented there. You create and change the business partner master data for the documents in the SAP Business Partners, using the transaction *Edit Business Partner*`BP`.

Features

- Contract and card master data
- Definition of additional card characteristics
- Partner management and SAP business partners
- Payment card settlement
- Central monitoring in the Network Operations Desk (NODe)
- Integration of the Post Processing Framework (PPF)

Related Information

Post Processing Framework (PPF) [page 104]
Restrictions [page 105]
Role Concept [page 70]
Network Operations Desk (NODe) [page 109]

[Bonus System [page 103]](#)
[Status Management [page 100]](#)

4.8.1 Creating Payment Card Contracts

Prerequisites

Master data

You have processed the master data in the *Business Partner* transaction.

Customizing

In Customizing for *RFNO*, under *Payment Cards* > *Custom Payment Cards*, you have made at least the following settings:

- Created at least one partner role profile for payment card contracts and assigned a role to the role profile.
- Created and configured at least one payment card contract type.
- Created and configured the payment card contract status.

Procedure

1. On the *SAP Easy Access Main Menu* screen, choose *SAP Menu* > *S4SCSD* > *Retail Fuel Network Operations (RFNO)* > *Custom Payment Cards* > *Create Payment Card Contract*. The *Create Payment Card Contract* screen appears.
2. Choose *Create Contract*. The *Create Payment Card Contract: Step 1 (Partner Roles)* screen appears.
3. Choose *Maintain Partner Roles*. The *Create Payment Card Contract: Step 1 (Select Role)* screen appears.
4. Select a partner role and choose *Continue*. The *Create Payment Card Contract: Step 1 (Select Partner)* screen appears.
5. Select a business partner role and choose *Continue*. The *Create Payment Card Contract: Step 1 (Validity)* screen appears.
6. Select the validity data. Choose *Check* and then *Submit*. The *Create Payment Card Contract: Step 1 (Partner Roles)* screen appears again. Choose *Continue*. The *Create Payment Card Contract: Step 2 (Enter Contract Data)* screen appears.

   You can modify the user interface for the details to suit your requirements. To do so, you can make Customizing settings for the Web Dynpro FPM component configuration. Or if different data is to be displayed for various contract definitions on the detail screen, you need to create a separate configuration for each set of data. For these settings, see Customizing for *RFNO*, under *Payment Cards* > *Custom Payment Cards* > *Configuration of Interface*.
7. Enter the data and choose *Finish*.

You can also save the contract as a draft. The draft is not displayed in the Network Operations Desk (NODe) [page 109]. To process it later, choose the *Continue Editing PC Contract* pushbutton on the *Create Payment Card Contract* screen.

Results

The payment card contract has been created.

4.8.2 Creating and Deleting a Payment Card

Prerequisites

General

You have created a payment card contract.

Master data

You have created the master data in the *Business Partner* transaction.

Customizing

You have made the settings in Customizing for *RFNO*, under *Payment Cards*.

Procedure

Creating Payment Cards

1. On the *SAP Easy Access Main Menu* screen, choose *SAP Menu* > *S4SCSD* > *Retail Fuel Network Operations (RFNO)* > *Custom Payment Cards* > *Create Payment Card*. The *Create Payment Card* screen appears.
2. Choose *Create Payment Card*. The *Create Payment Card: Step 1 (Assign Payment Card Contract)* screen appears.
3. Choose *Select Payment Card Contract*. Search for a payment card contract. The payment card contracts found are displayed in the results list.
4. Select the required payment card contract and choose *OK*. The *Create Payment Card: Step 1 (Assign Payment Card Contract)* screen appears again. The data from the payment card contract is displayed. Choose *Continue*. The *Create Payment Card: Step 2 (Partner Roles)* screen appears.
5. Choose *Maintain Partner Roles*. The *Create Payment Card: Step 2 (Select Role)* screen appears.
6. Choose a partner role. Choose *Continue*. The *Create Payment Card: Step 2 (Select Partner)* screen appears.
7. Choose a business partner role. Choose *Continue*. The *Create Payment Card: Step 2 (Validity)* screen appears.
8. Select the validity data. Choose *Check* and *Submit*.

9. Choose *Exit to Main Road Map Step*. The *Create Payment Card: Step 2 (Partner Roles)* screen appears. Choose *Check the Partner Role Profile*.
10. Choose *Continue*. The *Create Payment Card: Step 3 (Restriction Code and Bonus Systems)* screen appears.
11. If required, select one or more restriction codes and one or more bonus systems. If you selected a bonus system, the system displays additional fields. Enter the data. Choose *Continue*. The *Create Payment Card: Step 4 (Details)* screen appears.
12. Choose *Continue*. The *Create Payment Card: Step 5 (Card Number)* screen appears.
13. Enter the data and choose *Finish*. The new payment card has been created.
    You can also save the payment card as a draft. To process it later, choose the *Continue Processing Payment Card Contract* pushbutton on the *Create Payment Card* screen. The payment card draft is not displayed in the Network Operations Desk (NODe).

You can adapt the user interface for the detailed data on the payment card, bonus system, and primary account number (PAN) to suit your requirements. To do so, you can make Customizing settings for the Web Dynpro FPM component configuration. Or if different data is to be displayed for various contract definitions on the detail screen, you need to create a separate configuration for each set of data. For these settings, see Customizing for *RFNO*, under *Payment Cards* > *Custom Payment Cards* > *Configuration of Surface*.

For the payment card number, you can divide the PAN into individual fields to get a better overview and make only certain parts of the PAN ready for input.

Deleting a Payment Card

You can only delete payment cards to which no active partner is assigned. Therefore, you first need to deactivate any partners.

Deactivating Partners

1. In the *S4SCSD* SAP menu, choose *Retail Fuel Network Operations (RFNO)* > *Network Operations Desk (NODe)*.
   The *Network Operations Desk* screen appears.
2. Select the locator ID for payment cards, perform the search, and select an object in the results list.
3. Choose *Edit*.
4. Select an entry in the partner data area on the *Partners* tab page and choose *End Partner Role*.
   The *End Partner Role, Deactivate* dialog box appears.
5. Select the *Deactivate Partner* checkbox and choose *Continue*.
6. Choose *Save*.
   Now continue with deleting the payment card.

Deleting a Payment Card

1. In the *S4SCSD* SAP menu, choose *Retail Fuel Network Operations (RFNO)* > *Network Operations Desk (NODe)*.
   The *Network Operations Desk* screen appears.
2. Choose .
   The *Personal Toolbox* screen appears.

   > **i Note**
   >
   > For more information about the toolbox, see Personal Toolbox.

3. In the *Environment for Displaying Functions* area, select the *Network Operations Desk (NODe)* checkbox.
   In the *Region for Displaying Functions* area, *Payment Card* must be selected.

4. In the *Available Tools* area, under *Payment Card Functions*, drag the entry *Delete Payment Card* to the *Personal Tools* area. Choose *Save* and close the *Personal Toolbox* screen.
5. On the *Network Operations Desk* screen, choose the locator ID *Payment Card Contracts, Payment Card Without Card*. Enter the search criteria and choose *Find*.
6. In the results list, select the payment card to be deleted. The screen now has the title `<Payment Card Number>`.
7. Choose *Edit* and *Delete Payment Card*. The payment card is flagged for deletion.
8. Choose *Save*.
   The entry for the flagged payment card will no longer be displayed in the results list of the next search.

> **i Note**
>
> Only payment cards flagged for deletion can be archived.

Related Information

Restrictions [page 105]
Network Operations Desk (NODe) [page 109]
Personal Toolbox [page 113]
Archiving RFNO Payment Cards Using /ICO/RNPC [page 293]
Creating Payment Card Contracts [page 97]

4.8.2.1 Status Management

Use

You can define the possible statuses for payment cards and payment card contracts yourself and use them for your own processes.

The statuses are displayed in the results list of the Network Operations Desk (NODe). This is part of the delivery.

The status can also be used to control Post Processing Framework (PPF) conditions, for example, the embossing process. The conditions are not part of the delivery.

Prerequisites

In Customizing for *RFNO*, you have made the following settings for the status:

Under *Payment Cards* > *Custom Payment Cards* > *Define Payment Card Status*, you define the status for payment cards.

Under *Payment Cards* > *Custom Payment Cards* > *Define Payment Card Contract Status*, you define the status for payment card contracts.

Under *Payment Cards* > *Custom Payment Cards* > *Process Control* > *Set Methods for Status Change of Payment Card Contracts* and *Set Methods for Status Change of Payment Cards*, you set the conditions in which the system is to change the status. The specification is made per payment card ID or payment card contract ID.

Related Information

Network Operations Desk (NODe) [page 109]

4.8.2.2 Payment Card Embossing

Use

After a payment card has been created, it needs to be embossed.

The data required for embossing can be compiled using a customer method.

Prerequisites

In the customer method for editing the embossing data, you have entered the data for the embossing structure stored in Customizing for the card definition. This data is then stored as a character string in the database as an embossing order.

Activities

You define the methods in Customizing for *RFNO*, under *General Settings* > *Edit Event Methods of RFNO*. Then choose *Payment Cards* > *Embossing* > *Embossing Record Structure* or *Process the Order* in the menu.

In Customizing for *RFNO*, under *Payment Cards* > *Custom Payment Cards* > *Process Control* > *Set Methods for Payment Card Management*, you enter the data required for embossing, for example, the method and the structure.

Related Information

Creating and Deleting a Payment Card [page 98]

4.8.2.3 Lock and Release

Use

You can release custom payment cards and payment card contracts, and lock and unlock payment cards.

After embossing, the payment card must be released. The release is permanent.

A lock does not end the release of the payment cards and payment card contracts, rather it only blocks them until the lock is removed, meaning unlocked. Locks can also have the property that they are final and cannot be removed.

Lock lists, inclusion lists, and acceptance lists are used to control the payment cards at the location. The functionalities of these lists depend on the network operator. The lists are created and sent via methods.

Locking, unlocking, and releasing can assign a status for the payment cards and payment card contracts, if you have configured this in Customizing for Status Management.

Prerequisites

Customizing

You are in Customizing for *RFNO*.

You have made the necessary settings under *Payment Cards* > *Custom Payment Cards* > *Define Unblocking Reasons* and *Define Blocking Reasons*.

You have defined the customer methods under *Payment Cards* > *Custom Payment Cards* > *Process Control* > *Set Methods for Payment Card Management and Blocking*.

You have defined the methods for lock documents and release documents, and for lock lists, inclusion lists, and acceptance lists, under *General Settings* > *Edit Event Methods of RFNO*. From the menu, choose *Payment Cards* > *Authorization*.

You have created the method for creating lists under *Payment Cards* > *Payment Cards for Locations* > *Define Payment Card Profiles*. Navigate to *Configure Acceptance Lists*. In the *Edit Acceptance List* field, you choose the method.

Master Data

You configure the method for sending the lists in the *Edit Business Partner* transaction. Choose the *Network Operator* role for the business partner. On the *Network Operator* tab page, enter the method in the *Send* field.

Related Information

Payment Card Embossing [page 101]
Status Management [page 100]

4.8.2.4 Bonus System

Use

You can use bonus systems for your custom payment cards. A sample configuration is delivered for this purpose. The bonus systems can be authorized per payment card definition.

Prerequisites

In Customizing for *RFNO*, under *Custom Payment Cards* > *Define Bonus Systems*, you have defined the bonus systems.

In Customizing for *RFNO*, under *Custom Payment Cards* > *Configuration of Interface* > *Configure Tab Pages for Bonus Systems*, you have configured the tab pages.

In Customizing for *RFNO*, under *Custom Payment Cards* > *Set the Properties of Custom Payment Cards*, you have assigned the bonus systems under *Assign Allowed Bonus Systems* to a payment card definition.

Activities

When creating a payment card, enter the bonus system or systems and a validity period. Customer-specific additional data can be displayed for each bonus system on a detail screen.

Related Information

Creating and Deleting a Payment Card [page 98]

4.8.2.5 Primary Account Number (PAN)

Use

When creating a new payment card, the PAN is generated each time the data is changed. The final PAN on release of the payment card is used for embossing.

The structure of the PAN is customer-specific. For better display, it can be divided into individual field groups, for example, to make only certain parts of the PAN ready for input.

Prerequisites

You need to define the methods in Customizing for *RFNO*, under *General Settings* > *Edit Event Methods of RFNO*. Choose *Payment Card* > *General Cards*.

You need to have configured the methods *Check Digit Calculation* and *Create PAN*. You can configure the method *Check PAN*.

You assign the methods to the payment card in Customizing, under *Payment Cards* > *Payment Cards General* > *Define Payment Cards* under *Assign Number Ranges*.

For the display of the PAN for a payment card definition, you create a custom FPM configuration in Customizing, under *Payment Cards* > *Custom Payment Cards* > *Configuration of Interface* > *Configure Payment Card Creation Guided Activity Floorplan (GAF)* and *Configure Payment Card Tab*.

4.8.2.6 Post Processing Framework (PPF)

Use

Payment card management is connected to the PPF.

This enables follow-up processes to be performed automatically based on certain conditions. The actions for which the PPF is triggered after saving are predefined. In Customizing, assign the action profile to the action.

Current and previous data on the payment card and the payment card contract is available for defining the PPF conditions.

Prerequisites

You have made the general settings for the PPF.

You have assigned action profiles to the actions in Customizing for *RFNO*, under *Payment Cards* > *Custom Payment Cards* > *Assign PPF Action Profiles to Actions*.

More Information

For more information about the PPF, see http://help.sap.com.

4.8.2.7 Restrictions

Use

You can define restriction codes for custom payment cards. For example, this allows you to control that a payment card is only valid for fuel.

Prerequisites

Customizing

In Customizing for *RFNO*, under *Payment Cards* > *Payment Cards General* > *Define the Restriction Code*, you have defined restriction codes.

In Customizing for *RFNO*, under *Payment Cards* > *Payment Cards General* > *Define Payment Cards*, you have assigned the restriction code to the payment card.

In Customizing for *RFNO*, under *Custom Payment Cards* > *Set the Properties of the Custom Payment Cards* under *Assign Allowed Restriction Codes*, you have assigned the restriction codes to a payment card definition ID.

Master Data

In the *RFNO* menu, under *Master Data* > *Custom Payment Cards* > *Assign Material Groups to the Restriction Codes*, you can assign the material groups to the restriction codes.

To do so, you need to have defined material groups in SAP Customizing, under *Logistics in General* > *Material Master* > *Settings for Central Fields* > *Define Material Groups*.

4.8.3 Maintain Payment Card

Describes various functions for editing your payment cards.

Use

You can use this application to perform various functions for your payment card.

You can access the application from the *SAP Easy Access* screen by choosing *S4SCSD* > *Retail Fuel Network Operations (RFNO)* > *Master Data* > *Own Payment Card* > *Edit Payment Cars*.

The functions initially create documents or data records in the database. This function only affects the POS system when the corresponding lists, for example, white list and acceptance list have been created and sent to the network operator. However, the creation and sending of these lists is a project task.

Dependencies

The functions can be performed in the Network Operations Desk (NODe). However, you need to decide on a procedure for each function. You decide by converting the event method of the corresponding toolset functions. Example: To create the release documents, the *Create Release Document for Payment Card* toolset function is required. If you still want to use the function in NODe, choose method 111. If you want to use the new transaction, choose method 1111. The schema with the leading digit 1 is also valid for the other toolset functions.

Prerequisites

This prerequisite applies to all functions.

Under *SAP S/4HANA Supply Chain for Secondary Distribution (S4SCSD)* > *Retail Fuel Network Operations (RFNO)* > *General Settings* > *Edit Event Methods of RFNO*, in the menu under *NODe* > *Toolset* > *Toolset Functions*, you have configured either the methods for the NODe or for this transaction.

Features

You can choose from the following functions:

- Release
- Locking and Unlocking

Related Information

Release [page 107]
Locking and Unlocking [page 108]
Network Operations Desk (NODe) [page 109]

4.8.3.1 Release

Describes how you can release custom payment cards.

Use

After embossing, the payment card must be released. The release is permanent.

If you have set status management in Customizing, you can use the release to assign a status for the payment card.

Prerequisites

Customizing

Under *SAP S/4HANA Supply Chain for Secondary Distribution (S4SCSD)* > *Retail Fuel Network Operations (RFNO)* > *General Settings* > *Edit Event Methods of RFNO*, in the menu under *Payment Cards* > *Authorization* > *Release Document*, you have defined the methods.

Under *SAP S/4HANA Supply Chain for Secondary Distribution (S4SCSD)* > *Retail Fuel Network Operations (RFNO)* > *Payment Cards* > *Custom Payment Cards* > *Process Control* > *Set Methods for Payment Card Management*, you have selected the methods.

Activities

Choose a payment card in the *Payment Card* area. Payment card data is displayed in the *Payment Card* area. Data on the release documents is displayed in the *Release Documents* area. Select an entry. Choose *Generate Release Document*. Finally, choose *Save*.

Related Information

Locking and Unlocking [page 108]
Status Management [page 100]

4.8.3.2 Locking and Unlocking

Describes how you can lock and unlock your payment cards.

Use

If a card has been lost, a lock can be performed. You can then perform unlocking when you find the payment card (PC). You define the reasons for locking and unlocking in Customizing. You can also define which department is allowed to perform the unlocking.

A lock does not end the release of the payment cards. The PC is only locked until it is unlocked again. You can also set permanent locks. Then it is no longer possible to unlock the card.

Lock lists, inclusion lists, and acceptance lists are used to control the payment cards at the location. The functionalities of these lists depend on the network operator. The lists are created and sent via event methods.

If you have set up the Customizing for status management, you can use locking and unlocking to assign a status for the payment card.

Prerequisites

Customizing

You have made the neccessary settings under *SAP S/4HANA Supply Chain for secondary distribution (S4SCSD)* > *Retail Fuel Network Operations (RFNO)* > *Payment Cards* > *Custom Payment Cards* > *Define Unlocking Reasons* and *Define Locking Reasons*. You define the departments involved in the settings for the locking reasons.

You have selected the customer methods under *Payment Cards* > *Custom Payment Cards* > *Process Control* > *Set Methods for Payment Card Management and Locking* .

Activities

Choose a payment card in the *Payment Card* area. The *Payment Card* area displays data for the payment card. The *Disconnection Documents* area displays data on the disconnection and reconnection documents. Select an entry. Choose *Generate Disconnection Document* or *Generate Reconnection Document*. You must provide a reason in each case. Finally, choose *Save*.

Related Information

Release [page 107]

Status Management [page 100]

4.9 Network Operations Desk (NODe)

Use

The Network Operations Desk (NODe) displays data for controlling and monitoring the service station network, including payment cards. You can start different functions and transactions directly from a launchpad. The NODe is developed for a low volume of data. Large volumes of data have a significant adverse effect on performance.

Technically, the NODe is a main component of the Floor Plan Manager (FPM), which is divided into the areas locator and views. Various views are delivered as standard. However, you can also configure your own views in Customizing.

Notifications are displayed in a log.

To access the NODe, on the *SAP Easy Access SAP S/4HANA Supply Chain for secondary distribution* screen, choose *SAP Menu* > *Retail Fuel Network Operations (RFNO)* > *Classic Functions* > *Network Operations Desk (NODe)*.

Prerequisites

General

You have installed a Web browser.

You have selected the `/ICO/S4SCSD` area menu or configured it in the user profile.

Master Data

You have used the master data to configure a service station network.

On the *SAP Easy Access SAP S/4HANA Supply Chain for secondary distribution* screen, choose *SAP Menu* > *Retail Fuel Network Operations (RFNO)* > *Master Data*.

Business Partner

You have created business partners in transaction `BP`. You need to set certain business partners as relevant for settlement.

Customizing

RFNO

You have configured the necessary settings in Customizing for S4SCSD, under *Retail Fuel Network Operations (RFNO)*.

Features

Location

A screen can be displayed for locations. The location screen must exist as a file in the MIME repository. Enter the path in Customizing for *S4SCSD*, under *RFNO* > *General Settings* > *Set General Parameters*. To link the screen with the location, also enter the name of the screen in the location master data in the *Screen Name* group box on the *Organization* tab page.

Report

A sample for a chart `/ICO/RN_CC_NODE_CHART_1` and a sample for a list `/ICO/RN_CC_NODE_LIST_REPORT_1` are shipped with the standard system. The reports are defined based on Customizing settings. You configure these settings here: In Customizing for *S4SCSD* under *Retail Fuel Network Operations (RFNO)* > *Network Operations Desk (NODe)* > *Define the Reports*.

Implement a selection method using the sample method. Finally, integrate the UIBB configuration into the component configuration of the relevant application. Note that you only use this configuration where the UIBB can have its own panel and the selection lists are therefore not available.

Activities

1. On the *SAP Easy Access SAP S/4HANA Supply Chain for secondary distribution* screen, choose *SAP Menu* > *Retail Fuel Network Operations (RFNO)* > *Network Operations Desk (NODe)*. The *Network Operations Desk* screen appears.
2. Select a locator ID in the locator and enter the search criteria. Choose *Find*. The objects found are displayed in a tree structure.
   You can set the locator in Customizing.

   > **i Note**
   >
   > When selecting a locator ID that contains objects with coordinates, for example, locations or plants, note the following: If, when you select multiple objects, one or more objects do not have coordinates, the system does not indicate that coordinates are missing.

3. Select an object. The data for the object is displayed in the right-hand screen area.

> **i Note**
>
> If you choose *Refresh*, the data in the areas is updated if the individual area does not have its own pushbutton, such as *Find* or *Execute Report*. The data in the locator and on the road map (if you have chosen the road map pushbutton) is updated when you choose *Find* in the locator.

Related Information

Locator [page 202]

Messages [page 68]
Configuring Business Partners As Relevant for Settlement [page 75]
Launchpad [page 111]

4.9.1 Launchpad

Use

You can access different applications and transactions directly from the launchpad. It is located on the home screen of the Network Operations Desk (NODe) [page 109].

A non-customizable launchpad is delivered with the standard system. You can create your own launchpad in the transaction *Overview of Launchpads* `LPD_CUST`.

Activities

The launchpad is displayed in the following cases:

- You start NODe and have selected a locator ID that does not result in the road map being displayed.
- In other cases, you choose the *History* pushbutton and choose *START*.

4.10 Network Operations Reporting (NORe)

Use

You can use this function to create and display a query for Retail Fuel Network Operations (RFNO).

NORe is based on standard POWL technology. At design time, a feeder class is written that defines the content of a POWL query. In the feeder class, the selection criteria for restricting the results list are defined and, if required, sorted. Possible actions, the result list (columns), and the actual selection for reading the data are also defined in the feeder. To ensure that the functions from the RFNO tool set are available and integrated, the abstract ABAP OO class `/ICO/RN_CL_FEED_POWL_NORE`, which integrates the POWL-feeder interface is implemented. The queries are assigned to categories.

> ⚠ Caution
>
> NORe is no longer being developed. Use the SAP Fiori App *Assess Inventory Differences* instead.

The following table shows the categories and queries:

Category	Query	Use
Logistics	Inventory differences	Displays all dip measurements in non-posted or deactivated documents. You use this query to display the dip measures for locations, determine differences to the stock level, release an item for posting, and post the document.

Prerequisites

You have assigned a POWL category to the user, via a role or directly.

Activities

Configure POWL

The transaction `POWL_COCKPIT` is provided for configuring the POWL. Use the personalization application `/ICO/RN`.

Start NORe

You can find this function under *SAP Menu* > *Retail Fuel Network Operations (RFNO)* > *Classic Functions* > *Start Network Operations Reporting (NORe)*.

Create Query

You are on the *RFNO Reports* screen.

1. Choose *Define New Query*. The *RFNO Reports Define New Query* screen appears.
2. Select an object type. If a query already exists, you can select it under *Select Existing Query as Template*. Choose *Maintain Criteria*. The *RFNO Reports Maintain Criteria* screen appears.
3. Select the criteria. To display the data in a results list, choose *Preview*. Choose the *Finish* pushbutton. The *RFNO Reports Define New Query* screen appears.
4. Enter a description for the query. You can select a category or create a new one. Choose the *Finish* pushbutton. The *RFNO Reports Active Queries* screen appears.

More information

For more information about the POWL, see POWL Component.

Related Information

[Retail Fuel Network Operations (RFNO) [page 61]]
[Assess Inventory Differences (App) [page 64]]

4.11 Personal Toolbox

Use

You can use this function to configure a customized toolbar in various places in the system.

You can configure the Personal Toolbox in the following places by choosing the pushbutton:

- In the business partner transaction BP on the <Role Name> tab page in the *Tools* group box.
- In transaction `/ICO/RN_NODE` *Network Operations Desk (NODe)*:
  - In the toolbar
- In transaction `/ICO/RN_BOX` *Personal Toolbox*.

Pushbuttons selected in the toolbox are displayed in the following places when you have restarted the application:

- In the *Business Partner* transaction BP on the <Role Name> tab page in the *Tools* group box.
- In transaction `/ICO/RN_NODE` *Network Operations Desk (NODe)*:
  - In the toolbar
  - In the locator

Prerequisites

Customizing

You have configured the required settings in Customizing for *S4SCSD* under *RFNO* > *Network Operations Desk (NODe)* > *Tools*.

Activities

1. Choose the pushbutton in one of the places mentioned above.
2. Select an environment. This determines which regions are displayed in the next selection.
3. Select a region.
4. Under *Available Tools*, select a subrow and drag it to *Personal Tools*.

5. If applicable, select an action in the *Actions* column.
6. Choose *Save*.

To apply the default settings from Customizing, choose the *Transfer Presetting* pushbutton. Your personal settings are deleted.

To access the Customizing settings, choose *SAP S/4HANA Supply Chain for secondary distribution (S4SCSD)* > *Retail Fuel Network Operations (RFNO)* > *Network Operations Desk (NODe)* > *Tools* > *Assign Functions to a Locator* and *Assign Functions to the Views*.

Related Information

Locator [page 202]

4.12 Continuous Station Replenishment (CSR)

Enables the continuous supply of gas stations with materials.

Use

You can use this process to provide service stations with a steady supply of materials based on their requirements, by continuously calculating and monitoring the expected material consumption. CSR is a process within Retail Fuel Network Operations (RFNO).

The aim is to avoid letting a tank run dry. Whereby the critical tank, meaning the tank that reaches the reorder point first, determines the next delivery time. The other non-critical tanks are always filled completely. The delivery times and delivery quantities are calculated using a customer method.

The CSR analysis determines the next delivery and an average delivery quantity. A minimum and a maximum for the delivery quantity are also determined, but the average delivery quantity is used. The result is a results list. You can edit this results list manually in NODe and this list is the basis for the CSR postprocessing actions defined by you, for example, creating a sales order and/or sending an e-mail.

Overlays, for example, sporting events, construction sites, holiday periods, and events are taken into account for the calculation. These overlays have either a positive or negative influence on consumption at the service station.

The CSR analysis requires information on when which quantity was taken from which tank. You can enter the data in the system as POS data, meter readings, or dips. The more accurate the data is, the more exact the CSR analysis. Since the POS data is the most accurate, this is used from inbound data processing of RFNO for the CSR analysis.

Buckets are used for the CSR analysis. A bucket describes the sales quantity of a product in a defined period at a location.

> **i Note**
>
> You can configure the calculation of the buckets and the CSR analysis as a regular job in Customizing, under *S4SCSD* > *RFNO* > *Continuous Station Replenishment (CSR)* > *Regular Jobs*.

To start CPR in the *S4SCSD* menu, choose *Retail Fuel Network Operations (RFNO)* > *Start Continuous Station Replenishment (CSR)*.

Prerequisites

You have made the necessary settings in Customizing for *S4SCSD*, under *Retail Fuel Network Operations (RFNO)* > *Continuous Station Replenishment (CSR)*.

You have defined at least one algorithm for the CSR analysis under *Define CSR Algorithm*. You use methods and classes to define the algorithm.

So that locations are taken into account in the CSR analysis, in the *SAP Menu*, under *S4SCSD*, under *Retail Fuel Network Operations (RFNO)* > *Master Data* > *Locations* > *Create*, you have entered the storage objects in the master data for the location on the *SOC* tab page.

To calculate the buckets, in the *SAP menu*, under *S4SCSD* > *Retail Fuel Network Operations (RFNO)* > *Master Data* > *Locations* > *Create*, you have entered the sales hours and the operations time window set in the master data for the location on the *SCP* tab page. You have also specified a factory calendar for the business type.

> **i Note**
>
> If you do not enter any delivery hours in the *Operations Time Window Set* group box, for the CSR analysis it is assumed that the location can always receive deliveries during the sales hours.

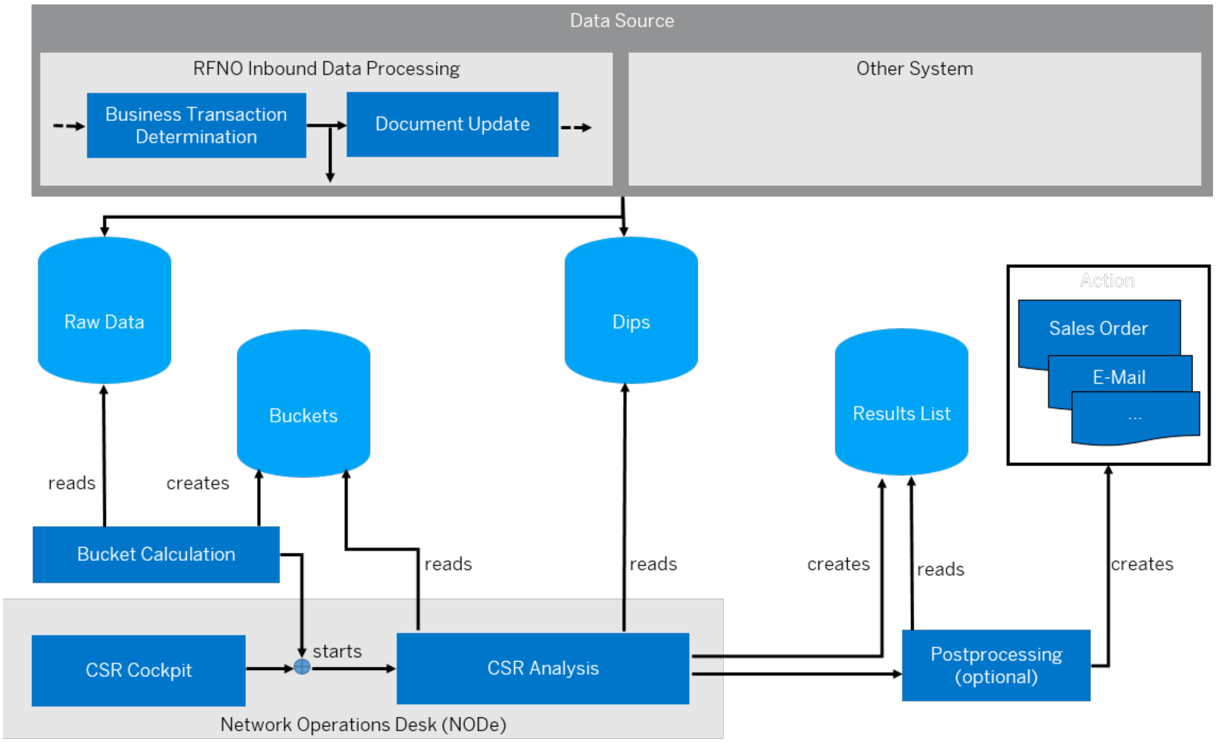
Process

The CSR process is integrated into RFNO inbound data processing and saves the dips and raw data in corresponding tables. The raw data is available aggregated as POS sales with a bucket for a duration of 30 minutes.

Once the raw data for a period is complete, the buckets can be calculated using the raw data. The CSR analysis can only be started once the buckets have been calculated. Depending on how up-to-date the analysis is to be, it can be started directly after the bucket calculation, scheduled as a regular background job, or started manually in NODe. For the CSR analysis, the dips and buckets are used to generate a results list.

You can modify the results list in the analysis result. The results list is the basis for the optional CSR postprocessing.

The following figure illustrates the process described above:



You define the maximum number of open orders permitted for a location in Customizing for *S4SCSD*, under *Retail Fuel Network Operations (RFNO)* > *Continuous Station Replenishment (CSR)* > *Configure CSR Object Parameters*. BAPIs are used to create and edit orders. Once an order has been supplied, a new order is created for this location. A separate table with orders that are relevant for CSR is maintained. Orders created manually are ignored by CSR. To assign a ship-to party to a location, you have to link the location with RFNO partner role `FS_CSRCU` with its business partner and the business partner role `RNS007`*CSR Customer*. Using settlement in business partner role `RNS007`, you then link to the business partner role `FLCU01`*Customer*, which is used to determine the ship-to party for order creation. The other data required to create the order is read from an assigned default group.

Related Information

Overlay [page 119]
Network Operations Desk (NODe) [page 109]
Performing a CSR Analysis [page 123]
Retail Fuel Network Operations (RFNO) [page 61]
CSR Postprocessing [page 124]
Inbound Data Processing [page 78]
Bucket [page 117]

4.12.1 Bucket

Definition

Describes the sales quantity of a product in a defined period at a location.

Use

Buckets are used to calculate the expected delivery date for tanks and materials in Continuous Station Replenishment (CSR). You configure the size of the period in Customizing. For service stations that need to receive deliveries often, a small bucket size of 30 minutes, for example, is useful. For service stations that receive deliveries less often, a bucket size of 4 hours, for example, is useful. The bucket size also depends on the available data. If, for example, only the entire consumption of a day is reported to the system, it is only possible to use a bucket size of a day.

When calculating the delivery date, the opening times and delivery times of the location are taken into account.

> **Note**
>
> You can also run the calculation of buckets as a background job. In Customizing for *S4SCSD*, under *Retail Fuel Network Operations (RFNO)* > *Continuous Station Replenishment (CSR)* > *Regular Jobs* > *Calculate CSR Buckets*, you define the job.

Integration

You define the buckets in Customizing for *Retail Fuel Network Operations (RFNO)*, under *NODe* > *Continuous Station Replenishment (CSR)* > *Configure CSR Object Parameters*.

You assign the buckets to the location in the Network Operations Desk (NODe), using the locator ID *CSR Cockpit: Location* on the *CSR Parameters* tab page.

You define the sales hours and the delivery times in the master data for the location in the *S4SCSD* menu, under *Retail Fuel Network Operations (RFNO)* > *Master Data* > *Create*, on the *SCP* tab page in the group box *Sales Hours* or *Operations Time Window Set*.

Example

The final n-buckets of a period, for example, Wednesdays 7 p.m. - 8 p.m., are used to calculate a maximum value, minimum value, and an average value. Example of calculating the current bucket for Wednesday December 10, 2014, 7 p.m. - 8 p.m.

Date	Time	Consumption
12/10/2014	7 p.m. to 8 p.m.	300
12/3/2014	7 p.m. to 8 p.m.	250
11/26/2014	7 p.m. to 8 p.m.	280

This results in the following values for the bucket:

- Minimum value: 250
- Maximum value: 300
- Average value: 276.7

The following table shows a specific value for the bucket in the data table:

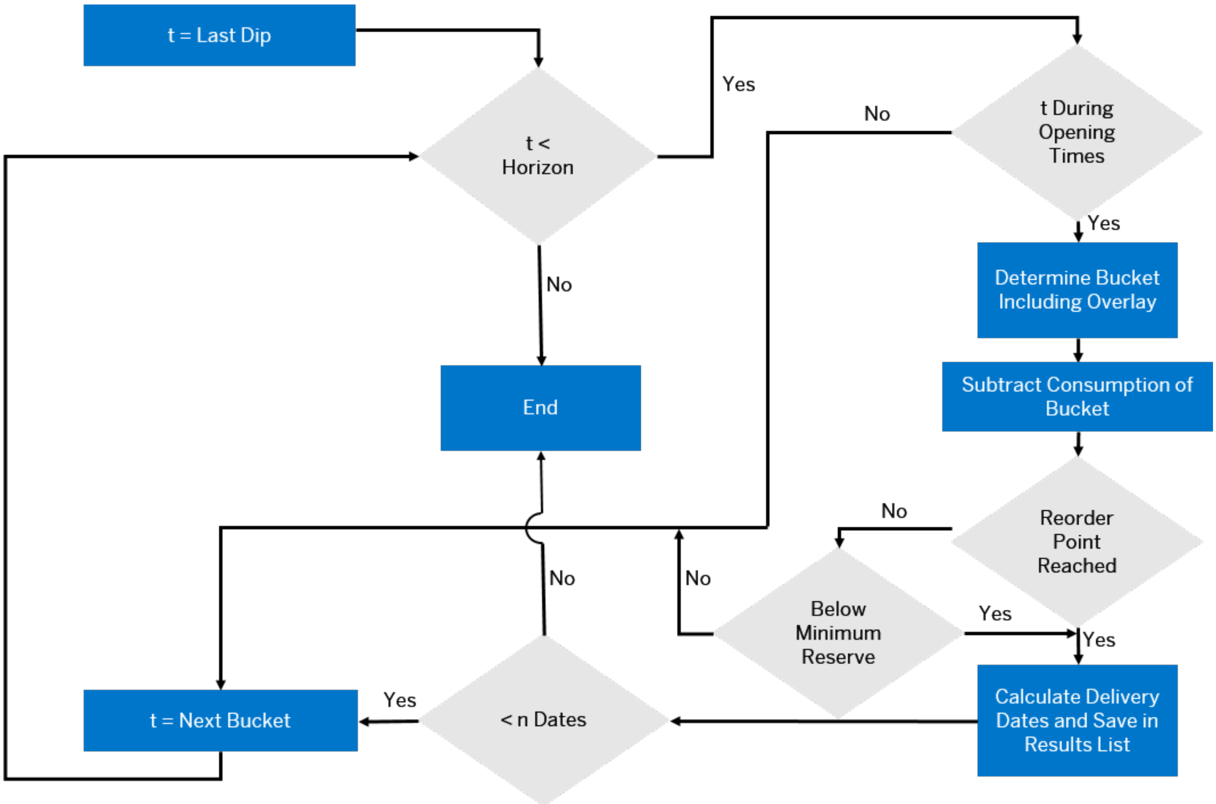
CSR Data ID	Bucket	Weekday	Consumption Date	Minimum	Maximum	Average
1	19	4	12/10/2014	250	300	276.6

For a bucket size of an hour, bucket number 19 would be the period between 7 p.m. and 8 p.m.; bucket number 20 would be the period between 8 p.m. and 9 p.m., and so on. The weekday is given a consecutive number from 1 to 7, starting on Sunday.

To calculate the consumption for December 17, 2014, all buckets for weekday = 4 (Wednesday) and CSR data ID = 1 for this date are read from the database and totaled. Then, the influence of any existing overlays is added or subtracted. The buckets are saved to the database, cleansed of the overlays. The raw data is not cleansed and saved in the minimum bucket size. The minimum bucket size is 30 minutes.

To calculate the delivery date and the delivery time, the buckets must be deducted from the last known dip until the reorder point is reached. In doing so, the opening times of the service station are to be taken into account. A minimum reserve stock in hours can also be specified. If the service station is closed at the calculated delivery time, a parameter can be used to control in which direction an alternative date is to be searched for.

The following figure shows the calculation:



Related Information

[Overlay [page 119]]
[Network Operations Desk (NODe) [page 109]]
[Continuous Station Replenishment (CSR) [page 114]]

4.12.2 Overlay

Definition

Factors that influence the consumption at a service station either positively or negatively for a period.

Use

Overlays are used in Continuous Station Replenishment (CSR).

Integration

In the Network Operations Desk (NODe), you use the locator ID *CSR Cockpit: Location* on the *Overlay* tab page to define the overlays for a location.

Example

During the period in which fans arrive at a soccer match near the service station, the consumption at the service station will increase. If the entrance to the service station is impeded by a construction site, the consumption will decrease.

Related Information

Network Operations Desk (NODe) [page 109]
Continuous Station Replenishment (CSR) [page 114]

4.12.3 Creating and Deleting a CSR Group

Prerequisites

You have defined delivery groups in the *S4SCSD* menu, under *Retail Fuel Network Operations (RFNO)* > *Master Data* > *Continuous Station Replenishment (CSR)* > *Edit CSR Delivery Groups*.

You have defined group parameters in Customizing for *S4SCSD*, under *Retail Fuel Network Operations (RFNO)* > *Continuous Station Replenishment (CSR)* > *Configure Group Parameters for CSR Analysis*.

You are on the *SAP Easy Access SAP S/4HANA Supply Chain for secondary distribution* screen.

Procedure

Creating a CSR Group

1. From the *SAP Menu*, choose *S4SCSD* > *Retail Fuel Network Operations (RFNO)* > *Master Data* > *Continuous Station Replenishment (CSR)* > *Create CSR Group*.
   The *Create CSR Group: Step 1 (Define Group Parameters)* screen appears.
2. Enter a freely selectable CSR group ID and other parameters.

i Note

Delivery groups group materials that are assigned to a CSR group. This makes it possible to analyze the tanks with the selected materials together, and for the deliveries determined for the individual tanks to trigger each other.

i Note

If you want to change the parameters configured in Customizing for this group, select the *Overwrite Parameters* checkbox. Then the following parameters are displayed ready for input.

3. Choose *Continue* or step 2 *Add CSR Objects*.
   The *Create CSR Group: Step 2 (Add CSR Objects)* screen appears.

⚠ Caution

You can save without entering an object. The system displays a warning in this case. At the latest, you then need to add an object when performing the CSR analysis in NODe.

4. If necessary, add a CSR object, such as a location. Choose *Save*.
5. Close the *Create CSR Group* screen.

Deleting a CSR Group

1. From the *SAP Menu*, choose *S4SCSD* > *Retail Fuel Network Operations (RFNO)* > *Network Operations Desk (NODe)*.
   The *Network Operations Desk* screen appears.
2. Choose .
   The *Personal Toolbox* screen appears.

i Note

For more information about the toolbox, see Personal Toolbox.

3. In the *Environment for Displaying Functions* area, select the *Network Operations Desk (NODe)* checkbox. In the *Region for Displaying Functions* area, *CSR Group View* must be selected.
4. In the *Available Tools* area, under *CSR Functions*, drag the entry *Delete CSR Group* to the *Personal Tools* area. Choose *Save* and close the *Personal Toolbox* screen.
5. On the Network Operations Desk screen, choose the locator ID *CSR Groups*. Enter the search criteria and choose *Find*.
6. In the results list, select the group to be deleted. The screen now has the title *Standard View CSR Groups*.
7. Choose *Edit* and . The group is flagged for deletion.
8. Choose *Save*.
   The entry for the deleted group is no longer displayed for the next search.
9. Close the *Network Operations Desk* screen.

Related Information

Personal Toolbox [page 113]

4.12.4 Editing CSR Locations

You use this function to display and edit locations for CSR.

Context

Location editing is part of the Continuous Station Replenishment (CSR) application. To start editing, choose *Retail Fuel Network Operations (RFNO)* > *Continuous Station Replenishment (CSR)* from the menu. You can change or create parameters for the CSR analysis in *Edit* mode.

Procedure

1. Choose the `CSR Locations` page.
2. Enter the search criteria and choose *Find*. In the results list, the locations are displayed with the business type.
3. Select an entry in the results list. The main view appears, in which information on the location is displayed.

   You can display, change, or create these parameters:

   - You can change parameters for the subobject on the *CSR Subobjects* tab page.
     Only active subobjects are taken into account in the CSR analysis.
   - Data on sales hours and the operations time window set is displayed on the *Operations Time* tab page.
   - You change the CSR object parameters and the lead time on the *CSR Parameters* tab page.
     You define the object parameters in Customizing for *S4SCSD*, under *Retail Fuel Network Operations (RFNO)* > *Continuous Station Replenishment (CSR)* > *Configure CSR Object Parameters*.
   - The actual dips are displayed on the *Dips* tab page.
   - On the *Overlays* tab, you create overlays as required.
     You can display charts on the tab pages *Raw Data* and *Buckets*.

     > **i Note**
     >
     > You can personalize the charts. To do so, choose *Personalize*.

   - On the *Raw Data* tab page, the minimum buckets with consumption quantities determined from the POS sales are displayed without influencing the overlays.
   - On the *Buckets* tab page, the previous and future buckets in the specified period in the defined bucket size are displayed taking overlays into account.
   - On the *Current Filling Level* tab page, the target data, meaning the currently calculated filling level of the individual storage objects, is displayed.
   - The sales orders generated using CSR for this station are displayed on the *Order List* tab page. You can navigate to the sales orders.

> **i Note**
>
> The data that you have changed only comes into effect when you choose the `ENTER` key for the respective field.

Related Information

Continuous Station Replenishment (CSR) [page 114]
Performing a CSR Analysis [page 123]
Bucket [page 117]
Overlay [page 119]
Locator [page 202]

4.12.5 Performing a CSR Analysis

You use this function to analyze the CSR groups and perform postprocessing.

Context

The analysis is part of the Continuous Station Replenishment (CSR) application. To start the analysis, choose *Retail Fuel Network Operations (RFNO)* > *Start Continuous Station Replenishment (CSR)* from the menu.

Procedure

1. Choose the `CSR Groups` page.
2. Enter the search criteria and choose *Find*. The CSR groups are displayed in the results list.
3. Choose a CSR group. The data on the CSR group is displayed on the right-hand side. You can add or remove CSR objects, for example, locations.
4. Choose *Edit* to change the group if necessary. Save your changes.
5. In the *CSR Objects* area, choose the *Start CSR Analysis* pushbutton. The *Results of CSR Analysis* dialog box appears. The results list and the log messages are displayed there.
6. To view a chart of the development of the stocking situation for a selected CSR object, choose *Display Chart*. The *Chart for Analysis Result* dialog box appears. The consumption of the individual storage objects is displayed as a line chart there.
7. To start the optional postprocessing, choose *Start Postprocessing* in the *Result of CSR Analysis* dialog box.

You can also run the CSR analysis as a background job. In Customizing for *S4SCSD*, under *Retail Fuel Network Operations (RFNO)* › *Continuous Station Replenishment (CSR)* › *Regular Jobs* › *Perform CSR Analysis*, you define the job.

Related Information

CSR Postprocessing [page 124]
Continuous Station Replenishment (CSR) [page 114]
Locator [page 202]

4.12.6 CSR Postprocessing

Use

With the optional CSR postprocessing, it is possible to start actions that you have defined after the CSR analysis has been performed, for example, the sending of an e-mail or the creation of a sales order.

Prerequisites

In the *S4SCSD* menu, under *Retail Fuel Network Operations (RFNO)* › *Master Data* › *Continuous Station Replenishment (CSR)* › *Edit CSR Default Groups*, you have entered the default values for the action, for example, creating a sales order.

In Customizing for *S4SCSD*, under *Retail Fuel Network Operations (RFNO)* › *Continuous Station Replenishment (CSR)* › *Define CSR Postprocessing Activity*, you have defined the actions to be performed and assigned a method.

In Customizing for *S4SCSD*, under *Retail Fuel Network Operations (RFNO)* › *Continuous Station Replenishment (CSR)* › *Edit CSR Postprocessing Groups*, you have grouped the defined postprocessing actions.

> i Note
>
> When performing the CSR analysis as a background job, the postprocessing actions set actively as a preselection are performed directly.

Process

1. Perform the CSR analysis.
   The *Results of CSR Analysis* dialog box appears.
2. Choose *Start Postprocessing*.
   The *Postprocessing* dialog box appears.
3. Select the actions to be performed and choose *Perform Postprocessing*.

Related Information

Performing a CSR Analysis [page 123]

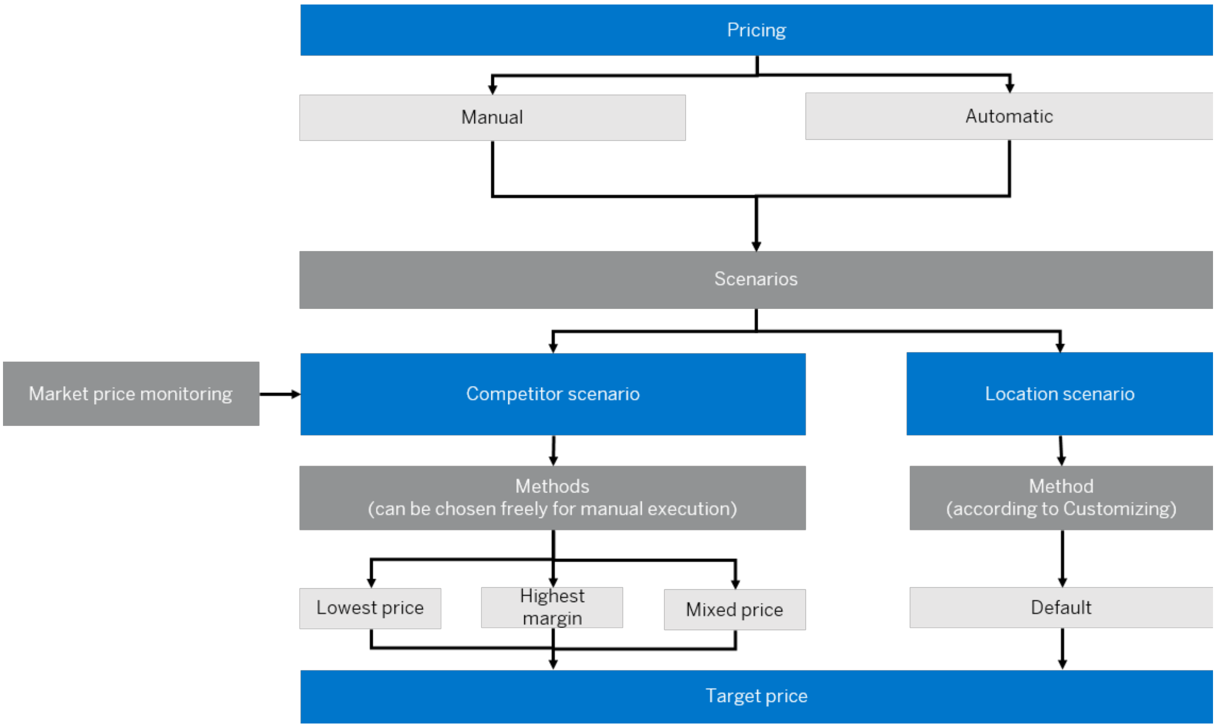
4.13 Retail Fuel Pricing (RFP)

Use

This function is used to determine the sales prices ("target prices") for the sale of materials in locations within a service station network. It is controlled by means of scenarios. The competitor scenario is executed first, followed by the location group scenario. This can take place either manually or as process-driven background processing by means of the Process Automation Toolset (PAT). Depending on the scenario, different pricing methods are available.

The reference prices from market price monitoring and of the reference location are processed by a BAPI provided for the purpose and written to an RFNO-DSA document, where they are available for pricing. The target prices are also written to RFNO-DSA documents, from where they can be used for further processes.

The process described above is depicted in the following graphic:



Pricing Process

Prerequisites

In Customizing for *SAP S/4HANA Supply Chain for secondary distribution (S4SCSD)*, you have configured the settings under *Retail Fuel Network Operations (RFNO)* > *Retail Fuel Pricing (RFP)*.

Integration

You can use the SAP Fiori app Report Competitor Prices to report sales prices from competitors to your head office.

Related Information

Process Automation Toolset (PAT) [page 196]
Competitor Scenario [page 127]
Location Scenario [page 130]
Report Competitor Prices (App) [page 132]

4.13.1 Competitor Scenario

Use

In this scenario, the imported reference prices of competitors are used as a basis for calculating the target prices.

This calculation takes place per material.

Prerequisites

Master data

Location

You have entered attributes for your own service stations and competitor service stations for the location at business type level. You assign the margin calculation schemas and competitors that directly influence or determine pricing.

You can find this setting in the *SAP Menu* under *SAP* > *Logistics* > *Sales and Distribution* > *Service Station Retailing* > *Master Data* > *Location*.

Price Differences

You have entered fixed price differences in the *SAP Menu*, under *Retail Fuel Network Operations (RFNO)* > *Retail Fuel Pricing (RFP)* > *Master Data* > *Change the Price Differences in the Competitor Scenario*.

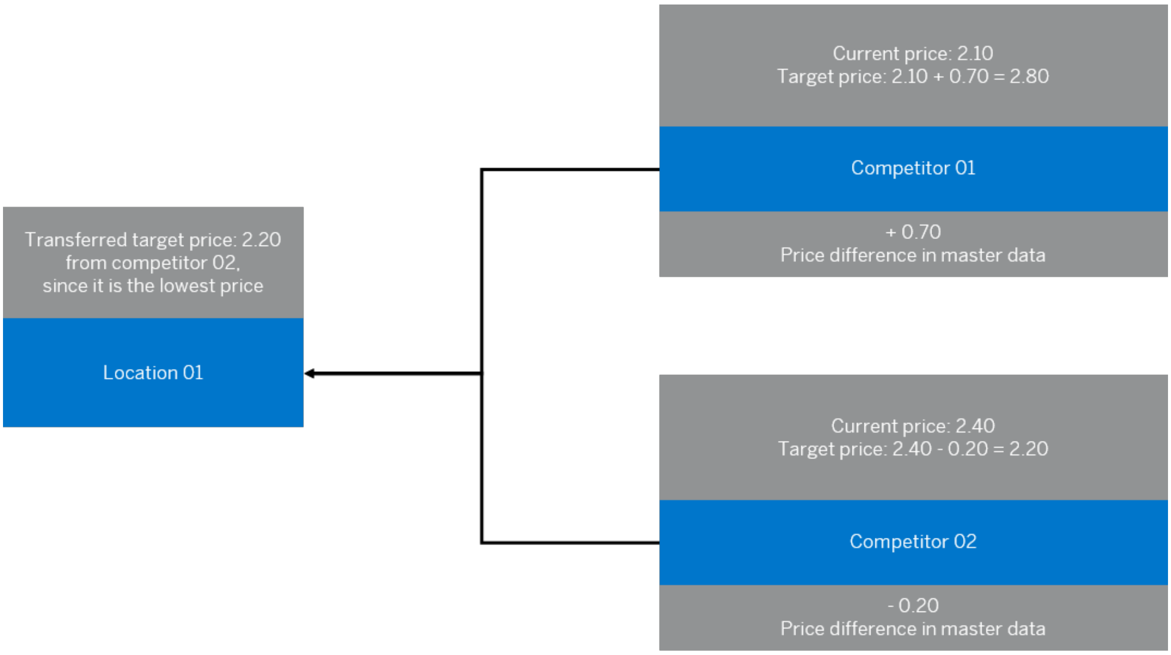
Process

The current prices of competitors are used as a basis for the new target prices at your own service station. These prices are transferred to the head office and copied to an RFNO-DSA document. Surcharges and discounts are applied to the current competitor prices. These surcharges and discounts are configured in the competitor differences.

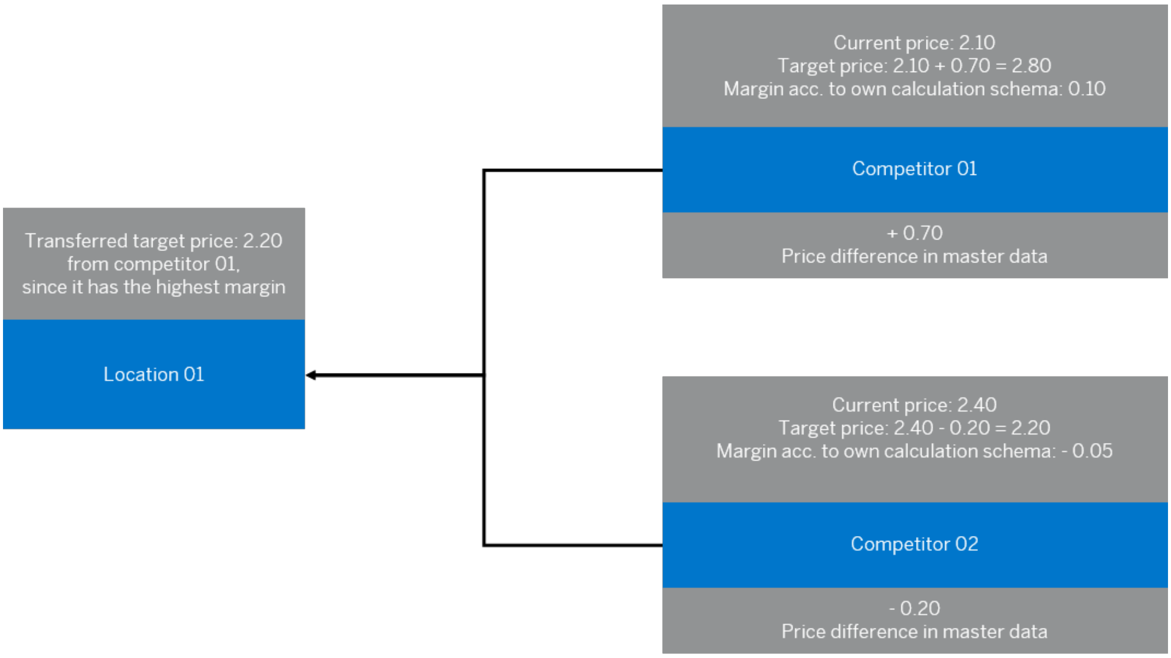
Three methods for calculating target prices are available in the system:

- Lowest price

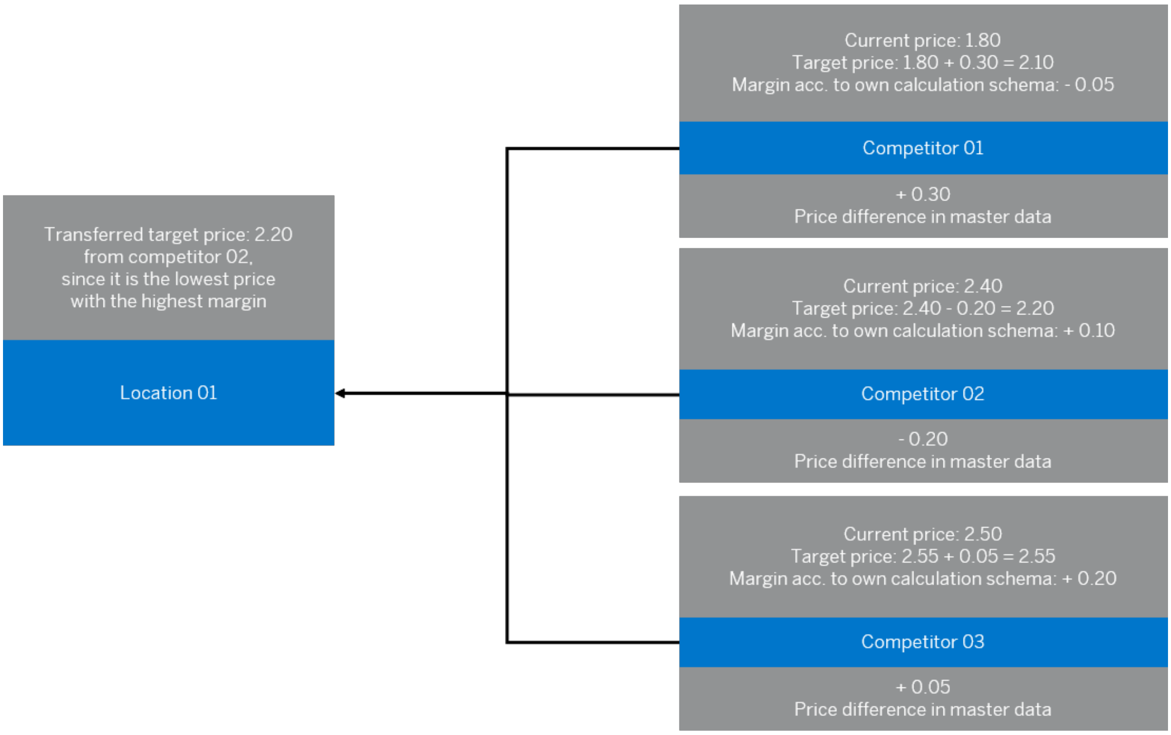
The following graphic shows how the target price is calculated using the lowest price method:



- Highest margin
  The following graphic shows how the target price is calculated using the highest margin method.



- Mixed price
  The following graphic shows how the target price is calculated using the mixed price method.



The price calculated using one of these methods is copied to the RFNO-DSA document as the new target price for your own service station and transferred to the service station.

4.13.1.1 Executing the Competitor Scenario

Procedure

You are on the *SAP Easy Access SAP S/4HANA Supply Chain for secondary distribution* screen.

1. From the *SAP Menu*, choose *Retail Fuel Network Operations (RFNO)* > *Retail Fuel Pricing (RFP)*. The *Retail Fuel Pricing* screen appears.
2. Choose *Competitor Scenario*. The *Retail Fuel Pricing: Step 1 (Parameters)* screen appears.
3. Enter the data and choose *Continue*. The *Retail Fuel Pricing: Step 2 (Calculation)* screen appears. The reference prices are displayed in the *Competitors* area, in the *Condition Amount* column. The corresponding RFNO-DSA document is displayed in the *Document Number* column.
4. Choose *Calculate Lowest Price*, *Calculate Largest Margin*, or *Calculate Mixed Price*. The target prices calculated are displayed in the *Own Location* area.

   > **Note**
   >
   > For the mixed price, the lowest price with the largest margin is calculated.

   Choose *Display Margin Calculation* to open the condition schema of a selected line. Choose *Display Price Differences* to open the master data of the price differences. You can also display this master data from the *SAP Menu*, by choosing *Retail Fuel Network Operations (RFNO)* > *Retail Fuel Pricing (RFP)* > *Master Data*.

5. Choose *Continue*. The *Retail Fuel Pricing: Step 3 (Target Prices)* screen appears.
6. Select the prices to be applied in the *Target Prices* area and choose *Transfer the Target Price*. The *Retail Fuel Pricing* screen appears again. The number of the RFNO-DSA document is displayed.
   The target prices are saved in the RFNO-DSA document as item category `PRC_TAR`.

Result

Edit the document in the *Edit Location Document* transaction. The transaction is located in the *SAP Menu*, under *Retail Fuel Network Operations (RFNO)* > *Document Processing* > *Edit Location Document*.

4.13.2 Location Scenario

Use

In this scenario, the new target prices for all service stations within a price grouping are calculated based on a reference location.

This calculation takes place per material.

Prerequisites

You have performed pricing with the competitor scenario for a location. These prices are then available as reference prices in an RFNO-DSA document as item category `PRC_TAR`.

Master Data

Location

You have entered attributes for your own service stations and price grouping for the locations at business type level. You assign the margin calculation schemas and competitors.

You can find this setting in the *SAP Menu* under *SAP* > *Logistics* > *Sales and Distribution* > *Service Station Retailing* > *Master Data* > *Location*.

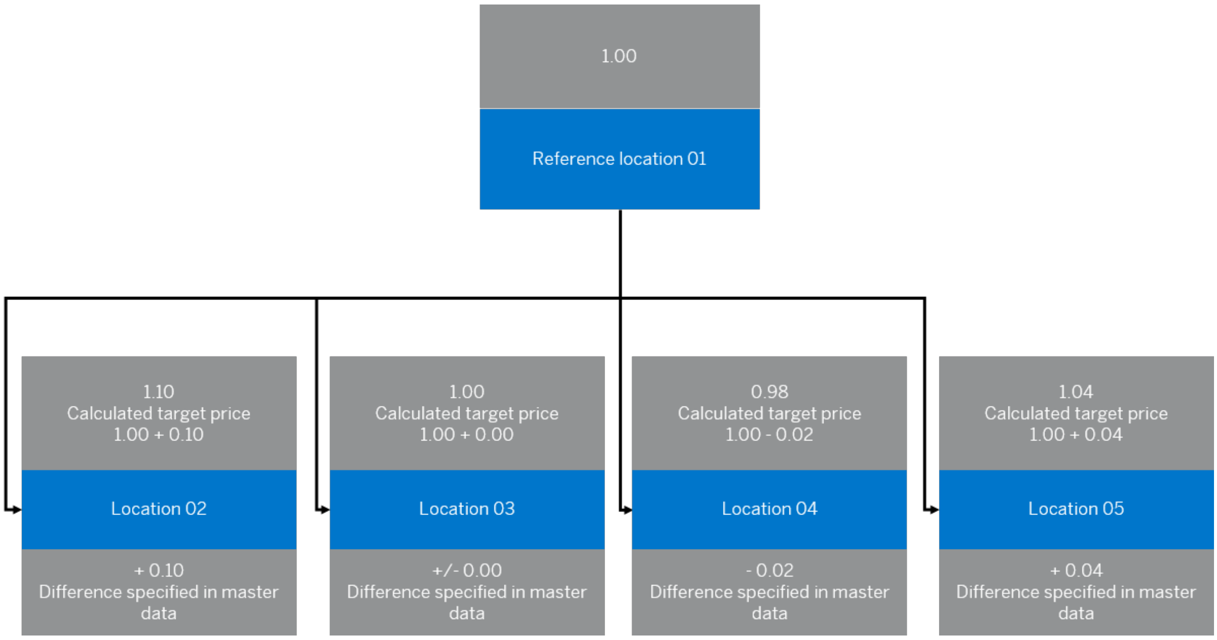
Price Differences

You have entered fixed price differences in the *SAP Menu*, under *Retail Fuel Network Operations (RFNO)* > *Retail Fuel Pricing (RFP)* > *Master Data* > *Change the Price Differences in the Location Scenario*.

Process

The current price for a reference location is used as the basis for the new target price at your own service stations. This price is transferred to the head office and saved in an RFNO-DSA document. Surcharges and discounts are applied to the current prices within a price group. These surcharges and discounts are configured in the location differences. The prices calculated are copied to the RFNO-DSA document as new target prices for each service station of a price grouping.

The following graphic illustrates the situation described above for a price group.



Location Scenario

4.13.2.1 Executing the Location Group Scenario

Context

You are on the *SAP Easy Access SAP S/4HANA Supply Chain for secondary distribution* screen.

Procedure

1. From the *SAP Menu*, choose *Retail Fuel Network Operations (RFNO)* > *Retail Fuel Pricing (RFP)*. The *Retail Fuel Pricing* screen appears.
2. Choose *Location Group Scenario*. The *Retail Fuel Pricing: Step 1 (Parameters)* screen appears.
3. Enter the data and choose *Continue*. The *Retail Fuel Pricing: Step 2 (Calculation)* screen appears. The reference prices are displayed in the *Own Location* area, in the *Condition Amount* column. The corresponding RFNO-DSA document is displayed in the *Document Number* column.
4. Choose the *Calculate Target Price* pushbutton. The target prices calculated are displayed in the *Dependent Locations* area. Choose *Display Margin Calculation* to open the condition schema of a selected line. Choose *Display Price Differences* to open the master data of the price differences. You can also display this master

data from the *SAP Menu*, by choosing *Retail Fuel Network Operations (RFNO)* > *Retail Fuel Pricing (RFP)* > *Master Data*.

5. Choose *Continue*. The *Retail Fuel Pricing: Step 3 (Target Prices)* screen appears.
6. Select the prices to be applied in the *Target Prices* area and choose *Transfer the Target Price*. The *Retail Fuel Pricing* screen appears again. The number of the RFNO-DSA document is displayed. The target prices are saved in the RFNO-DSA documents of the dependent locations as item category `PRC_TAR`.

Results

Edit the document in the *Edit Location Document* transaction. The transaction is located in the *SAP Menu*, under *Retail Fuel Network Operations (RFNO)* > *Document Processing* > *Edit Location Document*.

4.13.3 Report Competitor Prices (App)

You can use this app to report sales prices of competitors to your head office. These can be used to calculate your own prices. The app has the Fiori ID `F2168`.

Features

This app provides the following key features:

- Display of last known prices for a competitor
- Entry of current material prices for a competitor
- Adoption of prices in location documents as the basis for target price calculation

Fiori Launchpad (FLP)

In FLP, you need to select this role to get the app:

- `SAP_BR_RFNOLOCOPERATOR_IOG`

Supported Device Types

- Desktop
- Tablet

5 Data Collation (DC)

Includes all processes for comparing and adjusting the delivered and the planned materials and quantities.

Use

This component enables the automatic or manual confirmation and adjustment of the material and quantities actually delivered. An immediate quantity correction is made on the basis of the planned quantities. Warehouse stock postings are made automatically. The billing documents are prepared on the basis of the confirmed quantities.

The progress and result of processing are recorded in logs.

For example, differences can arise due to the fact that the delivered quantity differs from the ordered quantity, or that the customer only purchases another material on delivery.

Predefined document categories and item categories control the data collation process.

Data collation documents are generated using different methods:

- IDoc via interfaces
- Web service
- BOR object
- BAPI
- Manual entry on the user interface of the data collation transactions

Integration

Data collation integrates and automates frequently used processes in Materials Management (MM) and Sales and Distribution (SD).

It therefore represents a direct connection of MM and SD processes, such as procuring materials, creating and changing sales contracts, sales orders, and deliveries.

Prerequisites

To process petroleum products, you must have SAP for Oil & Gas installed.

To enable the data collation to transfer the handling type and the external details when creating purchasing documents, activate the BAdI implementation `ME_BAPI_PO_CRT_IBS`.

Migration

Log files

You can migrate the log files from OGSD. To do so, in Customizing for *Technical Objects* choose *Migration* > *Migrate OGSD Logs*.

Mapping groups

After an upgrade from Oil & Gas Secondary Distribution (OGSD) to SAP S/4HANA Supply Chain for Secondary Distribution (S4SCSD) 3.0, there may be terminations in Data Collation (DC).

This occurs due to out-of-date mapping entries in the table PAT/V_MAPCAT that refer to structures or fields that no longer exist. When you activate the switch BC set `/PAT/SWBC300_MAPGRP`, out-of-date entries are not removed. This is the normal behavior.

To do this, in Customizing for *Data Collation (DC)*, choose *Process Automation Toolset (PAT)* > *General Settings for PAT* > *Mapping* > *Define Mapping Group and Field Assignment*. Select the application `DC` and choose *Mapping Group*. In the toolbar, choose the pushbutton *Check Mapping Groups*.

All existing errors are displayed. Delete the entries of the displayed mapping group that are no longer valid from Customizing.

Types of Data Collation

Standard Data Collation

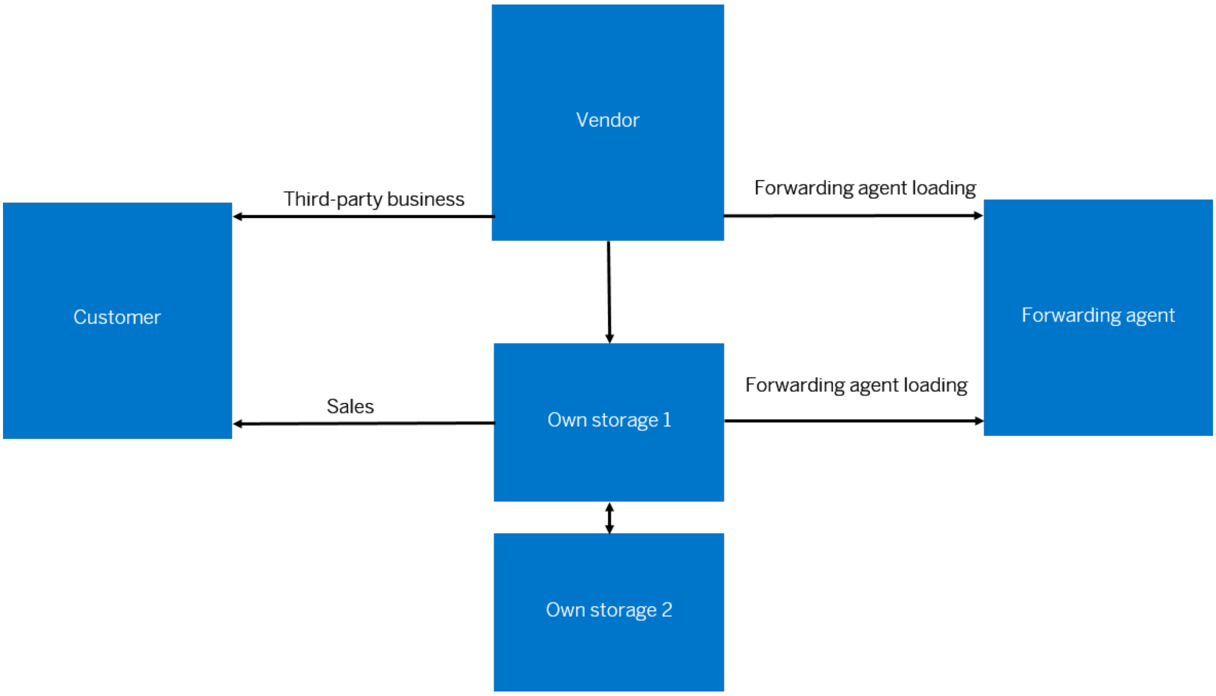
This is required if inventory management is not to be performed for a vehicle.

The items contained are not dependent on each other and are posted separately. If an item is not posted, the others can still be posted.

The following main processes are supported:

- Sales
  From user's own storage or directly from vendor via a third-party plant.
- Storage supply
  Filling user's own storage through a purchase order with a vendor.
- Forwarding agent loading
  From user's own storage or directly from vendor.
- Stock transfer
  Result of a stock transport order for material from one storage to another.

The following figure shows the standard data collation processes:



Vehicle-Related and Forwarding-Agent-Related Data Collation

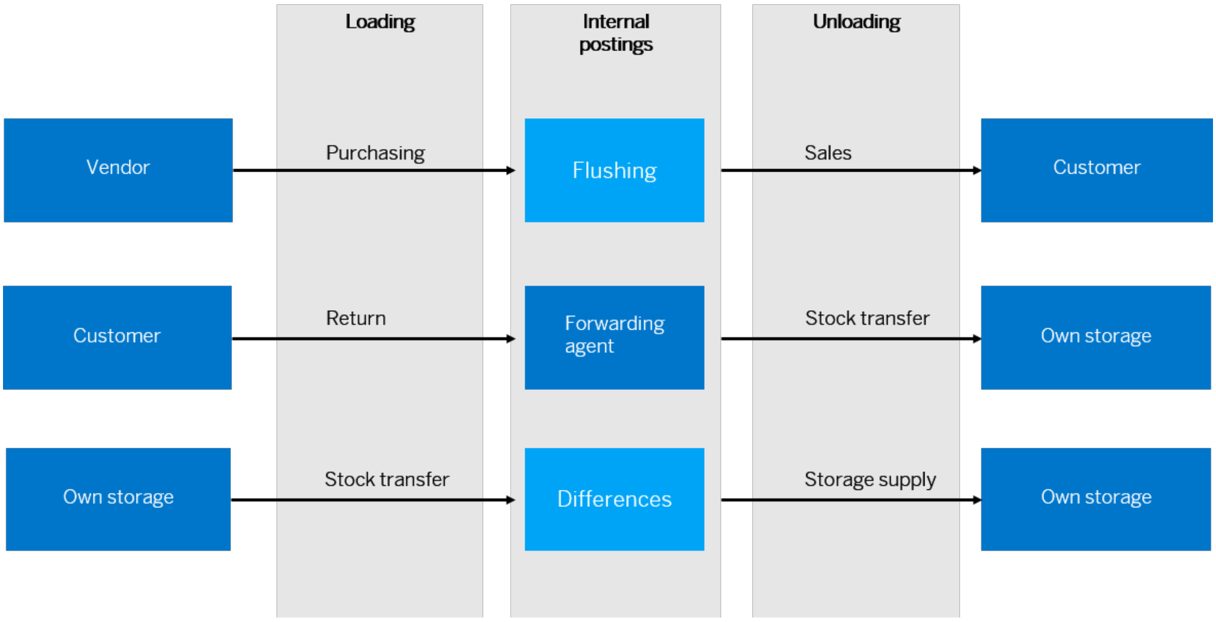
For vehicle-related data collation only: This is required if inventory management is to be performed for user's vehicle. Plant and storage location are the vehicle.

For forwarding-agent-related data collation only: This is required if inventory management is to be performed for a forwarding agent's vehicle. Plant and storage location are the forwarding agent.

For both: The items contained are dependent on each other.

The following main processes are supported:

- Loading
- Postings to the vehicle
    - Flushing
    - Differences
- Unloading



Trip-Related Data Collation

Stock is managed in the means of transport. Stock may only remain at the end if the stock is explicitly declared as remaining quantity. Meaning that certain tolerances for gain and loss are possible.

The items contained are dependent on each other.

Additional Functions

To post a large number of documents, you can use mass posting.

You can archive the documents that are created and use the multireference function.

To be able to post complex processes automatically, you can use Process Orchestration.

Related Information

Document Category [page 138]
Item Category [page 138]
Document Categories and Item Categories in Data Collation [page 167]
Multireference [page 38]
Handling mass posting [page 150]
Archiving DC Documents with /PAT/DOCS [page 289]
Trip-Related Data Collation [page 275]
Process Orchestration (PO) [page 152]

5.1 Display Stock Overview (App)

App ID: F7461

With this app, you can display an overview of the stock level for a specific period.

Features

This app provides the following key features:

- Search
  Enter the search data and choose *Start*. The items found are displayed in a list.
  - Select View
    You can save entered search data.
  - Share
    Choose *Share*in the upper-right corner. You can choose either of the following:
    - Send Email
      Send the link to the evaluation in an e-mail.
    - Save as Tile
      Create a tile for the launchpad. The number of items is indicated on this tile.
  - Adjust Filters Select which fields you want to display for the search. The number of active filters is displayed in parentheses.
- Display Items
  The items found are displayed in a table.
  - Settings
    Here you can make various settings for the table. The settings affect, for example, the sorting and grouping of the columns.
  - Export Table
    Here you can export the table as an MS Excel sheet.

Supported Device Types

- Desktop
- Tablet
- Smartphone

Fiori Launchpad (FLP)

In FLP, you need to select this role to get the app:

- `SAP_BR_DATACOLL_SCSD`

Supported Browsers

- Chrome

Further Information

Here you can find more information about the app: https://fioriappslibrary.hana.ondemand.com/sap/fix/externalViewer/#/detail/Apps('F7461')

5.2 Document Category

Definition

The document category controls which input fields are available at header level. The document category also determines the possible item categories.

Item categories control the entire procedure for a certain business process. For example, documents can be created or changed in the components MM or SD.

Related Information

Item Category [page 138]
Document Categories and Item Categories in Data Collation [page 167]

5.3 Item Category

Definition

Each item category controls the entire process of document creation and posting for a certain business process. For example, documents can be created or changed in the components MM or SD.

Integration

Each item category is assigned to one or more document categories. A data collation document can only be posted if such a combination has been defined.

A cancellation item category is assigned to each item category wherever possible and useful. This makes it possible to cancel a data collation document correctly.

A reference document category and related search help is assigned to each item category that refers to another document.

Related Information

Document Category [page 138]
Document Categories and Item Categories in Data Collation [page 167]

5.4 Subsequent Delivery

Enables an item to be split into several individual items in Data Collation (DC).

Use

For an item that has not been delivered completely, you create an additional item for the quantity still to be delivered. This may be necessary, for example, if the delivered quantity was not reached during outbound delivery. A subsequent delivery is then created. To do this, create an additional item in the original document with the item category *Customer Sales: follow-on item*`SSO` for the quantity to be redelivered. The original quantity is automatically reduced by the quantity to be redelivered.

Prerequisites

Master data

For subsequent delivery, you can set tolerances for both underdelivery and overdelivery. You can find the setting in the *DC* menu under *Master Data* > *Set Under- and Overdelivery Tolerance*. In the key fields, you can enter the asterisk (*) character as a placeholder. If you enter a specific material, you must also enter a material group.

When checking the DC document, the system first checks the limits of the percentage values, then the absolute values.

If you make settings here, the *Status Confirmation for Quantity Tolerance* field is displayed in the DC application in the item detail. There, you must confirm or reject an underdelivery or overdelivery, as long as it is not automatically confirmed by the system.

Customizing

You create and change the pricing conditions to be copied for the new SSO item under *Data Collation (DC)* > *General Settings for DC* > *Configure Pricing Conditions*.

Integration

Tele Sales

The new item is added and the original item is reduced by the partial quantity in Tele Sales.

In addition, on the detail screen for the item, the *Partial/Subsequent Delivery* field in in the *Delivery* group box shows that it was created as a subsequent delivery in DC. This entry is created by the system during posting.

In addition, for the SSO item, the superordinate item number is displayed in the *Delivery* group box in the *Parent Item* field.

A possible configuration of the conditions could be as follows: Cost-based freight is recalculated for the individual items using the settings for scaled pricing in transaction *Create Condition Records*`VK11` or *Change Condition Records*`VK12`. The manual cost price and manual sales price are copied to the new item.

Integrated Dispatch Management (IDM)

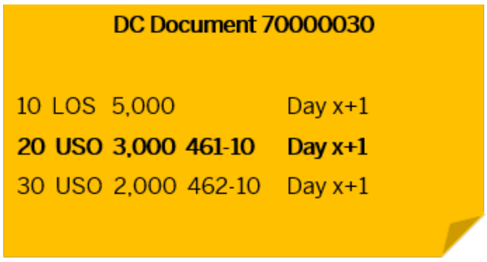
It is possible to combine a partial delivery in IDM with a subsequent delivery in DC.

Process Flow

Tolerance values have been entered in the master data. To create a subsequent delivery item, proceed as follows:

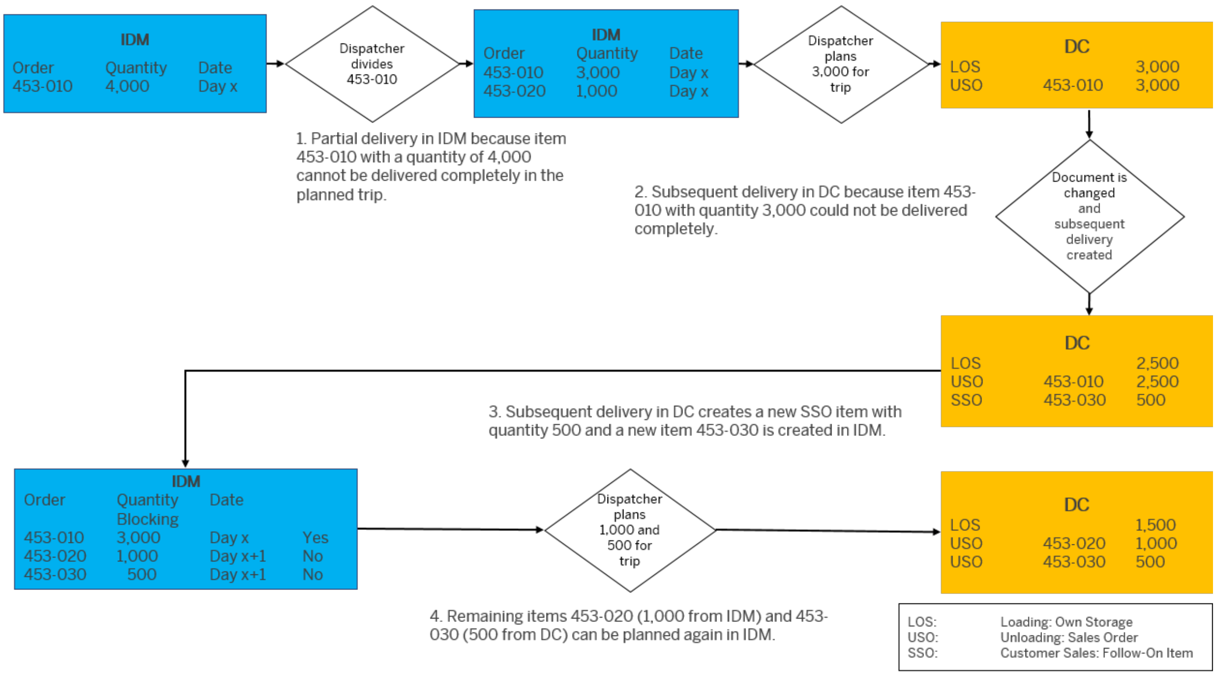
1. In Data Collation, you deduct the quantity that has not been delivered from the existing items. If tolerances for an overdelivery or underdelivery are exceeded, a corresponding message is displayed.
   If the settings for the tolerance values for an underdelivery have been exceeded and you have configured automatic generation of a subsequent delivery item, the *Create Partial Delivery* indicator is activated in the details for the delivery item. The status confirmation for the quantity tolerance is set automatically.
   If you do not set the indicator for creating a subsequent delivery for an underdelivery in the master data and for each overdelivery, you must manually perform the status confirmation of the quantity tolerance. First check all documents and the tolerances and decide which status is the correct status for this transaction.
2. Choose the *Subsequent Delivery* pushbutton.
3. The system creates an item with the item category `SSO`.
4. Continue with the other steps as usual.

Example of planning in DC.



You cannot deliver item **461-10** completely, so a subsequent delivery is created with item **461-20**.

Example of a combination of a partial delivery in IDM and a delivery in DC.



Related Information

Partial Delivery [page 259]

5.5 Creating and Posting a Data Collation Document

Describes how you can manually create and post a data collation document.

Use

There is no difference in the general process for the data collation types. However, depending on the data collation type, specific fields are displayed in the *Header Data* area of the home screen. It is controlled by the document category. The posting process is controlled by the document type.

Types

These types of data collation exist:

- Standard data collation
- Means-of-transport-related data collation
- Forwarding-agent-related data collation
- Trip-related data collation (only for S4IDM)

Prerequisites

Customizing

In Customizing for *S4SCSD*, you have made the settings under *Data Collation (DC)*.

Master Data

In General for Data Collation

You have defined default values for the units of measure in the *S4SCSD* menu under *Data Collation (DC)* > *Master Data* > *Determine Units of Measure*.

You can make this setting so that the units of measure are found automatically when entering the data collation document. If you do not make this setting, the unit of measure in the material master is suggested.

Data collation related to means of transport

You have assigned a plant to your means of transport in the *S4SCSD* menu under *Data Collation (DC)* > *Master Data* > *Assign Plant to Vehicle*.

You need to make this setting so that you can use the document category `VEHICLE`.

Forwarding-Agent-Related Data Collation

You assigned a plant to the forwarding agents in the *S4SCSD* menu under *Data Collation (DC)* > *Master Data* > *Assign Plant to Forwarding Agent*.

You need to make this setting so that you can use the document category `FWDAGENT`.

Trip-Related Data Collation

You have assigned a plant to the equipment vehicle in the *S4SCSD* menu under *Data Collation (DC)* > *Master Data* > *Assign Plant to Equipment Vehicle*.

Means-of-Transport-Related, Forwarding-Agent-Related, and Trip-Related Data Collation

You have set the tolerances for the difference quantities in the *S4SCSD* menu under *Data Collation (DC)* > *Master Data* > *Set the Difference Quantity Tolerance*.

For means-of-transport-related, forwarding-agent-related, and trip-related data collation, inventory management is performed for the means of transport. Stock may only remain at the end if it is explicitly declared as remaining quantity. Meaning that certain tolerances for gain and loss are possible. Here, you also use a method to configure how the system is to react to an excess or shortfall.

Process Flow

Create Data Collation Document

1. Choose the data collation type from the *SAP Easy Access Main Menu* from the *SAP Menu* > *Data Collation (DC)*. The *Data Collation* screen appears. The data collation type and the document type are also displayed.
2. Choose *New*.
3. Enter header data if required. Insert one or more items. To do so, choose *Add Item*. The document has status `A`.
   Continue with step 5 in the next section **Post Data Collation Document**.

Post Data Collation Document

1. Choose the data collation type from the *SAP Easy Access Main Menu* from the *SAP Menu* > *Data Collation (DC)*. The *Data Collation* screen appears. The data collation type and the document type are also displayed.
2. Choose *Locator*. The locator area is displayed. Enter the search criteria. Choose *Find*. The documents found are displayed in the results list.
3. Select a document. The document data is displayed in the right-hand screen area.
   Choose *Locator* to close the locator. This leaves more space to display the data.
4. Choose *Edit*. The document has the status `A`. Edit the data.
   You can also deactivate a document. The status then changes to `G`. After this, however, the document can no longer be edited. It is not possible to delete the document.
5. Choose *Verify*. The status changes to `B`.
6. Choose *Release*. The status changes to `C`.
7. Save the document.
8. Choose *Process*. The status changes to `F`. The data collation document was posted.

For means-of-transport-related, forwarding-agent-related, and trip-related data collation, you have the option of performing a difference adjustment. To do so, choose the *Difference Adjustment* pushbutton.

> **i Note**
>
> If an error occurs at a particular level in the document, for example, at header level, no actions (for example, deleting an item) can be executed at subordinate levels. To edit a subordinate level, you first have to correct the error at the superordinate level.

Change Data Collation Document

1. Choose a data collation type from the *SAP Easy Access Main Menu* from the *SAP Menu* > *Data Collation (DC)*. The *Data Collation* screen appears.
2. Choose *Locator*. The locator area is displayed. Enter the document number. Choose *Find*. The document is displayed in the results list.
3. Select the document. The document data is displayed in the right-hand screen area.
4. Choose *Edit*. Edit the data.
5. Save your entries.

> **i Note**
>
> No further changes can be made to documents with the status F.

> **i Note**
>
> You can set the locator in Customizing.

Related Information

Locator [page 202]
Trip-Related Data Collation [page 275]
Statuses in Data Collation [page 183]

5.6 Cancellation of a Data Collation Item

Use

You can cancel one or more items of a posted data collation document with a cancellation item category.

Either enter a cancellation item manually or use this automated process.

Prerequisites

The *Cancel* pushbutton is available in the standard system. If the pushbutton is not available, you can add it by making the corresponding settings in Customizing.

To do so, in Customizing for *SAP Easy Access Main Menu*, choose *Data Collation (DC)* > *Process Automation Toolset (PAT)* > *Dialog* > *Define Toolbar Schema*. Define a toolbar schema for the application DC or modify an existing one. In the *Define Pushbutton* step, method 2 has to be assigned.

In the Customizing activity *Define Document Categories*, assign the toolbar schema to a document category.

You can configure the automatic cancellation function in Customizing under *Data Collation (DC)* > *Data Collation Documents* > *Set the Cancellation Function*.

In the second step, you assign a cancellation item category to each item category, depending on the document category. You can also add a method that determines the cancellation item category dynamically.

Process Flow

The process with the cancellation functions `Create, Check, and Release Cancellation Document` for an item is described here.

1. In data collation, select the item be canceled in the *Item Data* area.
2. Choose the *Cancel* pushbutton. An item with the cancellation item category is created. The document has status `C`.
3. Choose *Process*. The document has status `F`.

Result

The item has been canceled.

If you have selected multiple items for cancellation, these are canceled in reverse order and also displayed in this order.

Related Information

Cancellation of a Data Collation Item [page 144]

5.7 Open Data Collation References (App)

App ID: F6605

You can use this app to display a list of data collation documents with open references. Run this report to see if there are still loadings or remaining quantities that have not yet been reported by the forwarding agent. The DC document is linked in the list. This report fulfills the same function as the input help in the data collation dialog when you enter an item category that refers to a loading or a remaining quantity.

Key Features

This app provides the following key features:

In the outbound delivery, certain item types and item categories are delivered as standard. However, you can also set other item categories in the Z namespace.

- Display list
  DC documents that are missing confirmation from the forwarding agent are shown. A DC document is considered open if it is fully posted and one of the following two conditions applies:
  - It is not yet referenced, meaning reported by the forwarding agent.
  - It is referenced but the referenced document was canceled.

  When *Reference for Loading* is selected, the item categories that are assigned to the item types `CARRLOAD` or `CARRLOADO` and not flagged as cancellations are displayed.
  These are the item categories:
  - CLC
  - CLN
  - CLO
  - CLP

  When *Remaining Quantity* is selected, the item category assigned to the item type `LEFTONBRD` is displayed.
  This is the item category:
  - VLB
- Display DC Document
  Clicking on the DC document number in the list takes you directly to the DC document.

Subsequent Processes

The loadings or remaining quantities not yet reported by the forwarding agent should be posted. You must contact the forwarding agent and request clarification. For a reference for loading, this is done with item category LDC. For a remaining quantity, it is done with item category LVPL.

This app uses the `/PAT/DCL_OPEN_REFDOC` CDS view.

The following authorization objects are checked:

- /PAT/FRW
- /PAT/DC1

Supported Device Types

- Desktop
- Tablet

5.8 Freight Cost Item in DC Document

Allows you to add items for the freight costs to a DC document.

Use

This feature enables you to add items for the freight costs to a DC document. Distance determination is also possible.

The document type and the item type control whether a cargo item can be created. For the item categories assigned to the item type, the *Create Freight Cost Item* pushbutton is activated in the item data menu for the DC document.

The PFCG role *Planner for Freight Cost Item* `/ICO/DC_FREIGHT` is available.

Prerequisites

Master data

You have entered the data on the *SAP Easy Access Screen*, under *S4SCSD* > *Data Collation (DC)* > *Freight Cost Item*.

If the distance is to be determined using the *BRFplus workbench*, you must enter the distances in transaction `BRF+`.

If the distance is to be determined without the *BRFplus workbench*, you must enter the distances on the *SAP Easy Access Screen*, under *S4SCSD* > *Data Collation (DC)* > *Freight Cost Item* > *Define Distance for Cargo*. These settings are read and transferred to the DC discharge item if the document enhancement method `0071` is assigned to the respective discharge item type.

Customizing

In Customizing for *SAP S/4HANA Supply Chain for secondary distribution (S4SCSD)*, under *Data Collation (DC)* > *General Settings* > *Process Data Collation Event Methods* Then under *Process* > *Freight Cost Item Generation*, you have two methods available that you can use as a template to suit your requirements. You must enter this method in the Customizing activity *Configure Freight Cost Generation*. You can deactivate the generation of the freight cost item by setting the indicator *Inactive*. You can make this setting for the document type as well as for an item type under *Item Types for Freight Cost Generation*.

In Customizing for *SAP S/4HANA Supply Chain for secondary distribution (S4SCSD)*, you have created the assignments under *Data Collation (DC)* > *Process Automation Toolset (PAT)* > *General Settings* > *Mapping* > *Define Mapping Group and Field Assignment* and *Define Mapping Schema and Assign Mapping Groups*. Select the *Data Collation* application and choose *Mapping Group* in the dialog structure. Enter the mapping group for the target structure. In a further step, you assign a field catalog to the mapping group. The `FREIGHT_*` schemas are available as a template.

In Customizing for *SAP S/4HANA Supply Chain for secondary distribution (S4SCSD)*, you have made the settings under *Data Collation (DC)* > *Data Collation Documents* > *Freight Cost Item*.

In Customizing for *SAP S/4HANA Supply Chain for secondary distribution (S4SCSD)*, under *Data Collation (DC)* > *Process Automation Toolset (PAT)* > *Processes* > *General* > *Define Document Enhancement*, you have assigned schema `VEHICLE` to the document type relevant for shipping.

In Customizing for *SAP S/4HANA Supply Chain for secondary distribution (S4SCSD)*, under *Data Collation (DC)* > *Process Automation Toolset (PAT)* > *Processes* > *General* > *Define Incompleteness Procedure*, you have added method `70` or a copy of this to the supplementation schema `VEHICLE` for *DC*.

Data Collation

On the *Cargo* tab, under *Detailed Data*, you must have set the indicator *Generate Shipment Item* if you have opted for a shipment item generation logic the same as template method 0002.

The indicator is set automatically if you have assigned method `70` to the respective discharge item type. For the item type `UNLOAD`, this is dependent on Incoterm.

Process Flow

To add the freight cost item to the DC document, choose the *Create Freight Cost Item* pushbutton in the item data.

The system creates an item with the item category `FRPO`*Cargo: Freight Cost Item* for the freight costs. A cancellation is carried out using the item category `XFR` *Cancellation of Freight Cost Item*.

> **i Note**
>
> If you change distance-relevant parameters, the distance is determined again. Here are some examples:
>
> If you change the quantity in a discharge item, the quantity in the existing freight cost item also changes.
>
> If you change the plant in a discharge item, the distance calculation is performed again. The data in the existing freight cost item is changed.

The distance calculation is performed using one of these sources:

- Distances in the *BRFplus workbench*
- Distances in the sales order
- Distances from the master data *Define Distance for Cargo*

If you have specified that the distance data is determined from the *BRFplus workbench* for the item type, this takes precedence. If you have not entered any distances there, the distance data from the sales order is used.

If you have configured the item type so that the distance data is not determined from the *BRFplus workbench*, the distance data from the sales order takes precedence. If no distances have been specified there and you have assigned the document enhancement method 0071, the distance data is determined using the settings from *Define Distance for Cargo*.

You can enter the distance for toll routes separately.

The system creates a standard purchase order (NB). The configuration in Customizing under *Data Collation (DC)* > *PAT* > *General Settings* > *Mapping* > *Define Mapping Group and Field Assignment* for the mapping schema `FRPURCHCRE` controls that the purchase order items do not expect a goods receipt.

If the automatic insertion of an invoicing plan is active (see SAP Note 3014555), you can invoice this purchase order via the transaction *Invoicing Plan Settlement with Logistics Invoice Verification* `MRIS`.

5.8.1 Freight Rate Determination

Enables you to determine the freight rates for a delivery.

Use

You can use this function to determine the freight rate for a delivery. The determination depends on these values:

- Forwarding Agent
- Vehicle Billing Type (optional)
- Material
- Distance
  Formation of distance scales possible
- Quantity
  Formation of quantity scales possible

Prerequisites

Customizing

In Customizing for *S4SCSD*, you have made the following settings under *Data Collation (DC)* > *Freight Cost Item*:

- *Define Freight Rate*
- *Define Vehicle Billing Category for Cargo* (optional)
- *Define Conditions for Freight Rate Determination*
- *Activate Incoterm Determinations*

Master data

You have made the settings on the *SAP Easy Access Screen*, under *S4SCSD* > *Data Collation (DC)* > *Freight Cost Item* > *Configure Freight Rate Determination*.

In the final step for the settings, the group box *Defined Conditions for Freight Rates* displays the conditions configured in Customizing under *Define Conditions for Freight Rate Determination*.

Integration

The freight rates you define this way are read using the condition value routine 451 and made available to MM and SD pricing.

5.9 Handling mass posting

Use

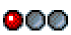
This function allows you to post a large number of documents in data collation in the background. You can also display the status and logs for documents already posted. You can also post just one document.

Prerequisites

You are in the *SAP Menu*, under *Data Collation (DC)* > *Execute Mass Posting*.

Procedure

You can see the posting status of the documents in the structure. The following table provides an overview of the statuses:

Symbol	Status	Meaning
	A	In Process
	B	Checked
	C	Released

Symbol	Status	Meaning
	D	Partly Posted
	E	Partly Posted, Locks Exist
	F	Posted
	G	Deactivated
	H	Canceled

Individual Posting

1. Enter the values for the selection parameters and choose . The *Mass Posting - Document Number:* screen appears. The documents found are displayed in the left-hand area in a structure.
2. Select the documents to be posted in the structure.
3. Choose *Post*.
4. To view the messages for a document after the posting process, double-click on the document in the structure. The messages are displayed on the right-hand side.

Mass Posting

1. Enter the values for the selection parameters and choose *Program* > *Execute in Background* from the menu. The <System>*Background Print Parameters* dialog box appears.
2. Enter the parameters.
   Once the job has been executed, you can call up the logs for the documents. Proceed as described under Individual Posting, steps 1 and 4.

5.10 Material Transfer Posting

Describes how you can reclassify materials automatically or manually.

Use

The material transfer posting takes place in the data collation, either manually or automatically. This function is in the *Item Data* area. Select an item in the *Detail Data* area, on the *Transfer Posting* tab page.

During the automatic transfer posting, the system uses the settings in the master data table. During the manual transfer, you enter the data. Manual transfer posting is therefore independent of the master data table.

You can, for example, reclassify a source material to another sales material. This may be necessary, for example, if the sales material is to receive a different name than the source material.

You can also create a sales material from several stock materials. The sales material is then a mixed product.

Prerequisites

From the *SAP Easy Access* screen, under *S4SCSD* > *General* > *Material Transfer* > *Define Material Transfer Postings*, you have set the transfer rules for the automatic transfer postings.

Related Information

Mixed Products [page 264]

5.11 Process Orchestration (PO)

Enables the configuration, automated posting, and monitoring of cross-company-code order-to-cash processes in Data Collation.

Use

The data reported by a loading point is collected in a ticket. Based on the data, the underlying business process is determined and the postings in Data Collation are run in accordance with the settings in Customizing. The whole process is fully automated.

A loading point is referred to as a rack in Process Orchestration. A rack can be a tank terminal, a depot, or a refinery.

The data is transferred from the rack to the system in one of the following ways:

- Directly from the loading point via IDoc.
- Through an interface, for example, from TSW.
- Through a data upload via Excel file. The app *Upload Tickets* is available for this purpose. You can use this app to generate an Excel template so that the data can be processed in Process Orchestration.

To determine the processes, use the app *Configure Processes* to define the characteristics. You can also edit the processes. The process runs according to the steps you created in Customizing. The item categories predefined there then create the documents, such as orders, invoices, or material documents. To map the data, create the necessary configurations in the app *Map Data*. Depending on the values in the ticket, the process is determined.

You can use the app *Ticket Workbench* to process the tickets.

You can use the app *Control Panel* to view the tickets received. You can correct tickets with errors and post them again. If the process is correct, but has been run with incorrect data, you can cancel the ticket and then post it again with the corrected data. If it is no longer possible to correct a ticket, you can deactivate it.

From the *Ticket Overview* app, you can branch from predefined groups of tickets, such as grouped by status, to the *Control Panel* to process the individual tickets.

Features

The functions of PO are made available by these SAP Fiori apps:

- Ticket Overview: Ticket Overview
- Control Panel: Monitor processes
- Ticket Workbench: Process tickets
- Upload Tickets: Import external data
- Configure Processes: Configure and edit processes
- Map Data: Map external data

Enhancements

In Customizing, you can implement BAdIs for validation and navigation.

If SAP Oil & Gas is installed on the system: *SAP Customizing Implementation Guide* under *Industry Solution Oil & Gas (Downstream)* > *S4SCSD (SAP S/4HANA Supply Chain for Secondary Distribution)* > *Data Collation (DC)* > *Process Orchestration (PO)* > *General Settings for PO* > *System Adjustment for PO* > *Business Add-Ins for PO* > *Validation* or *Other*.

If SAP Oil & Gas is not installed on the system: *SAP Customizing Implementation Guide* under *Logistics Execution* > *Bulk Logistics Management (S4SCSD)* > *Data Collation (DC)* > *Process Orchestration (PO)* > *General Settings for PO* > *System Adjustment for PO* > *Business Add-Ins for PO* > *Validation* or *Other*.

Validation

- *BAdI Definition of Metadata for Validation*
- *BAdI Definition of Header Data for Validation*
- *BAdI Definition of Item Data for Validation*
- *BAdI Definition of Mapping Data for Validation*
- *BAdI Definition of Process Header Data for Validation*
- *BAdI Definition of Process Item Data for Validation*

To assign the BAdIs to an external mapping type, choose this IMG activity: *Mapping* > *Define External Reference Mapping Category*.

Other

- *BAdI Definition for Navigation*

Prerequisites

Customizing

In Customizing for *SAP S/4HANA Supply Chain for Secondary Distribution (S4SCSD)*, you have made the settings under *Data Collation* > *Process Orchestration (PO)*.

Business Function

You have activated the business function /TOP/SFW_TP_BF.

Related Information

Control Panel (App) [page 155]
Ticket Overview (App) [page 154]
Ticket Workbench (App) [page 158]
Ticket Editor [page 159]
Upload Tickets (App) [page 160]
Map Data (App) [page 162]
Map Data [page 163]
Configure Processes (App) [page 164]
Process Editor [page 166]
Data Collation - Process Orchestration [page 313]

5.11.1 Ticket Overview (App)

You can use this app to navigate from predefined groupings of tickets, such as grouped by status, to the control panel to process the tickets there. The app has the Fiori ID F5376.

Key Features

This app provides the following key features:

- Search
  Searches for tickets based on the search criteria. For this, expand the header. This search affects the list and the graphics.
  - Select View
    You can save entered search data.
- Current Tickets
  The most recent tickets are displayed here. Clicking on a ticket takes you to the *Ticket Workbench*.
- Graphics
  - Status
    Here, the tickets are displayed grouped by status.
  - Vendors
    Here, the tickets are displayed grouped by vendor.

  Clicking on a canvas takes you to the *Control Panel*.
- Relevant Connections
  Relevant connections to other apps are displayed here.

This app uses the following CDS views:

- /TOP/TPL_OVP_FILTER
- /TOP/TPL_OVP_TABLETICKET
- /TOP/TPL_OVP_TICKCHART_SUP
- /TOP/TPL_OVP_TICKCHART

Prerequisites

In Customizing for *SAP S/4HANA Supply Chain for Secondary Distribution (S4SCSD)*, you have made the settings under *Data Collation Process Orchestration (PO)*.

Fiori Launchpad (FLP)

In FLP, you need to select this role to get the app:

- Logistics Automation Specialist - Data Collation `SAP_BR_DATACOLL_SCSD`

Supported Browsers

- Chrome

Supported Device Types

- Desktop
- Tablet

5.11.2 Control Panel (App)

With this app, you can monitor posting processes and the incoming data. The app has the Fiori ID `F5196`.

Features

This app provides the following key features:

- Search
  Searches for tickets based on the search criteria.
  - *Select View*
    You can save entered search data.
- *Tickets*
  Tickets are displayed here.
  Clicking the ticket number takes you to the *Ticket Editor*. Clicking on a DC document number takes you directly to the document.
  - Ticket Actions
    - *Post*
      You can post selected tickets here.
    - *Repost*
      You can repost selected tickets here after the error has been resolved.
    - *Reverse*
      You can reverse selected tickets here if an error has occurred.
    - *Deactivate*
      You can deactivate selected tickets here.

    In Customizing under *Assign Ticket Action to Pushbutton*, you can specify whether a query must be entered for the reason for executing the action.
  - Features
    - *Select View*
      You can save entered search data here.
    - *Document Flow*
      Displays the document flow for a selected ticket. In the document flow, you can navigate to the relevant document by clicking on it.
    - *Change Log*
      Displays the changes made to the selected ticket.
    - *Settings*
      You can change the appearance of the ticket overview here. This affects, for example, the columns to be displayed or the sorting.
    - *Export to Spreadsheet*
      You can export the data to a spreadsheet here.

This app uses the following CDS views:

- `/TOP/TPL_HEAD_U`
- `/TOP/TPL_GCP_HEADMETA`
- `/TOP/TPL_META_U`
- `/TOP/TPL_META`
- `/TOP/TPL_ITEM_U`
- `/TOP/TPL_ITEM`
- `/TOP/TPL_TCKT_MAX_VERS`
- `/TOP/TPCL_TYPE`
- `/TOP/TPCL_TYPET`
- `/TOP/TPCL_STATUS`
- `/TOP/TPCL_STATUST`
- `/TOP/TPL_HEAD_U`

- /TOP/TPL_HEAD
- /TOP/TPL_PATDOCFLOW
- /TOP/TPCL_AP_NAV
- /TOP/TPL_MOCAPT
- /TOP/TPCL_STAGE
- /TOP/TPCL_STAGET
- /TOP/TPL_ACTION
- /TOP/TPL_ACTIONT
- I_SUPPLIER
- /TOP/TPL_MESSAGE_U
- /TOP/TPL_MESSAGE
- /TOP/TPL_HISTORY_U
- /TOP/TPL_HISTORY
- /TOP/TPCL_REASON
- /TOP/TPCL_REASONT

Prerequisites

In Customizing for *SAP S/4HANA Supply Chain for Secondary Distribution (S4SCSD)*, you have made the settings under *Data Collation* > *Process Orchestration (PO)*.

Fiori Launchpad (FLP)

In FLP, you need to select this role to get the app:

- Logistics Automation Specialist - Data Collation SAP_BR_DATACOLL_SCSD

Supported Browsers

- Chrome

Supported Device Types

- Desktop

5.11.3 Ticket Workbench (App)

You can use this app to search for and process tickets. The app has the Fiori ID `F5195`.

Features

This app provides the following key features:

- Search Area
  Searches for tickets based on the search criteria.
  - *Select View*
    You can save entered search data.
- *Tickets*
  Displays the tickets.
  - *Create*
    You use this to create a ticket.
  - *Copy*
    You use this to copy a selected ticket.
  - *Delete*
    You use this to delete a selected ticket.
  - *Hide History*
    Does not display the history. Only the latest version of the ticket is displayed.
  - *Show History*
    Displays the history. All versions of the ticket are displayed.
  - *Settings*
    You can change the appearance of the application here. This affects, for example, the columns to be displayed or the sorting.
  - *Export to Spreadsheet*
    Here, you can export the data to a spreadsheet.

  Clicking the ticket number takes you to the *Ticket Editor*.

This app uses the following CDS views:

- `/TOP/TPCL_DFIELD`
- `/TOP/TPL_HEAD`
- `/TOP/TPL_HEAD_U`
- `/TOP/TPL_ITEM`
- `/TOP/TPL_ITEM_U`
- `/TOP/TPL_META`
- `/TOP/TPL_META_U`
- `/TOP/TPCL_STAGE`
- `/TOP/TPCL_STAGET`
- `/TOP/TPCL_STATUS`
- `/TOP/TPCL_STATUST`
- `/TOP/TPCL_TYPE`

- /TOP/TPCL_TYPET
- /TOP/TPL_ACTION
- /TOP/TPL_ACTIONT

Fiori Launchpad (FLP)

In FLP, you need to select this role to get the app:

- Logistics Automation Specialist - Data Collation SAP_BR_DATACOLL_SCSD

Supported Browsers

- Chrome

Supported Device Types

- Desktop

Related Information

Ticket Editor [page 159]

5.11.3.1 Ticket Editor

Allows you to edit tickets.

Use

You can use the ticket editor to edit header and item data for a ticket. You cannot change or delete tickets with the status *Deactivated* or *Complete*.

To navigate here, select a ticket in the *Control Panel* or in the *Ticket Workbench* by clicking it.

The ticket is displayed in these areas:

- Meta

- Header
- Items

Features

- *Edit*
  This takes you to change mode.
- *Save*
  You save your changes with this.
- *Copy*
  You use this to copy a ticket.
- *Delete*
  You can use this to delete the process.
- *Cancel*
  You can use this to cancel processing. Changes are not saved.

Functions at item level in edit mode

- *Add*
  You use this to add an item.
- *Remove*
  You use this to delete a selected item.
- *Settings*
  You use this to change the appearance of the display at item level.

Related Information

Control Panel (App) [page 155]
Ticket Workbench (App) [page 158]

5.11.4 Upload Tickets (App)

You can use this app to import external data into your system using a spreadsheet. This may be necessary if the sender of the data does not have the prerequisites for an automated transfer, or if this has malfunctioned. You can also use the app for testing purposes. The app has the Fiori ID F5317.

Features

> ⚠ Caution
>
> You can only use Excel sheets for the upload that were created in the language that corresponds to the logon language of the app.
>
> The maximum number of records for upload is 100.

This app provides the following key features:

- *Control Panel*
  This takes you to the control panel.
- *Upload Tickets*
  - *Download*
    Select the template and download the data to the PC. You can edit the data here.
    You can set the template in Customizing, under *Define Field Catalog*.
  - *Upload*
    Upload the data from the PC to the system. Select the file you want to upload.
- *Results*
  Displays the uploaded data as a ticket.

Prerequisites

In Customizing for *SAP S/4HANA Supply Chain for Secondary Distribution (S4SCSD)*, you have made the settings under *Data Collation* > *Process Orchestration (PO)*.

Fiori Launchpad (FLP)

- Logistics Automation Specialist - Data Collation `SAP_BR_DATACOLL_SCSD`

Supported Browsers

- Chrome

Supported Device Types

- Desktop

Related Information

Control Panel (App) [page 155]

5.11.5 Map Data (App)

You can use this app to configure how external data is mapped to the format required in the system. You make this setting initially, and once only. Then only if new or changed data is to be mapped. The mapping type determines the data fields. The app has the Fiori ID `F5319`.

Features

This app provides the following key features:

- Data Selection
  Choose the data and choose *Start*. The data found is displayed in the area *Cross-References* The *Change Log* tab displays all changes made to a selected data record.
  - *Select View*
    You can save entered search data.
- *Cross-References*
  This area displays the cross-references. The number of cross-references is shown in brackets.
  To create a new data record, choose *Create*.
  Clicking on a cross -reference takes you to the processing of the data record.
  - *Edit*
    Here you switch to edit mode.
  - *Copy*
    You copy a selected cross-reference here.
  - *Delete*
    You delete a selected cross-reference here.

This app uses the following CDS views:

- `/TOP/TPCL_MPFIELD`
- `/TOP/TPL_XRF_DAT`

Prerequisites

In Customizing for *SAP S/4HANA Supply Chain for Secondary Distribution (S4SCSD)*, you have made the settings under *Data Collation* > *Process Orchestration (PO)*.

You define the mapping type in Customizing under *Define External Reference Mapping Category*.

Fiori Launchpad (FLP)

In FLP, you need to select this role to get the app:

- Logistics Automation Specialist - Data Collation `SAP_BR_DATACOLL_SCSD`

Supported Browsers

- Chrome

Supported Device Types

- Desktop

Related Information

Map Data [page 163]

5.11.5.1 Map Data

Allows you to edit the data record of the data to be mapped.

Use

Here, you can edit the data record with the data to be mapped.

To navigate here, select a row in the *Map Data* app by clicking it.

Features

- *Edit*
  This takes you to change mode.
- *Copy*
  You can use this to copy a data record.

- *Save*
  You save your changes with this.
- *Delete*
  You can use this to delete a data record.
- *Cancel*
  You can use this to cancel processing. Changes are not saved.

Related Information

Map Data (App) [page 162]

5.11.6 Configure Processes (App)

You can use this app to configure and edit the processes related to the ticket type. The app has the Fiori ID `F5318`.

Features

This app provides the following key features:

- Data Selection
  Select your data and choose *Start*.
  - *Select View*
    You can save entered search data.
- *Processes*
  The processes are displayed here.
  - *Create*
    You create a new process here.
  - *Copy*
    You copy a selected process here.
  - *Delete*
    You delete a selected process here.
  - *Settings*
    You can change the appearance of the application here. This affects, for example, the columns to be displayed or the sorting.
  - *Export to Spreadsheet*
    Here, you can export the data to a spreadsheet.

  Clicking on the process number takes you to the *Process Editor*.

This app uses the following CDS views:

- `/TOP/TPCL_BPFIELD`

- /TOP/TPCL_BPFSORT
- /TOP/TPL_PROCESS_CHGLOG
- /TOP/TPCL_DFIELD
- I_Customer
- I_DistributionChannel
- I_Division
- I_GLAccount
- I_PurchasingDocumentType
- I_PurchasingGroup
- I_PurchasingOrganization
- I_SalesDocumentType
- I_SalesOrganization
- I_Supplier
- /TOP/TPL_PDETERM
- /TOP/TPL_PHEAD
- /TOP/TPL_PITEM
- /TOP/TPCL_PROC
- /TOP/TPCL_PSEQ
- /TOP/TPCL_TYPE

Prerequisites

In Customizing for *SAP S/4HANA Supply Chain for Secondary Distribution (S4SCSD)*, you have made the settings under *Data Collation* > *Process Orchestration (PO)*.

Fiori Launchpad (FLP)

In FLP, you need to select this role to get the app:

- Logistics Automation Specialist - Data Collation SAP_BR_DATACOLL_SCSD

Supported Browsers

- Chrome

Supported Device Types

- Desktop

Related Information

Process Editor [page 166]

5.11.6.1 Process Editor

Allows you to edit the processes.

Use

You can use the process editor to edit the data for the header, item, and process determination of a process.

To navigate here, select a process from the *Configure Processes* app by clicking it.

The process is displayed in these areas:

- Header
- Determination
- Item
- Change Log

Features

- *Edit*
  This takes you to change mode. You cannot make any changes in the change log.
- *Copy*
  You can use this to copy a process.
- *Save*
  You save your changes with this.
- *Delete*
  You can use this to delete the process.
- *Cancel*
  You can use this to cancel processing. Changes are not saved.

Related Information

Configure Processes (App) [page 164]

5.12 Document Categories and Item Categories in Data Collation

Here you find a table with the Document Categories and Item Categories in DC.

Item Categories for bulk processes

Some Item Categories can be used for all bulk processes, not only for hydrocarbon products.

Overview of item categories that can be used with all bulk processes

Item Category	Name
CLC	Forwarding Agent Supply: Purchase Contract
CLN	Forwarding Agent Supply: Without Documents
CLO	Forwarding Agent Supply: Purchase Order
CLP	Forwarding Agent Supply: Own Storage
XCLP	Cancel Forwarding Agent Supply
SPC	Cancel Forwarding Agent Supply (Own Storage)
CSD	Customer Sales: Delivery
CSN	Customer Sales: Without Documents
CSO	Customer Sales: Order
CSC	Customer Sales: Contract
CSNO	Customer Sales: without Documents (only Sales Document)
RCS	Returns (Cancel Sales)
RSC	Customer Sales: Returns for Sales Contract
RSO	Customer Sales: Returns for Sales Order
RSR	Customer Sales: Returns
XCS	Cancel Sales
XRS	Cancel Returns
SPN	Storage Supply: Purchase Contract
SPO	Storage Supply: Without Documents (Purchase Order and GR)
XSP	Storage Supply: Purchase Order
STN	Storage Supply: Without Documents (Stock Transport Order and GR)
STU	Storage Supply: Stock Transport Order Unrestricted-Use Stock

Item Category	Name
XST	Cancel Storage Supply (Stock Transport Order)
XSTU	Cancel Storage Supply (Stock Transport Order Unrestricted-Use Stock)

All Item Categories

All item categories sorted by usage.

Sales/3rd Party

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
CSC Customer Sales: Contract	STANDARD	XCS RCS	yes
By means of this item category, a delivery is created with reference to a sales contract. The system will create a sales order and a delivery and post a goods issue. An optional posting of a billing document is also possible. It is possible to use the sales contract only to copy data into the Data Collation, so that the sales order will be created without any reference. If a third-party plant is involved, a purchasing process will be posted first.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
CSD Customer Sales: Delivery	STANDARD	XCS RCS	yes
By means of this item category, a delivery is changed. The system will change the already existing sales order and the delivery and will post a goods issue. An optional posting of a billing document is also possible. If a third-party plant is involved, a purchasing process will be posted first.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
CSN Customer Sales: Without Documents	STANDARD	XCS RCS	yes
By means of this item category, a sales order is created without any reference document. The system will create a sales order and a delivery and post a goods issue. An optional posting of a billing document is also possible. If a third-party plant is involved, a purchasing process will be posted first.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
CSNO Customer Sales: Without Documents (only Sales Documents)	STANDARD	XCS	yes
By means of this item category, a sales order is created without any reference document.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
CSO Customer Sales: Order	STANDARD	XCS RCS	yes
By means of this item category, a delivery is created with reference to a sales order. The system will change the sales order if necessary, generate a delivery and post a goods issue. An optional posting of a billing document is also possible. If a third-party plant is involved, a purchasing process will be posted first.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
RCS Return (Cancellation for Sales)	STANDARD	none	yes
This item category always refers to a successfully posted item category CSC, CSD, CSN or CSO. The system will generate a returns order, a returns delivery and posts a goods receipt. If the refered Data Collation item has created a billing, then a billing will be posted. The refered Data Collation item will be marked as cancelled.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
XCS Cancellation for Sales	STANDARD	none	yes
This item category always refers to a successfully posted item category CSC, CSD, CSN or CSO. All movements previously posted by means of these item categories will be cancelled. The delivery item will be deleted. If the item category refers to CSC or CSN, the sales order will be rejected.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
SSO Customer Sales: Subsequent Item	STANDARD FWDAGENT VEHICLE IDMVEHICLE	none	no

Item Category	Used for Document Catego-ries	To be Cancelled by Item Categories	Suitable for all bulk proc-esses
By means of this item category, a subsequent order item is created. The sales order receive an additional item with the remaining quantity. In order to this the new item will be send to IDM (active OGTP message required) and is open for dispatching.			

Carrier Loading

Item Category	Used for Document Catego-ries	To be Cancelled by Item Categories	Suitable for all bulk proc-esses
CLC Forwarding Agent Supply: Purchase Contract	STANDARD	XCL	yes
This item category is used for posting a carrier storage supply with reference to a purchase contract. The system will create a purchase order and post a goods receipt. It is possible to use the purchase contract only to copy data into the Data Collation, so that the purchase order will be created without any reference. A Data Collation document of document cagtegory FWDAGENT or VEHICLE can refer to this item as a loading by using item category LDC.			

Item Category	Used for Document Catego-ries	To be Cancelled by Item Categories	Suitable for all bulk proc-esses
CLN Forwarding Agent Supply: Without Documents	STANDARD	XCL	yes
This item category is used for posting a carrier storage supply with reference to a purchase order. The system will change the purchase order if necessary and post a goods receipt. A Data Collation document of document cagtegory FWDAGENT or VEHICLE can refer to this item as a loading by using item category LDC.			

Item Category	Used for Document Catego-ries	To be Cancelled by Item Categories	Suitable for all bulk proc-esses
CLO Forwarding Agent Supply: Purchase Order	STANDARD	XCL	yes
This item category is used for posting a carrier storage supply with reference to a purchase order. The system will change the purchase order if necessary and post a goods receipt. A Data Collation document of document cagtegory FWDAGENT or VEHICLE can refer to this item as a loading by using item category LDC.			

Item Category	Used for Document Catego-ries	To be Cancelled by Item Categories	Suitable for all bulk proc-esses
CLP Forwarding Agent Supply: Own Storage	STANDARD	XCLP	yes

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
This item category is used for posting material movements from an own storage to a carrier's storage location without any reference document. A Data Collation document of document cagtegory FWDAGENT or VEHICLE can refer to this item as a loading by using item category LDC.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
XCL Cancellation for Forwarding Agent Supply	STANDARD	none	yes
This item category always refers to a successfully posted item category CLC, CLN or CLO. All movements previously posted by means of these item categories will be cancelled. If the item category refers to CLC or CLN, the deletion indicator of the purchase order item will be set.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
XCLP Cancellation for Forwarding Agent Supply (Own Storage)	STANDARD	none	yes
This item category always refers to a successfully posted item category CLP. All movements previously posted by means of these item categories will be cancelled.			

Storage Supply

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
RSC Customer Sales: Return for the Sales Contract	STANDARD	XRS	yes
This item category is used for creating a returns order and a returns delivery with reference to a sales contract and for posting the goods return delivery. It is possible to use the sales contract only to copy data into the Data Collation, so that the returns order will be created without any reference. An optional posting of a billing document is also possible.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
RSO Customer Sales: Return for the Sales Order	STANDARD	XRS	yes
This item category is used for creating a returns order with reference to a sales order. The system will generate a returns order, a returns delivery and posts a goods receipt. An optional posting of a billing document is also possible.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
RSR Customer Sales: Return	STANDARD	XRS	yes
This item category is used for creating a returns delivery with reference to a returns order. The system will generate a returns delivery and posts a goods receipt. An optional posting of a billing document is also possible.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
SPC Storage Supply: Purchase Contract	STANDARD	XSP	yes
This item category is used for posting a storage supply with reference to a purchase contract. The system will create a purchase order and post a goods receipt. It is possible to use the purchase contract only to copy data into the Data Collation, so that the purchase order will be created without any reference.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
SPN Storage Supply: Without Documents (Purchase Order and GR)	STANDARD	XSP	yes
This item category is used for posting a storage supply for a known supplier but without any reference document. The system will create a purchase order and post a goods receipt.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
SPO Storage Supply: Purchase Order	STANDARD	XSP	yes
This item category is used for posting a storage supply with reference to a purchase order. The system will change the purchase order if necessary and post a goods receipt.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
XRS Cancellation for Return	STANDARD	none	yes
This item category always refers to a successfully posted item category RSC, RSO or RSR. All movements previously posted by means of these item categories will be cancelled. The returns delivery item will be deleted. If the item category refers to RSC or RSO, the returns order will be rejected.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
XSP Cancellation for Storage Supply	STANDARD	none	yes
This item category always refers to a successfully posted item category SPC, SPN or SPO. All movements previously posted by means of these item categories will be cancelled. If the item category refers to SPC or SPN, the deletion indicator of the purchase order item will be set.			

Stock Transfer

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
STN Storage Supply: Without Documents (STO and GR)	STANDARD	XST	yes
Creates a stock transfer order and posts stock transfer with reference to this stock transfer order. If necessary a replenishment delivery will be created.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
STO Storage Supply: Stock Transport Order	STANDARD	XST	no
This item category is used for posting material to the stock in transit of the receiving plant. Optionally, a goods receipt will be posted for the receiving plant. If necessary a replenishment delivery will be created.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
STU Storage Supply (Stock Transport Order UnrestrictednoUse Stock)	STANDARD	XRS	yes
This item category is used for posting a goods receipt by means of movement type 101 and with reference to an item category STN or STO which has already been posted.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
XST Cancellation for Storage Supply (Stock Transport Order)	STANDARD	none	yes

Item Category	Used for Document Catego-ries	To be Cancelled by Item Categories	Suitable for all bulk proc-esses
This item category always refers to a successfully posted item category STN or STO. All movements previously posted by means of these item categories will be cancelled. If the item category refers to STN, the deletion indicator of the stock transfer order item will be set.			

Item Category	Used for Document Catego-ries	To be Cancelled by Item Categories	Suitable for all bulk proc-esses
XSTU Cancellation for Storage Sup-ply (STO UnrestrictednoUse Stock)	STANDARD	none	yes
This item category always refers to a successfully posted item category STU. All movements previously posted by means of these item categories will be cancelled.			

Loading

Item Category	Used for Document Catego-ries	To be Cancelled by Item Categories	Suitable for all bulk proc-esses
LDC Loading: Data Collation Document	FWDAGENT VEHICLE IDMVEHICLE	XLDC	no
This item category creates a stock transfer from the carrier's storage location to the truck storage location with reference to an item category CLC, CLN, CLO or CLP of an STANDARD Data Collation document. It may be generated manually or automatically, for example by posting interface loading data originating from external dispatch systems.			

Item Category	Used for Document Catego-ries	To be Cancelled by Item Categories	Suitable for all bulk proc-esses
LOR Loading: Reclassification on vehicle	FWDAGENT VEHICLE	XLOR	no
This item category allows material reclassification directly within the vehicle at the loading phase.			

Item Category	Used for Document Catego-ries	To be Cancelled by Item Categories	Suitable for all bulk proc-esses
LOS Loading: Own Storage	FWDAGENT VEHICLE IDMVEHICLE	XLO	no
This item category creates the loading of a means of transport from an own storage without any reference document.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
LPC Loading: Purchase Contract	FWDAGENT VEHICLE IDMVEHICLE	XLP	no
This item category creates the loading of a means of transport from a third-party storage with reference to a purchase contract. The system will generate a purchase order and post a goods receipt. It is possible to use the purchase contract only to copy data into the Data Collation, so that the purchase order will be created without any reference.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
LPN Loading: Without Document	FWDAGENT VEHICLE IDMVEHICLE	XLP	no
This item category creates the loading of a means of transport from a third-party storage without any reference document. The system will generate a purchase order and post a goods receipt.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
LPO Loading: Purchase Order	FWDAGENT VEHICLE IDMVEHICLE	XLP	no
This item category creates a loading from a third-party storage with reference to a purchase order. The system will change the purchase order if necessary and post a goods receipt.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
LRC Loading: Return for the Sales Contract	FWDAGENT VEHICLE IDMVEHICLE	XLR	no
This item category is used for creating a loading of a means of transport with reference to a sales contract. The system will generate a returns order, a returns delivery and posts a goods receipt. It is possible to use the sales contract only to copy data into the Data Collation, so that the returns order will be created without any reference. An optional posting of a billing document is also possible.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
LRO Loading: Return for the Sales Order	FWDAGENT VEHICLE IDMVEHICLE	XLR	no
This item category is used for creating a loading of a means of transport with reference to a sales order. The system will generate a returns order, a returns delivery and posts a goods receipt. An optional posting of a billing document is also possible.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
LRR Loading: Return	FWDAGENT VEHICLE IDMVEHICLE	XLR	no
This item category is used for creating a loading of a means of transport with reference to a returns order. The system will generate a returns delivery and posts a goods receipt. An optional posting of a billing document is also possible.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
XLDC Cancellation for Loading (Data Collation Document)	FWDAGENT VEHICLE IDMVEHICLE	none	no
This item category always refers to a successfully posted item category LDC. All movements previously posted by menas of these item categories will be cancelled.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
XLO Loading Cancellation for Own Storage	FWDAGENT VEHICLE IDMVEHICLE	none	no
This item category always refers to a successfully posted item category LOS. All movements previously posted by means of these item categories will be cancelled.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
XLOR Cancel Loading: Reclassification on vehicle	FWDAGENT VEHICLE	none	no

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
This item category always refers to a successfully posted item category LOR. All movements previously posted by means of these item categories will be cancelled.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
XLP Cancellation for Vendor Loading	FWDAGENT VEHICLE IDMVEHICLE	none	no
This item category always refers to a successfully posted item category LPC, LPN or LPO. All movements previously posted by means of these item categories will be cancelled. If the item category refers to LPC or LPN, the deletion indicator of the purchase order item will be set.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
XLR Cancellation for Return Loading	FWDAGENT VEHICLE IDMVEHICLE	none	no
This item category always refers to a successfully posted item category LRC, LRO or LRR. All movements previously posted by means of these item categories will be cancelled. The returns delivery item will be deleted. If the item category refers to LRC or LRO, the returns order will be rejected.			

Freight

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
FRPO Freight Cost Item	FWDAGENT VEHICLE IDMVEHICLE	XFR	no
This item category can be generated automatically during DC document creation process. It take over all freight relevant data from the assigned unloading DC items. The FRPO item post an accounted purchase order, if needed including an invoicing plan, which is to form the basis for the freight cost determination of the forwarding agent.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
XFR Cancellation for Freight Cost Item	FWDAGENT VEHICLE IDMVEHICLE	none	no

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
This item category is the cancellation for FRPO items. It marks the purchase order as deleted.			

Unloading

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
UOS Unloading: Own Storage	FWDAGENT VEHICLE IDMVEHICLE	XUO	no
This item category unloads a means of transport to an own storage.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
USC Unloading: Sales Contract	FWDAGENT VEHICLE IDMVEHICLE	XUS RUS	no
This item category unloads a means of transport by refering to a sales contract. The system will create a sales order and a delivery and post a goods issue. It is possible to use the sales contract only to copy data into the Data Collation, so that the sales order will be created without any reference. An optional posting of a billing document is also possible.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
USD Unloading: Customer Delivery	FWDAGENT VEHICLE IDMVEHICLE	XUS RUS	no
This item category unloads a means of transport by refering to a delivery. The system will change the original sales order and delivery and post a goods issue. An optional posting of a billing document is also possible.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
USN Unloading: Without Document (Sales Order)	FWDAGENT VEHICLE IDMVEHICLE	XUS RUS	no
This item category unloads a means of transport by delivering it to a customer without any reference document. The system will create a sales order and a delivery and post a goods issue. An optional posting of a billing document is also possible.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
USO Unloading: Sales Order	FWDAGENT VEHICLE IDMVEHICLE	XUS RUS	no
This item category unloads a means of transport by refering to a sales order. The system will change the original sales order if necessary, create a delivery and post a goods issue. An optional posting of a billing document is also possible.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
UST Unloading: Stock Transport Order	FWDAGENT VEHICLE IDMVEHICLE	XUST	no
This item category unloads a means of transport to an own storage by refering to a stock tranfer order. The system will create a goods receipt. If necessary a replenishment delivery will be created.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
USTN Unloading: Without Document (Stock Transport Order)	FWDAGENT VEHICLE IDMVEHICLE	XUST	no
This item category unloads a means of transport to an own storage. A stock transport order is created and a goods issue is posted with reference to this. If necessary a replenishment delivery will be created.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
RUS Return (Cancellation for Unloading)	FWDAGENT VEHICLE IDMVEHICLE	none	no
This item category always refers to a successfully posted item category LRC, LRO or LRR. The system will generate a returns order, a returns delivery and posts a goods receipt. If the refered Data Collation item has created a billing, then a billing will be posted. The refered Data Collation item will be marked as canceled.			

Item Category	Used for Document Catego-ries	To be Cancelled by Item Categories	Suitable for all bulk proc-esses
XUO Cancellation for Own Storage Unloading	FWDAGENT VEHICLE IDMVEHICLE	none	no
This item category always refers to a successfully posted item category UOS. All movements previously posted by menas of these item categories will be cancelled.			

Item Category	Used for Document Catego-ries	To be Cancelled by Item Categories	Suitable for all bulk proc-esses
XUS Cancellation for Unloadig at Customer	FWDAGENT VEHICLE IDMVEHICLE	none	no
This item category always refers to a successfully posted item category USC, USD, USN or USO. All movements previously posted by means of these item categories will be cancelled. The delivery item will be deleted. If the item category refers to USC or USN, the sales order will be rejected.			

Item Category	Used for Document Catego-ries	To be Cancelled by Item Categories	Suitable for all bulk proc-esses
XUST Cancellation for Unloading (Stock Transport Order)	FWDAGENT VEHICLE IDMVEHICLE	none	no
This item category always refers to a successfully posted item category UST or USTN. All movements previously posted by means of these item categories will be cancelled. If the item category refers to USTN, the deletion indicator of the stcok transfer order item will be set.			

Internal Postings

Item Category	Used for Document Catego-ries	To be Cancelled by Item Categories	Suitable for all bulk proc-esses
VDG Difference Quantity Gain	FWDAGENT VEHICLE IDMVEHICLE	XVDG	no
This item category creates a quantity difference posting for a quantity gain. The quantity to be posted will be proposed by the system with the aim to adjust vehicle stocks to zero.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
VDL Difference Quantity Loss	FWDAGENT VEHICLE IDMVEHICLE	XVDL	no
This item category creates a quantity difference posting for a quantity loss. The quantity to be posted will be proposed by the system with the aim to adjust vehicle stocks to zero.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
VFL Internal Flushing	FWDAGENT VEHICLE IDMVEHICLE	none	no
Internal Truck Flushing: In case of a change of material in a means of transport, remaining quantities are posted to another tank via stock transfer by using this item category.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
VLB Remaining Quantity at the End of the Tour	FWDAGENT VEHICLE IDMVEHICLE	XVLB	no
This item category unloads a means of transport to the remaining quantities storage. By unloading the left-on-vehicle quantities, the stock of the means of transport will be adjusted to zero. If no remaining quantity storage is assigned to the vehicle, then the goods remains in the vehicle stock and the system considers this in the quantity check. The next Data Collation document, which uses this vehicle has to begin with item category VPL.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
VPL Remaining Quantity at the Beginning of the Tour	FWDAGENT VEHICLE IDMVEHICLE	XVPL	no
This item category creates the loading of a means of transport from the remaining quantities storage. If no remaining quantity storage is assigned to the vehicle, then the goods are already in the vehicle stock and the system considers this in the quantity check. The previous Data Collation document, which uses this vehicle has to begin with item category VLB.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
LVPL Remaining Quantity at the Beginning of the Tour with Reference to Unloading	FWDAGENT VEHICLE IDMVEHICLE	XVPL	no
This item category creates the reloading of remaining quantity at the beginning of a tour with reference to the DC document which contains a corresponding unloading to the remaining quantity storage.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
XVDG Cancellation for Difference Quantity Gain	FWDAGENT VEHICLE IDMVEHICLE	none	no
This item category always refers to a successfully posted item category VDG. All movements previously posted by means of these item categories will be cancelled.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
XVDL Cancellation for Difference Quantity Loss	FWDAGENT VEHICLE IDMVEHICLE	none	no
This item category always refers to a successfully posted item category VDL. All movements previously posted by means of these item categories will be cancelled.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
XVLB Cancellation for Remaining Quantity at the End of the Tour	FWDAGENT VEHICLE IDMVEHICLE	none	no
This item category always refers to a successfully posted item category VLB. All movements previously posted by means of these item categories will be cancelled.			

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
XVPL Cancellation for Remaining Quantity at the Beginning of the Tour	FWDAGENT VEHICLE IDMVEHICLE	none	no

Item Category	Used for Document Categories	To be Cancelled by Item Categories	Suitable for all bulk processes
This item category always refers to a successfully posted item category VPL or LVPL . All movements previously posted by means of these item categories will be cancelled.			

Related Information

Data Collation (DC) [page 133]
Document Category [page 138]
Item Category [page 138]
Trip-Related Data Collation [page 275]

5.13 Statuses in Data Collation

Shows the statuses of documents and items in Data Collation (DC).

Document Statuses in DC

The following table shows the different Data Collation (DC) document statuses:

Document Status	Meaning
A	In Process
B	Checked
C	Released
D	Partly Posted
E	Partly Posted (Locks Exist)
F	Posted
G	Deactivated
H	Canceled

You define the document statuses in Customizing for *S4SCSD* under *Data Collation (DC)* > *Process Automation Toolset (PAT)* > *Document* > *Define Document Status* for application *DC*.

Item Statuses in DC

The following table shows the different item statuses of Data Collation (DC):

Item Status	Meaning
A	New
B	Partly Posted
C	Posted
D	Deactivated
E	Excluded
F	Canceled

You define the item statuses as values for the domain *Item Status* `/PAT/ITEM_STATUS`.

5.14 Country-Specific Functions

Describes the country-specific functions of Data Collation (DC).

This documentation explains the country-specific functions.

5.14.1 Portugal

Describes the country-specific functions of Data Collation (DC) for Portugal.

In Portugal, the law requires all companies to send an online notification of all domestic goods movements to the tax authorities Autoridade Tributária (AT). Goods movements from or to outside Portugal are not subject to this law.

One of the permitted ways of transferring data is to use a Web service.

The information sent can be viewed in a monitor.

Prerequisites

You have made the following settings in Customizing for *S4SCSD*:

- Under *Data Collation (DC)* > *Digital Signature (S4SCSD Data Collation)* > *Digital Signature Portugal*

- *Assign Company Code to Number Range Interval*
  Here you assign a number range interval to the company code in question.
- *General Settings*
  Here, you set the delivery type and set indicators for the digital signature and the Web service.
- *Assign Relevant Loading Item Categories*
  Here you assign the relevant item categories for loading to the document category.

SAP Notes

For more information, see the following SAP Notes:

- 2854769 DC: Enhancement for Digital Signature for Deliveries in Portugal
- 2868340 PAT: Generic Mapping

Related Information

Monitoring Tool [page 185]
Processes in DC Before Outbound Delivery [page 185]
Processes in DC After Outbound Delivery [page 191]

5.14.1.1 Monitoring Tool

Displays the information sent to the Autoridade Tributária (AT) tax authorities.

Use

You use the monitoring tool to display processes for transferring the data to AT. For more information, see the report documentation.

You access the report from the *SAP Easy Access main menu*, via *SAP Menu* > *SAP* > *Logistics* > *Sales and Distribution* > *Shipping and Transportation* > *Outbound Delivery* > *Country Specifics* > *Portugal* > *Monitoring Tool for Web Services*. The transaction code is `WSPT_MONI`.

5.14.1.2 Processes in DC Before Outbound Delivery

Describes the process steps in Data Collation (DC) before delivery.

Use

Here, the discharge items are excluded from the posting. Only the DC document with the loading items is posted. When the data is saved, the Post Processing Framework (PPF) is triggered. The relevant standard SAP APIs are called to transfer the data to the monitor and to the tax authorities.

Scenarios

These scenarios are available:

Scheduled

In this scenario, the DC document cannot be posted. The *Process* button cannot be selected.

In Customizing for *SAP S/4HANA Supply Chain for Secondary Distribution (S4SCSD)*, under *Data Collation (DC)* > *Digital Signature* > *Digital Signature Portugal* > *General Settings*, in the column *Tax*, you must have configured the value 1*Scheduled*.

Loading

This scenario is used for the loading phase of the process.

> ⚠ Caution
>
> After the delivery has been created, a further transfer to the tax authorities is executed with the relevant data that also includes the discharge items. However, this does not take place as part of data collation. You must make these settings during implementation, in cooperation with SAP.

In Customizing for *SAP S/4HANA Supply Chain for Secondary Distribution (S4SCSD)*, under *Data Collation (DC)* > *Digital Signature* > *Digital Signature Portugal* > *General Settings*, in the column *Tax*, you must have configured the value 2*Fully Loaded*.

Related Information

Scenario Planned [page 187]
Loading Scenario [page 189]

5.14.1.2.1 Scenario Planned

Here you find the steps required for the Planned scenario.

Context

For the scenario Planned with the transportation status *Planned*, perform the following steps.

Procedure

1. Start the *Vehicle-Related Data Collation* in the menu.
2. Choose *New*. The status is `A`*In Process*.
3. Enter the *TU Number*. Select `ENTER`.
4. Under *Communication Tax Authorities*, choose *Planned*. Enter the *Transport Start Date* and *Transport Start Time*.
5. Enter the item data for the loading and unloading.
6. Choose *Verify*. The status changes to `B`*Verified*.
7. Choose *Release*. The status changes to `P`*Released (without posting)*.
8. Choose *Save*.

Results

The PPF process performs these actions:

- The system creates a digital signature that is saved in the table `/PAT/DC_SIGN_PT`.
- The data is saved in the table `WSPT_LIKP` and transferred to the tax authorities.
- The data is transferred to the monitor. The transaction for the monitor is `WSPT_MONI`.

Related Information

Changes to the Planned Scenario [page 188]
Post Document [page 188]

5.14.1.2.1.1 Changes to the Planned Scenario

This section describes how you make changes to the Planned scenario.

Context

You make changes to the Planned scenario with the *Planned* transportation status as follows.

Procedure

1. Start the *Vehicle-Related Data Collation* in the menu.
2. Start the *Locator*. Search for the document. Click the row containing the document.
3. Choose *Edit*.
4. Make the changes. The status is `A`*In Process*.
5. Choose *Verify*. The status changes to `B`*Verified*.
6. Choose *Release*. The status changes to `P`*Released (without posting)*.
7. Choose *Save*.

Results

The PPF process performs these actions:

- The system creates a digital signature that is saved in the table `/PAT/DC_SIGN_PT`.
- The current data is sent to the tax authorities. In table `WSPT_LIKP` the old data record has the status `C`*Canceled*. The new data record has the status `A`*Approved*.
- The data is transferred to the monitor. The transaction for the monitor is `WSPT_MONI`.

5.14.1.2.1.2 Post Document

Here you find the steps to post the DC document.

Context

If the final data is known, you have to post the DC document.

i Note

No new digital signature is created. No information is sent to the tax authorities. The main purpose is to enable the posting of the DC document.

Procedure

1. Start the *Vehicle-Related Data Collation* in the menu.
2. Start the *Locator*. Search for the document. Click the row containing the document.
3. Choose *Edit*.
4. Under *Communication Tax Authorities*, choose *Executed*. The status is A*In Process*.
5. Choose *Verify*. The status changes to B*Verified*.
6. Choose *Release*. The status changes to P*Released (without posting)*.
7. Choose *Save*.
8. Choose *Process*. The status changes to F*Posted*.

Results

The DC document is posted.

5.14.1.2.2 Loading Scenario

Here you find the steps that are necessary for the Loading scenario.

Context

You perform the following steps for the Loading scenario with the *Completely Loaded* transportation status.

Procedure

1. Start the *Vehicle-Related Data Collation* in the menu.
2. Choose *New*. The status is A*In Process*.
3. Enter the *TU Number*. Select `ENTER`.
4. Enter the item data for the loading and unloading.

5. Choose *Verify*. The status changes to `B` *Verified*.
6. Choose *Release*. The status changes to `C` *Released*.
7. Choose *Save*.
8. Choose *Process*. The status changes to `E` *Partially Posted (Locks Exist)*.

Results

The PPF process performs these actions:

- The system creates a digital signature that is saved in the table `/PAT/DC_SIGN_PT`.
- The data is saved in the table `WSPT_LIKP` and transferred to the tax authorities.
- The data is transferred to the monitor. The transaction for the monitor is `WSPT_MONI`.

Related Information

Changes to the Loading Scenario [page 190]

5.14.1.2.2.1 Changes to the Loading Scenario

This section describes how you make changes to the Loading scenario.

Context

You make changes to the Loading scenario with the *Completely Loaded* transportation status as follows.

Procedure

1. Start the *Vehicle-Related Data Collation* in the menu.
2. Change the document. To cancel the posting exclusion for an item, select the item and choose *Exclude Item from Posting*.
3. Choose *Verify*. The status changes to `B` *Verified*.
4. Choose *Release*. The status changes to `C` *Released*.
5. Choose *Save*.
6. Choose *Process*. The status changes to `E` *Partially Posted (Locks Exist)*.

Results

The DC document number is displayed as *Header Note 1* in the outbound delivery document in the transaction *Display Outbound Delivery*`VL03N` under *Goto* > *Header* > *Texts*. This setting is located in Customizing, under *Data Collation (DC)* > *Digital Signature* > *Digital Signature Portugal* > *General Settings*. In the *UI* column, choose the text object. For *Header Memo 1*, this is the value `0002`.

5.14.1.3 Processes in DC After Outbound Delivery

Describes the process steps in Data Collation (DC) after delivery.

Use

After the discharge items have been updated with the actual delivery data, they are posted.

Documents for outbound deliveries and goods issues are created via SAP BAPI. During implementation, in collaboration with SAP experts, it must be checked which of the modules mentioned has already been used to establish a connection to the Portuguese tax authorities. You need to enhance this BAPI.

6 Interfaces (IF)

Purpose

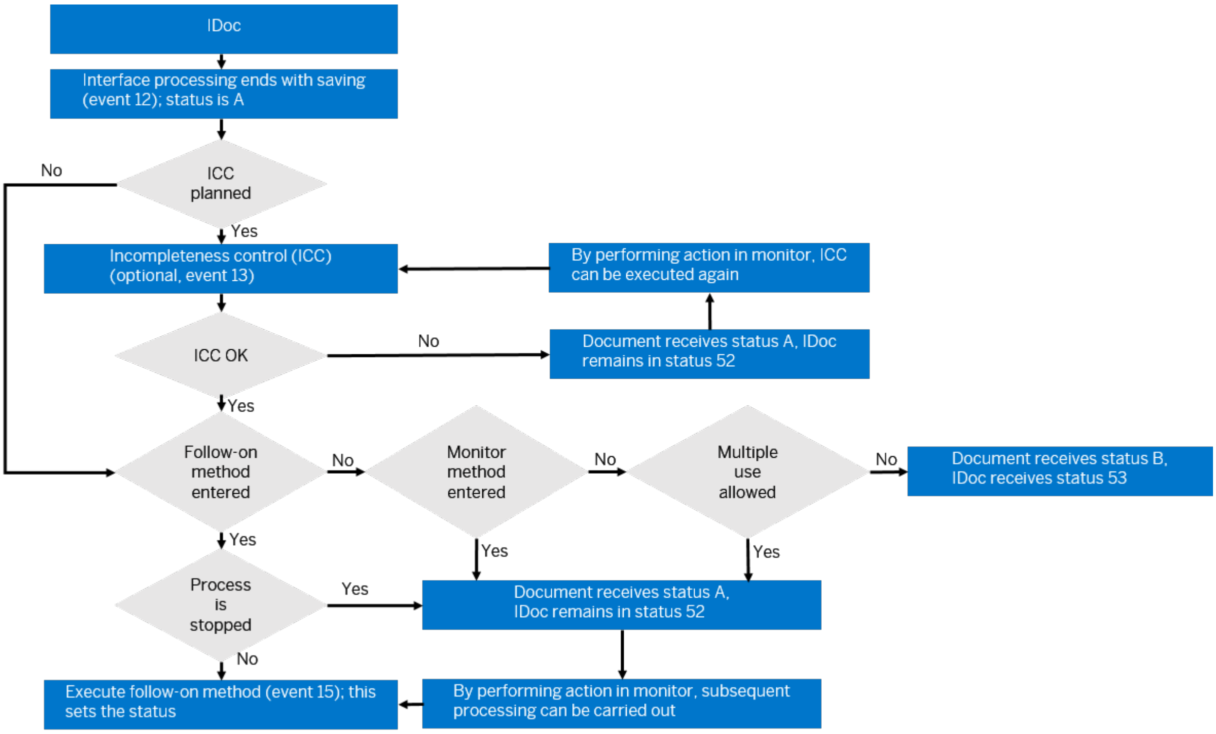
This component enables the import of data to the SAP system using configurable ALE inbound function modules, including their automatic and manual processing in the Interface Monitor. You can archive the interface documents.

The data can be generated by SAP systems or other systems.

Any file types and structures can be processed.

The data is processed using methods that can be tailored to meet the customer's individual needs.

The following figure illustrates the further processing of an interface document:



Related Information

Interface Monitor [page 193]
Archiving Interface Documents Using /ICO/OOIF [page 287]

6.1 Interface Monitor

Use

You can use the interface monitor to display all the processes of object-oriented S4SCSD interfaces that run when incoming data is imported and processed.

In the locator on the *IF* tab page (interfaces), you can search for interface documents and display them in a list. By double-clicking on an interface document, you can display its log data, the table structure, and the document flow. By double-clicking on an entry in the log data or table structure, a detail view for those entries is displayed in the data area. By double-clicking on an entry in the document flow, you open a document in its respective transaction.

Interface documents with status A can be processed in the detail view.

In the locator on the *Find IDoc* tab page, you can search for IDocs and display them in a list. By double-clicking on an IDoc, you open it in the standard IDoc display.

To display interface documents that belong to an IDoc, select an entry in the list and choose *Display Interface Documents*.

You can migrate the log data from OGSD. You can find a report for this in Customizing for *Technical Objects* under *Migration* > *Migrate OGSD Logs*. For more information, see the report description.

Features

Check

If you have made the appropriate settings in Customizing for *Interfaces* under *General Settings* > *Define Incompleteness Procedure* and *Define Field Groups*, the imported files undergo an incompleteness control (ICC).

Simulation

The system simulates how subsequent processing will run without creating any documents, if subsequent processing allows for a simulation.

Subsequent Processing

This starts subsequent processing that is defined by the method.

Post

If it was not completely successful, subsequent processing defined by the method is restarted.

6.2 Copying Files

Use

This function enables you to copy interface files from SAP directories to PC directories and vice versa.

Activities

File Download

1. On the *SAP Easy Access SAP S/4HANA Supply Chain for secondary distribution* screen, choose *SAP Menu* > *Interfaces* > *Environment* > *File Download*.
2. Enter the data source as *SAP Directory* and enter a *Source File Name*.
3. Enter the data target as *PC Directory* and enter a *Target File Name*.
4. Choose *Execute*.

File Upload

1. On the *SAP Easy Access SAP S/4HANA Supply Chain for secondary distribution* screen, choose *SAP Menu* > *Interfaces* > *Environment* > *File Upload*.
2. Enter the data source as *PC Directory* and enter a *Source File Name*.
3. Enter the data target as *SAP Directory* and enter a *Target File Name*.
4. Choose *Execute*.

> ⚠ Caution
>
> The directories must comply with the PC or UNIX standard and must end with a forward slash or backslash.

6.3 Web Interface Cockpit

Use

Different information about the interfaces is displayed in the Web Interface Cockpit.

Prerequisites

In Customizing for *Interfaces*, under *Interface Control* > *Define Interface*, you have entered a value in the *Direction* column.

Activities

On the *SAP Easy Access SAP S/4HANA Supply Chain for secondary distribution* screen, choose *SAP Menu* > *Interfaces* > *Web Interface Cockpit*. The *Web Interface Cockpit* screen appears.

Locator

Enter the search criteria and choose *Find*.

The receipt interfaces found are displayed in a table. The number of documents found is displayed in the upper area. To view the issue interfaces, choose *Issue*. To view the results list as a chart, choose . The number of notifications per day is displayed for each notification category. The period is determined by the selection in the locator. You cannot make settings for the chart.

Select an interface. The interface documents and further details are displayed on the right.

> Note
>
> You can set the locator in Customizing.

IF Document Status

You can select one or more statuses and choose to determine which status or statuses are displayed in the *Interface Documents* area.

The number of documents found is displayed with this status or these statuses in the upper area.

Additional Data

- Interval
  You can define document intervals. A document interval indicates how many documents are expected in a particular time period. If the actual number of documents differs significantly from the expected number of documents, this may be due to an error.
- Role
  You can add roles to the interface and change roles. For example, you can see which person is responsible for which function.
- Documentation
  You can attach any external documents and create documentation for the interface.

Related Information

Locator [page 202]

7 Process Automation Toolset (PAT)

Use

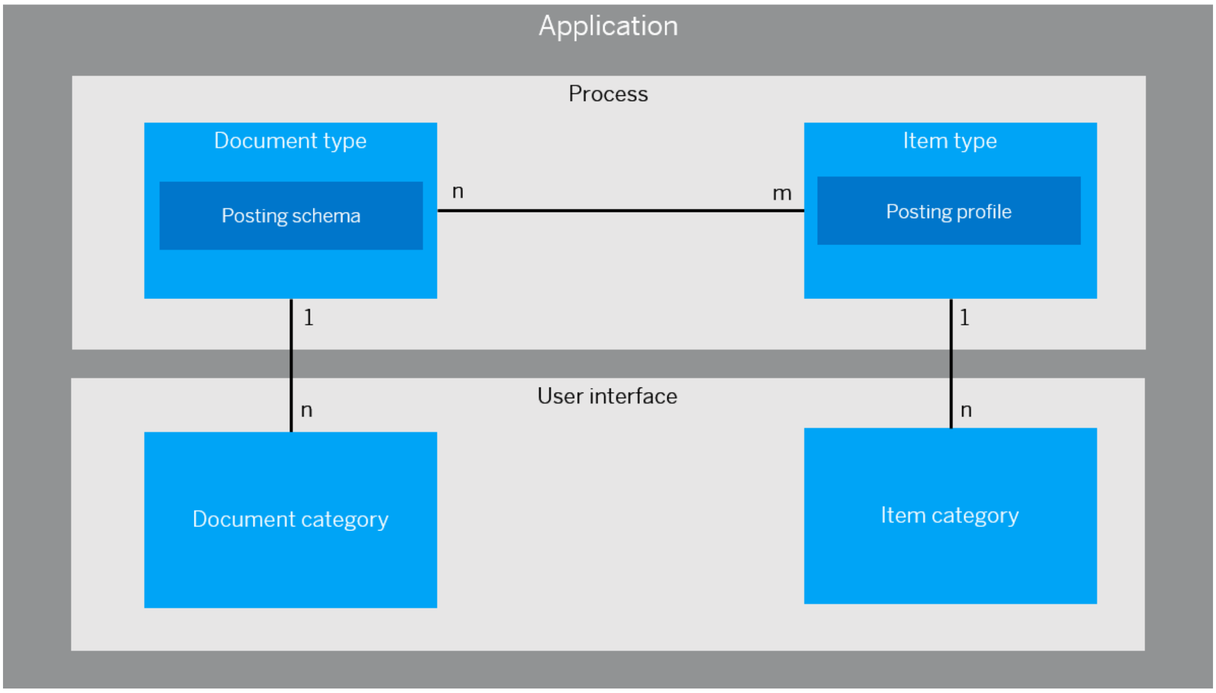
This function enables posting processes to be executed automatically on the basis of an underlying document known as the PAT document. A posting process can include the generation of follow-on documents such as standard orders or deliveries.

PAT is based on Floor Plan Manager (FPM) and the Model View Controller (MVC) concept.

Features

A PAT application is identified by an S4SCSD application. Therefore, the S4SCSD application must be entered for every Customizing setting in PAT. PAT is divided into the areas Processes and User Interface. In the Process area, the objects Document Type and Item Type are used. The document type is assigned a document schema, which defines the tables of the PAT document. The item type is assigned a posting profile, which defines the documents to be posted. Document type and item type have an n:m relationship. In the User Interface area, the objects Document Category and Item Category are used. The document type has a 1:n relationship with the document category. The item type has a 1:n relationship with the item category.

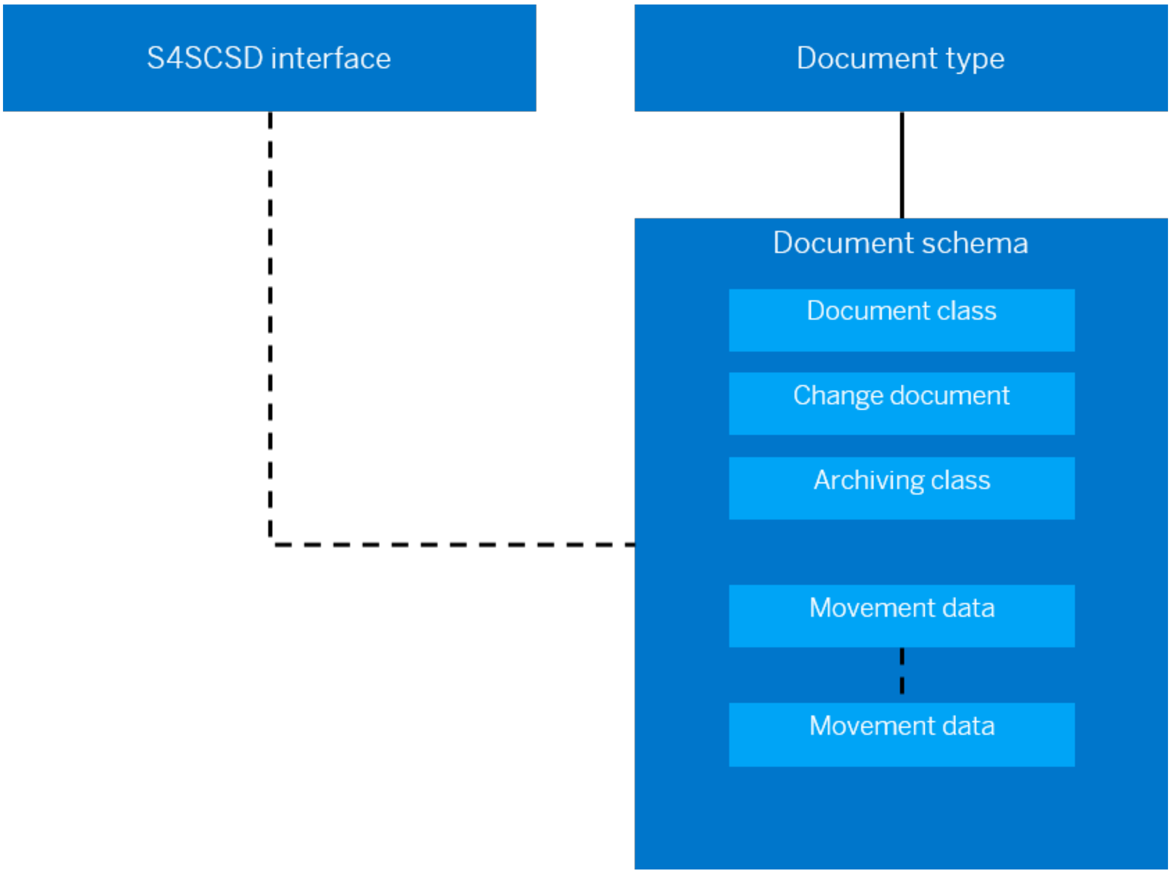
The following figure illustrates the situation described above:



The following are some of the processes that can be controlled by PAT:

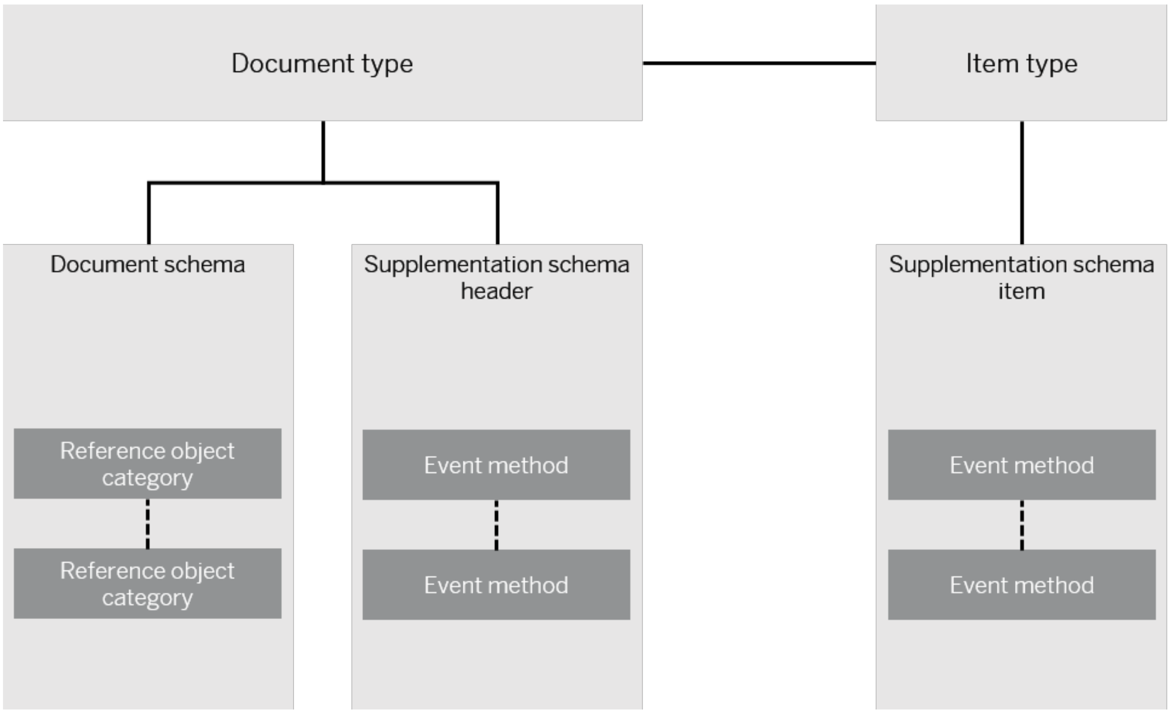
- Document data management
  A document type is assigned a document schema. Each PAT document must contain at least one header table and one item table in the document schema. The document schema contains the following objects:
  - Document class: The PAT applications use a document class, which inherits from the general PAT document class. Almost all documents are stored as data records in tables. These data records are available as attributes in the document classes.
  - Change documents: Every change is documented.
  - Archiving class: Enables archived documents to be displayed.
  - Movement data

  You can choose whether the document schema of the PAT document is referenced in the S4SCSD interfaces. In this case, inbound IDocs are not stored temporarily in an interface document, they are written to the PAT document directly.
  The following figure illustrates the structure of the document schema described above:



- Document data supplementation
  Often, the existing data is not as complete as is necessary. Supplementation schemas are used to supplement the data. The event methods required for this are created in the method editor and assigned to supplementation schemas.
  Reference objects can be used to transfer existing data.
  The quantity of data that needs to be entered manually is reduced.

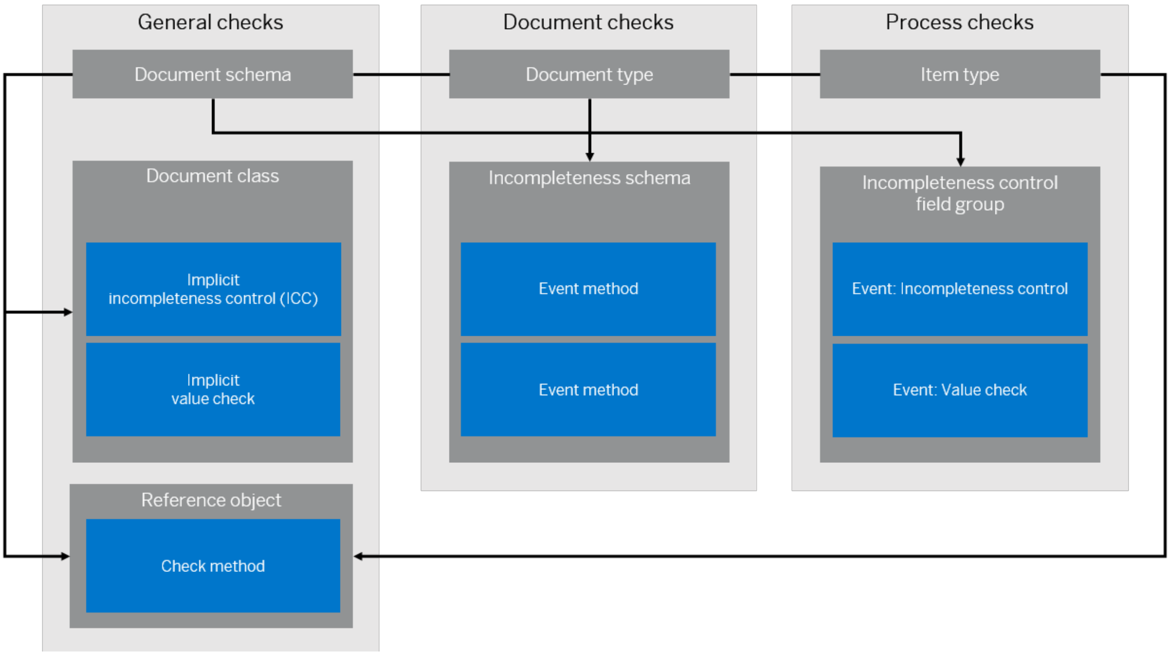
The following figure illustrates the structure of the document data supplementation:



The document type controls the document schema and the supplementation schema for the header. The item type controls the supplementation schema for the item. In the document schema, the reference object type controls which data is supplemented. In the supplementation schemas, an event method controls which data is supplemented.

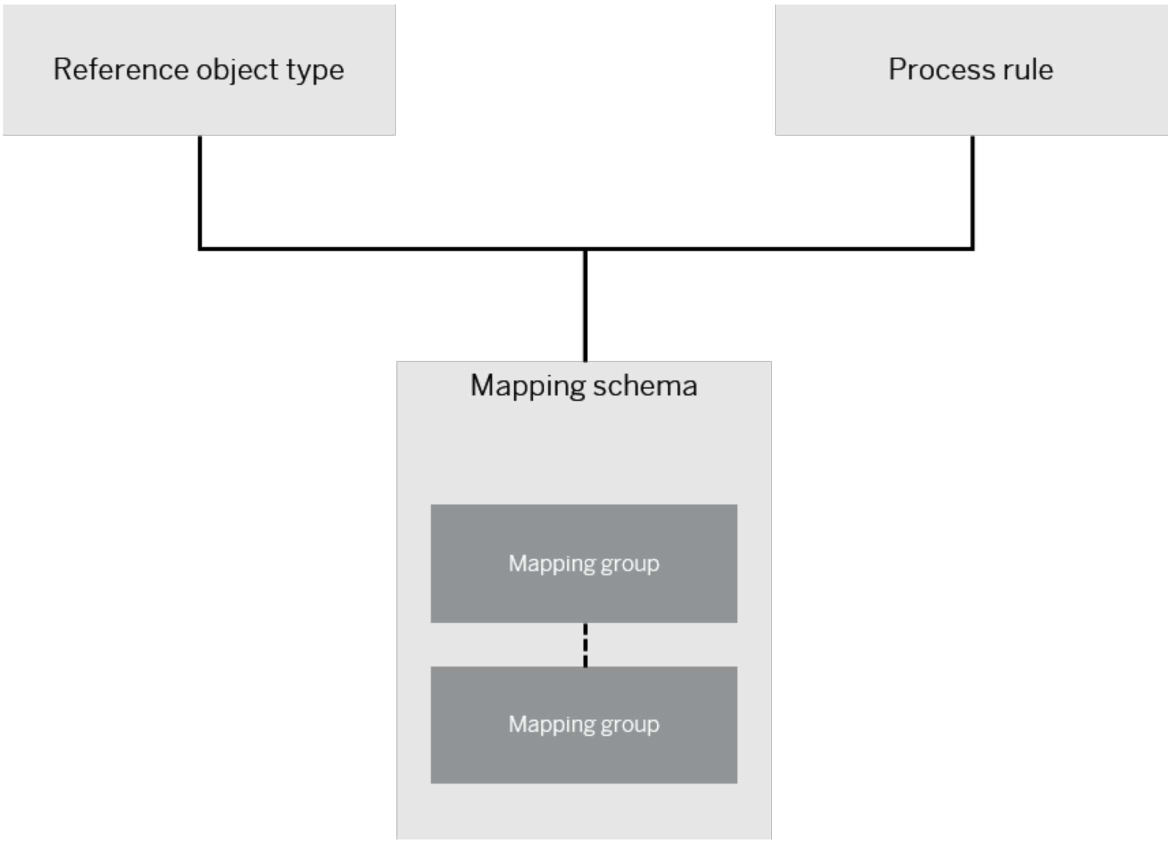
- Checks
  - Incompleteness control (ICC): Checks required entry fields and is triggered manually.
  - Value checks: Checks input errors directly after entry.
  - Reference objects: Used for ICC and value checks. Serves as a general check if they are assigned to a document table directly. Serves as a process check if they are assigned to an item type dynamically.

The following figure illustrates the process of the checks outlined above:



- Posting control
  The posting process can be performed for released, individual documents, or as a mass posting.
  One or more process schemas can be determined from the posting profile for the document type. The schemas are executed when certain prerequisites have been fulfilled.
  A process schema is composed of one or more process rules. A process rule defines individual posting steps, which are available as methods for the event Post.
  Posting methods map the document data to input structures and tables of the BAPIs called.
  The BAPI displays messages for new or changed documents. The messages are written to a log, documents are mapped in the document flow.
  The message type of the BAPI then causes the status of the PAT document to be set.
- Mapping
  Mapping is used in the document data supplementation and in the posting process.
  Generally, the process is as you defined in Customizing. During the posting process, data from data records of the PAT documents is sent to the required input parameters of BAPIs. During document data supplementation, the BAPI reads the data, for example, sales order data, and sends it to the PAT document tables.
  Mapping can be static; source field and target field are known. Or it can be dynamic, using event methods.

The following figure illustrates the mapping structure:



The reference object type and the process rule control the mapping schema that contains various mapping groups.

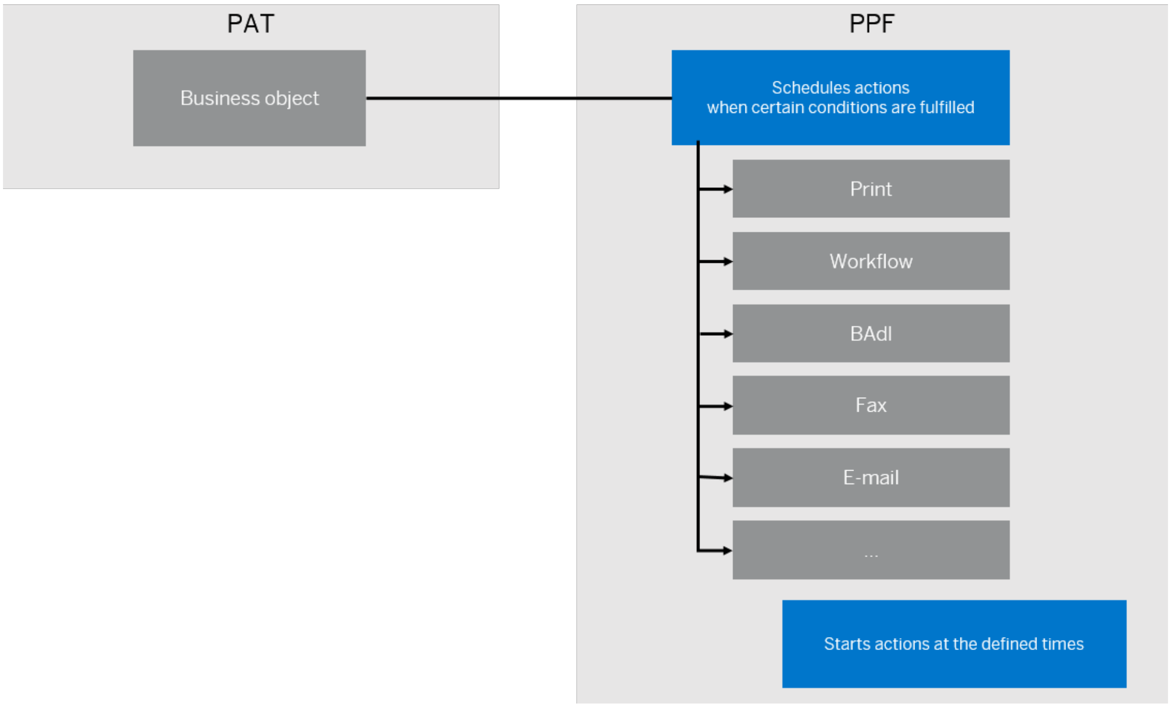
- Data control
  Ensures that all relevant data is displayed for the selected PAT document. It is composed of the following sections:
  - Header data
    Controlled by the document category.
  - Item data
    Controlled by the document category (and the item category).
  - Details
    Controlled by the item category.

  Each section can include as many tab pages as required. In Customizing, you can use methods to configure which tab pages are to be displayed. The appearance of each section is determined by variants, which are defined in the FPM configuration editor. You can create new variants, or change existing ones without modification.
- Logging
  On posting, messages are generated, which are displayed. In the *Log Structure* area, a node with subnodes is displayed for each activity, for example, delivery and invoice. When a node or subnode is selected, the related messages are displayed in the *Log Messages* area.

  In Customizing for PAT, under *Dialog* > *Priority of the Messages in the Log*, you can configure which notifications are to be displayed with which priority.
- Document flow

All documents in a tree structure that are involved in the posting process for the selected PAT document are displayed. You can set whether you want to see all documents, or only the predecessor documents or successor documents.
If navigation is configured for a document category, you can display the document. Navigation is via the SAP launchpad and can be configured in Customizing for *PAT*, under *Dialog* > *Define Navigation*.

- Post Processing Framework (PPF)
  Enables actions to be executed after posting if certain conditions are met, such as sending an e-mail, starting a BAdI, or sending an IDoc. The actions are executed by event methods each time posting is saved.
  The following figure illustrates the PPF options:



> **i Note**
>
> PAT can only be configured by a developer.

Integration

PAT is used in SAP S/4HANA Supply Chain for secondary distribution (S4SCSD) as a framework for Retail Fuel Network Operations (RFNO) and Data Collation.

Prerequisites

You have configured the necessary settings in Customizing for *S4SCSD*, under *Process Automation Toolset (PAT)*.

Related Information

Data Collation (DC) [page 133]
SAP S/4HANA Supply Chain for secondary distribution (S4SCSD) [page 7]
Retail Fuel Network Operations (RFNO) [page 61]

7.1 Locator

Use

In the locator, you can use search criteria to find objects, which are then displayed in a results list. In the results list, you select one or more objects. The data for the object is then displayed in various detail areas.

After searching, you can hide the locator to make more space to display the data for the object.

You can configure the appearance of the locator in Customizing. This is generally controlled by a locator schema. In the Network Operations Desk (NODe), this is done using the locator ID.

Integration

The locator is used in the following applications:

- In data collation
  - Start Data Collation
  - Start Standard Data Collation
  - Start Forwarding-Agent-Related Data Collation
  - Start Vehicle-Related Data Collation
- In Retail Fuel Network Operations (RFNO)
  - Start Continuous Station Replenishment (CSR)
  - Start RFNO Inbound Monitor
  - Start Network Operations Desk (NODe)
  - Edit location document
  - Edit clearing house document
  - Edit payment card contract document
- In the interfaces
  - Web Interface Cockpit

Activities

Define Locator Schema

In Customizing for *Process Automation Toolset (PAT)*, under *Dialog* > *Define Locator Schema*, define a locator schema. You define in which table the data is to be searched for and which selection method is to be used. You define a method in the Customizing activity *Edit Event Methods of the PAT*, in the menu under *Dialog* > *Selection*. You define a field catalog for the locator schema, and determine which search criteria are to be excluded.

You assign the locator schema to a document category.

Assign Locator Schema to Document Category

In Customizing for PAT, under *Dialog* > *Define Document Categories*, you assign the locator schema to a document category.

Define Locator ID for the NODe

In Customizing for *Retail Fuel Network Operations (RFNO)*, under *Network Operations Desk (NODe)* > *Define Locator*, you define a locator ID. You define in which table the data is to be searched for and which selection method is to be used. You define a method in the Customizing activity *Edit Event Methods of RFNO*, in the menu under *NODe Monitor* > *Locator* > *Data Selection*. For the locator ID, you define a tree structure for the results list.

The locator IDs are displayed in alphabetical order in the NODe according to the technical name.

> **Note**
>
> The locator used in Continuous Station Replenishment (CSR) for editing CSR locations and for CSR analysis cannot be changed in Customizing by means of a schema. It cannot be changed.

Related Information

Web Interface Cockpit [page 194]
Data Collation (DC) [page 133]
Processing Documents [page 88]
Creating and Posting a Data Collation Document [page 142]
Retail Fuel Network Operations (RFNO) [page 61]
Network Operations Desk (NODe) [page 109]
Interfaces (IF) [page 192]
RFNO Inbound Monitor (RIM) [page 84]
Continuous Station Replenishment (CSR) [page 114]

8 Integrated Dispatch Management (S4IDM)

Allows you to schedule and monitor outbound delivery tours.

Use

IDM comprises Trip Planning with its master data maintenance and various administration tools.

In Trip Planning, you compile your outbound delivery tours by dragging objects and with graphical support.

You can also archive the IDM data.

> **Note**
>
> IDM is currently only possible in an SAP Fiori Launchpad. With components S4SCSD 300 and an SAP Fiori front-end server with UIS4SCSD 300 on the same server. See also SAP Note 2392559. The application is not available in the SAP menu for *S4SCSD*.

Prerequisites

Customizing

If you have installed IS Oil&Gas, you can find the settings here: *SAP Customizing Implementation Guide* > *Industry Solution Oil & Gas (Downstream)* > *S4SCSD (SAP S/4HANA Supply Chain for Secondary Distribution)* > *Integrated Dispatch Management (S4IDM* > *Geographical Services for S4IDM* > *Define Technical Parameters for Map Services*.

If you have not installed IS Oil&Gas, you can find the settings here: *SAP Customizing Implementation Guide* > *Logistics Execution* > *Bulk Logistics Management (S4SCSD)* > *Integrated Dispatch Management (S4IDM)* > *Geographical Services for S4IDM* > *Define Technical Parameters for Map Services*.

Menu

You can find the menu here: *SAP Menu* > *S4SCSD* > *Integrated Dispatch Management (S4IDM)*.

Services

To display the road map with the routes and locations and to display the values for the carbon footprint, you need the corresponding services. S4IDM is preset for the services of the company PTV AG.

Integration

Data Retrieval

When IDM is started, the Customizing settings and master data are first communicated to Trip Planning. This is followed by the movement data, such as sales orders, contracts, and stock levels of the user's own storage location. The figure below illustrates the process flow for data retrieval when IDM is started:

The sales order data is written to the IDM message control table `/BTL/TR_NAST` by a report controlled by a job that uses message control (message type `OG01` and access sequence `OGTP`).

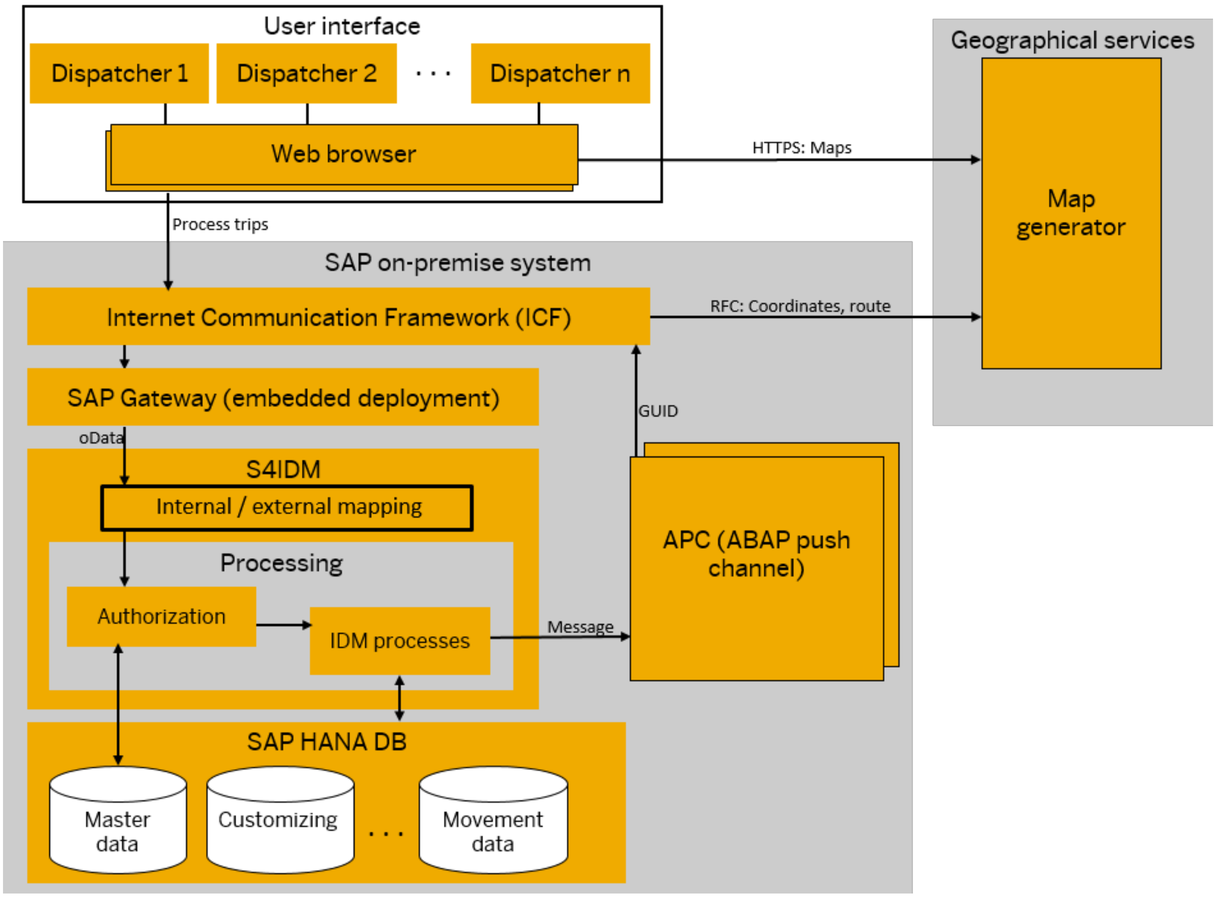
The contracts and stock levels in the user's own storage are also written to IDM message control table `/BTL/TR_NAST` by a report controlled by a job. Contracts and stock levels in the user's own storage are only taken into account if the corresponding contracts are assigned to a plant that you have assigned to the role IDM Plant/Storage Location (RNBPL) in transaction `BP`.

The data in table `/BTL/TR_NAST` is used as the basis for trip creation.

> **i Note**
>
> Every action taken during trip planning is saved automatically. You do not need to perform a manual action for this.

Interface

The following figure illustrates the interface with the communication of the services:



The dispatchers work on the user interface using an Internet browser and create the trips. A request is sent via HTTPS to the geographical services for displaying the road map. An additional request is sent to the Internet Communication Framework (ICF). The ICF sends a request to create the coordinates and the route via RFC to the geographical service.

The ICF sends a request to the SAP Gateway. The SAP Gateway sends a request to S4IDM via oData. The data is mapped and processed further. Authorizations are checked against the master data. The system then processes the data. The system sends a message to the ABAP push channel (APC). The ACP sends a GUID to the ICF.

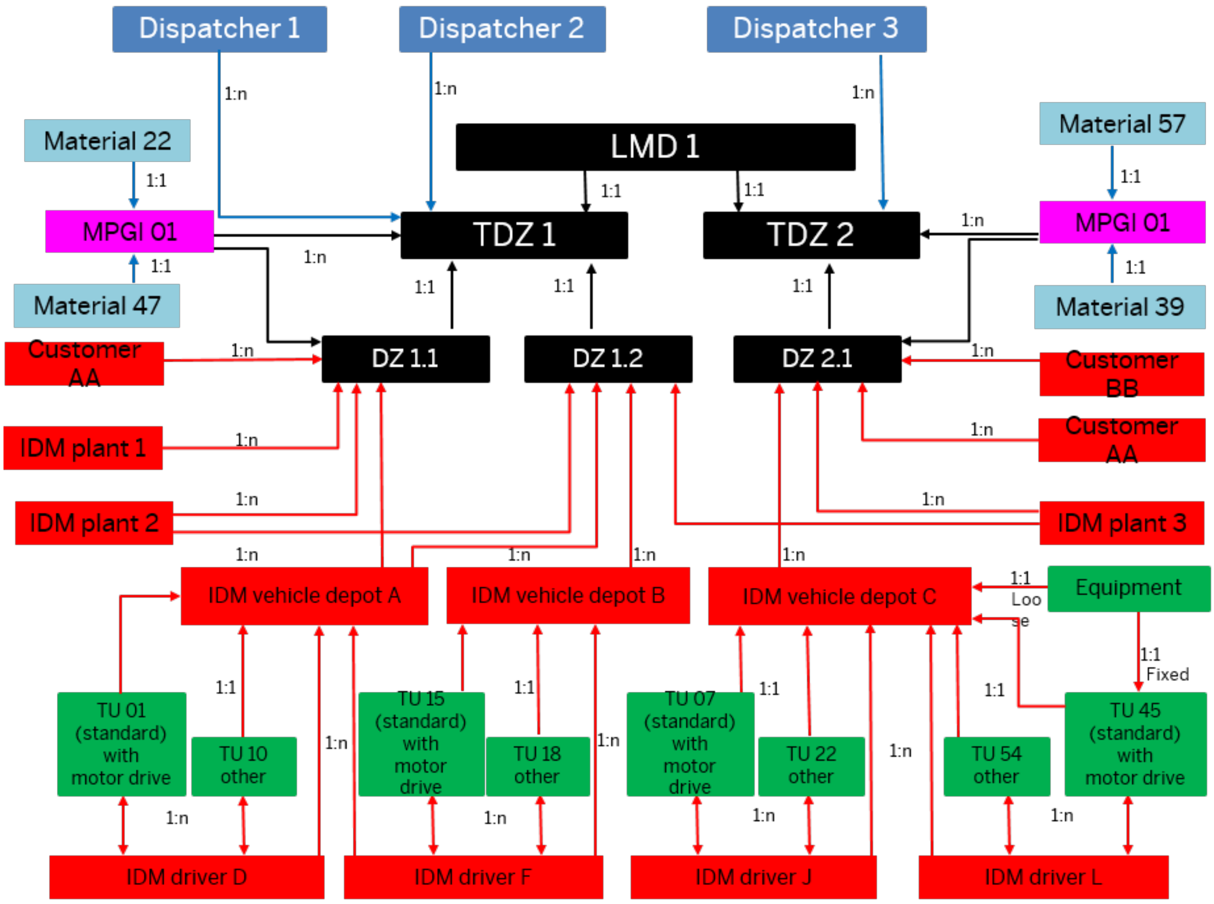
The following table outlines the services that are executed on the xServer:

xServer Services

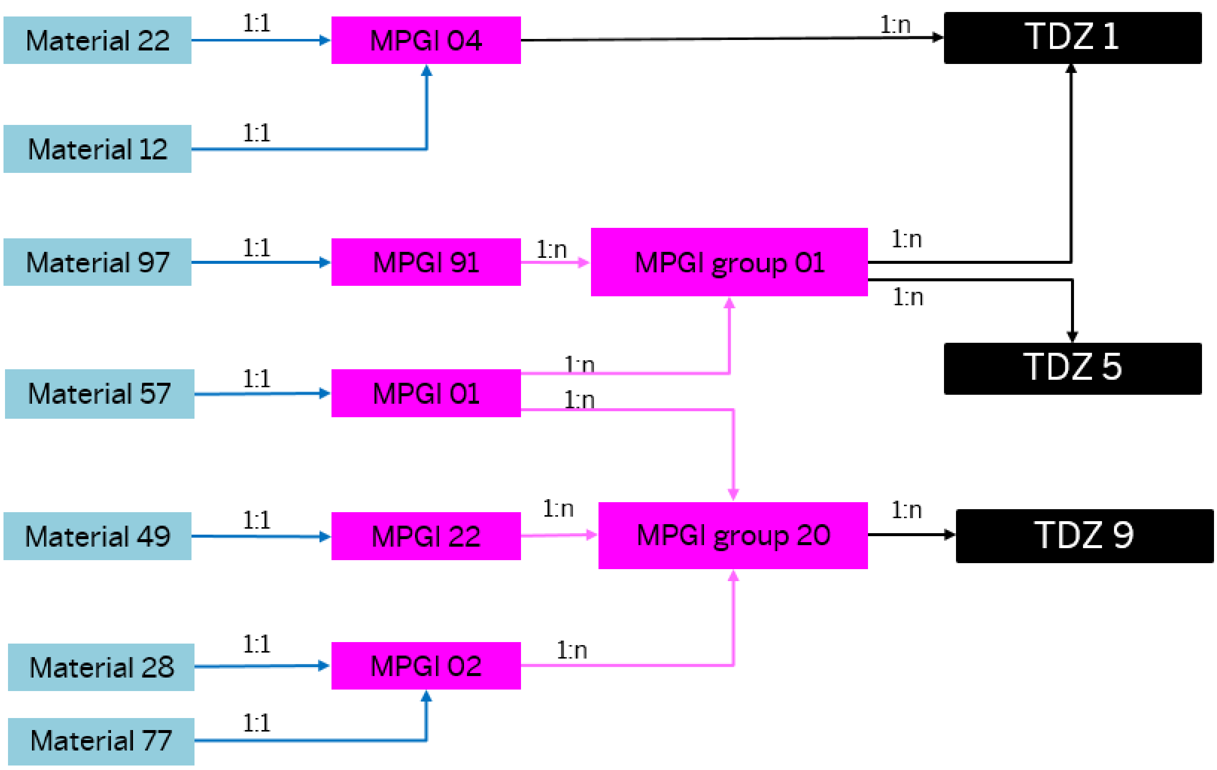
Service	Meaning
xMAP	Displays the road map.
xLOCATE	Returns the coordinates based on the address.
xROUTE	Shows the route based on the coordinates on the road map.

Correlations

The following figure illustrates the correlation of specific objects and the locations of creation and assignment:



The following figure illustrates the correlation of MPGI and MPGI groups:



The colors in the figures above specify the location of creation or assignment. The following table outlines the correlation in more detail:

Color Assignments

Color	Location of creation or assignment
Blue	The *S4SCSD* menu under *S4IDM* > *Administration* or *Master Data*
	The *S4SCSD* menu under *S4IDM* > *Administration* > *Create Dispatcher* The *S4SCSD* menu under *S4IDM* > *Master Data* > *Assign Material to Material Planning Group Indicator* The *S4SCSD* menu under *S4IDM* > *Master Data* > *Edit Business Partner*
Light blue	Transaction `MM01`
Black	Customizing under *S4SCSD* > *S4IDM* > *Trip Planning* > *Trip and Item Categories and Delivery Zones* > *Define Delivery Zones*
Pink	Customizing under *S4SCSD* > *S4IDM* > *Trip Planning* > *General Settings* > *Define Material Planning Group Indicators*
Red	The *S4SCSD* menu under *S4IDM* > *Master Data* > *Edit Business Partner* `BP` in the respective IDM role
Green	The *S4SCSD* menu under *S4IDM* > *Master Data* > *Equipment and Transport Units* > *Create Equipment* `IE01`

You can assign a dispatcher to multiple top delivery zones. The dispatcher can only work in one TDZ of a top delivery zone group in Trip Planning, however.

You assign a TU to a TDZ using a vehicle depot.

Select a TDZ for the driver and then assign a VD. The driver is therefore assigned to this TDZ. Only now is it possible to make the assignment to a TU. You can assign the driver at least one TU with a tractor as a default TU and also default equipment. You can assign further TUs without a tractor to the driver.

The following table explains the abbreviations used:

Abbreviations

Abbreviation	Meaning
MPGI	Material planning group indicator
DZG	Delivery zone group

Abbreviation	Meaning
TDZ	Top delivery zone
DZ*	Delivery Zone
TU	Transport unit
VD	Vehicle depot

There can be any number of delivery zones between the TDZ and the lowest DZ. However, assignments are always made from the TDZ or the lowest DZ.

You can assign a vehicle depot only to delivery zones that are assigned to the same TDZ. The vehicle depot is then locked for other assignments.

Related Information

Trip Planning (TP) [page 214]
Plant and Contract Determination [page 262]
Mixed Products [page 264]
Delivery Zone [page 255]
Road Map [page 230]
Archive IDM Data with /BTL/ARC [page 298]
Geographical Services for S4IDM [page 211]

8.1 Integrated Dispatch Management (App)

You can use this app to plan and monitor your outbound delivery tours. The app has the Fiori ID `F4094`.

Features

This app provides the following key feature:

- Trip planning

Trip Planning provides you with the following functions:

- Road map
- Document overview
- Gantt chart
- Resource list
- Vehicle chart

- Multi-function
- Change start variant

This app uses the following CDS views:

- /BTL/TRL_TRIP_DOC_DISPATCHER
- /BTL/TRL_TRIP_DOC_HEADER_DSPCH
- /BTL/TRL_ODATA_DRIVER_VH
- /BTL/TRL_ODATA_DRIVERS
- /BTL/TRL_ODATA_LOAD_ITM_CAT
- /BTL/TRL_GRID_ITEM_CAT_TXT
- /BTL/TRL_ODATA_LOADING
- /BTL/TRL_ODATA_UNLOADING
- /BTL/TRL_ODATA_UNLOAD_COUNT
- /BTL/TRL_ODATA_TRIP_HIERAR
- /BTL/TRL_ODATA_TRIP
- /BTL/TRL_ODATA_VEHICLE_VH
- /BTL/TRL_ODATA_VEHICLES
- /BTL/TRM_ODATA_IDM_DOC_UOM
- /BTL/TRM_UOM_TXT
- /BTL/TRL_TRIP_DRIVER
- /BTL/TRL_TRIP_RESOURCE
- /BTL/TRL_GRID_ITEM_CAT_TXT
- /BTL/TRL_ODATA_LOADING
- /BTL/TRL_ODATA_TRIP_HIERAR
- /BTL/TRL_ODATA_TRIP
- /BTL/TRL_ODATA_UNLOADING

Supported Device Types

- Desktop

Fiori Launchpad (FLP)

In FLP, you need to select this role to get the app:

- SAP_BR_TRANSPORTPLANNER_SCSD

Supported Browsers

- Chrome

Related Information

[Integrated Dispatch Management (S4IDM) [page 204]]
[Trip Planning (TP) [page 214]]

8.2 Geographical Services for S4IDM

Describes required and optional geographical services and settings for S4IDM for the road map and for displaying the carbon footprint.

Use

This document describes the minimal configuration for the geographical services and other settings to make them work properly.

These services are provided.

- xMap: Display Road Map
- xLocate: Locate Addresses
- xRoute: Create Route
  - In addition: Display Emission Data
  - In addition: Optimize Trip Sequence
- xData: Set Restrictions for Roadblock Manager
- Prerequisite: xRoute is set

Prerequisite

You have set up the PTV xServer in version 2.22.

For the xServer, S4SCSD delivers an example implementation for the PTV AG products. You must purchase the map material from Implico GmbH. If you want to use other providers, you have to perform this as additional effort. BAdIs are available for this purpose.

You can use this example implementation as a template for other implementations. In general, you can use road maps by implementing BAdIs that support the required functions of an external geo service layer. See also SAP Note 2872120 *Geo Service Provider for S4SCSD Integrated Dispatch Management*.

To be able to use the Roadblock Manager, you must use PTV xServer 2.

Customizing

Customizing mainly takes place in an activity. If Customizing is referred to in the course of this documentation, this is an activity.

You can find this activity here:

If you have installed IS Oil&Gas: *SAP Customizing Implementation Guide* > *Industry Solution Oil & Gas (Downstream)* > *S4SCSD (SAP S/4HANA Supply Chain for Secondary Distribution)* > *Integrated Dispatch Management (S4IDM* > *Geographical Services for S4IDM* > *Define Technical Parameters for Map Services*.

If you do not have IS Oil&Gas installed: *SAP Customizing Implementation Guide* > *Logistics Execution* > *Bulk Logistics Management (S4SCSD)* > *Integrated Dispatch Management (S4IDM)* > *Geographical Services for S4IDM* > *Define Technical Parameters for Map Services*.

Services and Settings

xMap

With the functional Customizing of S4SCSD, the service group `MAPGROUPEU` is delivered as a sample for the provider PTV AG.

The example path for the map service under *Map Map Service Paths* is `<PTV xServer 2.0 EU>/services/rest/XMap/tile/`. In Customizing, replace the part `<PTV xServer 2.0 EU>` with your data.

xLocate, xRoute, xData

To establish the connection from the SAP system to your xServers, you must first set up the corresponding RFC connections using the transaction *Configuration of RFC Connections* (`SM59`). Create a separate connection for each service that you want to use and configure it as follows:

1. Start transaction `SM59` and choose *Create*.
2. Enter a *destination* of your choice and choose the connection type `G`.
3. On the *Technical Settings* tab in the *Target System Settings* group box, specify the host URL of your xServer and port 443.
    - The *path prefix* differs depending on the service:
        - for xLocate: /services/rs/XLocate/
        - for xRoute: /services/rs/XRoute/
        - for xData: /services/rs/XData/
4. On the *Logon & Security* tab in the *Security Options* group box, select the *Active* radio button for SSL.
5. Save your entries.

Then activate the new xServers in Customizing:

1. Select the relevant service group and choose *Create Connections*.
2. Select the deployment for the respective connections:
    - The implementation with the filter ID 2 for locate, route, and emissions, respectively.
    - For data, the implementation with the filter ID 1.

3. In the *RFC Connection* column, select the corresponding RFC connections that you created previously in SM59.
4. Save your entries.

Additional, optional settings for xRoute

- Specify which restrictions are to be displayed in the Roadblock Manager. Prerequisite: The xData service is also set up.
    1. Customizing: Select the group and choose *Define Routing Configurations*.
    2. Select the required configurations in the *Default* column.
- Specify whether to display emission data.
    1. Customizing: Select the group and choose *Create Connections* .
    2. The entry *EMISSION Emission Processing* must be entered with implementation 2 and the RFC connection for xRoute.
    3. Select the entry for EMISSION and choose *Set Default Parameters*.
    4. Select the parameter.

  In addition, the following setting must be available in Customizing so that the *Display Carbon Footprint* selection is available in the context menu for the trip.

  Customizing: *Integrated Dispatch Management (S4IDM)* > *Trip Planning* > *Actions and Context Menu* > *Create Context Menu*.
    1. Select *Context Menu T Trip*.
    2. Choose *Assignment*.
    3. The entry */BTL/TR_BADI_UA_1041 Display Carbon Footprint* must exist.
- Specify whether the trip sequence is to be optimized.
    1. Customizing: Select the group and choose *Create Connections* .
    2. The entry *SEQUENCE Automatic Trip Sequence* with the implementation 1 must exist.

  In addition, the following setting must exist in Customizing so that the *Define Trip Sequence Automatically* selection is available in the context menu for the trip.

  Customizing: *Integrated Dispatch Management (S4IDM)* > *Trip Planning* > *Actions and Context Menu* > *Create Context Menu*.
    1. Select *Context Menu T Trip*.
    2. Choose *Assignment*.
    3. The entry */BTL/TR_BADI_UA_1055 Define Trip Sequence Automatically* must exist.

Related Information

Roadblock Manager (App) [page 277]
Carbon Footprint [page 218]

8.3 Trip Planning (TP)

Makes it possible to compile the outbound delivery tours.

Use

You can use the graphical support and the drag and drop function to compile your outbound delivery tours. You can assign a dispatcher different responsibilities. Various functions support you in the creation of tours. The trip category controls the creation of trips. With the Fiori app *Roadblock Manager*, you can define road restrictions. These restrictions are taken into account in Trip Planning.

You can only log on once. If another logon is active when you log on, the system displays a query. If necessary, you can use the report *End Dispatcher Session* to end a logon. You can access the report in the *S4SCSD* menu by choosing *Integrated Dispatch Management (S4IDM)* > *Administration* > *End Dispatcher Session*.

> **i Note**
>
> We recommend that only one user logs on at each workstation. Otherwise, the data may be inconsistent.

You start Trip Planning in the SAP Fiori launchpad with the role `SAP_BR_TRANSPORTPLANNER_SCSD`.

Features

In the toolbar, you can find information on the used versions of the components, under *Version Information*.

Trip Planning includes the following functions:

- Road map
- Document overview
- Gantt chart
- Resource list
- Vehicle chart
- Multi-function
- Change start variant
- Quick info

These functions are displayed in separate areas:

- Road map
- Document overview
- Gantt chart with the views pane
- Resource list
- Vehicle chart

You can change the size of the individual areas.

You can display a tooltip for various objects with a mouse-over, or by clicking on them. You can change the tooltip in Customizing for *S4IDM* under *Trip Planning* > *Text Information*. This text information is displayed on the road map for plants and items, for example. The Gantt chart contains text information, for example, for trips and for drivers. You can configure the font size in Customizing, under *Integrated Dispatch Management (S4IDM)* > *Trip Planning* > *General Settings* > *Define Default Groups*, under *Font Size in the Tooltip for IDM in Percent*`QUICKINFO_FONTSIZE`.

To copy data from the tooltip or to go directly to the document, press the `Ctrl` key when the tooltip is displayed.

You can activate or deactivate the tooltip for the document overview in Customizing for *S4IDM*, under *Trip Planning* > *General Settings* > *Define Default Groups*, under `GRID_SHOW_QUICKINFO`.

In Trip Planning, you can display a button that you can use to activate and deactivate the display of text information. For the configuration for this, see Customizing, under *IDM* > *Trip Planning* > *General Settings* > *Define Default Groups*, under *Display Pushbutton for Suppressing Text Info*`SUPPRESS_TEXTINFO_BTN`.

The latest messages are displayed directly in the header bar. For an overview of all messages, see *All Messages* .

If there are changes, a field with a bell and the number of changes is displayed in the header bar. Click the arrow and choose *Apply Changes*. This copies the changes to the road map.

> ⚠ Caution
>
> Note that both the tooltip and the context menu always display the current status in the database and can therefore differ from the interface display. To get the current status, always choose the bell icon.

You can configure an automatic update in Customizing, under *Integrated Dispatch Management (S4IDM)* > *Trip Planning* > *General Settings* > *Define Default Groups*, under *Update Delay for the IDM Interface*`UPDATE_DELAY`.

Prerequisites

General

Following the installation, you must execute the report `/BTL/TR_NAST_PLANT_DATA` for each top delivery zone; otherwise, no loadings can be performed.

You have assigned the business role `SAP_BR_TRANSPORTPLANNER_SCSD` to the Fiori Launchpad.

Choose the app *Integrated Dispatch Management* in the Fiori app library. The app has the Fiori ID `F4094`.

Master data

In the *SAP Menu*, under *S4SCSD* > *S4IDM* > *Administration* > *Create Dispatcher*, you have created the dispatcher and defined the assignments. You can assign complete top delivery zones as well as only subdelivery zones. You can use up to five delivery zone levels.

You can also use the Fiori App *Assign Dispatcher*`F4164`.

In the *SAP Menu*, you need to assign a material to an MPGI under *S4SCSD* > *S4IDM* > *Master Data* > *Assign Material to Material Planning Group Indicator*.

You assign the MPGI to the delivery zone in the Customizing for *S4IDM* under *Trip Planning* > *Trip and Item Categories and Delivery Zones* > *Define Delivery Zones*.

The prerequisite is that you have defined the MPGI in Customizing for *S4SCSD* under *S4IDM* > *Trip Planning* > *General Settings* > *Define Material Planning Group Indicators*.

Master data is subject to a usage check. If master data is used in a trip, no changes can be made. Only the time allocation of vehicles to the business partner *Vehicle Depot* can be changed.

S4IDM Customizing

You have configured the required settings in Customizing for *S4IDM*.

You have configured the number ranges under *Trip Planning* > *Trip and Item Categories and Delivery Zones* > *Number Ranges*.

When defining the default routing configuration using the Fiori app *Roadblock Manager*, in *Geographical Services for S4IDM* > *Define Technical Parameters for Map Services* you selected a configuration as *Default* for a *Service Group* under *Define Routing Configurations*.

Menu

You have configured the `/BTL/IDM_ALL` area menu.

Web browser

Use the latest version of the Google Chrome web browser.

Activities

The items, plants, and vehicle depots to be planned are displayed on a road map in the application. You need to drag the items to be planned to a driver or transport unit in a Gantt chart. That is how you create the outbound delivery tours. During this process, the system checks various parameters such as when the driver is available.

Related Information

Road Map [page 230]
Document Overview [page 238]
Gantt chart [page 240]
Resources [page 248]
Detail View [page 251]
Vehicle Chart [page 249]
Multi-Function [page 253]

Change Start Variants [page 254]
Assign Dispatcher (App) [page 217]
Roadblock Manager (App) [page 277]
https://fioriappslibrary.hana.ondemand.com

8.3.1 Assign Dispatcher (App)

You can use this app to assign the delivery zones to trip planning dispatchers. The app has the Fiori ID `F4164`.

Features

This app provides the following key features:

- Find user
  You can search by the following criteria:
  - User name
  - First name
  - Last name
- Displaying delivery zones and assignments
  The delivery zones are displayed in a structure. Existing assignments are highlighted in color.
- Assigning users to the delivery zones
  Assign the user to one or more delivery zones. To do so, select the relevant checkboxes.
- Copying assignments
  Choose *Copy* to assign the current assignments to another user.

Fiori Launchpad (FLP)

In FLP, you need to select this role to get the app:

- `SAP_BR_TRANSPORTPLANNER_SCSD`

Supported Device Types

- Desktop
- Tablet
- Smartphone

Dependencies

In the *SAP Menu* for *S4SCSD*, under *Integrated Dispatch Management (S4IDM)* > *Administration* > *Create Dispatcher* you can also create and assign dispatchers.

8.3.2 Carbon Footprint

You use this function to calculate and display data for the carbon footprint of a trip.

Use

In IDM, you can display the carbon footprint for a trip. Master data and the calculated emission values are displayed.

Prerequisites

You have access to an external emission calculation service.

We recommend that you use xServer 2 with the xRoute service and the emission calculation from the company PTV AG. S4SCSD is prepared for this.

Customizing

You have set the parameters in Customizing for *S4IDM* under *Geographical Services for S4IDM* > *Define Technical Parameters for Map Services*.

You can find the required RFC connections for the services in the transaction *Configuration of RFC Connections* `SM59` under *HTTP Connections to External Server*.

Master Data

You can also maintain the master data using the *Maintain Vehicle Parameters* app.

To be able to calculate the values, you must enter the following master data in the menu or have entered it using ADS menu *S4IDM* as described below:

Enter under *Master Data* > *Equipment and Transport Units* > *Change Equipment* or enter the data for your existing vehicles *Automotive Engineering* using ADS, as described below.

- In the *Drive Data* group box, for these fields:
  - *Type of Propulsion*
  - *Cubic Capacity*

- In the *Fuels and Lubricants* group box, for these fields:
  - *Primary Fuel*

Under *Master Data* > *Equipment and Transport Units* > *Enter Carbon Footprint Data* enter these values:

- *Biofuel in Percent*
- *Average Consumption and Unit of Measurement*
- *Emissions Technology*
- *Particle Filter*
- *Emissions Class*

Technical Process

The vehicle master data and the trip data are transferred to the xServer. Once the emission values have been calculated, they are returned to the system and are available for displaying the carbon footprint for the trip.

The more detailed and precise your specifications for the vehicle master data are, the better the calculation of the carbon footprint values will be. If no master data exists, the values to be displayed are calculated with average values. In this case, a symbol is displayed for the value.

Whenever the route is changed, the emission data is also recalculated and saved in a table.

Process

1. In the header area of a trip, open the context menu and choose the entry *Display Carbon Footprint*.
2. The *CO2 Footprint of Trip <Trip Number>* dialog box displays this data for the trip:
   1. *Vehicle*
      1. Source: Vehicle master data (see also Prerequisites above)
   2. *Route*
      1. Source: Route Service
   3. *Loaded Goods*
      1. Source: Sales Order
   4. *Emissions*
      1. Source: Emission Calculation of Route Service

      Since the emission types displayed differ depending on the emission calculation source used, you have to enter the texts for the emission types manually in the language-dependent table *Text Table for Emission Keys* `/ICO/GS_EMSSNT`.

Further Information

You can assess the carbon footprint values of a trip in the *Analyze Carbon Footprint* app.

Related Information

Gantt chart [page 240]
Maintain Vehicle Parameters (App) [page 220]
Analyze Carbon Footprint (App) [page 222]

8.3.2.1 Maintain Vehicle Parameters (App)

App ID: F7164

With this app, you can edit vehicle parameters that are relevant to the carbon emissions of your vehicle fleet.

Features

You can use this app to do the following:

- Display Means of Transport
  You can choose between the *All Means of Transport* or *Unedited Means of Transport* view. Unedited means that only the means of transport that have not yet been edited using this app are displayed.
  - Select View
    You can save entered search data.
  - Share
    This function is available in both an overall view and an individual view. Choose *Share* in the upper-right corner. You can choose either of the following:
    - Send Email
      Send the link to the overall view or to a vehicle in an e-mail.
    - Save as Tile
      Create a tile on the launchpad, either for an overall view or for an individual vehicle. The number of vehicles is indicated on this tile.
  - Search
    Search for entries in the list. Entries are also found in the unexpanded part of the list.
  - Settings
    To make various settings for the table, choose *Settings*. The settings affect, for example, the sorting and grouping of the columns.
  - Copy
    Copy data of one means of transport to another.
    1. Select one or more transport units.
    2. Choose *Copy*.
    3. Specify the source vehicle and select the fields to be copied. Choose *Copy*.
    4. The data has been copied to the target vehicle(s).

    > ⚠ Caution
    >
    > Check carefully which data you are copying to where. Existing data gets overwritten. The copying process irreversible.
- Edit Means of Transport
  1. Double-click on a row.
  2. Choose *Edit*.
  3. Change or enter the data. Save your entries.

Dependencies

You can also create or change this master data in the S4SCSD menu.

Under *Integrated Dispatch Management (S4IDM)* > *Master Data* > *Equipment and Transport Units* > *Edit Carbon Emission Data of a Transport Unit* > *Change Equipment*, the *Automotive Engineering* tab contains the following master data:

- Type of Propulsion
- Cubic Capacity
- Primary Fuel

Under *Integrated Dispatch Management (S4IDM)* > *Master Data* > *Equipment and Transport Units* > *Edit Carbon Emission Data of a Transport Unit*, you can find the following master data:

- Biofuel as Percentage
- Fuel Consumption with Unit of Measurement
- Emissions Technology
- Filter Type
- Pollutant Class

This app uses the following CDS views:

- /BTL/TRP_TU_CFP
- /BTL/TRI_TRANSPORT_UNIT

Supported Device Types

- Desktop
- Tablet

Fiori Launchpad (FLP)

In FLP, you need to select this role to get the app:

- `SAP_BR_TRANSPORTPLANNER_SCSD`

Supported Browsers

- Chrome

Further Information

Here you can find more information about the app: https://fioriappslibrary.hana.ondemand.com/sap/fix/externalViewer/#/detail/Apps('F7164')

8.3.2.2 Analyze Carbon Footprint (App)

App ID: F7468

You can use this app to analyze the carbon footprint of your vehicle fleet. The data is displayed as a chart and in a table.

Features

This app provides the following key features:

- General Functions
  - Select View
    You can save your views. To do so, choose *Select View* in the upper-left corner.
  - Customize Search
    Choose which fields are displayed for the search.
  - Select Filter
    - Compact Filter
      You select the search values by entering or selecting in fields.
    - Visual Filter
      You select the search values by clicking on graphical elements. You can select multiple elements.
  - Share
    - Send Email
      Send the link to the overall view or to a selection by e-mail.
    - Save as Tile
      Create a tile for the launchpad for the overall view or for a selection. The number of trips is indicated on this tile.
- Chart
  - Details
    Displays details about one or more selected elements in the chart. After the selection, choose *Start* to refresh the data.
  - Display by
    Choose which values are displayed in the chart.
  - Display Legend
    Displays the legend.
  - Zoom Settings
    Here you can zoom in or out.
  - Settings

To make various settings for the table, choose *Settings*. The settings affect, for example, the sorting and grouping of the columns.
  - Maximize
    You can use this to display the chart in the maximum size.
  - Chart Type
    Here you can select the chart type.
  - Chart View Selection
    Select whether you want to see both the chart and table, or just the chart or the table.
- Table
  - Scope
    - Display All Items
      Displays all items.
    - Display Only Chart Selection Items
      Displays in the table only the elements selected in the chart.
  - Settings
    To make various settings for the table, choose *Settings*. The settings affect, for example, the sorting and grouping of the columns.
  - Export Table
    Here you can export the data of the table as an MS Excel or in PDF format.
  - Maximize
    You can use this to display the table in the maximum size.
  - Details
    To see details about an entry, choose *Details* at the end of a row. For the details, there are also the functions for *Settings* and *Export Table*. The different emissions are displayed there. To see the texts in your language, you must enter the texts in the table `/ICO/GS_EMSSNT`.

In addition, the app supports the following technical features and options:

This app uses the `/BTL/TRL_EMISSION_REPORT` CDS view.

Supported Device Types

- Desktop
- Tablet

Fiori Launchpad

In FLP, you need to select this role to get the app:

- `SAP_BR_TRANSPORTPLANNER_SCSD`

Supported Browsers

- Chrome

Further Information

Here you can find more information about the app: https://fioriappslibrary.hana.ondemand.com/sap/fix/externalViewer/#/detail/Apps('F7468')

8.3.3 Start Variants

Determines which objects can be displayed in Trip Planning.

Use

Before you start Trip Planning for the first time, you define the parameters that you want to work with. You can save these parameters as a variant. When you execute Trip Planning, some parameters can also be changed during runtime. You can do this using the function *Start Variants* in Trip Planning.

Activities

Months

Select a validity period for which the unplanned items are to be displayed on the road map. The dates refer to order dates. This period also limits the days displayed in the Gantt chart and in the document overview.

The configured period is shifted one day into the future every day. This applies to the start date and the end date. For example, if you set the dates 12/01/2020 and 12/31/2020, the next day the period will be set to 12/02/2020 and 01/01/2021.

In Customizing for *SAP S/4HANA Supply Chain for secondary distribution (S4SCSD)*, under *Integrated Dispatch Management (S4IDM)* > *Trip Planning* > *Trip and Item Categories and Delivery Zones* > *Define Trip Category*, you can configure the valid period for the date selection in the *Maximum Planning Period* group box. The selectable period is highlighted in the calendar selection. You can select a time period by dragging from the start date to the end date. If you want the selected period to extend beyond the current month, proceed as follows: Drag from the start date to the last day of the current month and continue to the Arrow to the right icon *Next*, and choose *Continue*. Now drag from the first day of the new month to the desired end date.

Delivery Zones

Select the delivery zones.

Only the delivery zones that you assigned in the master data under *Create Dispatcher* are displayed.

Variant

You can define your chosen settings as a variant.

Change Parameters

You can change the parameters of the current Trip Planning. Choose in the toolbar *Start Variants* in Trip Planning.

Related Information

Change Start Variants [page 254]
Document Overview [page 238]
Gantt chart [page 240]

8.3.4 Processing Trips

You can create, move, and delete trips in Trip Planning.

You can use Trip Planning to edit the trips in these manners:

- Create a trip
  - By dragging an item from the road map to the Gantt chart.
  - By dragging an item from the list of contracts to the Gantt chart.
- Move a trip
  - Vertically within the Gantt chart
  - Horizontally within the Gantt chart
  - Assign a trip to another trip
- Delete a trip
  - By dragging the item back to the road map or to the trash during planning.
  - Delete a trip that has already been planned using the report *Delete Planned Trips*.

Related Information

Deleting Planned Trips [page 228]

8.3.4.1 Create Trip from Within the Road Map

Describes how you can create a trip from the road map in the Gantt chart.

Context

During creation from within the road map, the vehicle depot and the loading plant are automatically assigned. The vehicle depot depends on the vehicle. The loading plant depends on the sales order or on the plant and contract determination.

You can also delete a vehicle depot that was assigned automatically and drag the road map to add a different one.

Use the connection tool on the road map when you want to assign another vehicle depot or plant to the trip. Select the vehicle depot, item or items, and plant. Drag this group to the Gantt chart.

Procedure

Drag an item from the road map to the Gantt chart.

Related Information

Plant and Contract Determination [page 262]

8.3.4.2 Create Trip from Document Overview

Describes how you can create a trip from within the document overview in the Gantt chart

Context

Procedure

Drag an entry from a document overview to the Gantt chart.

a. From within the unloading documents. Only documents not blocked can be dragged.

b. From within the loading documents. When you release the document in the Gantt chart, the dialog box *Create Loading* is displayed. Enter the quantity to be loaded. Choose *Send*. Delete the previously existing loading item from the trip.

Activate the option *Display Cursor Line* in the *Settings*. If you press a button when dragging a document, an activated cursor line appears in the Gantt chart at defined minute intervals. If you do not press a button or have not chosen the option *Display Cursor Line*, you can position the document anywhere.

Keys

Key	Minute Interval
`Shift`	10
`Control key` or `AltGr`	15
`Alt`	30

Related Information

Settings [page 247]
Document Overview [page 238]

8.3.4.3 Move a Trip Vertically

Describes how to move a trip vertically within the Gantt chart.

Context

If you have selected the driver view, you can assign a different trip to a driver. If you have chosen the transport unit view, you can assign the trip to a different transport unit.

Procedure

Drag the trip to a different driver or to another freight unit.

8.3.4.4 Move a Trip Horizontally

Describes how to move a trip horizontally within the Gantt chart.

Context

You can move a trip horizontally on the time axis.

Procedure

Drag a trip to the new item.

8.3.4.5 Assign Trip to Another Trip

Describes how you can assign one trip to another.

Procedure

1. Drag one trip to another trip.
2. Release the trip at the required position. A quick info displays the position. A blue marker displays the exact position.

8.3.4.6 Deleting Planned Trips

This report lets you delete a planned trip in Trip Planning.

Use

You can use this report to delete planned trips for the current top delivery zone (TDZ) in Trip Planning. You can do this for the older trips that are no longer required, for example. We recommend that you execute this report at regular intervals.

You can find the report in the *SAP Menu* under *S4SCSD* > *S4IDM* > *Administration* > *Delete Planned Trips*.

Prerequisites

You can delete the trips only if no other dispatcher is processing this TDZ. All dispatchers must therefore close the Trip Planning.

You can delete trips that are still required, for example, due to a loading reference to the trip in Trip Planning, only if you also delete the dependent trips.

Activities

You must have at least the trip category and can select additional search criteria.

You can also control the behavior during deletion. If you do not select an indicator, the documents in the Gantt chart are deleted. However, the documents are available on the street map for planning again.

The system displays a list of the trips found. Select the trips to be deleted. Choose *Delete Trips*.

8.3.5 Features

Describes the available functions that help you plan trips.

The following functions are available:

- Display Version Information
  Information about the versions is displayed here.
- Display Road Map
- Display Document Overview
- Display Gantt Chart
- Display Resource List
- Display Vehicle View
- Execute Multi-Function
- Change Start Variant
- Display Tooltip
- Display Variant
  The current start variant and the selected period are displayed in the toolbar.

Related Information

Road Map [page 230]
Document Overview [page 238]
Gantt chart [page 240]
Resources [page 248]

[Vehicle Chart [page 249]](#)
Multi-Function [page 253]
Change Start Variants [page 254]

8.3.5.1 Road Map

Describes the use and functions of the Trip Planning road map.

Use

On the road map, the route and various objects are indicated by symbols. The objects that are located in the delivery zone that you selected in the start parameters are displayed. You compile your trips by dragging objects to the Gantt chart.

Various functions are available for selecting the objects and working with the road map.

By using the Fiori app *Roadblock Manager*, you can integrate restrictions on the use of roads into the road map. These restrictions are taken into account in route calculations. Select an entry in the selection menu for this.

The road map is located in the toolbar, under *Display Map* .

Prerequisites

A sample implementation is delivered from the PTV AG for the xServer. You must purchase the map material directly from PTV AG. If you want to use other providers, you have to perform this as additional effort. BAdIs are available for implementing this.

You can use this sample implementation as a template for other implementations. In general, you can use road maps by implementing BAdIs that address the required functions of an external geo-service layer. See also SAP Note 2872120.

To use Roadmap Manager, you require the xServer 2.

Features

Symbols

The following objects can be displayed:

- Items of sales orders
- Plants or storage locations
- Vehicle depots

- The vehicles through Vehicle Live Tracking
- The road blocks through Roadblock Manager

You can configure the symbols in Customizing for *S4SCSD* under *S4IDM* > *Trip Planning* > *Symbols* > *Define Symbol Schema Group*. This affects these parameters, for instance:

- Color
- Shape
- Positioning
- Graphic to be displayed

The trip that you are currently processing in the Gantt chart is displayed and highlighted on the road map. The background of the objects that are relevant for the trip is colored. The objects are linked with the route. This is indicated by a colored line.

Item

The following table outlines the possible forms of items:

Item Display Options

Where	How	What
Basis	Color	Material number
Inner area	Shape	Quantity area
	Number	Remaining time until outbound delivery Red number: Date is in the past
Attached shape upper left	Color gray	Planned item
	Color red	Unplanned item
Attached shape upper right	Number	Priority of item
Attached shape lower right	Yellow highlighting	Changed item
	Green highlighting	New item
	Red highlighting	Deleted item

Delivery priority

During order creation, you set the delivery priority of the item in the *Item Priority* field of the *Shipping* group box on the *Item Detail* tab page. If you do not enter a value here, IDM applies 50 as the priority.

The following table outlines this priority conversion:

Delivery Priority

Priority in Order Creation	Level	Priority in IDM
001	Highest	0
000	Medium	50
100	Lowest	99

If the priority calculated is greater than 99, a priority of 99 is always used in IDM.

The number of days until the outbound delivery is also taken into account when calculating the priority in IDM. The fewer the days remaining, the higher the priority that is set. The priority is calculated according to the following formula: (priority in VA01/10) * number of days * 2

If the priority in VA01 is 000, a priority of 50 is always used for the calculation in IDM.

The following table provides examples of calculations for the priority:

Calculating the Priority

Priority in VA01	Days Until Outbound Delivery (Max. 255 Days)	Priority in IDM
50	4	
50	2	40
60	0	20
100	10	0
000 (80 is used in calculation)	3	99 (however, calculated value is 200)
6	5	30

The item priority is also displayed in the document overview. You can change this if needed in the *Settings* for the documents.

Group Symbol

If there are a number of items for a ship-to-party, the number of items is displayed on the symbol.

If you click on the group symbol, the individual items are displayed arranged in a circle. If you click the symbol again, the previous symbol is displayed.

Depending on the zoom level, the individual items are displayed in a list.

Text Information

When you mouseover, text information for the object is displayed. You can configure the text information in Customizing for *S4SCSD* under *S4IDM* > *Trip Planning* > *Text Information*.

You can navigate directly to the multitool. Press and hold the CTRL key and click on the number of document Multifunction. This function is activated during outbound delivery. You can find the setting in Customizing for *SAP S/4HANA Supply Chain for Secondary Distribution (S4SCSD)* under *Integrated Dispatch Management (S4IDM)* > *Trip Planning* > *Text Information* > *Define Text Information Schema*. Select *D IDM Document* and choose *Create Text Information Schema*. Select *1 Unloading* and choose *Assign Text Information Windows to Schema*. This entry displays the following: <TR><TD>§DOCNR§ Multifunction</TD><TD><A class='MultifunctionHref' HREF='docnr=$DOCNR$'>$DOCNR$</A></TD></TR>

You can go directly to the DC document. Press and hold the CTRL key and click *Document*. This function is activated during outbound delivery. You can find the setting in Customizing for *SAP S/4HANA Supply Chain for Secondary Distribution (S4SCSD)* under *Integrated Dispatch Management (S4IDM)* > *Trip Planning* > *Text Information* > *Define Text Information Schema*. Select *D IDM Document* and choose *Create Text Information Schema*. Select *1 Unloading* and choose *Assign Text Information Windows to*

Schema. This entry displays the following:<TR><TD>§DOCNR§</TD><TD><A HREF='#SalesOrder-display?docnum=$DOCNR$'>$DOCNR$</A></TD><TD>$DOCPOSNR$</TD></TR>

Context Menu

In the context menu, you can perform various actions for an object. You can configure the actions in Customizing for *S4SCSD* under *S4IDM* > *Trip Planning* > *Actions and Context Menu*.

- Item
  - *Item Data Changes*
    For more information, see the section on transferring a change.

Route

You can display the route for a trip in a number of different ways.

- Road Map
  Double-click the planned item.
- Gantt chart
  Click on the header level of a trip.

> **Note**
>
> You can also display the route between the objects as a beeline. To do so, choose the following in Customizing for *S4SCSD*: *S4IDM* > *Trip Planning* > *General Settings* > *Define Default Groups*. Enter the value **X** for the field name `USE_BEELINE` *Use Beelines Instead of Routes*.

Navigation

An application toolbar is available in the upper left corner. Quick infos are displayed for the corresponding functions.

The following table outlines the application toolbar functions:

Toolbar Functions

Name	Symbol	Meaning
Zoom Out		It makes the map section on the road map smaller. You can also use the zoom slider on the map or use the mouse scroll wheel.
Zoom In		It makes the map section on the road map larger. You can also use the zoom slider on the map or use the mouse scroll wheel.
Zoom Center		The road map zooms so that all items are displayed.
Select Zoom Area		Selects the area which is displayed – centered and zoomed.
Standard Tool		For selecting the symbols.

Name	Symbol	Meaning
Rectangle Tool		Draws a rectangular frame around symbols.
Lasso Tool		Draws an irregular frame around symbols.
Point-to-Point Tool		For selecting individual symbols.
Number		Shows the number of currently selected items.
Vehicle Tracking		Displays Vehicle Live Tracking.

The following table outlines the functions on the road map:

Functions on the Road Map

Name	Meaning
Move Map	Moves the map in the corresponding direction. The red arrow points in the direction north. By double-clicking on the middle, you can go back to the initial item.
Zoom Slider	Changes the zoom in the corresponding size. You can also zoom using the mouse wheel.

Status Display for Items

The item totals are displayed in the upper-right corner of the road map:

- *All* Total of all scheduled and unplanned items without changed, new, and deleted items
- Planned items
- Unplanned items

Totals of items with a status are also displayed. However, that happens only if a corresponding status exists:

- *Deleted*: Deleted items
  Only if the item was already planned and has been deleted is this item displayed as deleted. Immediately after they are deleted, unplanned items are no longer counted.

  > ⚠ Caution
  >
  > Only deleted items are displayed. If you delete an order that contains items, these items are not displayed as deleted. The reason for this is that this display is controlled by message control. However, message control only works at item level.

- *New*: New items
- *Changed*: Changed items

Remaining: All items minus the sum of changed, new, and deleted items

On the road map, the new, changed, and deleted items are displayed as follows:

- Changed items: Document with yellow triangle on the item
- New item: Document with green square on the item
- Deleted item: Document with a red circle on the item

All display areas except for *All* are also buttons. If the area is dark, these items are displayed. If the area is light, these items are not displayed. If you switch off an area, the filter function is displayed.

Scale layer

The scale layer in the lower left corner corresponds to the currently selected zoom level. You configure the unit of measurement in Customizing for *S4SCSD*, under *Integrated Dispatch Management (S4IDM)* > *Geographical Services* > *Define Technical Parameters for Map Services*. In the *Unit of Measurement* column, choose the unit of length for the relevant group.

The following table shows the possible units of length:

Units of Length

Metric Units		Anglo-American Units	
Kilometer	km	Mile	mi
Meter	m	Yard	yd

Related Information

[Editing Symbols [page 235]]
[Vehicle Live Tracking [page 236]]
[Roadblock Manager (App) [page 277]]

8.3.5.1.1 Editing Symbols

Describes which settings are necessary so you can add your own fields to a symbol schema.

Context

To display the your own fields for visualizing the IDM documents on the road map for Trip Planning, you must enhance the symbol schema.

If you only want to change existing symbols in the visualization, follow steps 1 to 7 as described under B.

The following steps are necessary to create a new symbol:

- A. Extend the structure
- B. Adjust the symbol schema
- C. Assign the symbol schema

A. Extend the structure

1. Open the structure /BTL/TRS_WDC_IDMDOC in the transaction *ABAP Dictionary* SE11 in the display view. Add an append structure to it. Activate the structure.
2. In the *Class Builder* transaction (SE24), display the /BTL/TR_CL_WD_TRIP class.
3. Open and activate the method CREATE_ITEM.

B. Adjusting, Copying and Creating a New Symbol Schema for the Documents

1. In Customizing for *S4SCSD*, choose *Integrated Dispatch Management (IDM)* > *Trip Planning* > *Symbols* > *Define Symbol Schema Group*.
2. Select the items. Choose *Define Symbol Schema* in the dialog structure.
3. Select *Unloadings*. In the dialog structure, choose *Assign Fields to Symbol Schema*.
4. Choose *New Entries*.
5. In the *Field Name* column, select the field that you created in the /BTL/TRS_WDC_IDMDOC structure.
6. Enter the other parameters.
   - You can use the *Value From* and *Value To* columns to determine that the visualization is valid for certain value ranges only. You can use an asterisk * character as a placeholder for this purpose.
   - The input help for the *Visualization* column is determined by the values that are selected in the *Visualization Type* and *Visualization Position* columns. The graphics are in the *MIME Repository* under *Public* > *BC* > *BTL* > *IDM* > *SYMBOLS*.
7. Save your entries.

C. Assigning the Symbol Schema to the Item Categories

1. In Customizing for *S4SCSD*, choose *Integrated Dispatch Management (IDM)* > *Trip Planning* > *Symbols* > *Assign Symbol Schema to Item Category*.
2. Assign the symbol schema to the item category or item categories.
3. Save your entries.

> i Note
>
> If you use delivery zones with large quantities of data, this can lead to performance issues.

8.3.5.1.2 Vehicle Live Tracking

This feature enables you to view the position of your vehicles and trailers on the road map.

Use

You can use this function to display the position of your vehicles and trailers on the road map using the data provided by an external global navigation satellite system. A regular update of the data means that the latest position and status of the vehicles and trailers are always displayed.

Features

You can activate and deactivate the tracking display with *Vehicle Tracking*. The function is located in the toolbar at the top of the road map.

Prerequisites

General

You have equipped your vehicles and trailers with appropriate hardware. You use middleware that transfers the data to IDM via IDoc or BAPI.

Customizing

A default value is delivered for each Customizing setting; however, you can change this default value.

You can make the following settings in Customizing for *Integrated Dispatch Management (S4IDM)* under *Trip Planning*:

- *General Settings* > *Define Default Values*.
  Select the group `IDM`*Integrated Dispatch Management*. Choose *Assign Values*.
  - `TULOC_UPDATE_INTERVAL`*TU Location/Status Update Interval (Seconds)*: Here you configure after how many seconds the location and status are to be updated on the road map. The default value is `0300`.
  - `TULOC_DELETE_LIMIT`*Delete Limit for TU Location/Status (in Days)*: Here you configure after how many days the entries for the location and the status in table `/BTL/TR_TULOC` are to be deleted.
  - `TULOC_ACTIVE`*Activate TU Location/Status Display*: Here you configure whether the location and status data is to be displayed on the road map.
- *General Settings* > *System Modifications* > *Business Add-Ins* > *Data Update* > *Vehicle Live Tracking*.
  Here, the BAdI `/BTL/TR_BADI_TUNITLOC_0100`*Update TU Location and Status* is available, which you assign under *Actions and Context Menu*.
- *Trip, Item Categories, and Delivery Zones*
  - *Define Item Type*: The item type `TOR`*Transportation Unit* is defined as standard.
  - *Define Item Category*: The tem category `TOR`*Transportation Unit* is defined as standard.
  - *Assign Item Category to Trip Category*: The item category `TOR`*Transportation Unit* is assigned to the trip category `BLK`*Bulk Category* as standard.
- *Symbols*
  Define Symbol Schema Group: You configure the status here.
  - 1. Select the symbol `P`*Item*. Choose *Define Symbol Schema*.
    2. Select the schema `400`*Transportation Unit*. Choose *Assign Fields to Symbol Schema*.

  Assign Symbol Schema to Item Category: Here, you assign the symbol schema to the item category. This is the item category `TOR` in the standard system.
- *Text Information*
  Define Text Information Schema: Here, you define the text information schema.
  - 1. Select `D`*IDM Document*. Choose *Create Text Information Schema*.

2. Select 4*Transportation Unit on the Road Map*. Choose *Assign Text Information Fields to Schema*.

Assign Text Information Schema to Document: Here, you assign the text information schema to the document. The text information schema 4 is assigned to the item category TOR*Transportation Unit* by default.

- *Actions and Context Menu*: Here, you assign the method for updating the data of an action group.
    1. Select BLK*Bulk Category*. Choose Assign Action Group to Trip Category.
    2. Select /BTL/TRS_ACTION_UPDT*Action Group for Update*. Choose *Assign Method to Action*.
    3. In the standard system, the action /BTL/TR_BADI_TUNITLOC_0100*Update of TU Location and Status* is assigned the method 1.

Related Information

Road Map [page 230]

8.3.5.2 Document Overview

Displays loading documents and unloading documents.

Use

You can use this function to display loading contracts and unloading contracts.

The document overview is located in the toolbar, under *Display Document Overview* ▦ .

Activities

You can choose between the view of *Loading Plants/Contracts* or *Unloadings*. You can also choose both views.

The number of documents is displayed next to the title.

You can sort or filter directly in the columns in both areas.

You can also adjust the sequence of the columns. To do this, drag the column heading of the columns in question.

In the context menu, you can choose whether you want to copy the content of a cell or the entire row to the clipboard.

In the *Settings*, you can specify which columns you want to be displayed.

You can select unlocked rows individually or use the Shift key or the Control key to select multiple rows. The selected orders are then highlighted on the road map. You can activate or deactivate this function in Customizing for *S4IDM* in *Trip Planning* > *General Settings* > *Define Default Groups* under GRID_SINGLE_SELECT.

Loading Plants/Contracts

The following table outlines the item categories:

Item Categories

Item category	Name of Item Category
LLB	Own Stock
PUC	Purchase contract

If the available quantity has a certain value, it is highlighted in color.

Flag According to Available Quantity

Available Quantity	Color
0 or negative	Red

This setting is defined in the CDS view `/BTL/TRL_ODATA_LOADING` with the metadata extension `/BTL/TRL_ODATA_LOADING_METADAT`.

You can create a trip from within the overview by dragging it to the Gantt chart.

Unloadings

When you double-click on a row, the item is displayed on the road map and the unloading in the trip in the Gantt chart. You can select multiple unloads by double-clicking them. The row is colored green if the unloading is not blocked. If it is blocked, the row is colored purple.

When you position the cursor on a document number, information is displayed. If you choose `Ctrl` and then position the cursor on a document number, you can click on the document number to display the document.

You can use the mouse wheel to scroll in the overview.

If the document has a particular header status, this is highlighted in color.

Identification by Header Status

Document Header Status	Color
New	Green
Changed	Yellow
Deleted	Red

This setting is defined in the CDS view `/BTL/TRL_ODATA_UNLOADING` with the metadata extension `/BTL/TRL_ODATA_UNLOAD_METADAT`.

Filter

You have the following options for filtering:

- Filter in the columns
  You can filter directly in a column. Click on the column header. Choose *Filter*. Enter the values.

- *Filter*function
  For filter settings in multiple columns, you can use the *Filter* function.
  You can save a search as a view. To do so, click the *Select View* arrow icon next to the title of the view. The views are displayed in all delivery zones.

> ⚠ Caution
>
> When you create a filter and close the document overview, the filters remain active. This may prevent all of the items on the road map from being displayed.

> ⚠ Caution
>
> Alphanumeric values are filtered according to the standard rules of the SAP system.

Additional Functions

- Display Settings
  Here, you can make settings for the columns, sorting, and filtering.
- Export
  Here, you can export the data to a spreadsheet.
- Maximize
  Here you can display the document overview in a maximized view.

8.3.5.3 Gantt chart

Shows the trips created and enables further processing of the trips.

Use

The trips created are displayed in a Gantt chart. On mouseover, information is displayed for the trips and for the items. You have functions for further planning available.

The Gantt chart is located in the toolbar under *Display Gantt Chart* .

Features

View Selection

For more information, see *View Selection*.

Second Gantt Chart

You can use the pushbutton *Shows Two Gantt Charts* 2 to display an additional Gantt chart. For example, if you want to move a trip, this helps you find and move it. You can select the view for each Gantt chart. Actions that you perform in one Gantt chart are synchronized with the other.

Trip Search

For more information, see *Trip Search*.

Availability

For details, see *Availability*.

Time Scale and Zoom

On startup, the system displays the current day. In Customizing, under *Integrated Dispatch Management (S4IDM)* > *Trip Planning* > *General Settings* > *Define Default Groups*, you can configure an offset for the group *IDM* under *Start Offset for the Gantt Chart in Days*`GANTT_START_OFFSET`. The offset can be negative or positive. With setting 2, the offset is started with the day after tomorrow.

You can use the arrow pushbuttons to navigate a month, a week, or a day backwards or forwards. These periods are always based on the date that was last selected.

Choosing *Today* allows you to display the current date again.

You can use the minus and plus magnifying icons to zoom. You have six zoom levels available.

At the bottom of the Gantt chart, you can use a slider and the arrows to navigate.

Settings

For details, see *Settings*.

Display Options

The trips created are depicted as horizontal bars in the Gantt chart. An outbound delivery tour is composed of one or more trips. A trip is composed of a number of items. An item is composed of a number of activities.

All elements have a 1:n relationship to one another.

You can execute various actions using the context menus for the elements. You can configure the actions in Customizing for *S4SCSD* under *S4IDM* > *Trip Planning* > *Actions and Context Menu*.

Colors are used to identify the different activities and item categories. You can set the colors in Customizing for *S4SCSD* under *S4IDM* > *Trip Planning* > *Trip and Item Categories and Delivery Zones* > *Define Item Category*.

Deleted and changed items are highlighted in color.

A colored circle denotes the item on the road map when you mouseover it on the Gantt chart.

Trip

A trip is composed of one or more items from a document.

Various information is displayed in the header area.

- Trip status
  A symbol in the trip and a color footer displays the status for checked or released trips. These and other statuses are displayed in the text information. You configure the status in Customizing for *S4SCSD*, under *S4IDM* > *Trip Planning* > *General Settings* > *Define Trip Status*. You define the symbol and the color in Customizing for *S4SCSD*, under *S4IDM* > *Trip Planning* > *General Settings* > *Specify Display Format for Trip Status*.

The following table outlines the possible statuses for a trip in the quick info:

Status

Status	Value	Meaning
Checked	A	The trip was checked according to the settings in Customizing.
Released	B	The trip has been released. Changes are still possible. A temporary trip number is replaced by a regular one.
Sent	C	The trip was sent to a follow-up sys-tem, such as an onboard unit.
Partially Confirmed	D	Some, but not all, items of the trip have been reported to the trip-related data collation.
Fully Confirmed	E	All items of the trip have been re-ported to the trip-related data colla-tion.
Partly Posted	F	Not all items of the trip have been posted by data collation yet.
Fully Posted	G	All items of the trip have been posted by the data collation.

i Note

You can set that a released trip is automatically transferred to the trip-related data collation. To do so, choose the following in Customizing for *S4SCSD*: *S4IDM* > *Trip Planning* > *Actions and Context Menu* > *Configure Actions*. Select the trip category and choose *Assign Action Group to Trip Category*. Select *Action Group for User Actions*, choose *Assign Method to Action*. Set method 2 for the *Release Trip* action in the *Method* column.

- Navigation
  When you click on the header area, the trip is displayed on the road map. The trip is displayed with a frame.

Information about the trip is displayed when you mouse over the trip header.

- If a DC document exists for a released trip, the linked DC document number is displayed. To display the DC document, press and hold `Ctrl` and click on the DC document number. The DC document is displayed in the Data Collation application.
  You can find the relevant settings in Customizing under *Integrated Dispatch Management (S4IDM)* > *Trip Planning* > *Text Information* > *Define Text Information Schema*. Select the T *Trip* schema group and choose *Create Text Information Schema*. Select the 1 *Trip Data* schema and choose *Assign Text Information Fields to Schema*. This entry is responsible for displaying the

DC document number: `<TR><TD>§DC_DOCNUM§</TD><TD><A HREF='#DataCollationDocument-display?docnum=$DC_DOCNUM$'>$DC_DOCNUM$</A></TD></TR>`

- You can access the Multifunction Tool directly from the trip. To access the multi-function, press and hold `Ctrl` and click on the trip number.

  You can find the relevant settings in Customizing under *Integrated Dispatch Management (S4IDM)* > *Trip Planning* > *Text Information* > *Define Text Information Schema*. Select *T Trip* and choose *Create Text Information Schema*. Select *1 Trip Data* and choose *Assign Text Information Windows to Schema*. This entry is responsible for this function: <TR><TD>§TRIPNR§</TD><TD><A class='MultifunctionHref' HREF='tripnr=$TRIPNR$'>$TRIPNR$</A></TD></TR>

You can perform the following actions using the context menu in the header area:

- *Assign Tractor*
  - Select a different tractor. If no tractor is assigned yet, you can assign one.
- *Assign Driver*
  - Select a different driver. If no driver is assigned yet, you can assign one.
- *Display Activities*
  - The activities of all trips with the specified duration are displayed. A second figure shows the total length of time for each item. The context menu gives you information about the chosen activity. Examples of activities are:
    - Vehicle pickup or vehicle handover
    - Preparation time
    - Pump time
    - Driving time
    - Break

    You define the activities in Customizing for *S4SCSD*, under *S4IDM* > *Trip Planning* > *Activities*.

    > **i Note**
    >
    > You can also hide the activities. To do so, choose the following in Customizing for *S4SCSD*: *S4IDM* > *Trip Planning* > *General Settings* > *Define Default Groups*. For the field name `HIDE_ACTIVITIES`*Do Not Display Activities in IDM Trip*, enter the value **X** .
- *Reroute Trip*
  - The trip route is recalculated based on the selection. The recalculation takes the current information from the SAP Fiori app *Roadblock Manager* into account.
- *Lock Trip*
  - The trip is locked. A newly created trip is automatically locked.
- *Unlock Trip*
  - The trip is unlocked. The color of the header area changes.
- *Check Trip*
  - All checks set in Customizing for *Integrated Dispatch Management (S4IDM)*, under *Trip Planning* > *Checks* are taken into account. An icon and a colored footer indicate the check performed. You can only perform the check if a tractor has been assigned.
- *Define Trip Sequence Automatically*
  - For the trip, a sequence is automatically determined and defined for the outbound delivery tour. Plants and unloads are taken into account. In Customizing for *S4SCSD*, under *Integrated Dispatch*

Management (S4IDM) ▸ *Geographical Services* ▸ *Define Technical Parameters for Map Services* ▸, you can configure the parameters for the sequence. To do so, select the service group that is indicated as the default. Choose *Create Connections*. Choose *SEQUENCE Automatic Trip Sequence*, enter the other data. To define the parameters, choose *Define Default Parameters*.

- COOLINGRATE Reduction rate
  Specifies the rate by which the temperature is reduced per iteration. The lower the reduction rate, the longer the runtime and better the result.
- DISTFACTOR Priority of distance
  Specifies the weighting of distance and time. Example: The factor 0.7 means considering the distance 70% and the time 30%.
- TEMPFACTOR Calculation value factor
  Multiplied by the number of stops and results in the start calculation value. The higher the calculation value factor, the longer the runtime and better the result.

The calculation value is equivalent to the probability of an intermediate result being allowed to make the specification worse.
The reduction rate controls how fast this probability is reduced.

You can use the interface `/ICO/GS_IF_SEQUENCE` to connect an external optimization, such as PTV xTour.

- *Release Trip*
  - The trip is released. An icon and a colored footer indicate the release performed. Changes are no longer possible. The temporary trip number is replaced by a regular one.
- *Delete Trip*
  - The trip is deleted from the Gantt chart. The orders are available for planning again. You can also drag the trip onto the road map to delete it.
- *Transfer and Return Loading from Previous Trip*
  - With this option, you transfer the loading from the previous released trip. You can also return these transferred loadings.
    You have the same functions in the vehicle diagram. There, in the detailed view *Transportation Units*, you can transfer the previous released loadings for the selected transport unit. To do this, in the context menu of the transport unit, select *Transfer Loading from Previous Trip* or *Return Loading from Previous Trip*.
    The prerequisites for this function are as follows:
    - You must set the value *Loading Unit* or *Not Relevant* for at least one transportation unit in the trip in the *Maintain Business Partner* `BP` transaction in the *IDM Vehicle Depot* on the *Transportation Units* tab page in the *Control* column.
    - The loading material must be in the loading unit (chamber) in the trip from which it is transferred. You can check this in the vehicle diagram.
    - You must have released the trip from which the transfer takes place. So the status must be `B`.
- *Display DC Document*
  - The data collation document appears. This entry is only active if a DC document exists for the trip.
    You can find the relevant settings in Customizing under ▸ *Integrated Dispatch Management (S4IDM)* ▸ *Trip Planning* ▸ *Actions and Context Menu* ▸ *Define Actions* ▸. Select the trip type *Bulk Trip* and choose *Assign Action Group to Trip Category*. Select the action group `/BTL/TRS_ACTION_UI`*Action Group for User Actions* and choose *Assign Method to Action*. It is this action: `/BTL/TR_BADI_UA_1040` *Display DC Document* with method `1`.
- *Display Carbon Footprint*
  - You see an overview of the carbon footprint for the trip.

You can perform the following actions using the context menu in the item area:

- *Display Activities*
    - The activities of the item are displayed. Text information is displayed on mouseover.
- *Delete Item*
    - The item is deleted from the trip. You can also delete a trip by dragging it to the trash. The trash becomes visible as soon as you move the trip with the mouse.

Related Information

View Selection [page 245]
Trip Search [page 246]
Availability [page 247]
Settings [page 247]
Roadblock Manager (App) [page 277]

8.3.5.3.1 View Selection

Allows you to switch between the views for drivers and vehicles.

Use

In the toolbar of the Gantt chart, choose whether you want to see the drivers or the vehicles .

The respective view displays drivers and trailers that are assigned to the delivery zones that you selected when you started Trip Planning.

When you click a driver or vehicle, an information screen is displayed. To close the information screen, click the Gantt chart or a different panel.

Views

Driver view

All drivers of the delivery zone are displayed regardless of whether the driver is available. The drivers are sorted in ascending order by last name.

For example, the default vehicle and the default equipment of the driver are displayed in the information screen.

If the driver is assigned to a carrier, the carrier information is also displayed. You use the *Relationships* pushbutton in the transaction *Edit Business Partner*BP to create the assignment of a driver to a carrier. If you want to assign a driver with the role IDM Driver to a carrier, choose the relationship category *Is Driver for*. These drivers are displayed with red highlighting in the view. If you want to assign a driver to a carrier with the role IDM Carrier, choose the relationship category *Has Driver*. Vehicles that are assigned to a forwarding agent are also highlighted in red. You make this assignment in the menu under *Equipment and Transport Units*, under *Create Equipment* or *Change Equipment* on the tab page *S4SCSD* in the field *Forwarding Agent*.

Vehicle View

The vehicles are sorted in ascending order by name within the vehicle depots, which are sorted in ascending order by the business partner GUID. If there is no description in the logon language, the equipment number is displayed.

You can enter the names of the vehicles in several languages. For this setting, see the *SAP Menu* under *S4SCSD* > *Integrated Dispatch Management (S4IDM)* > *Master Data* > *Equipment and Transportation Units* in the transactions *Create Equipment* `IE01` and *Change Equipment* `IE02`, in the menu under *Goto* > *Multilingual Texts*.

Search

In both views you have an input field available for the search. For the vehicles, what is displayed in the list is always what is searched for. This can be the equipment name or the equipment number. If you choose the icon in the search input field, other options for the search are displayed.

You can save a search as a view. To do so, click the *Select View* arrow icon next to the title of the view. The views are displayed in all delivery zones.

8.3.5.3.2 Trip Search

Allows you to search for trips in the Gantt chart.

Activities

1. In the toolbar of the Gantt chart, choose *Find Trip*. The trips that correspond to your settings in the start variant are displayed.
2. Search for a trip You can modify the search under *Settings*.
3. Select a trip. Choose *Go to trip*.
4. The trip is displayed in the Gantt chart.

8.3.5.3.3 Availability

To display the availabilities of drivers or tractors, choose the pushbutton *Display Availability*. The unavailable times are indicated using hatching in the Gantt chart. Trips can still be planned in an unavailable period in the driver view. This is not possible in the vehicle view.

You configure the availabilities in the transaction *Edit Business Partner*`BP`.

For a driver, you choose the role `RNBDRV` *IDM Driver* in `BP`, and then choose the tab *Drivers*. In the group box *Availability*, you choose the pushbutton *Change*. Enter the data.

For a tractor, you choose the role `RNBTL` *IDM Vehicle Depot*in `BP`, and then choose the tab *Transport Units*. Choose the pushbutton *Set Validity* in the group box *Transport Units*. In the columns *Valid From* and *Valid To*, you can configure the availability.

> **i Note**
>
> The Gantt chart only shows availabilities of vehicles if you have configured the transport unit in Customizing, under *Integrated Dispatch Management (S4IDM)* > *Trip Planning* > *Transport Unit* > *Define Transport Unit Categories* by setting 1 *Drive unit (without loading capacity)* or 3 *Unit with drive unit and loading capacity* in the column *Type of Transport Unit*.

8.3.5.3.4 Settings

Describes the configuration options in the Gantt chart.

Use

You can configure various settings for each Gantt chart.

Features

Display Current Time

Displays a red, dotted vertical line, which indicates the current time of the personal time zone. You set the personal time zone in the user profile.

Displaying the cursor line

Shows a vertical blue line that follows the mouse pointer. The time of the selected item is also displayed. If you have activated this setting for only one Gantt chart in dual view, the line is also displayed in the other Gantt chart, even if you have not activated this setting there.

Display Separators

Displays vertical lines between time periods.

Related Information

Create Trip from Document Overview [page 226]

8.3.5.4 Resources

Displays the resources that are available for the outbound delivery, such as transportation units, trailers, equipment, and drivers.

Use

The resources are located in the toolbar under *Display Resource List*.

You can assign resources to a vehicle in the vehicle chart by dragging them from the resource list, and you can also remove them.

In the driver view, available resources are displayed as follows:

- Tractors
- Trailers
- Equipment

In the driver view, the following available resources are displayed:

- Drivers
- Trailers
- Equipment

You can choose the views in the toolbar of the Gantt chart.

The resources can be gathered into groups. The available tractors are grouped by vehicle type. To expand the group, click the arrow > .

If the mouse pointer is over the text part, a quick info is displayed for each resource.

If you select a resource, this equipment is displayed with a red background in the Gantt chart. This enables you to see where this resource is already in use and therefore unavailable.

You can assign equipment to a transport unit as fixed equipment or to a vehicle depot as loose equipment. You can only assign fixed equipment to a TU. Fixed equipment is displayed in the detailed vies under *Equipment*, not in the resource overview.

Related Information

[Equipment and Transport Units [page 269]]

8.3.5.5 Vehicle Chart

Displays the transport units involved in a trip, including loading states and detail views.

Use

The vehicle chart is located in the toolbar under *Display Vehicle Chart* .

Select a trip in the Gantt chart. Graphics with data on loading the transportation unit and detail views is displayed in two areas.

Features

The vehicle chart is divided into two areas:

- Vehicle chart graphic
- Detail view

Related Information

Vehicle Graphic [page 249]
Detail View [page 251]

8.3.5.5.1 Vehicle Graphic

Graphically displays the loadings and unloadings of a transportation unit, as well as detailed views.

Use

The transportation units for the selected trip are displayed in the Gantt chart in the right pane. You can choose one or more views for a selected transportation unit:

- Loading
- Load
- Unloading

Each material is displayed in a different color.

The left pane displays details in different, selectable views.

Prerequisites

You have defined the texts to be displayed in Customizing for *S4SCSD* under *S4IDM* > *Trip Planning* > *Text Information* > *Define Text Information Scheme*.

You can configure which material is indicated by which color in the *SAP Menu* under *S4SCSD* > *S4IDM* > *Master Data* > *Assign Material Planning Group Indicator to Material*. Specify the color code in the column *ColrCode*. If you do not define any colors here, all materials are shown in black.

You can define the type of quantity control in the transaction *Maintain Business Partner*BP.

Activities

Choose a trip in the Gantt chart.

If a quantity is too large for the loading unit, it is divided between the other loading units. Filling is always conducted from left to right. Already filled loading units are skipped.

If there are no more free loading units available on the right, the quantity that could not be assigned yet remains in the detail view in the worklist. You can then assign this remaining quantity to a free loading unit on the left, exchange the transport unit, or add a trailer.

You can move the quantities within the loading units.

You can assign an item to a loading unit or transport unit in the following ways:

- Drag an item from the worklist in the detailed view.
- Distribute all sales orders using the function *Spread Worklist Among TUs* in the context menu of the worklist in the detail view.

You can add additional sales orders or loadings to the loading unit or transport unit in the following ways:

- Drag an item from a trip in the Gantt chart.
- Drag an item from the road map.
- Drag an unloading or loading document from the document overview.

Related Information

Vehicle Chart [page 249]
Detail View [page 251]
Quantity Control [page 252]

8.3.5.5.2 Detail View

Displays details for a trip selected in the Gantt chart.

Use

Here, you can view details about a trip for views that can be selected.

Prerequisites

Configure which data is displayed in the detail view in Customizing under *S4SCSD* > *S4IDM* > *Trip Planning* > *Text Information* > *Define Text Information Schema*.

Views

The following views are available:

Transport Units

Shows the details for the transport units.

You define the data in Customizing in the *Transport Unit for Trip* schema group.

The context menu contains the following entries:

- Delete Transport Unit from Trip
  The selected transport unit is deleted. You can also remove transport units by dragging them into the resource overview.
- Transfer Loading from Previous TU
  All released loadings are transferred to the selected transport unit.
- Return Loading from Previous TU
  All released loadings are returned for the selected transport unit.
- Reset Worklist of TUs
  The worklist of the selected TU is placed back into the detailed view *Worklist*.

Equipment

Shows details for the equipment assigned to the transportation unit. Fixed equipment is assigned to the transport unit and is indicated by a light bar on the left border. A dark border indicates the assignment of loose equipment from the resource overview. You can remove loose equipment by dragging it into the resource overview. You can only remove fixed equipment from a transport unit in transaction BP. For more information, see Equipment and Transport Units. You define the data in Customizing in the *Equipment for Trip* schema group.

Driver

Displays details about the driver. You can remove the driver by dragging it into the resource overview while in the vehicle view. You define the data in Customizing in the *Driver for Trip* schema group.

Worklist

Shows the details of open orders. The display is similar to the transport unit chart after loading and unloading.

The context menu contains the following entries:

- Spread Worklist Among TUs
  The worklist is distributed among the existing TUs. You can also distribute the worklist by dragging.
- Reset Worklist of TUs
  The worklist is reset. You can also reset the worklist by dragging.

Related Information

Equipment and Transport Units [page 269]

8.3.5.5.3 Quantity Control

Controls the behavior of the assignment of items in the vehicle chart.

Use of Quantity Control

The quantity control determines whether quantities are assigned to transportation units (TU) or loading units (SU) in the vehicle chart graphic. The type of quantity control also determines how the graphics are displayed in the vehicle chart.

You specify the type of quantity control for each transport unit in the transaction *Edit Business Partner*BP for a vehicle depot in the role *IDM Vehicle Depot* on the *Transport Units* tab page in the *Transport Units* group box in the *Control* column.

For example, you can set a tank truck as a loading unit and set the accompanying trailer as a transport unit. If you change the quantity control for a transport unit, trip planning must be restarted. Future trips are then created using the new quantity control. Existing trips are not changed.

If you change the transport unit and the involved transport units have different quantity controls, any assigned loading is released again for planning. A corresponding message appears.

You can assign the quantities for an unplanned item either in the detail view under *Worklist* or directly from the road map. If you add an item, the quantity in the detail view is not updated.

Transport unit

If the quantity control is set to transportation unit, a volume is displayed in the view *Total* for each loading condition. You can choose loading, load, or unloading. The views for each TU do not show anything.

If you drag a quantity from the detail view *Worklist*, the background becomes colored. You can then release the quantity.

Loading Unit

If the quantity control is set to loading unit, a volume is displayed for each loading state for each loading unit, such as a chamber.

Usage of Handling Type

The handling type controls how many orders can be assigned per compartment.

You define the settings for the handling type for each transportation unit in the transaction *Edit Business Partner*BP for a vehicle depot in the role *IDM Vehicle Depot* on the *Transportation Units* tab page in the *Transportation Units* group box in the *Handling Type* column.

8.3.5.6 Multi-Function

Allows you to check and release multiple trips simultaneously.

Use

The multifunction is located in the toolbar under *Display Multifunctional Tool* .

The trips that match the criteria of the start parameters are displayed in a list.

This data is displayed in the column *Trip Info (T/D/T)*:

- Trip Number (T)
- Driver (D)
- Tractor (T)
  For the tractor, the description of the equipment is displayed from the equipment master data. If there is no description in the logon language in the master data, the system displays the equipment number.

If the trip has a particular header status, this is highlighted in color.

Identification by Trip Header Status

Status	Color
Checked	Yellow
Released	Green
Partly posted	
Fully posted	

This setting is defined in the CDS view `/BTL/TRL_ODATA_TRIP_HIERAR` with the metadata extension `/BTL/TRL_ODATA_TRIP_HIER_META`.

Activities

Search for specific trips. To check or release these trips, select them. Then choose the function *Check Trip* or *Release Trip*.

Create Notes

In the *Notes* column, you can create a note. Choose the *Display/Edit* button to display the fields as editable. Enter the text or change an existing one. Save your entries.

This function is activated during outbound delivery. You can find the setting in Customizing for *SAP S/4HANA Supply Chain for Secondary Distribution (S4SCSD)* under *Integrated Dispatch Management (S4IDM)* > *Trip Planning* > *Actions and Context Menu* > *User Actions*. *Document* > *Save IDM Document*. The method is 1153.

8.3.5.7 Change Start Variants

Describes how you can change the parameters for the current Trip Planning.

Use

You can use this function to change the parameters of the current Trip Planning.

Activities

To do this, choose *Open Start Variants View* in the toolbar. Change the parameters. To copy the data, choose *Confirm*.

To undo entries, choose *Cancel*.

Related Information

Start Variants [page 224]

8.3.6 Delivery Zone

Determines a geographical area for the outbound delivery of the materials for each material planning group indicator (MPGI).

Use

For each material planning group indicator (MPGI), delivery zones define an area for the outbound delivery of your materials. The area contains certain zip code areas or zip code groups.

You can also set up the delivery zones (DZs) in a hierarchy. That means DZs can be lower-level or higher-level in relation to other DZs. The highest hierarchy level is the top delivery zone (TDZ). Lower-level DZs are sub-delivery zones (SDZs). The lowest delivery zone is the end delivery zone (EDZ). All delivery zones between the TDZ and the EDZ are intermediate delivery zones (IDZ).

If there is only one DZ, it is simultaneously the TDZ.

You can view the delivery zone hierarchy that you created in Customizing for *S4SCSD*, under *S4IDM* > *Trip Planning* > *Trip and Item Categories and Delivery Zones* > *Display Delivery Zone Hierarchy*.

Prerequisites

In Customizing for *S4SCSD*, you have defined delivery zones under *S4IDM* > *Trip Planning* > *Trip and Item Categories and Delivery Zones* > *Define Delivery Zones* and defined delivery zone groups under *Define Delivery Zone Groups*. You can check the delivery zone hierarchy in the Customizing activity *Define Delivery Zones*. To do so, choose the pushbutton *Check Delivery Zone Hierarchy*.

In Customizing for *S4SCSD*, you defined the method for determining the delivery zones under *S4IDM* > *Trip Planning* > > *Trip and Item Categories and Delivery Zones* > *Define Determination of Delivery Zone*.

Is possible to perform this determination using the business partner data or the master data. You can enter the values in the following places:

- In the transaction *Edit Business Partner Data*BP for the role *Customer* on the tab page *Geo-Info/Delivery Zones*
- In the *SAP Menu* under *S4SCSD* > *S4IDM* > *Master Data* > *Assign Postal Codes to Delivery Zone*

You assigned material to the MPGI in the *SAP Menu* under *S4SCSD* > *S4IDM* > *Master Data* > *Assign Material to MPGI*.

Example

The following example outlines how the delivery zone is determined according to the settings in the business partner data.

You have created a sales order with two items.

In the *SAP Menu*, you have assigned the material `OIL_N05` to item`10` of the MPGI `M012` under *S4SCSD* > *S4IDM* > *Master Data* > *Assign Material to MPGI*. You assigned the material `OIL_S10` of item `20` to the MPGI `M075`.

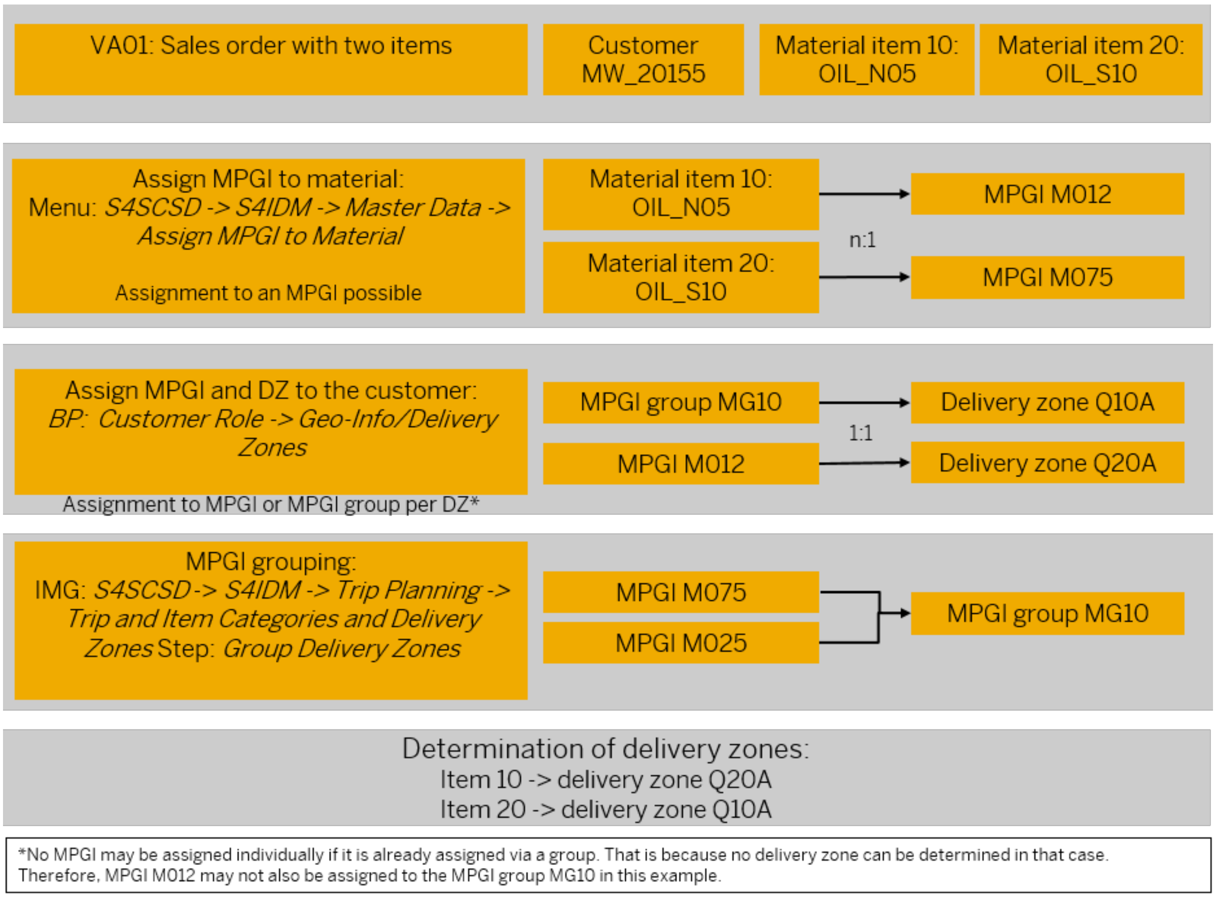
You have assigned to the MPGI group `MG10` to the delivery zone `Q10A` in the transaction *Edit Business Partner*`BP` in the role *Customer* on the tab page *Geo-Info/Delivery Zones* in the group box *Delivery Zones*.
You have assigned the MPGI `M012` to the delivery zone `Q20A`.

If a delivery zone is already assigned to an MPGI group, the delivery zone may not be assigned to any MPGI individually. That is because no delivery zone can be determined in that case. Therefore, MPGI `M012` may not also be assigned to the MPGI group `MG10` in this example.

In Customizing for *S4SCSD*, under *S4IDM* > *Trip Planning* > *Define Trip and Item Categories and Delivery Zones*, you assigned MPGI `M075` and MPGI `M025` to the MPGI group `MG10` in the *Group Delivery Zones* activity.

These settings result in item `10` belonging to delivery zone `Q20A` and item `20` belonging to delivery zone `Q10A`.

The following figure shows how the delivery zone determination described above occurs:



8.3.7 Units

Different units are used within IDM. This section contains information on correlations, settings, and conversions.

Units of Measure

In Trip Planning, units can be displayed in different units of measure (UoM). Depending on the display location, a conversion may take place.

The unit of measure for the order item is displayed.

The following table outlines the exceptions:

Units of Measure

Function	City	Unit of Measure (UoM)
Trip planning	Text information for item on road map for MPGI quantity	Display UoM of MPGI (configured in Customizing)
	Vehicle Chart	Displays UoM of TU
	Contract Lists *Loading Plants/ Contracts*	Displays UoM of contract

There is also another setting for the quantity. The quantity area of the MPGI item quantity can be displayed using different specifications for the inner shape of the symbol of the item on the road map.

Settings

- Each transport unit (TU) has a volume unit specified in the master data. You can find the setting in the *SAP Menu* under *S4SCSD* > *Integrated Dispatch Management (S4IDM)* > *Master Data* > *Equipment and Transport Units* > *Create Equipment* or *Change Equipment*. On the *Vehicle ID / Measmnts* tab page, in the *Transport-Relevant Data* group box, specify the unit of measure in the *Volume Unit* field.
  You can also specify a UoM per compartment, however this will not be taken into account in IDM.
- Each material planning group indicator (MPGI) has a base unit of measure specified in Customizing. You can find this setting in Customizing for *S4SCSD* under *Integrated Dispatch Management (S4IDM)* > *Trip Planning* > *Trip and Item Categories and Delivery Zones* > *Define Material Planning Group*. In the *BUn* field you specify the unit of measure.
- Each order item has a sales unit that you enter when creating a sales order. If you do not enter a UoM, the base unit of measure (BUn) from the master data for the material is used.

Currency and Volume Units

Currencies and volume units are always converted to the unit that you have entered in Customizing for *S4SCSD* under *Integrated Dispatch Management (S4IDM)* > *Trip Planning* > *Trip and Item Categories and Delivery Zones* > *Define Delivery Zone Group* in the column *Ref.cur.* or *BUn* if the units are different. This setting applies to the top delivery zones of the group.

If the master data for the driver and the transport unit contains data for the currency and volume, this is converted to the units for *Define Delivery Zone Group*. If the master data does not contain any units, *Create Profiles and Define Profile Parameters* is called. If units are entered there, the conversion is performed into the units for the *Define Delivery Zone Group* setting. If no data is entered, the units for *Define Delivery Zone Group* are used.

If a unit of currency is entered in the geographical services, this is converted to the currency for *Define Delivery Zone Group*. If no currency is entered there, the unit from *Define Delivery Zone Group* is used.

The following table outlines where which parameters are entered:

Parameter Settings

Setting	Path	Field/Parameter
Transport unit	In the menu: *S4SCSD* under *S4IDM* > *Master Data* > *Equipment and Transport Units* > *Create Fixed Values of TU*	None
Material planning group indicator	In Customizing: *S4SCSD* under *S4IDM* > *Trip Planning* > *Trip and Item Categories and Delivery Zones* > *Define Material Planning Group Indicator*	*BUn*
Delivery zone group	In Customizing: *S4SCSD* under *S4IDM* > *Trip Planning* > *Trip and Item Categories and Delivery Zones* > *Define Delivery Zone Group*	*Ref.cur.*
Geographical services	In Customizing: *S4SCSD* under *Geographical Services* > *Define Technical Parameters for Map Services*	*Unit of Measurement*

⚠ Caution

For the conversion, an interface that accesses table `TCURR` is provided. You need to obtain the up-to-date currency data yourself.

8.3.8 Partial Delivery

Enables an item to be split into several individual items in Trip Planning.

Use

This means that when planning in Trip Planning, you can split items that are too large for an individual trip into partial deliveries. Or if a customer urgently needs a certain quantity, but you can only deliver a partial quantity at that point in time. Then you create another delivery for the remaining quantity, the partial delivery. You can also create multiple partial deliveries.

Prerequisites

Customizing

Under *IDM* > *Trip Planning* > *General Settings* > *Display Pricing Conditions for Partial/Subsequent Delivery* you can display the pricing conditions to be copied for the new SSO item. You create and change the pricing conditions under *Data Collation (DC)* > *General Settings for DC* > *Define Pricing Conditions*.

> **Note**
>
> The entry for the function in the context menu is defined here in Customizing: Under *IDM* > *Trip Planning* > *Actions and Context Menu* > *Create Context Menu*. The action 1156 must be assigned to the item categories for the *IDM document*.

Integration

Tele Sales

The new item is added and the original item is reduced by the partial quantity in Tele Sales.

On the detail screen for the original item, the *Partial/Subsequent Delivery* field in the *Shipping* group box shows that it was created as a partial delivery in IDM. In addition, the superordinate item number is displayed in the *parent item* field in the new item. The system creates both entries when the partial delivery is created in IDM.

A possible configuration of the conditions could be as follows: Cost-based freight is recalculated for the individual items using the settings for scaled pricing in transaction *Create Condition Records*VK11 or *Change Condition Records*VK12. The manual cost price and manual sales price are copied to the new item.

Data Collation (DC)

It is possible to combine a partial delivery in IDM with a subsequent delivery in DC.

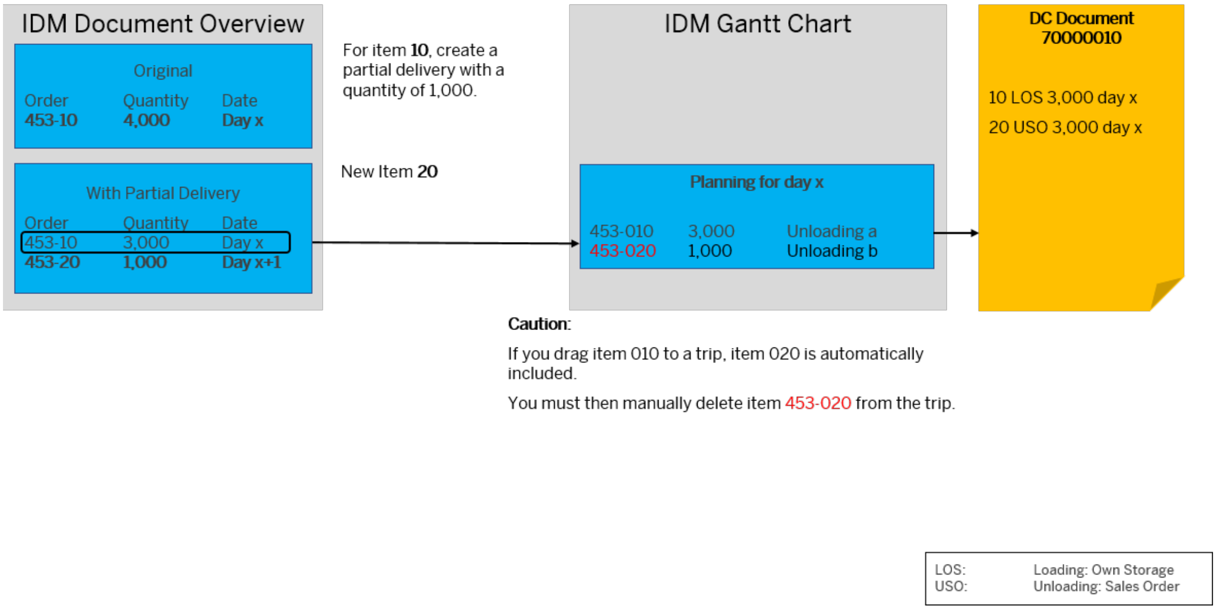
Process

1. In the context menu in the document overview of unloadings, choose the entry *Create Partial Delivery* in a row for a non-blocked item or on the road map for an item. A dialog box is displayed.
2. Enter the partial delivery quantity and choose *Confirm*. The system displays a message about the split that has taken place.
3. The system creates a second item (20) with the partial quantity you entered in the previous step. The partial quantity is deducted from the original item (10). These changes can be seen both in the document overview and in the sales order.
   On the road map, a zero (0) is displayed in the text information for item 10 because there is no parent item for this item. A letter indicates the application in which this position was split. In the text information for item 20, the parent item 10 is displayed. This information is also displayed in the document overview if you add the *Parent Item* and *Partial/Subsequent Delivery* columns using the *Settings* function.
   The letter indicates the application in which the split took place:

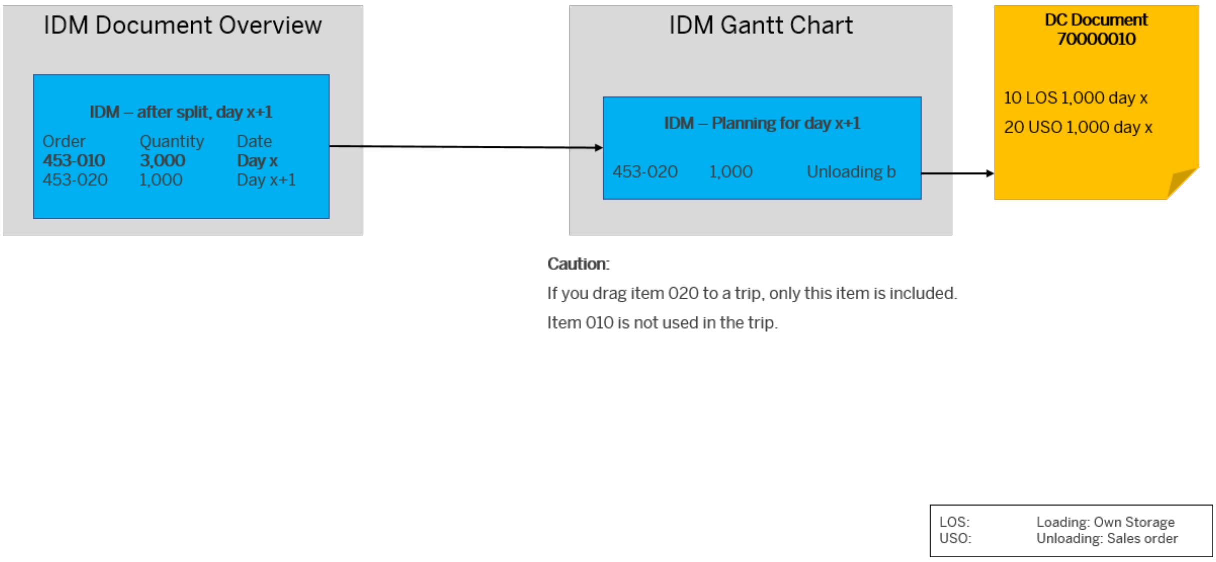
- I
  Integrated Dispatch Management (IDM)
- D
  Data Collation (DC)
- V
  IDM and DC

4. You can plan the trip.

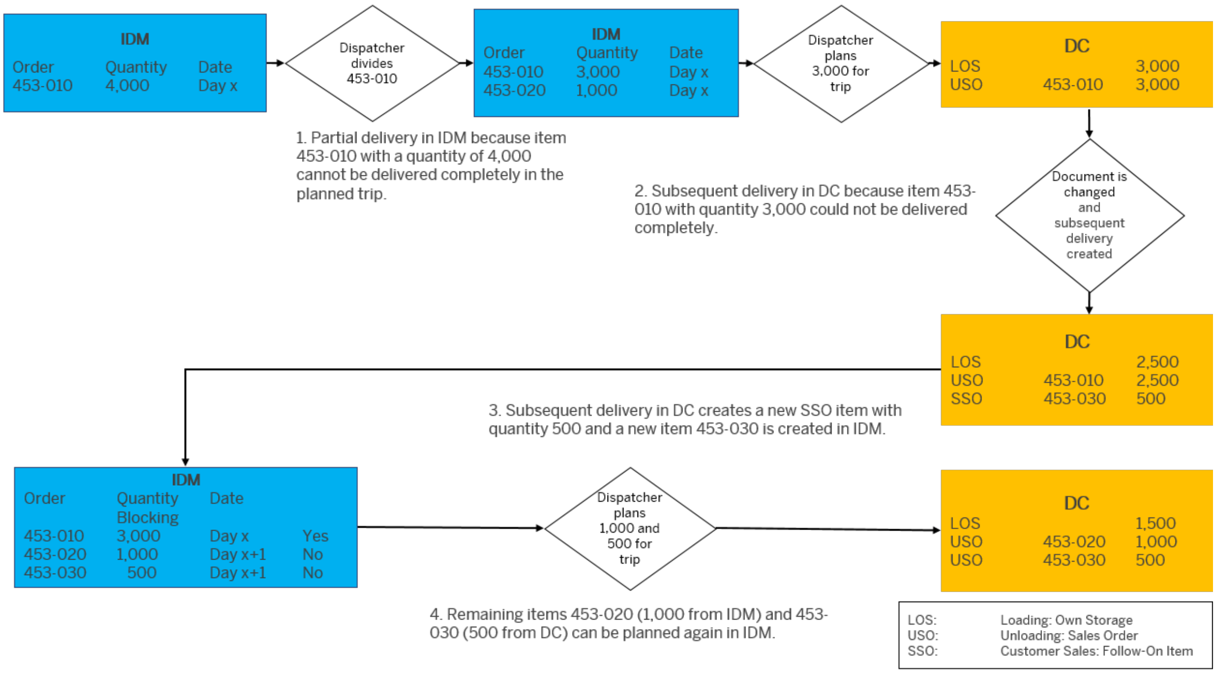
Example for planning the first item for the current day (day X).



Example for planning the second item for the following day (day X+1).



Example of a combination of a partial delivery in IDM and a subsequent delivery in DC.



Related Information

Subsequent Delivery [page 139]

8.3.9 Plant and Contract Determination

Describes the determination of plants and contracts in IDM.

Use

In the standard system, the plant and contract from the sales order (provided that it exists) are always used.

If you have not entered a storage location, all of the storage locations are assigned to the plant automatically.

If you want to change this standard procedure, you must set a new determination in the *S4SCSD* menu under *S4IDM* > *Master Data* > *Set Plant and Contract Determination*.

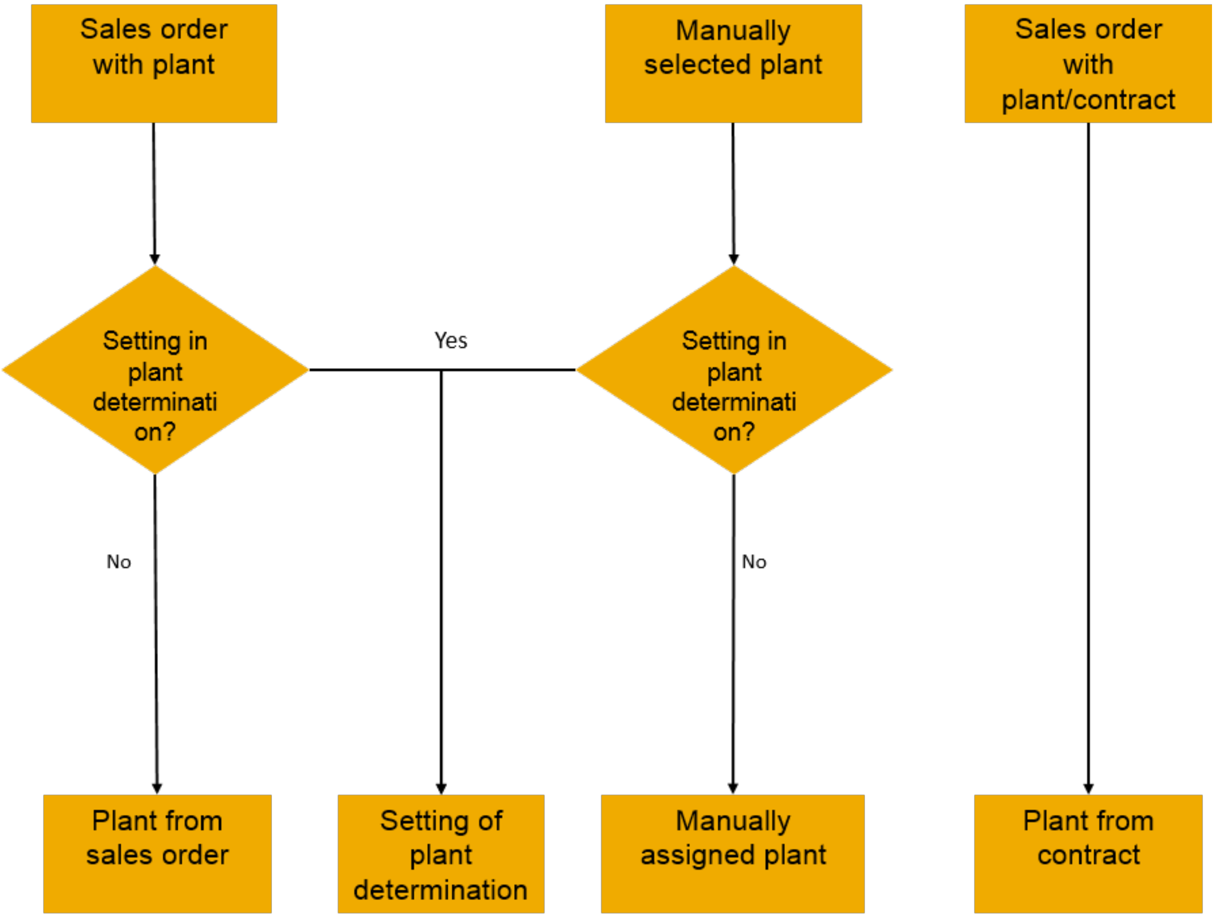
While the trip is being planned, material availability is checked in the selected or determined plant. If the material does not exist in the plant or a purchase contract does not exist, no items are created. Only those purchase contracts that you have entered in the master data under Set Plant and Contract Determination are included.

If a plant and contract are entered in a sales order, the plant from the contract is used.

If a plant is entered in a sales order and there are no entries in plant and contract determination, the plant from the sales order is used. If there are entries in plant and contract determination, these settings are used.

If there is a manually selected plant but no settings in plant and contract determination, the manually selected plant is used. If there are entries in plant and contract determination, these settings are used.

The following figure illustrates an example of the process flow for plant determination; contract determination is conducted in the same way:



Example

Case 1

A sales order with reference to a contract was selected together with a plant using the connection tool on the road map.

- The plant selected on the road map has priority.
- The contract in the sales order is ignored.
- Using the outbound delivery material (the material to be delivered to the customer) from the sales order and the selected plant, loading-relevant materials are determined in the Define Mixed Products table, if applicable.
- For each loading material, the corresponding loading plant and, if applicable, contract are determined from the Plant and Contract Determination table.

Case 2

A sales order with reference to a contract was selected without a plant on the road map.

- The plant from the contract in the sales order is used.
- The target plant or contract is determined for all loading-relevant materials from the Plant and Contract Determination table.
- The contract is taken into account when the loading material corresponds to the material from the contract. If this is not the case, a warning is issued, but the automatic loading process continues.

Case 3

A sales order was selected together with a plant using the connection tool on the road map.

- The plant selected on the road map has priority.
- The plant from the sales order is ignored.
- The target plant or contract is determined for all loading-relevant materials from the Plant and Contract Determination table.

Case 4

A sales order was selected on the road map.

- The plant from the sales order is used.
- The target plant or contract is determined for all loading-relevant materials from the Plant and Contract Determination table.

All of the cases described above are scenarios for the determination of loading materials based on an outbound delivery material. The function module for material movement, however, can also be used for the following purposes:

- The loading materials can be determined based on the material in the vehicle. This excludes the steps for the determination of the material in the vehicle and continues from the point at which the loading material is determined (see Case 1).
- The material in the vehicle can be determined based on the loading material. The data for the material in the vehicle is taken from the data for the loading material rather than conducting an actual determination.

8.3.10 Mixed Products

Describes how a mixed product is formed from multiple individual materials.

Use

You can only mix materials that have the same material planning group indicator (MPGI).

The loading-relevant materials for plant and contract determination are determined with the entries in this table.

If you have not entered a storage location, all of the storage locations are assigned to the plant automatically. There can only be one outbound delivery material (ODM) or one material in vehicle (MiV) for each material in the sales order. If multiple entries are found, an error is issued, and the automatic loading process is canceled in Trip Planning.

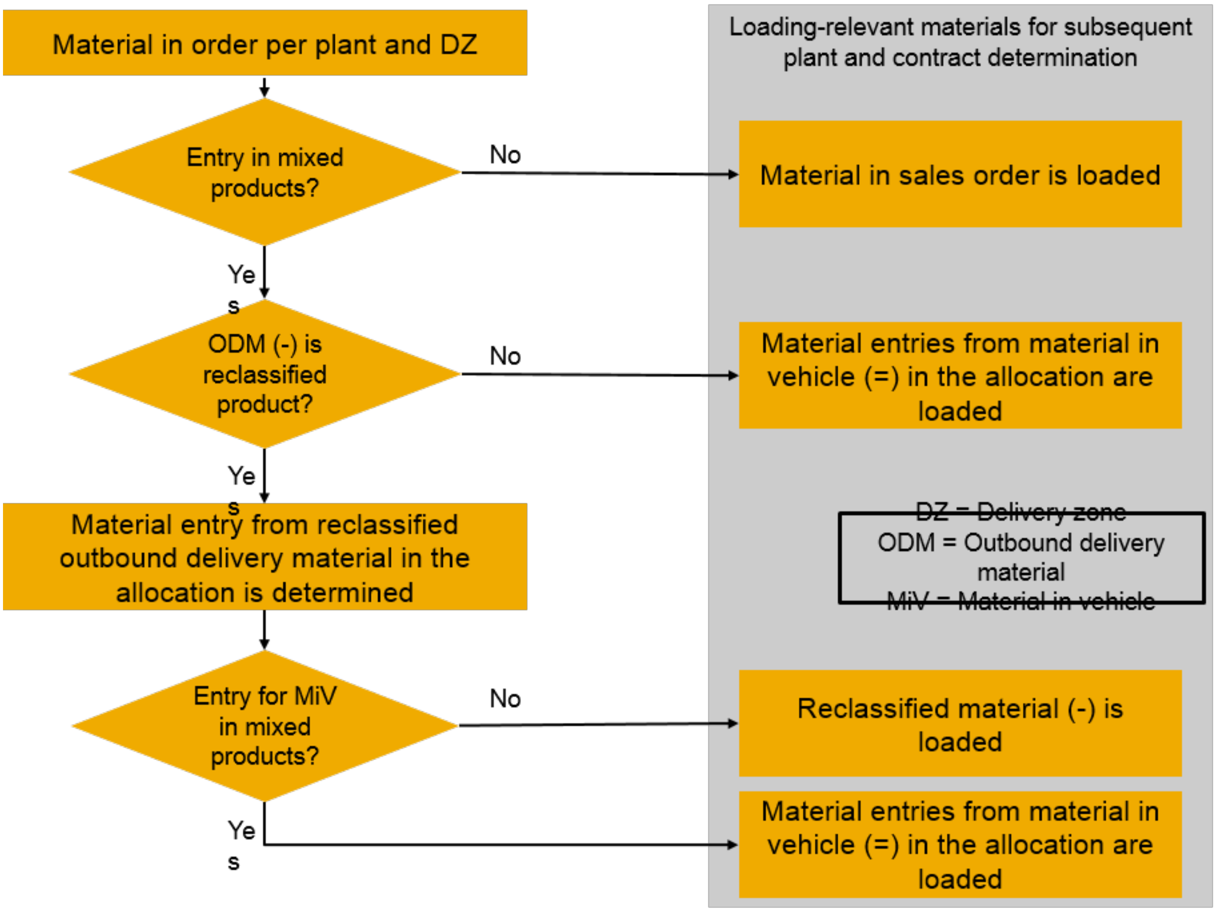
The determination of the materials relevant for loading is carried out for the material in the sales order for each plant and delivery zone.

If there is no entry in the master data, the material in the sales order is loaded.

If there is an entry in the master data and the ODM is a reclassified product, the material entry from the reclassified ODM in the allocation is determined. If there is an entry for MiV in the master data, the material entries from MiV in the allocation are loaded. If there is no entry for MiV in the master data, the reclassified material is loaded.

If the ODM in the master data is not a reclassified product, the material entries from MiV in the allocation are loaded.

The following figure illustrates the determination of the loading-relevant materials:



Prerequisites

In the *SAP Menu*, you have defined the mixed products under *S4SCSD* > *S4IDM* > *Master Data* > *Define Mixed Products*.

Related Information

Plant and Contract Determination [page 262]

8.3.11 Business Partner Roles

Describes how to create objects from IDM as business partners and which roles are available.

Use

You use the business partner role to determine which data needs to be entered for a business partner.

> **Note**
>
> You can control how to locate business partners by entering the coordinates. You can also use a report. You can find it in the *SAP Menu* under *S4SCSD* > *S4IDM* > *Geographical Data* > *Locate Addresses*.

Prerequisites

You have created the business partner in the transaction *Edit Business Partner*BP.

You create these business partners as persons:

- Driver

You create these business partners as organizations:

- Plants
- Vehicle depots
- Carriers

The IDM business partner roles are defined in Customizing. You can find these in *SAP Customizing* under *Cross-Application Components* > *SAP Business Partner* > *Business Partner* > *Basic Settings* > *Business Partner Roles* > *Define BP Roles*. IDM business partner roles are provided in the standard version.

Roles

The following business partner roles exist:

Role RNBDRV for IDM drivers

Role RNBDRV for IDM Drivers

Tab Page	Entry or Assignment
Driver	• Licenses (optional)* • Availability (optional)* • Vehicle depots. For more information, see the section *Activate Vehicle Depot*. • Default Assignment for TU and Equipment (optional). For more information, see the section *Default Assignment*.
Address	Name

* Values for licensing and availability are required only if you want to check this data during trip planning. To check licensing, you must create a method. You can activate the availability check in Customizing under *S4SCSD* > *S4IDM* > *Trip Planning* > *General Settings* > *Define Default Groups*. Activate `ENABLE_DRVAV_CHK` there.

Default Assignment

You can assign a default transport unit with a tractor to the driver after you have activated one or more vehicle depots. You can assign other transport units to the driver.

When you assign a document to a driver in the Gantt chart, this default transport unit is assigned to the trip automatically. If a default transport unit is not assigned, *No TU* is displayed in the header area. If you assign a document to a transport unit that is not a default transport unit for a driver, *No Driver* is displayed.

Relationships

You can set up a relationship for a driver to a carrier.

You use the *Relationships* pushbutton in transaction *Edit Business Partner*`BP` to create the assignment of a driver to a carrier. If you assign a driver to a carrier, choose the relationship category *Is Driver for*. If you assign a carrier to a driver, choose the relationship category *Has Driver*.

For this relationship assignment, the relationship category *Driver Relationship*`RNBFWA` is necessary. You can create relationship categories in the transaction *Relationship Categories*`BUBA`. This relationship category is delivered in the standard system.

When a driver belongs to a carrier, it is assumed that the driver's vehicle also belongs to the carrier.

Role RNBTL for IDM vehicle depot

Role RNBTL for IDM Vehicle Depot

Tab Page	Entry or Assignment
Address	• Name • Street Address

Tab Page	Entry or Assignment
Transport Units	• Transport Units If applicable, *Deleted* is displayed in the *Status* column. This indicates that the TU has been flagged for deletion. In the *Handling Type* column, you can select whether only one or multiple orders per loading unit are permitted for the selected quantity control. You select the type of quantity control in the *Control* column. The quantity control can be conducted by loading unit or transport unit. In the columns *Valid From* and *Valid To*, you can configure a validity period for the assignment. To display the fixed equipment for a TU, select a TU in the *Transport Units* group box and choose the *Equipment for Transport Unit* pushbutton for the transport unit in the *Equipment of TU* `<Name>` group box. • Equipment for TU (Fixed)
Equipment	• Equipment (Loose)
Vehicle Depot	• Additional Data
Geo-Info/Delivery Zones	• Geo Coordinates • Delivery Zones You can assign the vehicle depot to a number of delivery zones that have the same TDZ.

Activate Vehicle Depot

The *Active* field in the *Vehicle Depot* group box causes drivers in sub delivery zones who are assigned to this vehicle depot to be displayed in the driver view of Trip Planning. This therefore controls the geographical area of the driver for trip planning.

Role RNBPL for IDM Plant

You must assign each IDM plant to a plant in the master data of `BP` in the role `RNBPL`. You can also enter a storage location. If you do not assign a storage location, all of the storage locations are assigned to the plant automatically.

Role RNBPL for IDM Plant

Tab Page	Entry or Assignment
Address	• Name • Street Address
Plant/Storage Location	• Plant assignment • Additional data (optional)
Geo-Info/Delivery Zones	• Geo Coordinates • Delivery Zones

Role for IDM Carrier RNBFWA

Tab Page	Entry or Assignment
Address	• Name • Street Address
Forwarding Agent	• Vendor

Related Information

Locating Addresses [page 272]
Equipment and Transport Units [page 269]

8.3.12 Equipment and Transport Units

Describes how you create equipment and transport units as master data.

Use

You must create the transport units (TU) and loading units as equipment and assign the loading units to the TU.

A prerequisite for this is that you have configured the relevant Customizing settings for *Plant Maintenance and Customer Service*.

SAP Customizing Prerequisites

Since the transport units are created as equipment, you need to configure the following settings in Customizing for SAP under *SAP Customizing Implementation Guide* > *Plant Maintenance and Customer Service* > *Master Data in Plant Maintenance and Customer Service* > *Technical Objects*.

- Under *General Data* > *Define Types of Technical Objects*.
  Here, you define your technical objects, such as tractors or trailers.
- Under *Settings for Fleet Management* > *Assign View Profile and Equipment Categories to Fleet Object Types*.
  Here, you enter the object types entered in *Define Types of Technical Objects* as a vehicle type.

  > ⚠ Caution
  >
  > The vehicle type will become the transport unit category for trip planning in Customizing for *S4SCSD* under *S4IDM* > *Trip Planning* > *Transport Unit* > *Define Transport Unit Categories*.

- Under *Equipment* > *Equipment Categories* > *Maintain Equipment Category* Here, you need to create two equipment categories for transport units and loading units. The descriptions are freely selectable and the category can also be freely selected from letters that are not yet being used. So that changes can be displayed later, set the indicator *Equipment Category with Change Documents*.
- Under *Equipment* > *Equipment Categories* > *Define Number Ranges*
  Here, you define the number range for the equipment numbers.

Activities

Define Vehicle Type

You define the vehicle type in the *SAP Customizing Implementation Guide*, under *Plant Maintenance and Customer Service* > *Master Data in Plant Maintenance and Customer Service* > *Technical Objects* > *General Data* > *Define Types of Technical Objects*. The vehicle type is named with the object type here. The vehicle type determines the grouping in the resource list.

Create Transport Unit as Equipment

1. In the *SAP Menu*, choose *S4SCSD* > *S4IDM* > *Master Data* > *Equipment and Transport Units* > *Create Equipment*. The screen *Create Equipment: Initial Screen* appears.
2. Enter a name and category for the equipment. Choose *Continue*. The screen *Create Equipment: General Data*.
3. Enter a name and an object type. Choose *Continue*. Additional tab pages for *Vehicle ID / Measurements* and *Vehicle Technology* are displayed.
4. Switch to the *Vehicle ID / Measurements* tab page. Enter the volume unit. Choose *Save*.

In the *Display Multifunction Tool* function, the description of the equipment is displayed for the tractor from the equipment master data. If there is no description in the logon language, the equipment number is displayed.

Create Loading Unit as Equipment and Assign to Transport Unit

1. In the *SAP Menu*, choose *S4SCSD* > *S4IDM* > *Master Data* > *Equipment and Transport Units* > *Create Equipment*. The screen *Create Equipment: Initial Screen* appears.
2. Enter a name and category for the equipment. Choose *Continue*. The screen *Create Equipment: General Data*.
3. Enter a name and an object type. Choose *Continue*. Additional tab pages for *Vehicle ID / Measurements* and *Vehicle Technology* are displayed.
4. Switch to the *Vehicle ID / Measurements* tab page. Enter the loading volume. Choose *Continue*.
5. In the menu, choose *Structure* > *Change InstallLoc*. The *Change Equipment Installation Location* dialog box appears.
6. Enter the transport unit and the item in the *Superordinate Equipment* field. Choose *Confirm*.
7. Choose *Save*.

In the *Display Multifunction Tool* function, the description of the equipment is displayed for the tractor from the equipment master data. If there is no description in the logon language, the equipment number is displayed.

Assign Transportation Unit to a Vehicle Depot

If you want to assign a transport unit to a vehicle depot different from the existing assignment or suspend the validity, proceed in transaction *Edit Business Partner* as follows:

1. Select the vehicle depot to which the transport unit is currently assigned.
2. Choose the BP role `RNBTL`*IDM Vehicle Depot*. Switch to change mode.
3. On the *Transport Units* tab, select the line with the transport unit you want to change. Choose the *Set Validity* pushbutton The *Validity of TU* `<Transport Unit>` dialog box appears.
4. Enter the *Valid To* date. Choose *Copy*. Save your entries.

You can now assign the changed TU to a different vehicle depot. Checks are run to determine whether the change is valid. For example, the validities for a TU must not overlap.

Loose Equipment

You assign loose equipment to the corresponding vehicle depot in the transaction *Edit Business Partner* `BP` in the corresponding vehicle depot in the role IDM Vehicle Depot on the *Equipment* tab page.

Loose equipment is displayed as available equipment in the resource list.

Fixed Equipment

You assign fixed equipment to the corresponding vehicle depot in transaction *Edit Business Partner*`BP` in the corresponding vehicle depot in the role IDM Vehicle Depot on the *Transport Units* tab page.

Fixed equipment is displayed in the detail view of the vehicle chart, under *Equipment*.

Equipment Status

There are different statuses for the equipment. The status is displayed on the tab pages *Transportation Unit* and *Equipment* displayed in the *Status* column in the transaction *Edit Business Partner*`BP`.

The following table shows the statuses and their meaning:

Status of the Equipment

Status	Meaning
Flagged for Deletion	Equipment has been flagged for deletion. It is not displayed in the resource overview.
Error	Temporary error while reading equipment.
Inactive	Equipment is inactive. It is not displayed in the resource overview.
Does Not Exist	Equipment does not exist. It is not displayed in the resource overview.
Invalid equipment Category	Equipment category is invalid. Assignment is possible, but it is not displayed in the resource overview.
None	Assigned to higher-level equipment (when equipment is hierarchically structured). It is displayed in the resource overview.

If you have assigned a standard transport unit to the driver, you can assign standard equipment to a driver. In the transaction *Edit Business Partner* BP, assign the driver a standard transport unit and then standard equipment in the role IDM Driver.

Equipment Structure

You can display an equipment structure in the *SAP Menu* under *S4SCSD* > *S4IDM* > *Master Data* > *Display Equipment Structure*. You must select the *Equipment Hierarchy* indicator. In the *Display* group box, choose the *As Graphic*indicator if the structure is to be displayed as a graphic.

You can also access the graphic and the structure in the *Display Equipment* and *Change Equipment* transactions by choosing *Structure* > *Structure Graphic* or *Structure List* from the menu.

Related Information

Resources [page 248]

8.3.13 Locating Addresses

Enables the automatic, geographical localization of addresses for business partners (customer or vehicle depot) and plants.

Prerequisites

You have installed map material from the company PTV and the corresponding geocoding services. You have to acquire this software separately.

You can also use another map service. You can introduce it in a separate project.

You have defined service groups in Customizing for *S4SCSD* under *S4IDM* > *Geographical Services* > *Define Technical Parameters for Map Services*. The service groups `US01` and `EU01` are included in the standard system.

You have implemented geocoding in the Customizing for *S4SCSD* under *S4IDM* > *Geographical Services* > *System Modifications* > *Business Add-Ins* > *Implement Geocoding*.

Use

The source of the geographical coordinates is the geocoding service. The geographical coordinates determined are saved in the table `GEOLOC` in decimal format and linked via the address of the business partner or plant. An example of the decimal format: Latitude 53.551085000000 and longitude 9.993682000000.

The geographical coordinates of the object are displayed in the transaction `BP`*Edit Business Partner* on the tab *Geocoordinates / Delivery Zones*.

Activities

You can find the report in the *SAP Menu* under *S4SCSD* > *S4IDM* > *Geographical Data* > *Perform Locating*.

Start the transaction *Perform Locating*. Define a new query or change an existing query. You will be guided through the process step by step.

Save the data with *Save Selected Coordinates*.

The automatically determined coordinates can be changed manually. Save the changes using *Save Selected Coordinates*.

You can also change the coordinates of an object later. Search for this very object and change the coordinates manually.

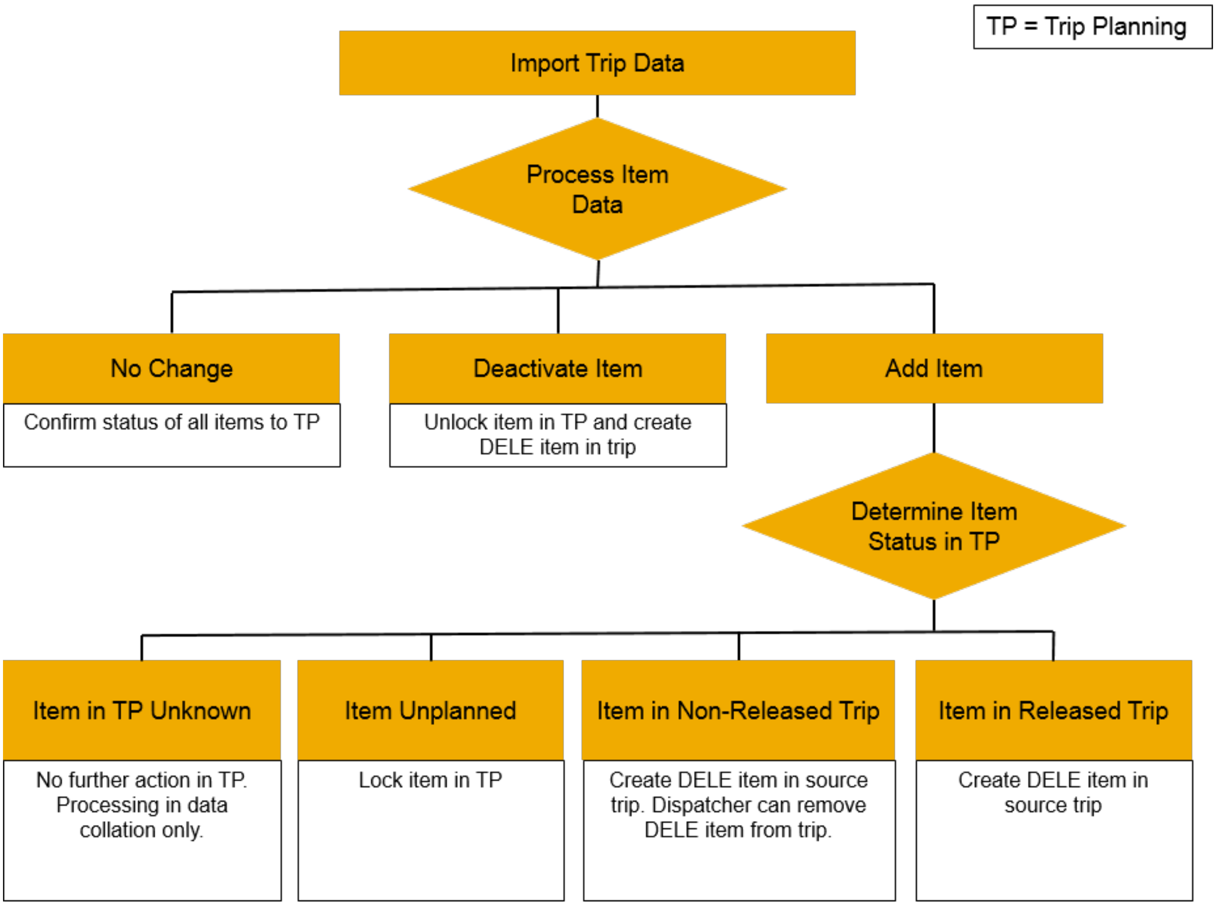
8.3.14 Trip Confirmation with Data Collation

Describes how a Trip Planning trip can be confirmed in the data collation.

Use

You can use trip confirmation to confirm trips from Trip Planning of Integrated Dispatch Management (IDM) in data collation.

The following graphic shows the processes:



Prerequisites

You have installed Integrated Dispatch Management (IDM) and Data Collation.

You have configured the relevant settings in Customizing for *S4SCSD*, under *Data Collation (DC)* > *Data Collation Documents* > *Configure Mapping for IDM Item Data*.

Activities

1. From the *SAP Menu*, choose *S4SCSD* > *Data Collation (DC)* > *Start Data Collation*. The *Process Automation Toolset* screen appears.
2. Choose the `IDMVEHICLE - Data Collation with IDM Transportation Planning Connectivity` document category. Choose *Continue*. The *Data Collation* screen appears.
3. Choose *New*. Enter the trip number or select it from the hit list. Only trips that are released and that have not yet been transferred to a PAT document are displayed in the hit list.
   To display all trips, choose *Show Search Criteria*. Select the entry `Display PAT Trips` and the value `True`. Choose *Find*.

4. To edit the information, select a trip.
5. Save your changes. Post the document.

Related Information

Integrated Dispatch Management (S4IDM) [page 204]
Data Collation (DC) [page 133]

8.3.15 Trip-Related Data Collation

Describes trip-related data collation in IDM.

Prerequisites

Customizing

In Customizing for *S4SCSD*, you have made the settings under *Data Collation (DC)*.

In Customizing, you can configure that a released trip in Trip Planning in IDM is automatically transferred to the trip-related data collation. To do so, choose the following in Customizing for *S4SCSD*: *S4IDM* > *Trip Planning* > *Actions and Context Menu* > *Configure Actions*. Select the trip category and choose *Assign Action Group to Trip Category*. Select *Action Group for User Actions*, choose *Assign Method to Action*. Set method 2 for the *Release Trip* action in the *Method* column.

Master Data

In the *S4SCSD* menu, you have made the following settings under *Data Collation (DC)* > *Master Data*:

- You have defined the default values for the units of measure under *Determine Units of Measure*.
  You can make this setting so that the units of measure are found automatically when entering the data collation document. If you do not make this setting, the unit of measure in the material master is suggested.
- Assign a plant to the equipment vehicle under *Assign Plant to Equipment Vehicle*.
- Under *Set the Difference Quantity Tolerance*, the tolerances for the difference quantities and the methods are set.

For trip-related data collation, inventory management is performed for the means of transport. Stock may only remain at the end if it is explicitly declared as remaining quantity. Meaning that certain tolerances for gain and loss are possible.

You can find the methods for gains and losses in Customizing for *Data Collation (DC)* under:

- *General Settings* > *Process Data Collation Event Methods* > *Check*.
- *Data Collation Documents* > *Specify Document Type* for document type `VEHICLE`.

Manual Process Flow

Create Data Collation Document

1. From the *SAP Easy Access Main Menu* screen, choose *SAP Menu* > *S4SCSD* > *Integrated Dispatch Management (S4IDM)* > *Start Trip-Related Data Collation*. The *Data Collation* screen appears. The data collation type *Trip-Related Data Collation* and the document type `IDMVEHICLE` are also displayed.
2. Choose *New*.
3. Enter header data if required. Insert one or more items. To do so, choose *Add Item*. The document has status `A`.
   Continue with step 5 in the next section **Perform Data Collation**.

Post a data collation document

1. From the *SAP Easy Access Main Menu* screen, select the data collation type by choosing *SAP Menu* > *S4SCSD* > *Data Collation (DC)*. The *Data Collation* screen appears. The data collation type is also displayed.
2. Choose *Locator*. The locator area is displayed. Enter the search criteria. Choose *Find*. The documents found are displayed in the results list.
3. Select a document. The document data is displayed in the right-hand screen area.
   To close the locator, choose *Locator*. This leaves more space to display the data.
4. Choose *Edit*. The document has status `A`. Edit the data.
   You can also deactivate a document. The status is then `G`. After this, the document can no longer be edited or deleted.
5. Choose *Verify*. The status changes to `B`.
6. Choose *Release*. The status changes to `C`.
7. Save the document.
8. Choose *Process*. The status changes to `F`. The data collation document was posted.

Related Information

Data Collation (DC) [page 133]
Document Categories and Item Categories in Data Collation [page 167]

8.3.16 PPF integration

Describes how to use the Post Processing Framework (PPF) in IDM.

Use

IDM is connected to the PPF.

This enables actions to be performed automatically based on certain conditions. The actions are executed immediately with each save or at a later time. You assign the actions to an action profile in Customizing.

You can define actions for the following processes:

- Calling methods
- Printing or sending forms
- Starting a workflow

Activities

You configure the relevant settings in Customizing for *S4SCSD* under *S4IDM* > *Trip Planning* > *General Settings* > *Maintain PPF Settings*.

8.4 Roadblock Manager (App)

App ID: F5993

You can use this app in Trip Planning in IDM to mark entire roads or parts of roads as blocked or restricted. You can put time limits on restrictions. These restrictions are taken into account when creating the route in Trip Planning. You can optionally have a confirmation requirement by a second person or a delay in the deletion of restrictions.

Features

Some of the possible restrictions are:

- Road closure due to a construction site or event
- Road block for certain vehicles:
  - Maximum weight of vehicle
  - Maximum width, height, or length of the vehicle
- Maximum speed; only takes effect if the speed you set is below the legal speed limit.

This app provides the following key features:

- Display restrictions
  On the home screen, you can see existing restrictions in the left-hand area. You can search for a restriction. When you click on a description of a restriction, an information window with the time dependencies and properties is displayed. Clicking on the empty area takes you to the restriction on the road map. You can perform various actions in the context menu of the empty area. Locked restrictions are indicated by a lock icon.
  A road map is displayed on the right-hand side. You can choose from different map layers. To see an existing restriction on the road map, click on the entry in the list in the left-hand area, but not directly on the name. In the context menu, you can go directly to the editing and deleting functions.

- Create restriction
- Change restriction
- Delete restriction
- Confirmation requirement (optional)
- Roadblock Garbage Collector

Prerequisites

You must operate the xServer 2 from the company PTV in version 2.22 with the services XMap, XRoute, and XData.

You must have implemented SAP Note 3061810.

In S4IDM Customizing under *Geographical Services for S4IDM* > *Define Technical Parameters for Map Services*, define the measurement system to be used for each service group.

Fiori Launchpad (FLP)

In FLP, you need to select this role to get the app:

- Transportation Planner (SCSD) `SAP_BR_TRANSPORTPLANNER_SCSD`

Supported Browsers

- Google Chrome

Supported Device Types

- Desktop

Related Information

Trip Planning (TP) [page 214]
Integrated Dispatch Management (App) [page 209]
Create Restriction [page 279]
Change Restriction [page 280]
Delete Restriction [page 280]

Geometries in Roadblock Manager [page 281]
Confirmation Requirement [page 282]
Roadblock Garbage Collector [page 283]

8.4.1 Create Restriction

Describes how to create a restriction in Roadblock Manager.

Context

Procedure

1. Choose *Create*. You are navigated to the *Manage Restrictions* page. Enter the data.
2. Choose *Geometries*. A road map is displayed. You can navigate to the road manually using the zoom and direction tools, or you can use the *Find Location* function.
3. Under *Create Geometry*, select a geometry type. You can display different map layers. See the link below for explanations of the geometries.
4. Draw the marking on the road map. To move or delete a marking, choose the corresponding entry in the context menu for the coordinate.
5. Choose *Properties*.
6. Choose *Add Property*. Select the property you want to edit. Enter the data. The property you selected is displayed on the road map with a corresponding icon.
7. Choose *Save*.

   The restriction created is displayed in the list and on the road map. When you click on a restriction name in the list, an information window appears with the time dependencies and properties. The note is one of the properties.

Related Information

Geometries in Roadblock Manager [page 281]

8.4.2 Change Restriction

Describes how to change a restriction in Roadblock Manager.

Context

Procedure

1. Click on the name of a restriction in the list. In the window that appears, choose *Open Restriction*.

   Alternatively, you can choose *Edit Restriction* from the context menu. Then go to step 4.
2. You are navigated to the *Manage Restrictions* page.
3. Choose *Edit*.
4. Select the area in which you want to make changes.
5. Make the changes.
6. Choose *Save*.

   The change has been applied.

8.4.3 Delete Restriction

Describes how to delete a restriction in Roadblock Manager.

Context

Procedure

1. Click on a restriction in the list. In the window that appears, choose *Open Restriction*.

   Alternatively, you can choose *Delete Restriction* from the context menu. Confirm the dialog box. It has now been deleted.
2. You are navigated to the *Manage Restrictions* page.
3. Choose *Delete*.
4. Confirm the dialog box.

The restriction is deleted.

8.4.4 Geometries in Roadblock Manager

Describes the geometries in the Fiori app Roadblock Manager.

Point

Marks a road section. Road sections are parts of a road leading from one junction to the next.

Line

Marks all road sections that cross the line of the set coordinates 1 to n. Road sections are parts of a road leading from one junction to the next.

Route

Marks the roads that run from the set coordinates 1 to n. The shortest connection complying with traffic rules is relevant.

Area

Marks all roads or road sections that lie within the set coordinates 1 to n. Road sections are parts of a road leading from one junction to the next.

8.4.5 Properties on the Road Map

Describes how the possible properties are displayed on the road map in Roadblock Manager and in Integrated Dispatch Management (IDM).

The properties set for the restriction are displayed on the road map in Roadblock Manager and in Trip Planning in IDM using a line and icon.

Time dependencies can be for a day of the week, a date, a time, or a combination of these. Active and inactive dependencies are displayed differently. Properties are active if they are currently within a time-based dependency of a property. Inactive properties are not in a current time frame.

The visual difference between active and non-active time dependencies is that lines and icons are displayed in gray in the latter case.

A maximum speed setting only takes effect if the chosen speed is below the permitted speed limit.

Property	Line		Symbol	
	Without time dependency	**With active time dependency**	**Without time dependency**	**With active time dependency**
Open	Green double line	Green, dashed double line		In addition, a clock is displayed on the icon.
Closed	Red double line	Red, dashed double line		
Maximum speed	Dark double line	Dark, dashed double line	Without	Without
Maximum weight	Red, continuous line	Red, dashed line		In addition, a clock is displayed on the icon.
Maximum height	Red, continuous line	Red, dashed line		
Maximum width	Red, continuous line	Red, dashed line		
Maximum length	Red, continuous line	Red, dashed line		
Note	Blue line	Blue, dashed line		

8.4.6 Confirmation Requirement

Describes how the Confirmation Requirement feature works in the Roadblock Manager app.

Use

The optional confirmation requirement means that restrictions that you have created or changed must be checked and confirmed by a second person.

Ask this second person to check the restriction you have created or changed.

Prerequisite

You can activate the confirmation requirement in Customizing under *Integrated Dispatch Management (S4IDM)* > *Geographical Services* > *Define Technical Parameters for Map Services* in column *Confirmation Requirement* for each service group.

Processes

Display

The home page displays existing restrictions in the statuses *In Use* and *Not in Use*. In addition, the request status of the restriction is displayed. Furthermore, if there are dependencies between two restrictions, one day is displayed for the *Predecessor* and one for the *Successor*. Once the successor is confirmed, the tags disappear. You can execute various actions in the context menu for the line.

Create Restriction

If the confirmation requirement is active, the restriction is displayed in the list under *Not in Use* with the status *Creation Requested*. The restriction still needs to be approved. The restriction cannot be displayed on the road map.

Change Restriction

If the confirmation requirement is active, the restriction is displayed in the list with the status *Change Requested*, either under *In Use* or *Not in Use* depending on the initial status.

Delete Restriction

If the confirmation requirement is active, the restriction is displayed in the list under *In Use* with the status *Deletion Requested*.

Edit Request

If you are prompted to check a restriction, choose *Accept* or *Reject* directly from the list in the context menu of the restriction. If you want to view the details beforehand, you can also choose the *Open Restriction* entry in the list in the context menu of the restriction. There you can also choose between *Accept* and *Reject*. The status for the restriction is updated in the list according to your decision.

8.4.7 Roadblock Garbage Collector

Allows you to delete old restrictions.

Use

You can delete restrictions marked for deletion with the Roadblock Garbage Collector.

Prerequisites

In Customizing under *Geographical Services for S4IDM* > *Define Technical Parameters for Map Services* in the *Archiving Interval* column, you can define for how many days restrictions are saved before they are actually deleted by the Roadblock Garbage Collector.

If you set the value to 0, deletions are executed immediately.

Process

You can run the Roadblock Garbage Collector manually or through a job.

Run manually

You can find the Roadblock Garbage Collector in Customizing under *Integrated Dispatch Management (S4IDM)* > *Trip Planning* > *General Settings* > *Regular Jobs* > *Roadblock Garbage Collector*.

Run automatically

You must create a regular job. You can create a regular job in Customizing under *Integrated Dispatch Management (S4IDM)* > *Trip Planning* > *General Settings* > *Regular Jobs* > *Schedule Job*. Use `/ICO/GS_FTR_GARBAGE_COLLECT` as the program.

9 Data Archiving in S4SCSD 3.0

Here you find all archiving objects for SAP S/4HANA Supply Chain for secondary distribution 3.0.

Objects in S4SCSD	Archiving Object
Notes (S4SCSD)	/ICO/NOTE
Interfaces (S4SCSD)	/ICO/OOIF
DC documents	/PAT/DOCS
RFNO payment cards	/ICO/RNPC
RFNO inbound process data	/ICO/RNPOS
IDM archiving object	/BTL/ARC
Process Orchestration tickets	/TOP/TP

Related Information

Archiving Notes Using /ICO/NOTE [page 285]
Archiving Interface Documents Using /ICO/OOIF [page 287]
Archiving DC Documents with /PAT/DOCS [page 289]
Archiving RFNO Payment Cards Using /ICO/RNPC [page 293]
Archiving of RFNO Inbound Process Data Using /ICO/RNPOS [page 295]
Archive IDM Data with /BTL/ARC [page 298]
Archiving Process Orchestration Tickets Using /TOP/TP [page 302]

9.1 Archiving Notes Using /ICO/NOTE

You can use the archiving object `/ICO/NOTE` to archive notes and their long texts.

The following programs are provided:

Program	Function
/ICO/MO_RAD41	Write

Program	Function
/ICO/MO_RAD42	Delete
/ICO/MO_RAD43	Read
/ICO/MO_NO_DELETE	Preparation

The content of the following tables is archived:

Table	Description
/ICO/MO_NO_NOTIZ	Notes

In addition, the TEXT archiving class is used.

The following table shows the tables from which documents are to be deleted:

Delete Tables

Table	Description
STXB	SAPscript: Texts in Non-SAPscript Format
STXH	STXD SAPscript Text File Header
STXL	STXD SAPscript Text File Lines

The following table shows the tables from which documents are to be archived:

Archiving Tables

Table	Description
THEAD	SAPscript: Text Header
TLINE	SAPscript: Text Lines

Call

To call the archiving function for notes, open the *SAP Easy Access Main Menu* screen and choose *SAP Menu* > *S4SCSD* > *Tele Sales (TS)* > *Notes* > *Archive Notes*.

The *Archive Administration: Initial Screen* appears. The */ICO/NOTE* archiving object has already been entered. You can now start all archiving processes.

Prerequisites

For a note to be archived, at least one of the following prerequisites must be fulfilled:

- The deletion indicator for the note is set.
- On the selection screen, the indicator *Incl. Notes Without Deletion Ind.* is set.

Defining Write Variants

The variant contains the selection criteria for the notes that you want to archive.

You can select the notes to be archived using the following criteria:

- Note data
- General data
- Organizational data

You have the following options:

- Test mode
  Write is simulated. No archive file is created.
- Production mode
  The archive files are created. The statistics created in the process contain, among other things, the table entries that were written to the archive, as well as the size and number of the generated archive files.

Displaying Notes Archived Using /ICO/NOTE

To call the archiving function for notes, on the *SAP Easy Access SAP S/4HANA Supply Chain for secondary distribution (S4SCSD)* screen, choose *SAP Menu* > *Tele Sales (TS)* > *Notes* > *Archiving* > *Archive Notes*.

The *Archive Administration: Initial Screen* appears. The */ICO/NOTE* archiving object has already been entered. You can now start all archiving processes.

You can use the Archive Information System (transaction code SARI) to display archived notes, provided that an archive infostructure has already been defined.

9.2 Archiving Interface Documents Using /ICO/OOIF

You can use the archiving object `/ICO/OOIF` to archive interface documents.

The following table shows the delivered programs:

Programs

Program	Function
/ICO/MO_OOIF_ARCHIVE_WRI	Write
/ICO/MO_OOIF_ARCHIVE_DEL	Delete

The following table shows the tables from which documents are to be archived or deleted:

Archiving or Delete Tables

Table	Description
/ICO/MO_OOIF_DOC	Management table for interface documents of all types
/PAT/RS_DOCFLOW	Document flow

Call

To call the archiving function for documents, on the *SAP Easy Access Main Menu* screen, choose *SAP Menu* > *S4SCSDInterfaces* > *Tools* > *Archive Interface Documents*. The *Archive Administration: Initial Screen* appears. The archiving object /ICO/OOIF is already entered. You can now start all archiving processes.

Checks

The following mandatory and optional checks are performed for interface documents before they can be archived.

- Archivability of the document status (mandatory)
- Other checks, configurable in Customizing (optional)

Prerequisites

The following prerequisites need to be fulfilled before an interface document can be archived:

- You have set the document status as archivable in Customizing, under *Define Document Status for Archiving or Deletion*.
- You can configure the optional checks related to the follow-on document in Customizing, under *Extension of Archivability Check*.

Performing Application-Specific Configuration of /ICO/OOIF

If you want to archive additional entries in customer-defined document tables, an archiving class must exist, which you assign to the interface in Customizing under *Define Interface*.

Defining Write Variants

The variant contains the selection criteria for the interface documents that you want to archive.

You can select the interface documents to be archived using the following criteria:

- Interface
- Document number
- Created on
- Document status

You have the following options:

- Test mode
  Write is simulated. No archive file is created.
- Production mode
  The archive files are created. The statistics created in the process contain, among other things, the table entries that were written to the archive, as well as the size and number of the generated archive files.

Displaying Interface Documents Archived Using /ICO/OOIF

You can use the Archive Information System (transaction code SARI) to display archived interface documents, provided that an archive infostructure has already been defined.

9.3 Archiving DC Documents with /PAT/DOCS

You can use the archiving object `/PAT/DOCS`to archive data collation (DC) documents.

The following table shows the delivered programs:

Programs

Program	Function
/PAT/DOCS_ARCHIVE_WRI	Write
/PAT/DOCS_ARCHIVE_DEL	Delete

The following table shows the tables to be archived for the archiving object `/PAT/DOCS`:

Archiving Tables

Table	Description
/PAT/METADOCS	Document metaview
/PAT/POSTING_INF	Time stamp for posting in PAT
/PAT/RS_DOCFLOW	Document flow
/PAT/STATUS	Posting status

In addition, the CHANGEDOCU archiving class is used.

The following table shows the tables to be archived:

Table	Description
CDKEYTAB	Structure of the transfer table archiving class CHANGE-DOCU
CDHDR	Change document header
CDPOS	Change document item
CDPOS_STR	Additional change document - table for STRINGS
CDPOS_UID	Additional table for inclusion of TABKEY >70 characters

Tables for Archiving Class /ICO/RN_PA

The following table shows the tables to be archived depending on the document schema:

Table	Description	Document Schema Clearing House Settlement CSN	Document Schema Dealer Settlement with Forecourt DSA	Document Schema Payment Card Contract Settlement PSN
`/ICO/RN_PATCSH`	Clearing House Settlement header	x		
`/ICO/RN_PATCSITM`	Clearing House Settlement items	x		
`/ICO/RN_PATDSH`	Dealer Settlement header		x	
`/ICO/RN_PATDSITM`	Dealer Settlement items		x	

Table	Description	Document Schema Clearing House Settlement CSN	Document Schema Dealer Settlement with Forecourt DSA	Document Schema Payment Card Contract Settlement PSN
/ICO/RN_PATDSMR	Dealer Settlement meters		x	
/ICO/RN_PATPA	Partners in RFNO-PAT documents	x	x	x
/ICO/RN_PATPSH	Settlement payment card contract header			x
/ICO/RN_PATPSITM	Settlement payment card contract item			x
/ICO/RN_CTRLOV	Control overview for AMDP aggregation	x	x	x
/ICO/RN_IF_POSTR	RFNO inbound process data	x	x	x

Tables for Archiving Class /PAT/DC

The following table shows the tables to be archived:

Table	Description
/PAT/DC_ADQTY	Additional quantities
/PAT/DC_COND	Pricing conditions
/PAT/DC_CONVERS	QCI conversion parameters
/PAT/DC_DATES	Additional date specifications
/PAT/DC_DCDOCS	Involved data collation documents
/PAT/DC_EXTDTL	External Details
/PAT/DC_HEAD	Header data
/PAT/DC_HITEM	Header data of target document
/PAT/DC_ITEM	Item data
/PAT/DC_MATDOCS	Involved material documents
/PAT/DC_MMACC	Account assignment fields in purchasing
/PAT/DC_MMDOCS	Involved purchasing documents

Table	Description
/PAT/DC_MULTIREF	Document assignment for data collation item
/PAT/DC_PARTNER	Partner
/PAT/DC_RBMAT	Materials from reclassification
/PAT/DC_SDDOCS	Involved sales documents
/PAT/DC_TAS	Additional data TAS

> **i Note**
>
> You can assign the archiving class to a document schema in Customizing for *SAP Easy Access Main Menu*, under *S4SCSDData Collation (DC)* > *Process Automation Toolset (PAT)* > *Document* > *Define Document Schema*.

Call

To call the archiving function for DC documents, on the *SAP Easy Access Main Menu* screen, choose *SAP Menu* > *S4SCSD* > *Data Collation (DC)* > *Archive Data Collation Documents*.

To call the archiving function for RFNO documents, on the *SAP Easy Access Main Menu* screen, choose *SAP Menu* > *S4SCSD* > *Retail Fuel Network Operations (RFNO)* > *Tools* > *Archive PAT-RFNO Documents*.

In both cases, the *Archive Administration: Initial Screen* appears. The archiving object `/PAT/DOCS` is already entered. You can now start the archiving processes *Write* and *Delete*.

Checks

The following mandatory and optional checks are performed for /PAT/DOCS before they can be archived:

- Archivability of the document status (mandatory)
- Residence time (optional)
- Other checks, configurable in Customizing (optional)

Prerequisites

The following prerequisites need to be fulfilled before a PAT-RFNO document can be archived:

- You have set the document status as archivable in Customizing, under *Define Document Status*.

- You have entered the residence time in Customizing, under *Document Schema*.
- You can configure the optional checks relating to the tables of the document schema in Customizing under *Define Document Schema*.

Perform Application-Specific Configuration of /PAT/DOCS

The tables of the document schemas from which archiving is to be performed are determined using the archiving class. You need to assign the archiving class to the document schema in Customizing, under *Define Document Schema*.

Defining Write Variants

The variant contains the selection criteria for the PAT-RFNO documents that you want to archive.

You can select the PAT-RFNO documents to be archived using the following criteria:

- Application
- Document category
- Document number
- Document status
- Document schema
- Created on

You have the following options:

- Test mode
  Write is simulated. No archive file is created.
- Production mode
  The archive files are created. The statistics created in the process contain, among other things, the table entries that were written to the archive, as well as the size and number of the generated archive files.

Displaying Documents Archived with /PAT/DOCS

You can use the Archive Information System (transaction code SARI) to display archived PAT-RFNO documents, provided that you have already defined an archive infostructure.

9.4 Archiving RFNO Payment Cards Using /ICO/RNPC

You can use the archiving object `/ICO/RNPC` to archive payment cards.

Structure

Programs

The following table shows the delivered programs:

Programs

Program	Function
/ICO/RN_PC_ARCHIVE_WRI	Write
/ICO/RN_PC_ARCHIVE_DEL	Delete

Tables for Archiving Object /ICO/RNPC

The following table shows the tables to be archived:

Archiving Tables

Table	Description
/ICO/RN_PCAPPROV	Payment card releases
/ICO/RN_PCBLOCK	Payment card blocks
/ICO/RN_PCIMPR	Embossing orders for payment cards
/ICO/RNM_PC	Payment cards
/ICO/RNM_PCACLO	Points of acceptance of a payment card
/ICO/RNM_PCBS	Bonus system (payment cards)

Call

To call the archiving function for payment cards, on the *SAP Easy Access Main Menu* screen, choose *SAP Menu* › *S4SCSD* › *Retail Fuel Network Operations (RFNO)* › *Tools* › *Archive Payment Cards*.

The *Archive Administration: Initial Screen* appears. The archiving object `/ICO/RNPC` is already entered. You can now start the archiving processes *Write* and *Delete*.

Prerequisites

The following prerequisites need to be fulfilled before a payment card can be archived:

- The payment card has the status *Flagged for Deletion*.
- The date in the field `<Valid To>` must lie within the archiving period.

Defining Write Variants

The variant contains the selection criteria for the payment cards that you want to archive.

You can select the payment cards to be archived using the following criteria:

- GUID of payment card
- Validity period

You have the following options:

- Test mode
  Write is simulated. No archive file is created.
- Production mode
  The archive files are created. The statistics created in the process contain, among other things, the table entries that were written to the archive, as well as the size and number of the generated archive files.

Displaying Payment Cards Archived Using /ICO/RNPC

You can use the Archive Information System (transaction code SARI) to display archived PAT-RFNO documents, provided that you have already defined an archive infostructure.

9.5 Archiving of RFNO Inbound Process Data Using /ICO/RNPOS

You can use archiving object `/ICO/RNPOS` to archive RFNO inbound process data, as well as the corresponding control data.

Structure

Programs

The following table shows the delivered programs:

Programs

Program	Function
/ICO/RN_INBOUND_ARCHIVE_WRI	Write
/ICO/RN_INBOUND_ARCHIVE_DEL	Delete

Tables for Archiving Object /ICO/RNPOS

The following table shows the tables to be archived:

Archiving Tables

Table	Description
/ICO/RN_CTRLOV	Control overview for AMDP aggregation
/ICO/RN_IF_POSTR	RFNO inbound process data

Call

To call the archiving function for RFNO inbound process data, on the *SAP Easy Access Main Menu* screen, choose *SAP Menu* > *S4SCSD* > *Retail Fuel Network Operations (RFNO)* > *Tools* > *Archive RFNO Inbound Process Data*.

The *Archive Administration: Initial Screen* appears. The archiving object `/ICO/RNPOS` is already entered. You can now start the archiving processes *Write* and *Delete*.

Checks

The following mandatory and optional checks are performed for RFNO inbound process data before it can be archived.

- The control data must have the *Processing Completed* indicator (mandatory).
- The RFNO document must have the status *Posted* or *Deactivated* (mandatory).

ILM-Based Information for the Archiving Object

You can use this archiving object with the `ICO_RNPOS` ILM object as part of SAP Information Lifecycle Management.

The following fields for `ICO_RNPOS` are defined in the ILM policy and visible in the *ILM Policies* application:

- Available time references
  - Creation date `CREATION_DATE`
- Available time offsets
  - End of the month `END_OF_MONTH`
- Available policy categories
  - RST: Retention period
  - RTP: Retention rules

Defining Write Variants

The variant contains the selection criteria for the RFNO inbound process data that you want to archive.

You can select the RFNO inbound process data to be archived using the following criteria:

- Source data information
  - Source ID
  - Source data type
  - Client number
  - Document number POS data source
  - Document type
  - Preceding document number
- Location parameter
  - Company code
  - RFNO location ID
  - External RFNO location ID
  - RFNO location type
- Map parameters
  - Payment card definition ID
  - Payment card type
  - Payment card contract type ID
  - Payment card contract number
  - Definition ID
  - Version

You can restrict the selection criteria based on the following criteria:

- Created On
- Created By
- Changed On
- Changed By

You have the following options:

- Test mode
  Write is simulated. No archive file is created.
- Production mode
  The archive files are created. The statistics created in the process contain, among other things, the table entries that were written to the archive, as well as the size and number of the generated archive files.

Displaying Archived RFNO Inbound Process Data Using /ICO/RNPOS

You can use the Archive Information System (transaction code SARI) to display archived RFNO inbound process data, provided you have already defined an archive information structure.

Authorizations

To create archives and start the deletion program, you require authorization of authorization object S_ARCHIVE with the following properties:

- Name of application area: IS
- Name of archiving object: /ICO/RNPOS
- Activities on the archiving object and application area: 01

9.6 Archive IDM Data with /BTL/ARC

You can use the archiving object `/BTL/ARC` to archive trips from Integrated Dispatch Management (IDM).

The following table shows the delivered programs:

Programs

Program	Function
/BTL/ILM_ARCHIVE_WRI	Write
/BTL/ILM_ARCHIVE_DEL	Delete

The following table shows the tables to be archived for the archiving object `/BTL/ARC`:

Archiving Tables

Table	Description
/BTL/TR_DOCFLOW	IDM document flow
/BTL/TR_DOCFLOWH	Header table: IDM document flow
/BTL/TR_NAST	IDM documents
/BTL/TR_REQ_PARA	Route request parameter
/BTL/TR_ROUTE	Routes
/BTL/TR_STOP_SEQ	Route sequence
/BTL/TR_TRIPA	Activity
/BTL/TR_TRIPD	Documents
/BTL/TR_TRIPE	Allocation of the equipment to the trip
/BTL/TR_TRIPG	Group data
/BTL/TR_TRIPI	Item data
/BTL/TR_TRIPK	KPI for the trip
/BTL/TR_TRIPM	Material movement
/BTL/TR_TRIPT	Header data
/BTL/TR_TRIPU	Transport units

Table	Description
/BTL/TR_USE_PARA	Parameter to be used for a route request
/BTL/TRM_BUDRVTL	Assignment of driver to vehicle depot
/BTL/TRM_BUKRED	Assign business partner to a vendor
/BTL/TRM_BUPL	Assign business partner to plant
/BTL/TRM_CU_ADD BAG	Additional data: KPI for each business partner
/BTL/TRM_DRVADD	Additional driver data
/BTL/TRM_DRVAV	Driver availability
/BTL/TRM_DRVLI	Licenses and permits for the driver
/BTL/TRM_TL_ADD	Vehicle depot - additional data
/BTL/TRM_TLEQ	Assign equipment to the business partner
/BTL/TRM_TLEQ_D	Assign default equipment to the business partner
/BTL/TRM_TLTU	Assign transport unit to the business partner
/BTL/TRM_TLTU_V	Assign transport unit to the BP with validity
/ICO/MOM_BUDLVZN	Delivery zone assignment to business partner address

Call

To call the archiving function for IDM documents, open the *SAP Easy Access* screen and choose *SAP Menu* > *S4SCSD* > *Integrated Dispatch Management (S4IDM)* > *Administration* > *Archive IDM Documents*.

The *Archive Administration: Initial Screen* appears. The archiving object `/BTL/IDM` is already entered. You can now start the archiving processes *Write* and *Delete*.

Prerequisites

The following prerequisites must be fulfilled before an IDM document can be archived:

- The archiving object `/BTL/ARC` has to be assigned to ILM object `/BTL/ILM`.
- You must have defined an audit area and a retention rule.
- The overall status of the header data is *Completely Posted*.
- The retention time must have expired (optional).
- The retention period must have expired (mandatory).

ILM-Based Information for the Archiving Object

You can use this archiving object with the `/BTL/ILM` ILM object as part of SAP Information Lifecycle Management.

- Available Time Bases
  - `END_OF_MONTH`
  - End of the year `END_OF_YEAR`
- Available Condition Fields
  - End Date`ENDDATE`
  - Header Status `HSTATUS`
- Available Rule Set Categories
  - Residence Rules `RST`
  - Retention Rules End of the Month `RTP`

Performing Application-Specific Configuration

Before you can use the archiving object IDM Document, you must have configured the following settings.

- You have defined an audit area.
- You have assigned the ILM object to the audit area `/BTL/ILM`.
- You have defined an ILM rule.
- You have defined the retention rules.

The assignment of an ILM object to an audit area is a prerequisite so you can create the rule for ILM objects. To create rules that are specifically intended for a department, you must create an audit area that contains the same ILM objects for each department.

You can create audit areas only in the Z namespace. The source audit area for a merger with another audit area must also be in a Z namespace. In order to change an audit area delivered by SAP or to use an audit area for a merger, you must copy it into the Z namespace.

This is how to create an audit area:

1. Start the transaction `ILMARA`.
2. Choose *New*.
3. Enter a name in the Z namespace and a description for the audit area.
4. Save your entries in a Customizing transport request.
5. Set the rule category.
6. Assign the ILM object to the audit area.

It is always necessary to define an ILM guideline for an ILM object belonging to an audit area. When you select a category of the guidelines, you define the rule structure for these guidelines. The manner in which the guidelines are defined for an ILM object depends on the settings for the ILM object within an object category. You can define multiple rules for each guideline.

SAP supports the following guideline types:

- `RTP` retention rules are mandatory
- `RST` residence rules are optional

This is how to create an ILM guideline:

1. Start the transaction `IRMPOL`.
2. Enter the data.
3. Choose *New*.
4. In order to include the condition fields or standard condition fields that are available for an ILM object in the rules of the guideline, you must copy these fields from the table *Available Condition Fields* to the table*Selected Condition Fields*.
5. Save your entries in a Customizing transport request.

This is how to create a rule for your ILM guideline:

1. Start the transaction `IRMPOL`.
2. Enter the data. Choose *Continue*.
3. Choose *Edit*.
4. Enter data for the following fields in the area *Rules for Policy*:
    - Condition Field Values
    - Minimum Retention Period
    - Maximum Retention Period
    - Unit for Retention Period
    - Time Reference
    - Time Offset
    - ILM Store (if necessary)
    - Content Repository and Log. File (as an alternative to the ILM store). You can add these fields in the settings dialog.
    - Rule Number
    - Rule Priority
5. Click *Add*. Save your entries in a Customizing transport request.
6. Set the status to *Productive*.

You can simulate the settings in the transaction `ILMSIM`.

Defining Write Variants

A write variant contains the parameters for the IDM documents that you want to archive.

- Trip Category
  Choose the trip category for which the archiving program is to be used.
- Header Status
  Always select the status *Fully Posted*.
- End Date
  Select the end date of the trip as a reference for the calculation of the retention rule.

Authorizations for S_ARCHIVE

Activity	Required Authorization Object
01	S_ARCHIVE

Display Archived IDM Documents with /BTL/ARC

The accompanying field catalog is `/BTL/ARC`.

The corresponding info structure is `/BTL/IS_ARC`.

9.7 Archiving Process Orchestration Tickets Using /TOP/TP

You can use the archiving object `/TOP/TP` to archive process orchestration tickets.

The following table shows the delivered programs:

Programs

Program	Function
/TOP/TP_ARC_WRITE	Write
/TOP/TP_ARC_DELETE	Delete

The following table shows the tables to be archived for the archiving object `/TOP/TP`:

Archiving Tables

Table	Description
/TOP/TP_META	Ticket metadata
/TOP/TP_HEAD	Ticket header data
/TOP/TP_ITEM	Ticket item data
/TOP/TP_HISTORY	Ticket history data
/TOP/TP_MESSAGE	Ticket message data

Call

To call the archiving function for tickets, on the *SAP Easy Access Main Menu* screen, choose *SAP Menu* > *S4SCSD* > *Data Collation (DC)* > *Archive PO Tickets*.

The *Archive Administration: Initial Screen* appears. The archiving object `/TOP/TP` is already entered. You can now start the archiving processes *Write* and *Delete*.

Prerequisites

The following prerequisites must be fulfilled before a `/TOP/TP` can be archived:

- You have assigned the archiving object `/TOP/TP` to the ILM object `/TOP/TP`.
- You must have defined an audit area and a retention rule.
- The retention time must have expired (optional).
- The retention period must have expired (mandatory).

ILM-Based Information for the Archiving Object

You can use this archiving object with the `/TOPT/TP` ILM object as part of SAP Information Lifecycle Management.

- Condition fields
    - Created by `CRFEATED_BY`
    - Created on `CREATED_ON`
    - Ticket Number `TICKET_NUMBER`
    - Ticket Status `TICKET_STATUS`
    - Ticket Type `TICKET_TYPE`
    - Ticket Version `TICKET_VERSION`
- Time References
    - End of Month `END_OF_MONTH`
    - End of Year `END_OF_YEAR`
- Rule Set Categories
    - Residence Rules `RST`
    - Retention Rules End of the Month `RTP`

Performing Application-Specific Configuration

Before you can use the archiving object `/TOP/TP`, you must have configured the following settings.

- You have defined an audit area.
- You have assigned the ILM object to the audit area `/TOP/TP`.
- You have defined an ILM rule.
- You have defined the retention rules.

The assignment of an ILM object to an audit area is a prerequisite for creating the rule for ILM objects. To create rules that are specifically intended for a department, you must create an audit area that contains the same ILM objects for each department.

You can create audit areas only in the Z namespace. The source audit area for a merger with another audit area must also be in a Z namespace. In order to change an audit area delivered by SAP or to use an audit area for a merger, you must copy it into the Z namespace.

This is how to create an audit area:

1. Start the transaction `ILMARA`.
2. Choose *New*.
3. Enter a name in the Z namespace and a description for the audit area.
4. Save your entries in a Customizing transport request.
5. Set the rule category.
6. Assign the ILM object to the audit area.

It is always necessary to define an ILM guideline for an ILM object belonging to an audit area. When you select a category of the guidelines, you define the rule structure for these guidelines. The manner in which the guidelines are defined for an ILM object depends on the settings for the ILM object within an object category. You can define multiple rules for each guideline.

SAP supports the following guideline types:

- `RTP` retention rules are mandatory
- `RST` residence rules are optional

This is how to create an ILM guideline:

1. Start the transaction `IRMPOL`.
2. Enter the data.
3. Choose *New*.
4. In order to include the condition fields or standard condition fields that are available for an ILM object in the rules of the guideline, you must copy these fields from the table *Available Condition Fields* to the table*Selected Condition Fields*.
5. Save your entries in a Customizing transport request.

This is how to create a rule for your ILM guideline:

1. Start the transaction `IRMPOL`.
2. Enter the data. Choose *Continue*.
3. Choose *Edit*.
4. Enter data for the following fields in the area *Rules for Policy*:
    - Condition Field Values
    - Minimum Retention Period
    - Maximum Retention Period
    - Unit for Retention Period
    - Time Reference
    - Time Offset
    - ILM Store (if necessary)
    - Content Repository and Log. File (as an alternative to the ILM store). You can add these fields in the settings dialog.

- Rule Number
- Rule Priority

5. Click *Add*. Save your entries in a Customizing transport request.
6. Set the status to *Productive*.

You can simulate the settings in the transaction `ILMSIM`.

Authorizations for /TOP/TP

Activity	Required Authorization Object
01	S_ARCHIVE

Displaying Tickets Archived with /TOP/TP

The accompanying field catalog is `/TOP/TP`.

The corresponding info structure is `/TOP/AIS_TP`.

10 Data Aging in S4SCSD 3.0

This function allows you to move large amounts of data inside a database to free up working memory.

The data is moved from the current area (hot) to the historical area (cold). This has a positive impact on performance. This means that large amounts of data can be queried in a much shorter time.

You configure the settings for S4SCSD in Customizing for *S4SCSD* under *General Settings* > *Configure Data Aging*.

Related Information

Available Data Aging Objects [page 306]

10.1 Available Data Aging Objects

Here is a list of the available data aging objects for SAP S/4HANA Supply Chain for secondary distribution 3.0 (S4SCSD 3.0).

S4SCSD 3.0 supports data aging and provides these data aging objects:

Available Data Aging Objects

Technical Name of Data Aging Object	Name of Data Aging Object
`/ICO/RN_DA`	RFNO-PAT documents data aging
`/ICO/RN_DA_CSR`	Continuous Station Replenishment (CSR)
`/ICO/RN_DA_IN`	RFNO data aging inbound
`/ICO/RN_DA_PC`	Payment cards
`/PAT/DC_DA`	Data collation PAT documents data aging
`/PAT/DC_DA_DI`	Data collation data aging interfaces
`/ICO/RN_DA_RI`	RFNO data aging interfaces IS
`/BTL/IDM_DA`	BTL/IDM data aging

Related Information

Data Aging in S4SCSD 3.0 [page 306]

11 Business Functions S4SCSD 3.0

Various business functions are available in S4SCSD 3.0.

- Oil&Gas Secondary Distribution (OGSD)
- Retail Fuel Network Operations (RFNO)
- Supply Chain for Secondary Distribution
- Integrated Dispatch Management (S4IDM)
- Data Collation - Process Orchestration
- S4IDM Integrated Dispatch Management / Functions for IS-OIL
- S4SCSD Interfaces
- PAT-DC Objects without Reference to IS-OIL

Related Information

Oil&Gas Secondary Distribution (OGSD) [page 308]
Retail Fuel Network Operations (RFNO) [page 310]
Supply Chain for Secondary Distribution [page 311]
Integrated Dispatch Management (S4IDM) [page 312]
Data Collation - Process Orchestration [page 313]
S4IDM Integrated Dispach Management / Functions for IS-OIL [page 314]
S4SCSD Interfaces [page 315]
PAT-DC Obj. w/o Ref. to IS-OIL [page 316]

11.1 Oil&Gas Secondary Distribution (OGSD)

Use

Technical Data

Technical Name of Business Function	`/ICO/SFW_OGSD_BF`
Type of Business Function	Industry Business Function
Available From	SAP S4SCSD FPS02
Technical Usage	Oil & Gas

Application Component	*Oil & Gas Secondary Distribution*(IS-OIL-DS-OGSD)
Required Business Function	Business Function Basis (COM) (BUSINESS_FUNCTION_BASIS_COM) and Commodity Management and Bulk Logistics (COMMODITY_MGMT_&_BULK_LOGISTIC)

You can use this business function to activate the functions of Oil & Gas Secondary Distribution (OGSD). With OGSD you can manage all business processes required in the petroleum trade with end customers, wholesalers, resellers, or service stations. The component comprises the purchase, storage, transportation, and sale of fuels and lubricants.

Prerequisites

- You have installed the following components as of the version mentioned:

Type of Component	Component	Required for the Following Features Only
Software Component	S4SCSD	

Features

Tele Sales

Tele Sales helps you to create sales documents by providing a number of background data about your customer. You have direct access to financial data, order history and customer specific notes.

Data Collation

Data Collation helps you to post complex logistics business processes especially for Oil and Gas Downstream by entering only reference data (e.g. reference document, business partner) and after-the-fact data like changed quantities for loading, sales, and unloading. Data Collation then makes the necessary adjustments in existing logistics documents and creates all required follow-up documents.

Interfaces

Interfaces helps you to integrate external data from partners such as depots and haulers received via ALE or flat files. Interfaces can verify and convert received data and then feeds it to Data Collation. By combining Interfaces and Data Collation a high grade of automation in logistics processes can be achieved.

Continuous Product Replenishment

This process provides your customers with a steady supply of products based on their requirements by continuously calculating and monitoring the expected material consumption.

11.2 Retail Fuel Network Operations (RFNO)

Use

Technical Data

Technical Name of Business Function	`/ICO/SFW_RFNO_BF`
Type of Business Function	Industry Business Function
Available From	SAP S4SCSD FPS02
Technical Usage	Oil & Gas
Application Component	*Oil & Gas Secondary Distribution* (IS-OIL-DS-OGSD)
Required Business Function	Oil&Gas Secondary Distribution (OGSD) (`/ICO/SFW_OGSD_BF`)

You can use this business function to activate the functions of Retail Fuel Network Operations (RFNO). With RFNO you can manage your service station network, manage your stock, settle with your dealers or a clearing house and manage your fleet cards. You can integrate the S4SCSD interfaces to receive the POS data via IDocs.

Integration

RFNO uses the master data of IS-OIL-DS-MRN.

Prerequisites

- You have installed the following components as of the version mentioned:

Type of Component	Component	Required for the Following Features Only
Software Component	`S4SCSD`	

Features

Retail Fuel Network Operations Document

You can create RFNO documents for the collection and settlement of sales processes at service stations. You can post RFNO documents and thus make a settlement to dealers or clearing houses.

Fleet Card Management

You can create and manage fleet cards for end customers. You can maintain the validity of a fleet card and enter approved products. You can induce the embossing of a fleet card on your embossing machine.

Enhancements in the SAP Business Partner

You can use additional roles, such as dealer, payment card owner, and payment card payer, and assign these roles to a business partner.

Related Information

Retail Fuel Network Operations (RFNO) [page 61]

11.3 Supply Chain for Secondary Distribution

Use

Technical Data

Technical Name of Business Function	`/ICO/SFW_SCSD_BF`
Type of Business Function	Enterprise Business Function
Available From	SAP S4SCSD FPS02
Technical Usage	Oil & Gas
Application Component	*Oil & Gas Secondary Distribution* (IS-OIL-DS-OGSD)
Required Business Function	Not relevant

You can use this business function to activate the standard customizing.

Prerequisites

- You have installed the following components as of the version mentioned:

Type of Component	Component	Required for the Following Features Only
Software Component	`S4SCSD`	

Features

Activating standard customizing

You can activate the standard customing for S4SCSD.

11.4 Integrated Dispatch Management (S4IDM)

Use

Technical Data

Technical Name of Business Function	`/BTL/SFW_S4IDM_BF`
Type of Business Function	Enterprise Business Function
Available From	SAP S4SCSD 2.0
Technical Usage	Oil & Gas
Application Component	Oil&Gas Secondary Distribution (`IS-OIL-DS-OGSD`)
Required Business Function	Not relevant

You can use this business function to activate the functions of Integrated Dispatch Management (S4IDM). With S4IDM you can manage your your outbound delivery tours. S4IDM is an application that supports and automates your dispatching. It provides effective support for dispatch planners. Orders are combined with existing resources, such as vehicles or service staff, in the best possible way.

Prerequisites

- You have installed the following components as of the version mentioned:

Type of Component	Component	Required for the Following Features Only
Software Component	`S4SCSD 2.0`	

Features

Road Map

The route and various objects that are in the delivery zones that you selected in the start parameters are denoted by various objects on the road map.

Gantt Chart

The trips created are displayed in a Gantt chart.

Recourses List

You can select and assign these resources to transport units.

Document Overview

Display various documents about loading and unloading.

Transport View

Shows a graphical overview of the tranport units. The filling stands of the compartments are displayed.

Related Information

Integrated Dispatch Management (S4IDM) [page 204]

11.5 Data Collation - Process Orchestration

Use

Technical Data

Technical Name of Business Function	/TOP/SFW_TP_BF
Type of Business Function	Industry Business Function
Available From	SAP S4SCSD 2.0 FPS03
Application Component	*Oil&Gas Secondary Distribution* (IS-OIL-DS-OGSD
Required Business Function	Oil&Gas Secondary Distribution (/ICO/SFW_OGSD_BF) Supply Chain Sec. Distribution (/ICO/SFW_SCSD_BF)

You can use this business function for this:

- Switched IMG branches are hidden
- Switched menus are hidden
- Switched appends to tables are not present
- Switched Enhancement Points are not active
- Switched Screen BAdIs are not visible

Features

Process Orchestration

You can use all functions of Process Orchestration.

11.6 S4IDM Integrated Dispach Management / Functions for IS-OIL

Use

Technical Data

Technical Name of Business Function	`/BTL/SFW_S4IDM_BF_OIL`
Type of Business Function	Industry Business Function
Available From	SAP S4SCSD 3.0
Technical Usage	Oil&Gas
Application Component	*Oil & Gas Secondary Distribution* (IS-OIL-DS-OGSD)
Required Business Function	S4IDM (`/BTL/SFW_S4IDM_BF`) Oil&Gas Secondary Distribution (`/ICO/SFW_OGSD_BF`)

You can use this business function to activate all functions of S4IDM related to IS-Oil.

Prerequisites

- You have installed the following components as of the version mentioned:

Type of Component	Component	Required for the Following Features Only
Software Component	`S4SCSD`	

Features

S4IDM

You can use all functions of Integrated Dispatch Management with IS-Oil objects.

11.7 S4SCSD Interfaces

Use

Technical Data

Technical Name of Business Function	`/ICO/SFW_INTERFACES_BF`
Type of Business Function	Enterprise Business Function
Available From	SAP S4SCSD 3.0
Technical Usage	Oil&Gas
Application Component	*Oil & Gas Secondary Distribution* (IS-OIL_DS-OGSD)
Required Business Function	Supply Chain Sec. Distribution (`/ICO/SFW_SCSD_BF`)

You can use this business function to activate the function for S4SCSD Interfaces.

Prerequisites

- You have installed the following components as of the version mentioned:

Type of Component	Component	Required for the Following Features Only
Software Component	`S4SCSD`	

Features

S4SCSD Interfaces

You can use all functions of S4SCSD Interfaces.

11.8 PAT-DC Obj. w/o Ref. to IS-OIL

Use

Technical Data

Technical Name of Business Function	/PAT/SFW_DC_LOGA_BF
Type of Business Function	Enterprise Business Function
Available From	SAP S4SCSD 3.0
Technical Usage	Oil&Gas
Application Component	*Oil & Gas Secondary Distribution* (IS-OIL_DS-OGSD)
Required Business Function	Supply Chain Sec. Distribution (/ICO/SFW_SCSD_BF)

You can use this business function to activate all objects without reference to SAP IS-Oil.

Prerequisites

- You have installed the following components as of the version mentioned:

Type of Component	Component	Required for the Following Features Only
Software Component	S4SCSD	

Features

Data Collation without IS-Oil

You can use all functions of Data Collation without IS-Oil.

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